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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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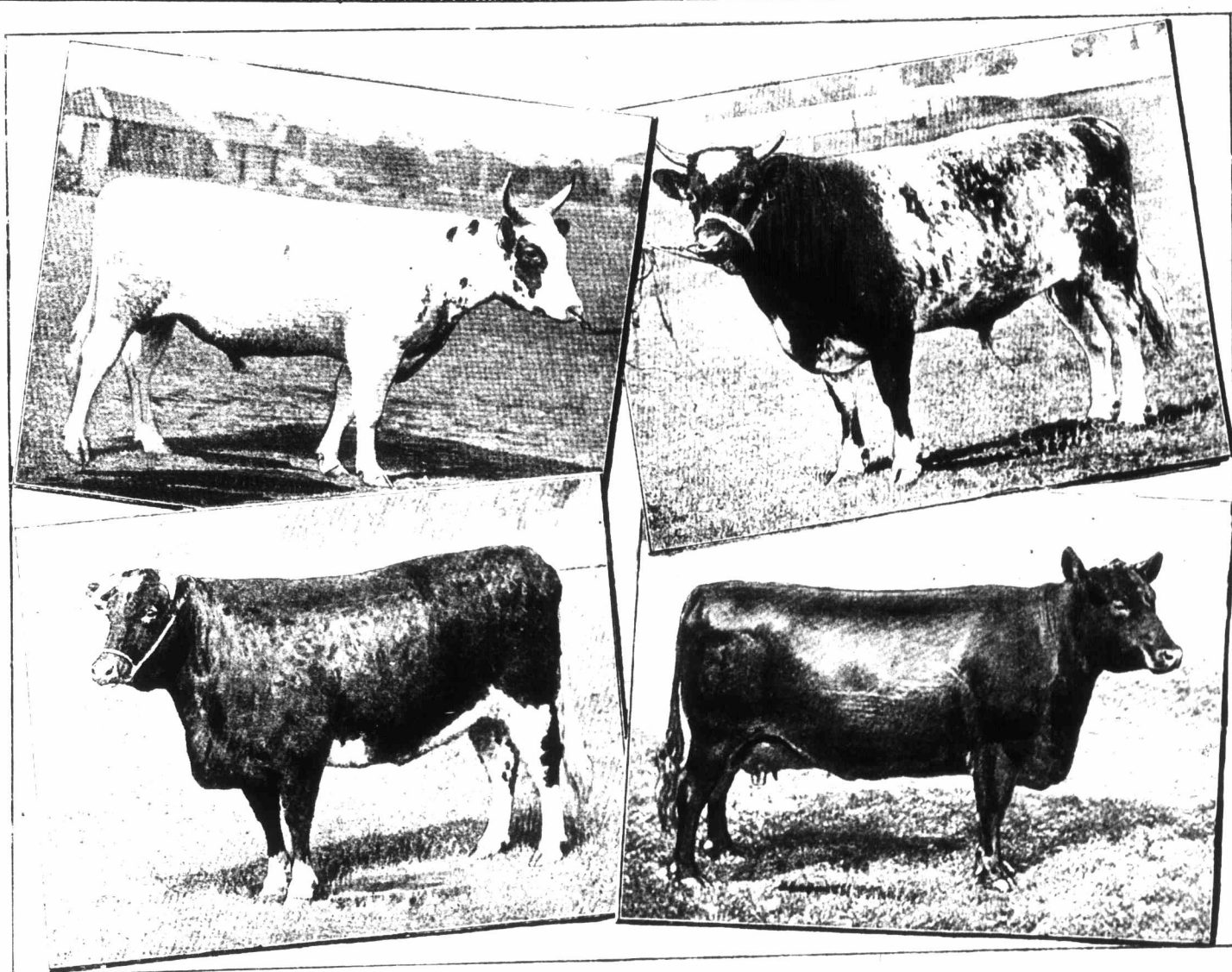
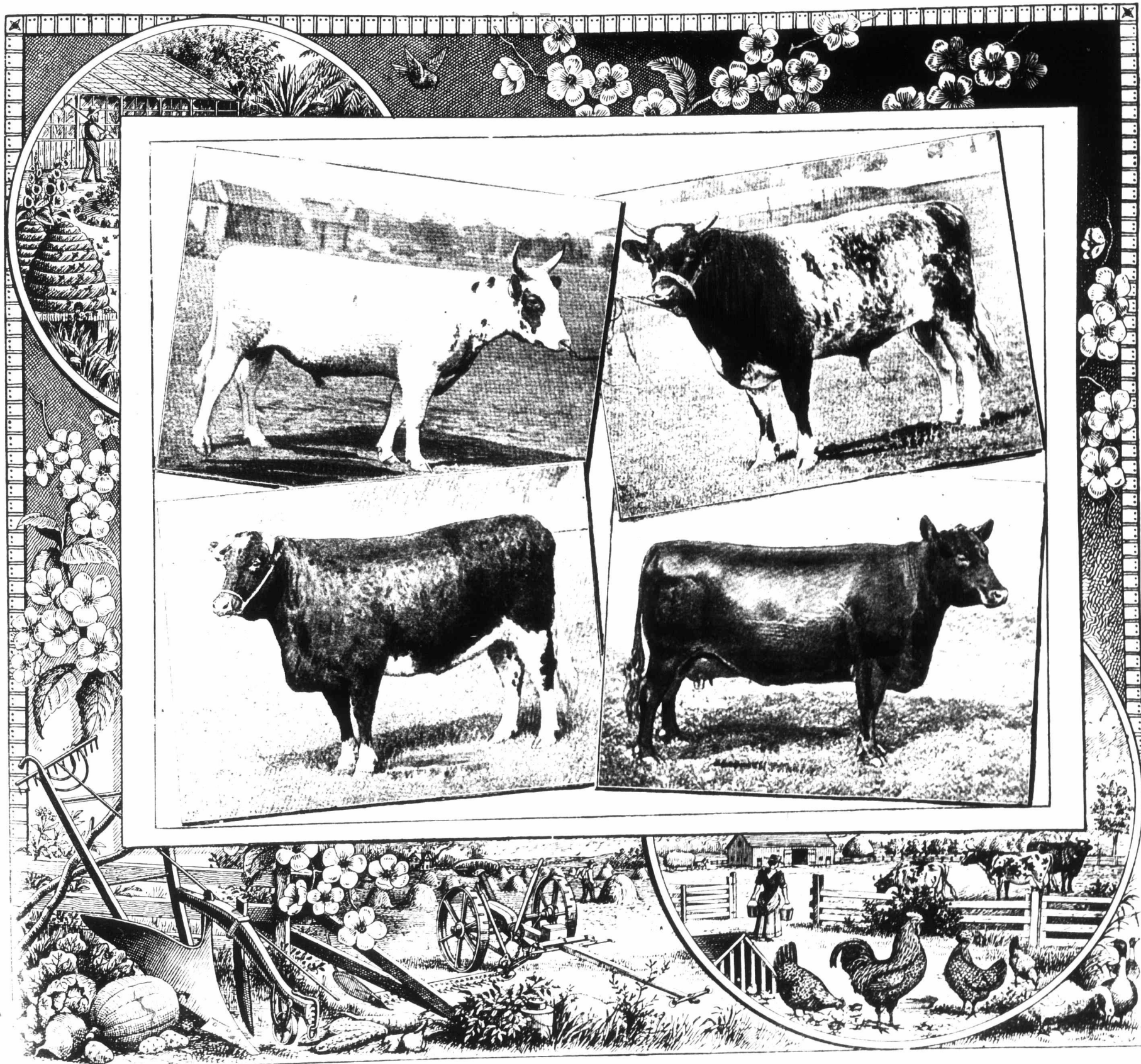
* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

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No. 389.



A GROUP OF FIRST-PRIZE WINNERS AT THE ROYAL AGRICULTURAL SOCIETY'S SHOW, DARLINGTON, ENGLAND

EDITORIAL.

Royal First-Prize Winners.

We give the place of honor in this issue to portraits of what are accounted, in Great Britain, to be about as near present-day typical specimens of the breeds represented as the foremost stock-breeding countries in the world can furnish.

At the upper right-hand corner stands the yearling Shorthorn bull, Count Victor, winner of the first prize at the Royal, Darlington, in a strong class of twenty-five competitors. He was bred and shown by J. Dean Willis, of Bapton Manor, Codford, Wilts., England. He was calved 20th January, 1894. He is a massive roan, a son of the famous Count Lavender, and out of a Sittyton Gondolier cow. An authority speaks of him as being "one of the most remarkable yearlings seen for many years, his substance, scale, and wealth of cover being unique." He is remarkably good in his fore end, shows a great fore-arm, well-filled girth, and beautifully-arched rib, while he is especially good over his quarter, and has a rare coat. We understand he has been purchased to go to South America.

At the lower left-hand corner is seen a good representation of the three-year-old Shorthorn heifer, Miranda, calved 24th August, 1892. She was the Champion Shorthorn cow at the Royal, Darlington. She is also bred and is owned by J. Deane Willis. She is by Count Lavender, the present stock bull at Windsor. She is out of Missie CXXV., an Upper-mill cow. Her depth, width, substance and scale commanded much admiration. Extra fitting is showing itself, however, as she is becoming a shade uneven in flesh.

The two-year-old Ayrshire bull, First Choice of Southwick (3005), occupies the top left-hand corner. He was calved 1st March, 1893. He was bred by Sir Mark J. Stewart, Bart., of Southwick, who won first with him at the Royal, Darlington, and third at the Highland, Dumfries. He is a fine, level bull, bearing many good dairy points. His position of third place at the Highland was due to lack of size, and not from inferior quality.

The representation in the right-hand bottom corner is that of the Polled Angus cow, Legend (16518), calved 20th January, 1890. She was bred and exhibited by George Smith Grant, Anchorachan, Glenlivet. She was the champion Aberdeen-Angus female at the Royal, Darlington. She won the Ballindaloch cup last year, when she looked better than when shown this year, as she was due to calve in a few days after the latter occasion. The engraving itself is a reproduction from a special engraving issued by the Scottish Farmer.

The British Embargo on Canadian Cattle.

Mention was made in the August 15th ADVOCATE of the alleged discovery of pleuro-pneumonia, on July 10th, in one or two Canadian cattle landed at Deptford, Eng. It appears to have been an opportune "discovery," because, in the British House of Commons, since the new Minister of Agriculture, Hon. Mr. Long, stated that in consequence the Government must maintain the embargo. There is reported to have been no opportunity afforded Canadian representatives to examine the lung or lungs in question; but the report serves the purpose of those who desire to sustain the protective restriction just as fresh efforts for its removal were about to be made. As in the other isolated cases reported during the past few years, and upon which the Home Government based its action, certain lung conditions may have been found, bearing, as some of their own experts put it, a "closer resemblance," or "identical in morbid anatomy," with contagious pleuro-pneumonia, but nothing more. The employees of the British Board of Agriculture are very ready to see anything resembling what they are looking for. Meanwhile, Canada suffers, the victim of the reports of these experts who detect appearances which, on the admission of other experts, might be accounted for by exposure to cold in transit, or, possibly, like the "marbled appearances" on which so much stress used to be laid, resulting in one instance from the embedding of a small portion of rose bush, with prickles attached, in the lung, having been inhaled, and working its way down the bronchial tubes.

It is said a suggestion, for it amounted to no more, came from the Home authorities that the Canadian Government should follow up and "kill out" the herds and contact animals from which these alleged cases came: but was there any assurance that even that course would have satisfied the English authorities? None whatever that we ever heard of. The herds were traced out carefully, but absolutely no excuse presented itself to our authorities that

warranted them in embarking in a campaign of slaughter. Besides this, the British Minister had no end of "suggestions" to fall back upon, such as the adoption of a different system of marking export cattle, etc.

Does anybody suppose that so deadly and contagious a disease could be hid in a corner all these years, nobody knowing anything about it! To the ordinary lay mind the idea is preposterous, and the British cattle breeders, whose herds have been more than once ravaged and destroyed by it, know this very well. We have had no such outbreaks, because the disease was not here, hence the "additional information" repeatedly asked for about "the disease" by the Home authorities could not be given.

Fortunately for Canada, the shipment from the Old Country of diseased or suspected cattle for Clark & Norris, Col. Blair, Andrew Allen, Thomas McCrae, and others, landed at Levis, P.Q., in 1888, were exterminated to the last vestige within the quarantine walls by slaughtering and burning.

Better evidence than that asked for by the British Board of Agriculture was afforded by the examination of no less than 3,085 sets of lungs last November at different abattoirs throughout Canada, when no case or trace of the disease was found.

The loss to Canada through the embargo has been variously put at from \$10 to \$15 per head, through the cattle being necessarily slaughtered within ten days after landing, and being confined to a very limited — not always remunerative — market.

We most strenuously object to the embargo because it is a standing notice to other countries, such as France, Germany, and Belgium, that it is dangerous to import our cattle and give them the freedom of the country. It is no justification for a standing slander of this sort to say that the character of our beefs going forward has been improving and that it is better for our farmers to finish the cattle here and perhaps develop a profitable dressed beef trade.

Now, what of the future? Reasonable efforts have been made to convince the British authorities, and anyone willing to be convinced, that this contagious plague does not exist in Canada, though still further efforts in that direction might be made.

1st. The test of last November, referred to above, is to be repeated this fall upon even a more extensive and systematic scale, we are informed.

2nd. We understand that in October a shipment of probably a thousand head of cattle will go to Belgium, and all being found satisfactory upon examination by their experts there, our cattle will have unhindered access to their markets during October, November and December, under the ordinary inspection as a preliminary to the entire removal of the restrictions from the opening of 1896. In the event of such a shipment, would it not be well, as a precautionary measure, that we should be officially represented by a properly-qualified person accompanying it from start to finish? Our interests would, in a measure, be guarded and an official report would be available.

3rd. The Canadian Government has more than once extended an invitation to the British authorities to send veterinary experts of their own choosing, at our expense, to Canada, to examine our herds in every part of the country, and examine the working of the quarantine regulations. In the British House of Commons on Aug. 22, however, Hon. Mr. Long intimated that that would be of no use (to him), so that it is idle to press the invitation — beyond it being a challenge to them that we do not fear scrutiny and publicity.

4th. Now, since the British Minister rests his action solely on the report of his experts, as he told the House on the same occasion, our authorities should insist upon the right of representation and equal access to all these alleged cases, along with the British experts, with power to make pathological examinations, etc. Of the necessity for this we are more than ever convinced since Mr. Long's last speech in the House. He refused to have any special experiments made regarding the last case, and also refused the request of the member for Forfarshire (Mr. White) to lay the brief official report on the two cases before the House.

With a brand new Minister of Agriculture and a Colonial Secretary proposing a new and progressive policy in relation to the outlying portions of the Empire, something at least on a par with the course of Belgium — a foreign power — might be expected, otherwise it will inevitably revive the question of whether, in the maintenance of our elaborate quarantine system in its present iron-clad form, the game is worth the candle; though to discuss the merits or demerits of that does not fall within the scope of this article. Some of our great transportation companies (and others as well) would no doubt welcome a letting-down of bars that would very largely increase their business, though it might not have a stimulating effect on trade with Great Britain.

It may be idle to remind English officialdom that some such perversity once upon a time resulted in a certain "Boston Tea Party" and the loss of half a continent: but right on the surface of Mr. Long's declarations lies one lesson, viz., that while the Britisher is for Colonial Empire and Imperialism, he looks to his own interests first, and we do well to govern ourselves accordingly.

A Meeting of Agricultural Scientists.

BY PROF. J. HOYES PANTON.

Having had the pleasure of attending the late convention of the Association of Agricultural Colleges and Experiment Stations, at Denver, Colorado, I have thought it might be of interest to some of your readers to know what was done. Notwithstanding the somewhat distant place of meeting, over one hundred delegates were present. The Association consists of five sections:—

1. Agriculture and Chemistry.
2. Botany and Horticulture.
3. Entomology.
4. Mechanical Arts and Engineering.
5. Agricultural Colleges.

The forenoon and evening sessions were general, but the afternoon was occupied by meetings of the various sections, in which matters pertaining to each section were discussed, and from the papers discussed were selected those to be read before the general session. The discussions this year related largely to the course in agricultural colleges, and the connection that exists between colleges and experiment stations.

Director True, of the Agricultural Department, Washington, read a very able and exhaustive paper on the origin and development of experiment stations in the United States since their establishment, and closed by making the following suggestions:—

1. A well-defined line between experiment stations and agricultural colleges, as regards the work to be accomplished by each.
2. Permanency of the staff in stations.
3. Keeping accurate records of the work done.

This address was referred to a committee, that afterwards recommended its suggestions to be adopted.

Immediately, a most spirited debate followed, on the first recommendation, showing that the "shoe pinched somewhere"; in other words, there seemed to be an idea prevailing that some colleges were using the funds for other than strictly experimental work. In fact, it was well-known that in some, the president is the director of the experiment station, and that many teaching professors are the investigators. With some, it is a question to what extent a teacher of science is likely to make a good investigator in such work as the stations require, and vice versa. One man may do both, but, some are inclined to think, an investigator should have his whole time and thought occupied in his work, and not a large proportion of it in teaching.

The result of the discussion was that suggestion 1 was laid on the table, and 2 and 3 passed without a dissenting voice. Much discussion took place upon agricultural college work. Among many of the colleges there is a strong desire to extend the course beyond four years, and to raise the standard necessary to attain a degree, and to abolish labor from the course, except as far as it can be strictly termed educational.

There is a decided feeling against compulsory labor, which seems to have only one redeeming feature, viz., educational. In the discussion they seemed to forget that there are other factors that should be considered in connection with labor, such as: (1) A means of physical exercise; (2) a source of financial aid to the student; (3) to keep the student in touch with the work of the farm, and to have a tendency to dignify labor; (4) it serves daily to illustrate many of the principles taught in the classroom.

The moment manual labor is withdrawn from the course at an agricultural college there will be a strong tendency to drift from the work of the farm. Michigan College is one of the few that still stand by the principle of compulsory labor. The abolition of compulsory labor indicates that the agricultural colleges of the United States are doomed, as colleges to train a young man for the farm, and will soon seek a new name, feeling that the present title is a misnomer. In fact, some now claim that they are educational institutions, by which a student gets an education by means of knowledge derived from the teachings of *nature*, rather than that from the teachings of *classics*, and *literature* in general. One is astonished at the few graduates turned out in some of the American agricultural colleges; in some cases only one, and in many very few, when you consider the amount expended on the work. There is a lesson here for Ontario, to never lose sight of the true object for which the College was established, viz., to give a young man an education which will fit him for his life work upon the farm, and to take a greater interest in work that will illustrate the teaching he received at college, thus emphasizing the *Why* for his work, as well as the *How*.

The result of the discussions relating to agricultural colleges was that a committee was appointed to collect data during the coming year, from home and foreign colleges, regarding the whole work of agricultural colleges, hoping from this to be able to formulate some scheme so as to reach a more uniform standard of entrance; to follow a more uniform course, and, finally, to adopt a higher standard for a degree.

It is quite evident that the colleges are drifting into a confused condition by attempting to fit young men and women not only for the farm, but also for the counting-house, schoolroom and machine shop.

Concerning dairying little was brought out in general discussion. However, one good point came up in reference to the adoption of a uniform factor

in reducing the amount of butter-fat (as obtained by the Babcock tester) to an equivalent of butter. Hitherto this factor has varied according to the judgment of those using it, and thus rendered a comparison of results in some bulletins very perplexing. A committee was appointed, after some discussion in the section, to report at a general meeting. After careful consideration, the report submitted, and unanimously adopted, recommended adding $\frac{1}{4}$ to the butter-fat recorded by the tester. The total is considered to be a fair approximation to the amount of butter that may be expected. The propriety of considering the result as an approximation, not strictly accurate, was much emphasized. It is a practical, and not a scientific fact. The object of adopting this factor is to obtain a uniform result in bulletins, so as to render the expression, "butter-fat," more intelligible to the ordinary reader. The factor $\frac{1}{4}$ added comes nearer to the true results of the churn than any other, and, hence, its adoption. The question of irrigation received much attention, and was considered of such importance that a new section (irrigation) was formed. Several able papers were read in the various sections, which space will not permit me to discuss. I have given, however, the chief features in one of the most successful meetings the Association ever held.

The Battle for Markets.

A correspondent writing us from Paris, France, states that the French Government appears to be more afraid of the competition of Canadian than of Australian butter in the English markets: hence the reason that the French consuls are to give every assistance to the Commissioners to be sent to the Dominion to study its dairy industry. It is stated that the Danish Commission did not confer any remarkable benefits upon French dairying, and the high standing of Canadian dairy products in the world's great consuming markets has, doubtless, turned the ceaseless enquiry of the Frenchman in this direction. As announced in the ADVOCATE a few issues ago, the British Dairy Farmers' Association propose visiting this country with a similar object in view. Canada has now a reputation to sustain, and tremendous competition to meet in markets where the public taste is becoming more and more critical and discriminating. The highest degree of quality maintained until the product reaches the customer in the most attractive of packages, with the cost of production kept down so as to allow the dairy farmer a reasonable profit, are the essential points that must be kept in view.

Cattle Disease in Great Britain.

The returns under the Diseases of Animals Acts are now complete for Great Britain for the first twenty-nine weeks of the year. During this period 5,225 pigs died of swine fever, against 4,540, 3,460 and 3,257, respectively, in the corresponding periods of the years 1894, 1893 and 1892. The numbers slaughtered this year have been 28,769, as compared with 41,582 in the first twenty-nine weeks of last year. Of anthrax there have been 270 fresh outbreaks, and 604 animals attacked this year; the corresponding numbers were 314 and 647 in 1894, 267 and 643 in 1893, and 144 and 327 in 1892, or averages of 242 and 539 for the equivalent periods of the three preceding years. Of glanders, the fresh outbreaks have reached a total of 571, the animals attacked being 898; the corresponding numbers for the equivalent periods were 600 and 864 in 1894, 808 and 1,297 in 1893, and 852 and 1,550 in 1892. On account of rabies 176 animals have died or been killed in the twenty-nine weeks, as compared with 109, 44 and 18 in the like periods of the three previous years. This disease is, therefore, greatly on the increase. No case of foot-and-mouth disease has been recorded since the year began, nor has any animal been slaughtered on account of pleuro-pneumonia.

Horseshoeing Competitions.

At the Royal (England) and Highland (Scotland) shows were conducted horseshoeing competitions, with cart and roadster horses. The total points given were 40, divided as follows:—8 for taking off the old shoes and trimming the foot; 8 for making the shoes, and their adaptability to the size of the horse; 4 for fitting the shoes; 8 for setting on the fore shoes; 4 for setting on the hind shoes; 8 for general finish and adaptability of the shoes to the work of the horse. The gradation of points made by the competitors were as follows:—In the draught horse section, 40, 38, 36, 35, 34, 32, 30; in the roadster section the points made were 40, 39, 36, 34, 33, 31. Time was not taken into account so much as excellence of workmanship and style. Great credit is due the institutor of these competitions, as they are undoubtedly a step in the right direction; and the practical lines on which they are judged cannot but be of great use in fostering correct ideas regarding the best methods of shoeing horses. We commend this idea to the consideration of Canadian fair managers.

"A teaspoonful of allspice in the mess of the scouring calf will cure him usually. It may need repeating once or twice."—*Dairy World.*

STOCK.

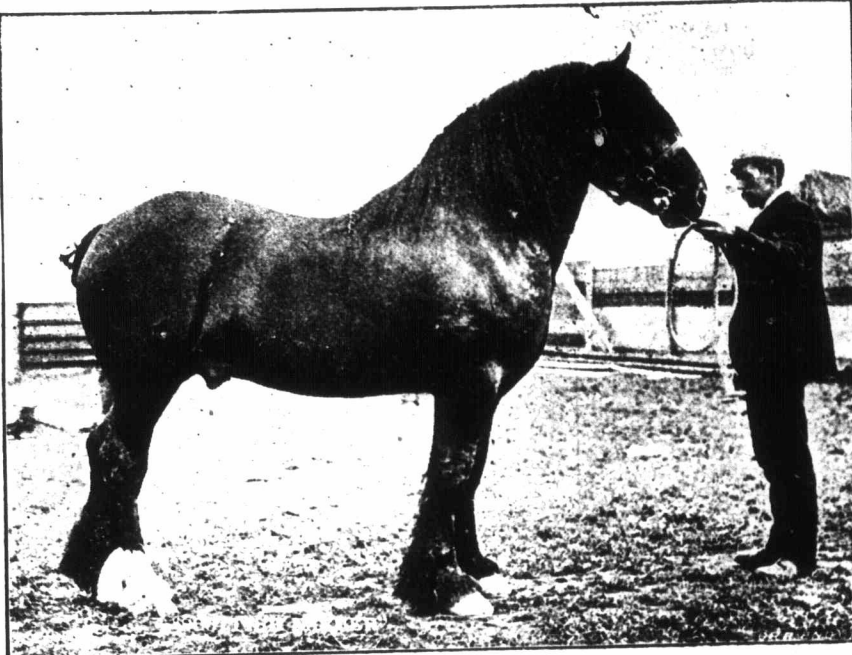
A Scottish Clydesdale Champion.

The accompanying engraving, reproduced from the Scottish Farmer, represents Holyrood (9546), champion Clydesdale stallion at the annual exhibition of the Highland and Agricultural Society at Dumfries. He was exhibited by his breeder, the Marquis of Londonderry, K. G. He is now four years old, and has been 1st three times at the "Highland," as well as twice at the "Royal." He is a magnificent draught horse, standing seventeen hands high on short legs; he is very evenly-balanced, carrying his width with his height, while his action is close, free and graceful. Although his legs have not that flinty look of some horses, he is far from being coarse in bone. He has a capital set of blue feet, and he has sunk well on his ankles. His sire, Mr. Riddle's Gallant Prince, is rapidly coming to the front as a breeder, and his dam, the beautiful Balwherrie-Darnley mare, Susie, was 1st in the brood class at the Royal last year. As in other cases, this being no exception, "blood will tell."

Our Scottish Letter.

The great event of the past week has been the show of the Highland and Agricultural Society, at Dumfries. Much has happened since the first show of the Society was held at the same beautiful town on the banks of the Nith, in 1830, and very few show-goers are now alive who were present on that memorable occasion. One who does survive is Mr. Wellwood H. Maxwell, of Munches, and when he rose to speak at the meeting in the show-yard, on Wednesday, he was received with loud and prolonged cheering. He has not much recollection of the 1830 meeting beyond the knowledge that he was present, but of the 1837 meeting he has distinct

Possibly the advance in applying mechanical improvements to agriculture has been even greater than the improvement of stock during the past sixty-five years. At any rate, the advance in stock-rearing has been sufficiently marked, and a very great change has taken place in the herds of the south-west of Scotland. Then Galloways held undisputed sway; none seriously menaced their supremacy, and the modern Ayrshire had scarcely come into being. Now the Galloway is in the hands of a few enthusiasts, and the Ayrshire is triumphant. The signs of the times are, however, more favorable to the Galloway than to the dairy breed, and the present collapse in dairying is direct evidence of what is coming. Galloways and Highlanders are selling better than they have done for years, and this is a very sure sign of returning trade. Their meat is of the very choicest, and only bought by those who desire a dainty morsel at any cost. When Galloways are in demand, trade is getting better—people have more money to spend, and the future of the beef breeds is therefore somewhat brighter than the past. It is not likely that many more farmers will abandon stock-raising and feeding for dairying, and very likely the new era will see an attempt to combine the two. At the Dumfries show, both the Galloway and the Ayrshire were well represented. Few of the best of the blackskins were absent; and those present were of quite superior merit. Mr. James Cunningham, Tarbreock, Dalbeattie, is one of the tenant-farmers who have stuck to the Galloways through good report and through evil report, and his son, Mr. John Cunningham, Durhamhill, Dalbeattie, is following his example. He owns the champion Galloway in the show, the two-year-old heifer, Dora of Durhamhill, whose breeder was his father at Tarbreock. The Duke of Buccleuch, K. T.; Sir Robert Jardine, Bart.; Mr. W. Parkin-Moore, of Whitehall, Mealsgate, Cumberland; Mr. Leonard Pilkington, Cavens; Messrs. T. Biggar & Sons, Grange, Dalbeattie; R. & J. Shennan, Balig, and others, are also enthusiastic in the Galloway cause. Colonel Dudgeon, of Cargen, owns the champion bull at the show, Crown Jewel 2nd. He is one of the longest and most level bulls seen for many a day; but the yearling, Nonpareil of Castlemilk, owned by Mr. Parkin-Moore, is the leading article this season. Ayrshires of the show type are not much fancied in the Stewartry and Dumfriesshire; but the leading show herds, with one exception, are found there. The champion of the breed was not, however, from either of these countries, but from Lanarkshire. Mr. James Lawrie, Newton, Strathaven, owned her. In regard to Shorthorns, Aberdeen-Angus, and Highland cattle, there is little that is new to record. The Royal champion Shorthorn, Nonsuch, owned by Lord Polwarth, repeated his triumph; and the celebrated A.-A. bull, Prince Inca, owned by Sir



THE H. & A. CLYDESDALE CHAMPION OF 1895.

recollections, and is able to give a good account of it. Then there were but eighteen exhibits of implements; this week there were over 2,000. Many of these are of American and Canadian manufacture, and it does not say very much for the ingenuity of home makers that this should be the case. Of all recently imported implements, the most ingenious is, perhaps, a Canadian cultivator from the Province of Ontario. Those who look at this machine for the first time are struck by its ingenuity, and closer practical acquaintance only confirm farmers in their appreciation of its merits. Another excellent implement is the farmyard manure spreader of Messrs. Ben. Reid & Co., Aberdeen. This is the best thing of its kind which has yet come under our notice. We have quite a number of implements for sowing artificial manures, but this is a machine for breaking and spreading "long dung," as it is called. All of these, however, are put into the shade by the "Thistle" mechanical milking machine, patented by Dr. Sheils, Glasgow, and alike at the Royal (Darlington) and the Highland (Dumfries) it attracted large concourses of onlookers. The machine is one of the most efficient yet put upon the market, and it does unquestionably milk a cow. It is in good demand for the colonies, and in districts where labor is scarce it will supply a want greatly felt. The question about its adoption in this country is no longer mechanical, but economical. It does milk a cow—and that, too, in a fashion which no milker can gainsay; and whether it be universally adopted or not depends on the further question whether labor is plentiful or the reverse in the neighborhood. Amongst the more intelligent farmers the feeling prevails that its use will intensify the competition between the home farmer and the foreigner in the dairy produce market. It will render dairying possible in many districts where at present it is unknown, and thus conduce to the increase of dairy produce all the world over.

George Macpherson Grant, Bart., was the champion of that breed. The most notable fact, however, in connection with the Shorthorn and the A.-A. breeds was the renewal of the foreign demand. Quite a number of superior animals were purchased by exporters for shipment to South America. Business seems likely to revive there, and a better tone pervades all circles. The Highlanders were in few hands, and the breed champion of 1894 was again breed champion in 1895: This is Valentine XI., bred by and the property of Mr. T. Valentine Smith, Ardornish, Morvern, Argyleshire. The future of cattle breeding in Scotland will owe much to this gentleman, who has a princely establishment in the West Highlands. His manager is Mr. Walter Elliot, a scion of the famous race of that name in the Waverley country made classic by Sir Walter Scott. Clydesdales are always a strong feature when the Highland Society visits Dumfries, and this year has been no exception to the rule. The Marquis of Londonderry has for long been a spirited patron of this breed, and he at last reached the top of the tree when his splendid big dark brown stallion, Holyrood 9546, was placed champion male Clydesdale of the show. This is an exceptionally grand horse, and we are glad to record the fact that his title to supremacy was not called in question by anyone regarded as a judge of Clydesdale horses. Mr. Gilmour's Moss Rose 6283 was once more champion of the females, and her plucky owner has thus twice won the Cawdor Challenge Cup. It will become his when he wins it a third time. The old mare is fresh for her years (she is 14), but she showed something of her victory to prestige and the high place which her former victories have secured for her in popular favor. She has proved herself to be quite as phenomenal a breeding mare as she has been a show mare. Amongst the visitors to the showyard we met an old friend, Mr. Robt. Graham, Claremont, Ont. He is visiting this country, we

presume, on business, and his appearance is hailed as an indication that the foreign demand is to be renewed. The members of the Clydesdale Horse Society have rescinded the by-law which prohibited the registration of any but home-bred Clydesdales in the Clydesdale Stud Book. If there be any animal in Canada or the United States good enough to win in this country, and likely to breed superior stock, the fact of its being bred abroad will not now prevent its registration in the Stud Book here.

SCOTLAND YFT.

Comments on Mr. A. W. Smith's Paper.

"MISTAKES OF SHORTHORN BREEDERS."
(BY "CLAUGHBANK.")

Papers such as Mr. Smith's, are, I believe, of much more use than those which are simply precept, for where mistakes are pointed out, they have, as a rule, a much greater effect on the minds of those interested, for a mistake when made is always an example, and "example is better than precept."

Mr. Smith, in pointing out the great error that has been made in the past by Shorthorn breeders in breeding for red, gives, perhaps, a very necessary caution regarding running to the other extreme; but, at the same time, I think he betrays a slight prejudice against the whites. It is generally believed that white cattle are less hardy than those of other colors; but is not this belief based on supposition, and not on actual facts. There are white animals that lack constitution, and, when speaking of such a beast, a farmer will say, "white cattle are tender, anyway;" and such an instance will go a long way to condemn white cattle in his mind, as well as in those of his hearers, and this simply on account of the prejudice against white animals. Mr. Smith speaks of many years' experience having proved that white is not a color to be desired. Is he right in making this assertion? Is it not rather a supposition based on prejudice, than the actual experience of careful observers? I am inclined to think so. Then, again, as to "so many white animals being so successful in the show ring only proving that pampering and forcing, and constant care and attention of the very best kind successfully combating even a thin, papery white skin, which very often encloses a weak constitution." Here, again, it would appear to me, the essayist is a little out. When a breeder selects animals for the show ring, he picks out his best, and one of the first points he looks for is the mellow skin and mossy hair which betokens a good constitution and good feeding abilities. Then, how can a papery-skinned animal be expected to compete successfully against animals possessing this, to all intents and purposes, most important point in an ideal beef beast. Again, an animal to be successful in the show ring must be a good feeder, and if it is to be in it at all in competition open to the world, it must have a good constitution to stand the feeding required to put it in the condition fit to be seen in such company as it must meet. Were the white Shorthorns which have been so successful in the show ring of the papery-skin kind? If so, it would seem to me that a papery white skin is an indication of quality heretofore not recognized. We must remember that among farm stock, owing to the prejudice against them, there are comparatively few white cattle, and my own observation leads me to believe that of these grades there are a few poor ones, a number of medium ones, with a good sprinkling of really good ones, probably those of the latter class outnumbering in proportion to the number of white cattle the good ones of darker colors. There are papery skins on some of these white cattle, but I do not think that they have skins of this description in a greater proportion than colored cattle have; but it is sure to be noticed when it is white; but who can say that there is anything wrong with the beast that has a mellow, unctuous skin, with a yellow tinge through the white hair. There is no doubt that breeding for the fashionable red was very detrimental to Shorthorns, and if white ever became the fashion to as great an extent, it would have the same effect; but, as Mr. Smith points out, there is little danger of that. There are many men who, in selecting a bull, would choose a red one rather than use a white, though the latter be much the better beast. It is this that has been, and is to-day, hurting the Shorthorns as beef cattle. There are, probably, breeders who would not breed their cows to Lord Stanley, the champion Shorthorn bull of the World's Fair, on account of his color; and his owners, for whom he and other white ones were so successful at Chicago, are advertising red bulls for sale, showing that though the whites could win the highest honors for them, they must have red ones to suit the public. Prejudice for or against any color is wrong in breeding Shorthorns; the principle that should be observed is, breed from the best, whether they be red, white, or roan.

Mr. Smith next speaks of what he calls "the pedigree fallacy." Is he not, in this, assailing that principle which is at the foundation of all successful breeding, viz.: inbreeding. Inbreeding was practiced by those great breeders who first brought the Shorthorns into prominence, as well as by the early breeders of other breeds. They had their types to set, and their example must be followed to a certain extent. Certain families of Shorthorns have characteristics of their own, and these should be perpetuated, and this can only be done by inbreeding, so that those breeders that the essayist finds fault with for confining themselves to a few

families are really doing a good work by inbreeding, if they are doing it with good judgment. This inbreeding may not tend to make them successful in the show ring while they continue it, but they are supplying the material which, when crossed on other families of the right kind, will produce the choicest stock. Mr. Smith gives an instance of this when he speaks of Mr. Cruickshank's cattle being grand in themselves before he ceased to bring in fresh blood; but since he had done so there had been a falling off in them; and then he speaks of celebrated Scotch bulls of to-day, whose celebrity came to them by being crossed on cows with a large percentage of English blood. Mr. Cruickshank did as other great breeders have done before him: he selected animals of the type he wanted, and then inbred them to set that type, and though this inbreeding may not have improved his herd, it gave them the power to transmit to the offspring of cows of other blood the good qualities which they had inherited. It may be that the steers of the country have deteriorated, but this is not owing to inbreeding, unless it is that the wrong sort of sires have been used, and these being inbred did more harm than if they had been animals which were not inbred, and, therefore, were not so prepotent.

(TO BE CONTINUED.)

System of Management in Breeding Stud of Draught Horses in Scotland.

(Compiled from a paper prepared by Archibald MacNeillage, Secretary of the Clydesdale Horse Society.)

THE CARE OF FOALS.

Turning now to the younger members of the ordinary stud, the treatment of foals first demands attention. The age at which they are weaned varies somewhat, but there is a general opinion in favor of from four to six months old. In Aberdeenshire and Morayshire the average age quoted is five months, and in Forfarshire two breeders say four months and one four and a-half. The Montrave foals are uniformly weaned either in the last week in October or first week in November. In East Lothian, four months old is the usual age; but in Kintyre the mares nurse for about six months, unless they should be required for work earlier.

Should a mare be a poor milker, there is nothing better for either her or the foal than a feed of oats twice a day, but in a case of a mare constitutionally defective in this respect, the foal is much better to be taken from her when about three months old. It will thrive much better on good food than on the milk of its dam—in all likelihood deficient both in quality and quantity.

The time of separation of dam and foal is a crucial one in the life of the latter, and much depends on the wisdom with which the separation is carried out, and the treatment the youngster receives after weaning. The plan found most advantageous is to hand-feed the mare for about a fortnight before the foal is taken away. During this time the foal learns to eat the bruised oats and "chop" served to the dam, and consequently when deprived of the latter's milk it is not so much disturbed. The objection to this method is that the foal invariably goes back in condition for a time, and some breeders for about a fortnight before weaning graze the mare and foal in a field of young grass—a "seed" field, as it is sometimes termed,—in which it is intended that the foal should be wintered.

The more usual method is to shut the foal in a loose box for a week or ten days after weaning, when it is fed, in some cases, on a mixture of cut hay, oats and bran, with a small proportion of treacle. After a time it is allowed to run at pasture.

In Aberdeenshire, as is the case with all stock, foals in winter generally are housed at night and run out during the day; but in the Balmedie stud they are wintered altogether outside, but have a shed to take shelter in if they choose. Having been taught to eat a little along with their dams before separation, for the first few days after that event foals are fed with a little porridge mixed with bran and sweetened with treacle, given in the form of a gruel drink. The diets are small, but of frequent occurrence, and the gruel is always fresh. Afterwards they receive a little bruised oats mixed with bran and cut hay, damped with treacle and water, and a moderate allowance of hay. As soon as possible they are turned out to graze, when they are fed four times daily, viz., at the same hours as the mares: 5 a. m., 9 a. m., 4 p. m., and 8 p. m. At 5 and 4 they get boiled food, and at 9 and 8, oats, with a fair allowance of good hay. As regards quantity, Mr. Lumsden considers three foals equal to two mares. When two or more foals are wintered together, they are fed separately; that is, they are tied up when feeding, or otherwise prevented from plundering one another's food.

Older fillies are wintered in the same way, with a slight increase in the quantities of food given; but except in the case of fillies that are to be knocked about from show to show, hand-feeding in summer is dispensed with at Balmedie.

In other studs in Aberdeenshire, foals in the morning get a feed of oats and bran mixed in equal proportions, and in some cases the same is repeated where they are brought in at night; but in others the evening meal consists of a boiled mash composed of oats, barley, beans and turnips, with plenty of hay, oats or straw.

During winter, the foals in the Linkwood stud are run out from 8 a. m. until dusk, and fed with mashes of bran and bruised oats and plenty of good

hay. Mr. Robertson does not believe in feeding with a great deal of boiled food. He used to do so, but finds the young stock much healthier when fed as already described, being careful, however, that no bran or oats be given without being well mixed with cut hay or oat-straw of good quality. The fillies do not "bolt" the food too quickly when thus mixed, and a pound or two of linseed-cake is found suitable for all classes of stock.

In the Kirkpatrick-Durham district, which stands 600 feet above sea level, it is impossible to winter out; and Mr. McQueen remarks that a good deal depends on the elevation, the locality, and the situation of a farm, whether the breeding and rearing of young stock can be carried on successfully. The higher and poorer the land, more hand-feeding is required, at any rate to bring out horses for showing. However, not much difficulty in this direction is met with in Wigtonshire and the lower levels of the Stewartry, which may safely be termed the land of Goshen for Clydesdales. The only problem breeders and exhibitors in these localities have to solve is how to prevent foals going back in condition immediately after weaning, and various devices have been resorted to obviate this. One is that of nursing the foals until they are seven or eight months old; another that has not much to recommend it is to give the youngsters a liberal supply of cow's milk. By this means it is possible to have splendid big yearlings, with lots of feather, etc., and big stomachs; but no better means of manufacturing wind-suckers was ever devised, and it is rare that yearlings so brought out count for much as two-year-olds and three-year-olds. The most rational process is to put the foal on a field of good, rich pasture—young grass preferred, if it does not cause diarrhoea; care being taken, however, that the new pasture is not too rich, as compared with that on which they have been running with their dams. To transfer foals from bare pasture to rich young grass is about as sure a way to kill them as any that could be named. Boxing foals after weaning is sure to cause a fall in their condition; and half the winter may be over before they recover what they have lost. On the whole, therefore, if it can be managed, the most popular way of treating foals in Galloway is to wean them in the grass-field in which it is intended to winter them, and feed them during winter twice a day on a proportion of bruised oats and linseed-cake, say something less than 12 pounds each per day for foals, and from 12 to 14 pounds each per day for fillies rising two years old and three years old. Fillies wintered inside, other things being equal, have little chance in the show-yard against those wintered in this fashion.

Mr. Chapman's method of rearing is interesting, because differing somewhat from that followed in Scotland. The foals are weaned gradually. During the last month the mare is wrought during the day, and goes back to the foal at night. Afterwards the foals have the run of a paddock, with a shed in which they are fed, but the weather must be very bad when they lie down in it. They get as much as they can eat of hay, chaff, bran and bruised oats mixed together, but no other corn. In increased quantities this continues to be their food as they grow older, and until put into yoke.

Winnipeg Exhibition Judging—A Note of Explanation.

EDITOR FARMER'S ADVOCATE:

SIR,—The readers of the ADVOCATE, being informed that I was appointed judge of the beef breeds of cattle under the one judge system, could come to no other conclusion from your statements than this, that I was judging a bull of my own raising, and for this reason there was room to believe that Mr. Lister's bull did not get justice in being placed third. When I saw the nine bulls come into the ring, and noticing that Mr. Barron's bull, that I bred, was not farther back than second in my judgment, and knowing that the owner of the worst bull in the ring was in a position to claim the sympathy of the breeders of Canada that he had been unfairly dealt with, I said to Mr. Martin, one of the directors, that I would not judge this lot, as I had bred one in the ring. Mr. J. C. Snell, of Edmonton, Ontario, judged this lot of bulls, and is considered one of the best judges of cattle on the American Continent.

JAMES RUSSELL.

Richmond Hill, Ont.

No More "Free Seeds!"

Some time ago we took occasion to refer to the efforts of U. S. Secretary of Agriculture Morton to check a number of wasteful expenditures that had grown up in that Department. The Attorney-General, in response to an appeal, recently decided that the Secretary of Agriculture is under the law empowered to purchase only seeds that are "rare and uncommon to the country, or such as can be made more profitable by frequent changes from one part of our country to another." Upon this interpretation of the law, the Secretary has issued an order discontinuing the seed division during the fiscal years of 1895 and 1896, and discharging the employees of this Department Oct 1. This very properly puts an end to the buying of all sorts of seeds and distributing them promiscuously over the Republic at the request of Congressmen.

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Every Copy Preserved for Future Reference.

TWO YEARS IN ADVANCE.
Geo. Marmion, of Quebec, writes us, enclosing \$2.00, under date of Aug. 2nd, 1895, as follows: "Accept my subscription to FARMER'S ADVOCATE to April, '97. I have derived much valuable information from your paper, and I eagerly search the columns of each copy as I receive it. I find it so useful that I keep them all for reference."

The Late H. Rivers, Esq.

It is our painful duty to record the death of an esteemed Shorthorn breeder, Mr. H. Rivers, Springhill Farm, Walkerton, Ont., who departed this life August 10th, at the ripe age of three-score-and-ten years. That dread disease to old people, la grippe, took a severe hold upon him three years ago, from which he only partially recovered, and finally caused his "taking off."

The deceased migrated from his native county, Berkshire, England, along with his parents, in 1833. The family settled in Woodstock, where a bakery was established and conducted by the head of the family. Mr. Rivers left school at a comparatively early age, and engaged at farm work in the townships of Blenheim and Burford until his marriage, at which time he and his life companion took up a bush farm in the County of Bruce, upon which they settled with their household effects and a few good grade Shorthorns. Here they began and carried on the work of clearing and improving the land, erecting fences and good farm buildings, and establishing herds of Shorthorn cattle and Berkshire swine upon what is now known as Springhill Farm, containing 220 acres of good land, well adapted to mix farming. It is situated 2 1/2 miles west of Walkerton station, on the Elora road.

Mr. Rivers has always been a member and regular attendant of the Church of England, where he loved to worship; he was frequently a delegate to the Synod held in London. He was one of the first men to help inaugurate an agricultural show in the county, and which has now become the famous Northern Exhibition, held at Walkerton, upon whose board he was frequently president, and always held a seat. He has been a subscriber and appreciative reader of the FARMER'S ADVOCATE ever since its foundation. We gladly add our tribute of acknowledgement to his long and honorable life. During many years of business and other relations, we ever found him prompt and systematic, and one whose sterling integrity could at all times be implicitly relied upon.

The management of the farm and stock raising will now be conducted by the deceased's worthy son and successor, William, who formerly aided his father in carrying on the business.

Death of Col. T. S. Moberley.

Col. T. S. Moberley, of Richmond, Ky., came to an untimely end at the sea shore on August 7. While spending a few days by the salt water, along with his family, he undertook to rescue his little daughter who had ventured beyond her depth while in bathing; he quickly became exhausted and sank to rise no more. Happily, the little girl was saved by the hand of a man who happened to be there at the time. Col. Moberley's last act in life was one of self-sacrificing devotion.

By reason of his death, American Shorthorn breeding interests lose one of the most active and prominent figures. From early youth the deceased has been an ardent admirer of the "red, white and roan," which led him to strive to own the foremost herd of beef cattle on the continent; an ambition actuating him to the very last. To this end, purchases were from time to time made in Canada and from some of the leading American herds, even within the last six months, during which time he received a group of the very choicest cows to be found, as our readers are aware.

It was in Ontario, prior to the show season of 1890, that he secured the world-renowned Scotch-bred roan champion, Young Abbottsburn. His policy was to cut loose from the shackles of prejudice and fashion, and the success which he had been attaining bespoke an undoubted eminence for him in the future had the span of his life been lengthened out.

Considerable interest was being felt in American Shorthorn circles regarding the Colonel's exhibit to be made at the leading fairs during the next few weeks. This fact gives the sad calamity peculiar force at this juncture. Because of Col. Moberley's genial manliness, the fraternity of breeders more familiarly designated him "Tom Moberley." He was a man among men, gentlemanly ever, and a peer in any community.

Canadian Live Stock Records.

A meeting of representatives from the Short-horn, Ayrshire, Hereford, Clydesdale, Hackney, Shire, Sheep and Swine Breeders' Associations, with the Hon. John Dryden, Minister of Agriculture, will be held in the large tent of the Superintendent of Farmers' Institutes, Toronto Fair grounds, on Thursday, Sept. 12th, at 8 p. m., to arrange for the future carrying on of Canadian records. By the new Agricultural Act direct control is vested in the breeders' organizations themselves, and should they feel sufficiently strong financially, and so disposed, they may take full control, independent of the Department. The Government is, however, empowered to appoint a Superintendent of Registration, paying his salary in part and providing offices in the new Parliament Buildings. In other words, the Department of Agriculture takes the place of the old A. & A. Association, which ceases to exist at the end of this year. This very liberal provision by the Minister of Agriculture will make the burden to the breeders comparatively light, and as head of the Department, there is a valuable guarantee in the fact that the Minister will see that the records are systematically maintained in accordance with a uniformly high standard. Any needed re-

arrangement as to cost of registration and volumes will be a matter for consideration at the meeting in question. As stated in previous issues, we regard the proposition by the Department of Agriculture as exceedingly reasonable and practicable, and there should be little difficulty now in speedily settling upon a well-defined and permanent basis, the desirability of which is obvious.

In connection with the foregoing matter it is of interest to note the statement in our Scottish Letter, that the Clydesdale Society of Great Britain has rescinded its Record By-law shutting out horses not bred in the United Kingdom. This will allow animals bred in Canada or the United States to enter, provided they possess the requisite breeding credentials.

We might say that the American Southdown Breeders' Association has had, since about 1892, a very satisfactory understanding with the English Southdown Association, each one, very wisely, independently conducting its own affairs. Secretary Springer, of the American Southdown Association, writes us that they recognized the sister English Association, because it records ewes as well as rams, and in every particular conducts its affairs as to registry in a progressive manner. It has rendered valuable aid in matters of pedigree. In return, they (the U. S. Association) accept animals for registry in the American book that are recorded in the English "Flock Book," and in every manner giving encouragement and aid. We might add that the two associations have practically the same standard of excellence. Sheep recorded in the English Book are admitted to the American Book on much more favorable terms than those not so recorded.

Mr. W. W. Chapman, secretary of the Southdown Flock Book of England, writes us that they work on friendly terms in every way with the American Association. Sheep duly recorded in the United States Book would be received in their (English) record on exactly the same terms as their own.

On Tuesday, Sept. 10th, at 2.30 p. m., the Dominion Sheep Breeders' Association members will meet in the Institute tent, Toronto Fair grounds, east of the cattle ring, to deal with a report on constitution and by-laws, and to elect two delegates for the meeting with Hon. John Dryden, on the record question. At the last meeting in London three were elected; but all the other organizations having but two delegates each, a new election is called. At 8 p. m., Sept. 10th, the Swine Breeders' Association will meet to consider a report on by-laws and constitution, and to elect two record delegates, as in the case of the Sheep Breeders' Association. Officers and directors of the Sheep Breeders' Association will meet at 1 p. m., and of Swine Breeders, at 7 p. m., prior to general meetings.

The Dominion Cattle Breeders' Association will also meet in the Institute tent on Sept. 11th at 7 p. m. to deal with a report on constitution and by-laws.

At the meeting re Canadian records, Thursday evening, Sept. 12th, the Shorthorn breeders will be represented by Messrs. Arthur Johnston and James Russell; Ayrshires—W. W. Ballantyne and Jas. McCormack; Herefords—F. A. Fleming and A. Rawlings; Clydesdales—Robt. Davies and David McCrae; Hackneys—R. Beith, M. P., and N. Awrey, M. P. P.; Shires—John Gardhouse and H. N. Crossley.

Feeding and Fitting Dairy Cattle for the Show Ring.

BY A. C. HALLMAN.

I shall confine my remarks mostly to young stock, with a hint or two regarding older animals. In order to be a successful exhibitor a man must have the proper qualifications. He should be a good judge of cattle, be punctual in all his doings, pay strict attention to the little details, have a proper method of doing things, and a love for what he is undertaking.

It is generally supposed that a successful exhibitor has some secret method of doing things; such is not the case; it's the right man at the right place, with the proper conditions. He should have a thorough knowledge of what he is undertaking. The selection of proper animals for their different classes is very important. It is a waste of time and feed to fit an animal not suited for its class.

Blood will tell. See that your cattle have a good lineage. Select them from a line of ancestors that have been successful prize-winners, heavy performers, and rich milkers. It is the "breedy" looking animal with careful fitting that wins. Have some fixed standard, and model after it. The females should be a very select lot of the true type at which you are aiming, with rich breeding; but the male is the most important factor; he must have rich blood coursing through his veins, he should be very symmetrical and have a vigorous constitution, with strong conformation, and be of the type you are aiming to breed; if he has the correct breeding and is of the right stamp individually he is almost sure to strongly impress his mark on his offspring. Remember he is the fountain head of your show animals. One mistake in the selection of a sire will cripple a herd for years. Get the best, it is always the cheapest.

We now begin with the calf, for in it lies the future prize-winner. We suppose the breeding is correct. We have no different method for show

animals, except for the last two months. If cattle are kept as they ought to be that length of time is quite sufficient for fitting dairy cattle. I might also add that I never turn show calves out to pasture. Our calves are weaned from their dams at from one to three days old; fed on their mother's milk three times a day for one week, twice a day after that. We continue to feed new milk for three weeks, then make a gradual change to sweet skim; as we start to change we add a little oil meal, scalded, with enough water added to heat the milk to blood temperature; as the new milk is withdrawn the oil cake is increased in such proportions as to make a good substitute for the cream. Sweet hay is placed before them and often changed. Bran is put in a box when they can eat, but this also must be often changed. As soon as they learn to eat nicely only so much is given as will be eaten up clean. A little meal is added at three weeks old. One part peas, one part oats, and one part barley, the other part bran, forms a very good mixture for calves, given three times a day in such quantities as will be eaten up clean before the next meal. Never allow food in a manger over one meal, give less. Pulped roots should also be given, or ensilage, enough to keep the bowels nice and open. Feed enough milk and oil cake, scalded, twice a day so that they need no other drink except for the noon meal; give water as the calf grows older and the weather warm. At six months old all our calves are weaned, except our show calves. They are now carefully looked over, and the ones coming nearest to our ideal are fitted for the show; in this we use no forcing system. Our calves now eat well; the milk is continued till after the exhibitions. The meal ration is a little changed, a little more concentrated food added, but always feed half bran. They can eat as much as they like and it will never hurt them. Our object is not to get them fat, but in good condition, to keep them vigorous and growing, form lots of bone and muscle, and have a nice loose, mellow skin with soft hair. The age I consider most suitable for showing calves is from seven to nine months old.

Yearling heifers, if raised in the manner described, and kept well through the winter, require nothing but good pasture and plenty of water until the 1st of July or later if in good condition. We have repeatedly taken heifers out of pasture, with little or no fitting, and won honor prizes. When pasture is scant, four quarts meal, two parts peas, two parts oats, one part bran, and one part oil cake will soon put them in good shape, with fodder corn added (we also like fodder corn for the calves as soon as in season). The best age to show a yearling is about twenty months old, bred to be starting to spring at show time. Two-year-olds need careful attention; they should be in good condition before calving, which should be in the end of June; this will give them a grand chance to build up on the succulent pasture, and sufficient time after to get in nice shape for exhibition. When in milk they should be fed twice a day in such quantities as to keep up the flow of milk and the system. In older animals the object should be always the same as with young animals—to keep them in good, healthy condition, and if pasture becomes scarce, add other foods, to keep up the condition and the flow of milk. We don't want dairy animals (females) to enter the ring fat (it tells against them), but in nice condition, and in the pink of health; they must look thrifty. To strike a medium is about right. I have seen dairy cattle too thin for exhibition. Such animals should never be brought out; they are a disgrace to the breed and breeder. While we allow cows heavy in milk to be rather thin, it will not do with young stock. The public will judge the breed, not the conditions.

Males should be in good condition always: however, not too beefy. Feed to keep a good coat and rich, mellow skin. Give exercise, but not to excess; keep the feet in proper trim. Bulls will not thrive when their feet are sore, and they soon will become sore if care is not taken. They should be laid down, and trimmed from the bottom. Wash cattle with soap and water thoroughly, rinse well, and blanket, a day before going to exhibition. We never use a blanket before. If an animal's coat won't get in proper shape for the ring with a few days' blanketing there is something wrong and it should be left at home. However, grooming will always help to make them comfortable and improve their coats, and cattle that are stabled should be groomed regularly.

In conclusion, would say, make the right selection; show your cattle in a good, healthy condition; aim not to have them too fat;—while we allow it with males, it is never admissible with females. If a dairy animal has the proper treatment from calfhood, and the correct breeding, there is no reason why any animal intended for breeding purposes should be ruined by being fitted for exhibition. The aim and object should always be to secure early development, but not to impair their future usefulness.

Much as I admire the care and attention of the skillful breeder and feeder whose sole object is to promote growth and pile on flesh, and much as I admire the results of such labor, I question very much if it pays even with the beef breeds, while it surely will injure their future usefulness as breeders. The best bred and most valuable animal is often ruined as a breeder, while the milking qualities are surely injured and often destroyed. Dairy cattle must be judged on points. Any man that does not judge in that way has no business in the ring; he must have a thorough knowledge of what he is undertaking, and do it skillfully.

Growing Feed vs. Pasture for Sheep.

Prof. Thos. Shaw, of the Minnesota Experiment Station, believes that he has made the "find of his life," having succeeded this season in keeping sixteen sheep, by growing a series of crops, in better condition than he could two on the same land in pasture. The plot selected was a high prairie land with a gravel subsoil, and which had not been manured for four or five years.

He divided an acre into four equal parts, each part surrounded by a portable fence. Two of these plots were sown to rye last fall. In the spring, as soon as the rye was well out of the ground, the sheep, six full-grown ones and ten lambs, were turned onto it. As soon as they had eaten the rye well down they were turned into the next plot. While they were eating from this second quarter the first was growing up again from the roots which were left, and by the time the second plot was cleaned off the first one was ready to be eaten for the second time. This was repeated three times, and when the sheep were on the second plot for the last time the first plot was ploughed and sown with a mixture of corn and rape. A drill was used and the seed was planted very thick. After the sheep had eaten off the second plot for the third time they were put upon the third one, which had been planted with oats and peas, and the second plot was put into corn and rape. The sheep were unable to eat the third plot off in time to get to the fourth before the feed here was so far grown as to be too tough to be easily eaten, so about fifty other sheep had to be brought in to help them out. When the plot was finally eaten, the original sheep were turned onto the fourth plot, which had been sown to rape alone, as the ground was very dry. This piece has turned out the best of the lot. By the time that the sheep had obtained all the food possible on the fourth plot, the first was ready for them to eat again, and they were put upon it.

The corn and rape were well up, and made most excellent feed. As soon as it was eaten close, a small quantity of sorghum seed was added, and the plot harrowed. He expected this plot to be eaten off twice more this season.

The second quarter was handled in the same way. The third plot has been eaten twice, and has furnished pasture equivalent to that required for one sheep for 225 days. After the second eating it was sown with rape and sorghum and harrowed, and would be eaten off three times more. The fourth plot has been eaten off twice, and has furnished food for one sheep for 230 days. It has again been harrowed without reseeded, to be pastured off twice more this season.

The strong points of the system are these: First, the production of a very large amount of strictly first-class mutton; second, the complete removal of all kinds of noxious weeds from the upper section of the soil; third, the fact that the ground is left in a richer condition at the end of the season than it was at the beginning, for the reason that the sheep manure it thoroughly; fourth, the impaction of the spongy prairie soil, caused by the many feet constantly pressing it, which is very helpful to the growth of the succeeding crop; fifth, the land only needs to be stirred on the surface to prepare it for the crop to follow, no ploughing being necessary; sixth, and perhaps the most important, the good crops that are sure to be produced after land has been pastured in this way, due to the hardening of the ground, the manuring, and the absence of weeds.

This was an exceedingly favorable year for the experiments, but even in dry seasons he was convinced that better relative results will be obtained from this system than from any system of grain-growing. It might be a good plan to devote one-half of a farm to raising sheep in this way, and the other half to raising grain, alternating every year. "I may be called an enthusiast," he said to a reporter, "but I have perfect confidence in my plan, and think that I have proved that it is practicable. I am willing to take any farm, no matter how large, and put my ideas into operation upon it, and I am sure that I would meet with every success."

One Leak That May Be Stopped.

Losses are going on year after year upon farms that are considered by their owners to be well and economically managed. There is so little account taken of the loss from manure piles, and through stable floors, that very many do not consider it worth while trying to stop it. Remember that a loss right here means clean money out, just as much as does a mouse hole in the granary floor; but it is more silent and treacherous. A ton of urine from a horse is worth three times as much as a ton of solid manure, and the urine from cattle is worth twice as much as solid, ton for ton. What we would say is, put in a cement floor right after harvest, and stop this silent leak.

The Sled Corn Cutter.

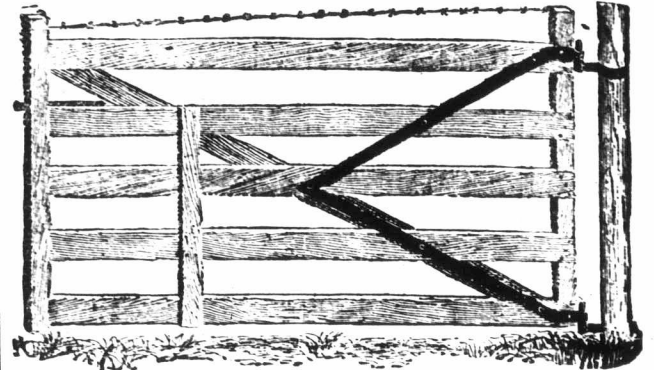
HAND-CUTTING PREFERRED.

SIR.—In reply to your favor of the 13th, I beg to say that we did not use the sled corn cutter last year, neither do I intend to use it this season. I prefer cutting by hand and have the corn put in bunches. In the first place, the sled cutter makes a rough job, and besides, it takes two men, a horse and a boy to work it.

O. A. C. Guelph. W. B. RENNIE, Farm Supt.

FARM.

Well-Braced Gate Hinge.



Among the many purposes to which old wagon tires may be applied, is the gate hinge illustrated above. An old tire, too much worn for further service, is cut in two at the middle, and one end of each piece is turned with an eye or socket to form half of a hinge. Then, four inches from the socket the bar is bent to an angle as shown in the engraving. The other ends of the two pieces are then welded together in the form of a V, the width of the open end being governed by that of the gate. The lower hinge is made in the usual manner, with an upright pin at one end, and a thread and nut at the other. The upper one may be made in the form of a band, which is driven over the gatepost, and fastened by nails driven through holes punched for the purpose in the band.—Leon Hay, in *Farm and Home*.

A Trip to Manitoba and the Northwest.

BY J. C. SNELL.

At the request of the *ADVOCATE*, I write some of my impressions received during my late trip to the West as judge of dairy cattle at the Winnipeg Industrial and the Territorial Exhibition at Regina. To one who has not seen the great Provinces and Territories to the west of us such a trip is truly a rich treat. The City of Winnipeg, to begin with, is a genuine surprise to the visitor who sees it for the first time. Here is a city of wonderful development, considering its short history since the general opening up of the Province as a farming country. Winnipeg is a progressive and energetic business centre, with an admirable social life, a fine educational equipment, homes as attractive and residential streets as handsome as can be found in any city in Canada. Her broad streets, substantial buildings, extensive parks and unlimited water supply, backed by an immense country of fertile farms, seem to mark this as the metropolitan city of the Dominion in the not far distant future.

It has been found expedient, on account of the rush of work on the farms after harvest, to hold the leading exhibitions in July, which is a month of comparative leisure to the farmers while waiting for the ripening of the grain.

The Winnipeg Industrial is admirably managed. The courteous and energetic secretary, Mr. Hueback, is a host in himself, and has the happy faculty of getting through an enormous amount of work while retaining a sunny temper, and giving a fair amount of attention to each of the many interests which claim his care. The exhibition of live stock, especially in horses, cattle and hogs, far surpassed our expectations of so young a country. Nearly all the well-known breeds were well-represented, and the animals were brought out in quite as fine condition as we are wont to see at the leading shows in Ontario, while the show of garden and field vegetables and roots, it is safe to say, was far superior to what we could make in Ontario in the month of July.

The Regina Exhibition was the first of a contemplated series, and the foundation has been laid broad and deep for a great show in the future—indeed, it was a great show to begin with. The grounds are large and well-arranged, the buildings tasteful and substantial; and though there was an absence of the systematic arrangement and management seen at the Winnipeg show, yet no doubt time and experience will remedy the defects of the first year. The show of stock was much more extensive here than at Winnipeg, and while the best were not better, perhaps not equal to the best at the Provincial show, yet there was more good stock here, and all in fine condition. To give an idea of the entry of stock it is only necessary to mention that Mr. Russell, who judged the beef breeds of cattle, including grades and range stock, assured us that he passed upon over four hundred and fifty head; and the dairy cattle must have numbered at least one hundred. The horses, brought in from the ranches of Assiniboia and Alberta, were a surprise to visitors from the East. These are largely the produce of the high-class stallions and mares introduced by the large ranching companies; and the training, or rather lack of training, received in a free life on the prairies, without stabling or handling, has developed a class of muscle and bone and feet which is the admiration of the connoisseur in horseflesh. The spectacle of such an exhibition of high-class breeding stock here, on the very ground which but a few years ago was the undisputed home of the Indian, the buffalo, and the broncho, is a commentary on the energy, enterprise and intelligence of the settlers

which needs no embellishment. The buffalo has vanished, and only their deep-cut trails on the prairie, grass-grown and forsaken, with here and there a pile of bones, remain to remind us that they once held high carnival here. The broncho was in evidence still, but only as a plaything for those who took part in the Polo games, and for the use of the cowboys who gave exhibitions of their skill in roping a range steer.

It seemed as if all the Indians that were left had gathered at Regina, and their canvas "tepees" on the prairie outside the city and their camp-fires or "smudges" at night, formed a fitting frame for the interesting picture of industrial skill embodied in Exhibition Park. But, lo! the poor Indian steps softly and "sings dumb" in the presence of such artful innovations, and seems to sadly realize that his glory has departed.

A rapid run to the ranching grounds of Southern Alberta gave us a new revelation of the vast extent and mighty possibilities of this "country of magnificent distances." The outlook from the train as one rushes on day after day and night after night, over seemingly unlimited areas of prairie land, grass-covered and flower-bedecked, reminds one of that of the ocean, bounded only by the ever-receding horizon. The range country is admirably adapted to the purpose for which it is being used—that of raising and fattening cattle. Rich and nutritious pastures in almost unlimited extent, a plentiful supply of water in clear running creeks, and friendly hills for shelter from the winter winds, seem to fill the bill for a bovine paradise, and here

Ontario shows, were in good healthy condition, and their owners seemed to have no doubts about the adaptability of the country to successful sheep husbandry. Most of the breeds were fairly well represented, and the prizes were widely distributed. We did not see any large bands of sheep, but we met several ranchmen at Calgary who informed us they had flocks in that district numbering from 500 to 7,000 head, and they were doing well, were entirely free from disease, and required but little attention.

Hog-raising is receiving increased attention, and the display of swine at the fairs was large and fine; much better than we expected to see. With wheat as cheap as it has been the last two years, the farmers have learned that a better way to market it is to convert it into pork, and even with higher prices for wheat, there is generally some damaged grain and much, with their extravagant way of handling it, which would be wasted, and could profitably be consumed by hogs. The general feeling is that hog-raising, in connection with dairying and cheap grain, will be an important factor in the future returns of the farm.

We have in the past been wont to think of the glory of Manitoba and the Northwest as being embodied only in their great wheat fields, but experience and observation is fast teaching the lesson that safer than wheat to the farmer, even there, is a dependence upon live stock and live stock products. These are not so much dependent upon the fickle record of seasons and temperature, seldom fail to make a fair return, and hardly ever prove a failure even for a year. That the farmers of Mani-

are doing good work for the country in the way of testing many varieties of grain, roots, and grasses, as well as live stock, and ascertaining their adaptability to the soil and climate of the country. The Government has been fortunate in its selection of superintendents for these stations, and in Mr. Bedford, at Brandon, and Mr. McKay, at Indian Head, have men who are, in all respects, well-qualified for the important duties assigned to them, and who take pleasure in showing to visitors the work they have accomplished, which is exceedingly creditable to them, considering the comparatively short history of these institutions.

Of course we saw the country at its very best, in an exceptionally propitious season, with its broad areas of waving grain, well-nigh ripe unto the harvest, and truly it is a wonderful crop, but making due allowance for all its drawbacks, we are fully convinced that it is a long way better country than Eastern people generally give it credit for being. There is a large amount of unreasonable prejudice entertained in the minds of many people in the older Provinces against the younger, and we are willing to believe that time will show that those who have faith in the future of the West will not be disappointed. The possession of such a vast extent of fertile land lying all ready for the plow, with a healthy climate, and ready means of ingress and egress, is a heritage of which any nation may well be proud, and for which we, as a people, should be grateful to a beneficent Providence.

A word with regard to the character of the people, and I have done. Here we find no sign of



A TYPICAL WEST HIGHLANDER.

we find it all. Perhaps nowhere is the aphorism "blood will tell" more strikingly exemplified than among these range cattle, where pure-bred bulls of the beef breeds have been introduced, and have stamped their likeness in color, form and finish upon their produce from the native and grade cows of the common. This mainly accounts for the fact that one firm of exporters has, within the past year, shipped from these districts over one hundred train loads of finished bullocks fit for the British market. For these a uniform price of forty dollars a head was paid, which would seem to be a paying business for the ranchmen, since the expense for feed is almost nil. But these men need to call a halt and beware of the consequences of a course they are drifting into—that of raising grade bulls, which they freely admit is already impairing the quality of their cattle, as they confess that they have not as good cattle now as they had ten years ago. Then rich companies were investing in good bulls, which made their mark, but failing dividends, in many cases the result of mismanagement, drove some from the field, and low prices, during years of depression, discouraged others, and these grew careless about keeping up the standard of sires. Bulls of mongrel blood were allowed to run, the old veterans of the harem have had their day and are dead, and degenerate sons have lowered the standard of excellence in a few short seasons.

A large portion of Manitoba and most of the Northwest seems to be well adapted to sheep raising, and those exhibited at the fairs, though not in the high form we are used to seeing them in at the

toba have already taken an intelligent view of the situation is manifest from the information given in a late bulletin of the Provincial Department of Agriculture, which estimates that the yield of oats, barley and flax will exceed in yield of bushels the entire wheat crop of the Province, even in this unusually fortunate season for wheat, which, in the average of years, is an uncertain quantity. From the same source we learn that there are now nineteen creameries in the Province, most of which are operated on the co-operative plan. Twelve of these began operation this year. The smallest output of any one of these is 200 pounds per day, and the largest 1,000 pounds, the average being 430. There are 12 cheese factories, of which 20 were established this year. The daily output is from 200 to 1,000 pounds, and the average 450. We were not a little surprised to learn that in the district of Calgary, nearly 900 miles west of Winnipeg, there are no fewer than six creameries, which are supplemented by skimming stations in long distances from the factories, where separators are in operation, the farmers taking the milk home for their calves, while the cream goes to the factory. The product of these creameries, we were told, had been sold for nineteen cents per pound. And as far north as Edmonton we found a creamery in full swing, supported by outlying skimming stations, and the product for June had been sold for sixteen cents per pound at the factory.

The Experimental Farms, established by the Dominion Government, at Brandon and Indian Head, we found in first-class condition, and they

the crudeness which generally characterizes a pioneer people, but a bright, intelligent and enterprising population, made up largely of the most courageous of the sons of Ontario, up to date in everything, a healthy, happy, hopeful people, true to themselves, to their country, and to the great destiny which seems to await them. The broad expanse of country and the bracing atmosphere seems to have the effect of broadening the minds of the people, and we find here a happy freedom from the narrow sentiments of party, sect and creed, and the petty gossip which is the bane of our Eastern society. The men of the West take a broader and more comprehensive view of life and its responsibilities, and seem to believe with Burns that "man to man, the world o'er, should brothers be and a' that." As they look out upon their almost boundless domain and contemplate its superlative possibilities, they seem to realize that "no pent up Utica is ours," but a half-hemisphere of God-given soil, which will yet furnish homes for millions, and when it is all brought into cultivation will be capable of feeding and clothing a world of people.

West Highland Cattle.

The subject of the accompanying illustration is what the judges of the Highland breed at the Highland and Agricultural Society's Show at Dumfries considered the champion of his sort shown this year. Valentine XI. (1169), the son of Ceatharnacle and Phroiseag Buidhe, by the Pottaloch bull Corintee. The Scottish Farmer says that "he was a clear winner, having greatly improved since

last year." He has an excellent face and horn. If he has a lack it is on the rib and quarters, but even with these slight defects none of the others, male or female, could touch him; hence he easily carried off the president's medal.

Although much obscurity hangs over the origin and early history of this breed, it is highly probable that they are the descendants of the cattle of the ancient Britons. They now occupy in a general way the whole of the West and Middle Highlands and the Western Islands, although Argyshire is considered to be their central home. Until quite recently very little attention has been given to their improvement, but now a herd book is established, and the success attending their improvement is encouraging to their promoters.

They have a striking appearance, especially when their flowing coats are at their best. They are extremely hardy, vigorous, quick and active, being peculiarly adapted to their inclement and rugged home. They are celebrated for their grazing properties, being contented with the coarsest fare, and ultimately get fat where more tender breeds could scarcely exist. In winter they frequently eat heather and furze, and when taken south flourish on pasture from which the best portions have been eaten. Their meat, which is of fine quality and well laid on, is highly prized in the English markets.

Their dairy qualities have not been given much attention, although they usually give sufficient milk to promote rapid growth in their calves. After weaning, slow growth and maturing has been the rule because of the nature of their environments; but since more care has been given them their maturity is being more quickly reached.

There have been a few importations of Highland cattle made into Canada, some of which found their way to Manitoba and the Northwest, but they have never been sufficiently tried to enable their adaptability to our conditions to be thoroughly tested. Their extreme hardiness and strength of constitution should adapt them to cold, mountainous districts.

DAIRY.

The British Butter Market.

TIMELY SUGGESTIONS.

The Journal of the Royal Agricultural Society, of England, contains an article of much worth, dealing with the condition of dairy produce imported into the United Kingdom, and also offers some suggestions as to how improvements can be made in the preparation and shipping of butter and cheese.

The predominating feature of the season of 1894-95 is the extremely low range of prices which throughout has characterized the market for butter of all descriptions, and never since the Australian Colonies began to supply British markets with dairy produce have such abnormally low values prevailed. This remarkable fall is due to several causes. Perhaps the one nearest home is the fact that all over Europe and the British Isles the 1894 crop of grass, hay and other fodders was enormous. Another cause likely to have weighed down the prices was the increased supplies sent in from the Colonies. The total import in 1894 was 32,430 tons more than in 1889, and of this increase Australia and New Zealand contributed a little less than half. In the season of 1894-95 the increase import over 1893-94 was from Denmark, France, Sweden, and Holland, 7,200 tons, but from the Colonies only 2,010 tons. Therefore it must be concluded that the increased supply of the four European countries mentioned had much to do with the fall in values.

While it seems reasonable to suppose that every important English port would furnish a market, it is advised by the Journal of the Agricultural Society that to ship butter direct by steamer to such ports as Manchester, Bristol, and Glasgow would probably prove an extremely hazardous experiment, unless such parcels were sold before arrival. Up to the present time London has been the chief distributing centre. Railway and shipping facilities are much greater from London than from any other place, and a much larger quantity of butter than now arrives could easily be distributed from London without any resultant depreciation in price. Before direct shipments are sent to any provincial centre the exact color, flavor, saltiness, etc., of the butter consumed in that district must be ascertained and the consignment prepared accordingly, or disaster will follow.

Heretofore the European countries have had a decided advantage over the Colonies, inasmuch as they ship butter the year round, thus keeping a constant supply before the consumers who have found it to suit their particular liking. When the Colonial butter arrives at the commencement of each season it has to displace other varieties before it can find a market for itself. People become accustomed to a particular flavor by long usage, consequently those butters that are on the market permanently secure a firm position in public favor, while those which appear only during a certain season have great difficulty in obtaining a full recognition of their good qualities except by some sacrifice in price.

Preparation for British Markets. The packing of butter is now nearly perfect, so far as the condition on arrival is concerned, though on the ground of economy it would be a great advantage if lighter

boxes could be safely used. In many instances, if better vegetable parchment were used there would be no room for any complaint. It is very detrimental to the best interests of the trade for short weights, or uneven weights, to be sent to the British market. There must be 56 lbs. full weight in every box when it arrives, and to secure this at least 56½ lbs. should be originally packed in the Colonies. Besides this, it is well to soak the inside of the boxes with a strong brine just before packing the butter into them.

The color of butter suitable to different districts in the United Kingdom varies according to locality. In the Manchester district, and many other northern centres, a very pale, natural cream tint is preferred, while in South Wales and other districts a deep yellow is considered best. Up to the present no butter from the Colonies has been light enough in color to compete successfully with either the best Danish or Swedish, such as is eaten in the Midlands and North of England.

There is a change needed in the saltiness of butter sent into England, as the public taste is growing in favor of fresher butters. It would be well to reduce the amount of salt until 1½ or 2 per cent. were reached.

It is essential for a brand of butter to find a good market that it should be reliable as to uniformity in all its qualities. Color, flavor, texture, etc., should never vary. Some brands have already secured a good reputation for this, and are more sought after by buyers in consequence. When four or five different qualities of butter are found existing under one brand, it requires very little commercial knowledge to discern that this must mitigate against fetching as good a price as it would if the quality were uniform.

Butter-shipping Colonies have all been asking themselves how they can compete successfully with the Dane in the struggle for British markets. "Can we oust our Continental competitors and supply all the butter Great Britain needs?"

It is not, however, simply Danish versus Colonial competition that is at present awaiting solution. The contest is between the man who can make a profit by laying his butter down in the British market at 9d. or 10d. per pound, be he Dane or Swede or Colonial, and the man who cannot do so except at a loss. In the contest for supremacy in the British market, the man who can supply the best butter at the least cost will come out triumphant, no matter in what country he resides. The Colonial dairyman, therefore, should turn his attention to the improvement of his butter and endeavor to discover the most economical conditions for its manufacture, transit and sale. It is very interesting to study at what price one's opponent can sell his goods, but it is far more useful to employ one's energy in ascertaining how you can make the best article at the least possible cost.

The Thistle Milking Machine Tested in Canada.

SIR.—When the Hon. Thomas Ballantyne, of Stratford, was in Scotland last spring, he had an opportunity to examine carefully what is known as the Thistle Milking Machine. He was pleased with the work which he saw the machine doing, and, being anxious that Canada should be abreast of the times in everything pertaining to the dairy industry, he suggested to the makers that they should send a machine to the Agricultural College, Guelph, to be tested and reported upon.

The machine came, was set up, and run for seven or eight days, and, in the absence of our Professor of Dairying, I beg to submit, for the information of your readers, a brief report of the results of the test, which closed on Friday, the 9th inst.

The Thistle Milking Machine was invented about four years ago by Alexander Shiels, M.B.C.M., B.Sc., of Glasgow, Scotland, and is now manufactured in the same city, 25 Gateside street, by The Thistle Mechanical Milking Machine Co.

The machine has been tested by a number of competent judges in different places, and is now being used by some of the most prominent Scotch dairymen, including Thomas Kerr, Kirkcudbright, who has a herd of 80 cows; Robt. Wallace, Mauchline, 40 cows; and Mr. McBride, Garroch Tree, Stranreer, 100 cows. One was put up a short time ago for D. H. Burrell & Co., Little Falls, N.Y. And, I believe, the only one in Canada is that which has lately been at work in our dairy stable.

The company makes a hand-machine to milk four cows at once, and a three-horse-power machine to milk ten. I have not seen the hand-machine, but we have tested the power machine, and I have no hesitation in saying that it does its work very satisfactorily.

The machine is a large air-pump of special and peculiar construction, of good quality, strong, substantial, and well made. It is set on a concrete foundation, made of gravel, cobblestones, and Portland cement, 3 ft. 3 in. by 4 ft. and 2 ft. deep, outside of our dairy stable, close to the wall of the building and a short distance from a row of 15 cows, opposite which there is another row of the same number of cows, with a feed passage between. A copper suction-pipe passes from the pump through the wall into the stable and overhead to the passage between the two rows of cows. From this main tube two smaller copper tubes are carried along on top of the stall divisions, one above the necks of each row of cows; and in each stall, at the side of each cow, there is an opening in this cross tube, from which a short piece of smaller copper

tube points downwards, slanting towards the passage behind the cows. This smaller piece of tube in each stall is controlled by a stopcock; and to it a rubber tube is attached when milking begins. This movable rubber tube extends down to a heavy, broad-bottomed tin pail on the floor, and another rubber tube connects the pail with the teat-cups which are attached to the udder.

For milking ten cows, ten pails and ten sets of teat-cups are used—five for each row of cows, so as to keep the two suction tubes in front of the two rows of cows working at the same time. It, of course, takes less time to milk some cows than others; so, when a cow is milked, the man in charge shuts the stopcock, detaches the rubber tube, empties the pail into a large milk can standing close by, removes the apparatus (the rubber tube, pail, and teat-cups) to another stall, and places them in position to milk another cow. In this way he keeps on moving the pails from stall to stall, one at a time, till all the cows in his row are milked. Another man or boy does the same thing in the opposite row. It is not necessary, however, to milk both rows of cows at once. The ten pails might all be used on one side, in which case one man, or a man and a boy, could attend to them and keep his eye on the working of the pump.

As stated above, the milk pail is heavy, broad, and low, so that it is difficult to upset. The cover is soldered on and the milk enters through a short and strong glass bottle, which is inserted like a cork into the lid at one side, resembling a bottomless quart fruit jar, but only about half the length. By observing the glass bottle, one can see how the milk is flowing from the udder and know when to stop milking.

Owing to the action of a reducing valve, which is used for the admission of air at regular intervals, the suction acts in a series of successive pulsations, resembling the action of the mouth of a calf in sucking or the hand in milking, and varying in the proportion of 15 to 5. As the suction increases, the teat-cup contracts first at the top and then gradually downwards to the bottom, forcing the milk out of the teat; and when it reaches the maximum of 15, air is admitted which reduces it to 5, thereby partially releasing the teat and allowing it to fill with milk again. In this way the milking is done naturally, quickly, thoroughly, and without any annoyance to the cow. The machine operates more regularly than the hand. Hence, it is likely to produce better results, and it makes it next to impossible for any kind of dust or dirt to get into the milk during the process of milking.

We used our portable farm engine in making the test; and we found that a man and a boy could milk 26 cows in from 20 to 26 minutes. I think it might be arranged so that one man could milk nearly as many in the same time.

We weighed and tested the milk from each cow as usual and found about the same quantity as was obtained by hand, but a marked fall in the percentage of fat, due, we have no doubt, to the excitement caused by the noise of the machine and the presence of a large number of people in the stable. As the cows became accustomed to the noise, the percentage of fat gradually increased.

I have had no communication with any member of the firm, and have no interest to serve in recommending the machine; but I must say that, in my judgment, the inventor deserves great credit for what he has done to remove one of the chief obstacles to successful dairying on a large scale. The only thing to prevent this machine from being extensively used is the cost of the machine and of the power necessary to run it.

JAMES MILLS,
Agricultural College, Guelph, Ont., Aug. 15, 1895.

Feeding Standards and Rations for Dairy Cows.

[Farmers' Institute address by G. E. Day, B.S.A., Professor of Agriculture and Live Stock Lecturer, O. A. C., Guelph.]
(Concluded from page 319.)

By means of many experiments, feeding standards have been compiled for different classes of stock. To German experimenters belongs the credit of first investigating the matter, and Dr. Emil Wolff, a noted German scientist, proposed the following feeding standard for dairy cows:—

A dairy cow in full milk should receive per day and per 1,000 pounds live weight:

Total organic matter.....	24 lbs.
Digestible protein.....	2.5 "
" carbohydrates.....	12.5 "
" fat.....	4 "
Total digestible nutrients.....	15.4 "
Nutritive ratio.....	1:5.4

The German standard, given above, does not correspond with the practice of American dairymen; and after obtaining the information regarding the rations fed by a great many leading dairymen in the United States and Canada, the Wisconsin Experiment Station recommends the following standard, which is known as the American standard ration for dairy cows:

Total organic matter.....	24.5 lbs.
Digestible protein.....	2.5 "
" carbohydrates.....	13.3 "
" fat.....	7 "
Total digestible nutrients.....	16.2 "
Nutritive ratio.....	1:6.9

It is highly probable that the American standard will prove more satisfactory than the German. If we wish to formulate a ration we must first

make a trial ration of the foods we wish to use, find out how much of the different nutrients it contains, and if the nutrients are not in the right proportion we can add to or take away from the quantities of foods used in the trial ration. Suppose we wish to form a ration from clover hay, ensilage and bran; for a trial ration we might take bran, 8 lbs.; clover hay, 6 lbs.; and ensilage, 40 lbs.

By referring to the table we can find the amount of digestible nutrients in 100 lbs. of each food, and, therefore, to find the amount in 1 lb. we must divide the numbers given in the table by 100. Thus we get:

	Protein.	Carbohy- drates.	Fat.	Total Organic Matter.
1 lb. bran contains.....	.126	.441	.029	.596
1 " clover hay contains.....	.065	.349	.016	.430
1 " ensilage contains.....	.013	.140	.007	.160

Therefore—

8 lbs. bran contain.....	1.008	3.528	.232	4.768
6 " clover hay contain.....	.390	2.094	.096	2.580
40 " ensilage contain.....	.520	5.600	.280	6.400
	1.918	11.222	.608	13.748

Comparing our trial ration to the American standard, we see that it is too low in all its constituents, especially in carbohydrates and total organic matter. If we try to make up the deficiency by means of ensilage or clover hay, our ration will become too bulky; while if we attempt to make it up with bran, the protein will be unduly increased. This would indicate that it is impossible to make a well-balanced ration from the food stuffs selected, and the simplest way out of the difficulty would be to select some grain that is rich in carbohydrates and organic matter, with only a moderate amount of protein and fat. Looking over our list of food stuffs, we find that barley fulfills these conditions, while we might also slightly increase the amount of ensilage. We shall therefore add to our trial ration 2 lbs. of barley and 5 lbs. of ensilage.

Referring to our composition table, we find:

	Protein.	Carbohy- drates.	Fat.	Organic Matter.
1 lb. barley contains.....	.095	.661	.012	.768
2 lbs. barley contain.....	.190	1.322	.024	1.536
5 lbs. ensilage contain.....	.065	.700	.035	0.800
Trial ration contained.....	1.918	11.222	.608	13.748
	2.173	13.244	.667	16.640

As it now stands, the ration is intermediate between the German and American standards, and may be counted approximately correct.

If we wish to find the nutritive ratio of the above ration, we first multiply the fat by 2.2 and add the result to the carbohydrates, thus:

$$(667 \times 2.2) + 13.244 = 14.711$$

Therefore nutritive ratio is 2.173 : 14.711 or 1 : 6.75

The above is only an example of how the standard may be used in formulating a ration, and, from what has been said, it will be seen that a great variety of rations may be compounded, which are practically the same in composition, and which will give equally good results. In every case the feeder must be guided by the kinds of food which he has at his disposal.

The digestibility and nutritive value of a food may vary very much, and the feeder must take this into consideration. Especially is this true of coarse fodders, such as hay, straw, ensilage, etc., the grains being more constant. For example, hay that is well cured is more nutritious than that which has become very ripe, or that has been exposed too much to the weather.

Then, again, animals vary with regard to the amount of food which they are able to assimilate, making it necessary for the feeder to study the individual animals under his care, and to modify his methods according to results.

It will therefore be understood that while a feeding standard is valuable as a general guide, it cannot be blindly followed, and a great deal must be left to the intelligence of the feeder.

In Bulletin 38 of the Wisconsin Experiment Station, there are given a large number of rations used by successful American and Canadian dairymen, of which the following are a few examples:

- (1.) 10 lbs. clover hay, 35 lbs. ensilage, 2 lbs. oat straw, 5 lbs. cornmeal, 5 lbs. bran, 5 lbs. oats.
- (2.) 25 lbs. corn silage, 7 lbs. mixed hay, 4 lbs. cornmeal, 5 lbs. bran, $\frac{1}{2}$ lb. oil meal, $\frac{1}{2}$ lb. cotton-seed meal.
- (3.) 40 lbs. corn silage, 10 lbs. timothy hay, 5 lbs. bran, 3 lbs. cornmeal, 2 lbs. oil meal.
- (4.) 40 lbs. corn silage, 3 lbs. cotton-seed meal, 15 lbs. corn-starch feed.
- (5.) 30 lbs. corn silage, 12 lbs. clover hay, 8 lbs. wheat middlings, 1 lb. oil meal.
- (6.) 10 lbs. clover hay, 5 lbs. timothy hay, 2 $\frac{1}{2}$ lbs. corn fodder, 6 $\frac{1}{2}$ lbs. cornmeal, 2 lbs. oats, 3 lbs. bran, 1 $\frac{1}{2}$ lbs. oil meal, 15 lbs. carrots.
- (7.) 30 lbs. corn silage, 8 lbs. hay, 5 lbs. corn fodder, 4 lbs. oats, 2 lbs. peameal.
- (8.) 45 lbs. turnips, 7 lbs. wheat chaff, 15 lbs. silage, 2 $\frac{1}{2}$ lbs. oats, 2 $\frac{1}{2}$ lbs. peameal.
- (9.) 40 lbs. corn silage, 30 lbs. turnips, 8 lbs. clover hay, $\frac{1}{2}$ lb. straw, 3 lbs. oats, 2 lbs. wheat bran.
- (10.) 30 lbs. corn silage, 12 lbs. hay, 10 lbs. ground oats.

The above rations are not given as models, and many of them will be found very deficient if compared with the standard; but they are mentioned merely as examples of rations that are being used by successful dairymen, and no doubt many of them could be greatly improved.

Essentials to Success in Breeding and Feeding Dairy Cattle.

(A paper read before the Manitoba Central Farmers' Institute by J. C. Snell, Edmonton, Ont.)

(Concluded from page 330.)

Special care should be observed in the feeding of the dairy cow, both before and after calving. If she has been dried off before calving, she should be sparingly fed for a few weeks before calving, and rich food should be avoided; dry food, such as hay, and a little bran to keep her bowels loose, are good enough for those days, and, if she seems to need it, a dose of physic, say one pound or a pound and a-half of salts, should be given a day or two before she is expected to calve. After calving, she should be kept quiet and free from excitement or disturbance; water should be given in only limited quantities for two or three days, and that with the chill taken off it. The calf may be allowed to suck once or twice, but not more, when it should be taught to drink from the pail. After a few days the cow's feed may be increased gradually, beginning with light feed, such as bran and ground oats, adding stronger food as she becomes used to it, until she is put upon full rations of milk-producing food. What that ration shall be is a question which must, to a large extent, be worked out by each dairyman for himself, having in view the means he has of securing the most desirable foods, and their cost from the standpoint of the markets at the time. Of the grains commonly grown on the farm, oats and peas are probably the best adapted to the use of the farmer in feeding his cows; these should of course be ground, and, in my opinion, should be supplemented with bran, which is always a safe and profitable food when the price is at a reasonable figure.

Oilcake-meal in moderate quantity may profitably be added where the price admits. These fed dry upon cut straw or hay, or upon chaff, are perhaps best suited to the circumstances of the majority of farmers in the class of buildings they have, and I am not sure that there is any special advantage in wetting the food before feeding, except that a larger amount of straw or rough feed may, by this means, be disposed of, and when hay is scarce, and warm buildings are provided, this may be an advantage.

In sections where Indian corn can be grown to advantage, the silo and ensilage have been found to serve a good purpose in providing a large supply of succulent food at a moderate cost, and where roots cannot be successfully grown this is one of the best means we know of to provide a substitute. These remarks apply mainly to winter feeding. For summer feeding, while grass is plentiful and fresh, little else is needed to enable a milking cow to do good work, but even then a light feed of grain, say ground oats, with a little oilcake and bran fed at milking time, will add very materially to the milk and butter product of the cow, and she will thus pay for what is given her.

There are times in most summers when the grass fails and becomes dry and deficient in nourishment, when the flies torment the cows, and they are found to be failing in their milk. Provision should be made to meet such emergencies as these, and some green feed should be on hand to supplement the pastures. This may be a mixture of oats and peas or of vetches for the first feeding, and later on of green corn. It is a great mistake to let the cows begin to fail, as it will be hard to get them back to their best work again, and it is a real loss of money, as well as of flesh and milk and butter, which should be checked as soon as observed.

In order to get the best results from a herd of milking cows, separate tests should be made of each cow's milk, to ascertain with certainty just what she is capable of doing as to quantity and quality, either by the churn, which is always preferable, or by what is known as the Babcock test, to determine the amount of butter-fat which a cow's milk contains. By this means the unprofitable cows are found out, and can be removed from the herd, and replaced by such as will give better returns for the food they consume. There is no doubt in my mind that a large proportion of the cows that are being milked in this country are barely paying for their feed and making no profit, while the better cows are being handicapped by having to carry these weaklings, which reduce the average output of our dairies to an alarming extent, and should be consigned to their proper place, the butcher's block.

I have thus enumerated some of what appear to me to be the leading principles essential to success in the breeding and management of dairy cattle. First breed to type, breed for a purpose, and then let the treatment be such as will serve best the purpose. These, together with a rigid application of the principle of "the survival of the fittest," by weeding out and disposing of all which fail to come near to the standard of your purpose, are the surest and safest aids to success that I can conceive of or recommend.

Messrs. D. G. Hammer & Sons, Brant Co., Ont., report securing this season a very successful catch of Alfalfa or Lucern clover. It was seeded in the spring with oats, which were cut for green feed. Their only regret was that they had not seeded a larger area, as it was practically the only grass that survived the drought. All the other clover seeded was killed out entirely. They will go more extensively in Alfalfa next season.

Judging Dairy Products at Winnipeg Industrial.

An innovation introduced by the Winnipeg Industrial management, at the suggestion of Mr. J. A. Ruddick, will prove an incalculable benefit to exhibitors of dairy products, by showing them just in what particular their butter is lacking, whether in flavor, grain, color, salting or finish.

In judging butter and cheese, Mr. Ruddick uses a score card, the score being made up as follows (in the case of butter):—For a perfect sample, flavor counts 45 points; grain, 25 points; color, 15; salting, 10; finish, 5; making a total of 100. In whatever quality defects are detected a proportional percentage is cut off the maximum for that particular quality, and then the total added together.

Just to illustrate, we copy one or two of the lowest scores, and compare them with some of the highest scores.

In the section for 20 pound crock farm dairy butter, there was a very large competition. W. V. Edwards, Souris, got first prize with a score made up as follows: Flavor, 42; grain, 24; color, 15; salting, 10; finish, 5; total, 96. Whereas the lowest score in this section was 68, made up as below: Flavor, 20; grain, 22; color, 13; salting, 10; finish, 4.

In cheese the same plan was followed, and almost as great variation shown between highest and lowest. The Silver Plain Creamery Co., Morris, got the highest score in colored cheese, with a total of 93, while the lowest score made was 69. The scores were made up as below:

	Standard	Highest Score.	Lowest Score.
Flavor.....	45	42	20
Body.....	30	28	26
Color.....	15	14	14
Finish.....	10	9	9
Total.....	100	93	69

These score cards have been made out in full for each entry, and have been mailed direct to the post office address of each exhibitor, and will furnish an interesting subject of study, and greatly assist those who exhibited in improving the quality of their goods. A case in point: a prominent Western dairyman, when told by Mr. Ruddick that his butter was all off in flavor, with a strong, weedy taste, at once exclaimed, "Why, I never thought of it before, but for a couple of weeks, just while making our exhibition butter, we pastured our cows on a piece of summer-fallow that was getting ahead of the plows, and that is where the weedy taste comes from." This weedy taste cut all the butter of this exhibitor down from probably first place to third and fourth, and will be a lesson not soon forgotten.

Provincial Dairy Show.

At a committee meeting in Gananoque on August 20th, there were present from the Agriculture and Arts Association: J. Sissons, Barrie; Joshua Legge, Gananoque; R. McEwen, Byron; W. J. Westington, Plainville; D. P. McKinnon, South Finch; R. Mallory, Frankfort, and H. Wade, Toronto. From the Horticultural Society: M. McIntyre, T. C. Stark, F. Britton, J. T. Green, A. N. Parke, M. McParland, R. Elliott, and W. J. Nuttall. From the County of Leeds: John A. Webster, Lansdowne. From Eastern Dairymen's Association: R. G. Murphy, Elgin. From Creamery Association: D. Derbyshire, Brockville. J. Sissons acted as chairman, and H. Wade as secretary. The chairman explained that the meeting was called to arrange for the running of the show and the appointment of the judges.

Mr. Legge read a letter from the Agricultural Department of the Dominion Government, stating that they were sorry they could not give the Dairy Show any financial assistance this year. Applicants for booths and privileges were referred to the local committee. Mr. Legge explained that there would be stalls for 150 cattle when repaired.

Judges were appointed as follows: For cheese and butter, Prof. Robertson, Dairy Commissioner, Ottawa, and Prof. Ruddick, Ottawa. For dairy utensils, John H. Croil, Montreal. For dairy cattle—Ayrshires, John Douglas, Warkworth; Jerseys, J. C. Snell, Edmonton; Holsteins, J. H. Cook, Aultsville. All to act together.

Messrs. Derbyshire and Murphy were appointed to arrange for the erection of a refrigerator to hold the butter. Instructions were given for the issue of posters, etc.

It was resolved to invite Lieutenant-Governor Kirkpatrick, and the Hon. John Dryden, to open the show on Tuesday, the 1st of October, at 3 o'clock p.m.

The following local committee, by resolution, was appointed:—M. McIntyre, chairman; J. Legge, J. T. Green, M. McParland, and F. Britton as secretary to the committee, and were authorized to appoint a superintendent for the live stock department.

Adding Water to Cream.

Butter coming too fine in the grain is caused by the addition of water to the cream, used to thin it or to raise or lower the temperature. In order to reduce cream to a proper temperature for churning, place it in such a vessel that it can stand in another containing cold or warm water, as the case requires, the cream to be stirred and the water renewed until the right temperature is reached. By adding water to the cream the minute globules of fat are dispersed over a larger area, causing a longer time in "coming" and preventing the grains enlarging, because their surfaces are in contact with water, which has no affinity for oil.

GARDEN AND ORCHARD.

Packing Apples for Export.

We have frequently drawn our readers' attention to the necessity of more honest apple-packing than is practiced by many who have been preparing fruit for export. While Great Britain is well aware of the value of Canadian apples, she finds it necessary to exercise considerable caution in buying our stock, because of the uncertainty of the shipments as to uniformity of size and condition. One John MacLean, of Glasgow, Scotland, writes a letter to a Glasgow paper regarding the present condition of the apple trade, and also offers suggestions for its improvement. He says: "The trade is a great one, and increases by leaps and bounds every year." The latter remark will not apply to 1895, but this only emphasizes the fact that what we have should be more carefully handled. The fruit from this side the Atlantic suits them better than any other that they get. He says our style of barrel, holding from 120 to 140 pounds, is a failure, and is demoralizing the trade in public estimation. He pays us no high compliment when he says that our packers are knavish, and orchard contractors are unconcerned beyond the present commercial considerations, and both are ignorant and unlearned regarding the wants of the people upon whose patronage the prosperity of the trade is depending. Complaints are made that a few inches at either end of the barrels is select fruit, while the centre is filled with any and every sort. The result is that brokers can give no guarantee under their hammer. Even three random barrels in a shipment lot opened is no criterion. Dealers hesitate to purchase uncertain stock. The broker's ledger is creeping with disputed accounts in consequence of misrepresented stock, and what is worst of all, the family man will not buy a barrel at all on account of its quantity (120-140 lbs.), and the uncertainty of the quality throughout the barrel. Occasionally over-ripe apples are shipped which become a dead loss to everyone who touches them, because they are so nearly perished when landed.

Mr. MacLean suggests that instead of the ordinary barrel which is now used, wicker baskets or crates, containing 40 to 45 lbs. each, would cost less money and be much more convenient to the contractor, costing no more freight and transitage, less liable to heat, and more convenient for family purchase. The broker, dealer and consumer could all see and guarantee what they are dealing in. The result of all this would be more apples used in every family, which would immeasurably augment the demand.

There is one thing certain, there is a great change needed. We have the very fruit that the British people want and are willing to pay for, but they will not accept and pay for motley mixed lots for which no guarantee can be given, and no knowledge of what sorts the barrels contain until they are opened and turned out. We have a clean and high reputation for our cheese, and the estimation of our butter is climbing up at quite a healthy rate through the efforts of our dairy commissioner, and there is no reason why our good apples and other fruits, as well as vegetables, cannot be sent over without contamination with what pollutes the whole trade. We do say that much better work should be done with our present package. Every barrel should be branded with what it contains, with positively no humbugging, and shipments should contain uniformly filled barrels. It is also important that the fruit be put in carefully and firmly without bruising or rupturing the skin. Apples can be pressed into barrels so tightly that they will come out with large indentations over their entire surface, and yet no sign of decay; whereas, if the skin is broken, fermentation and decay is certain, due to the entrance of microbes to the juices.

From what we can learn the present style barrel does not take well in Britain, and there is probably more money in sending forward our fruit in smaller packages of neat form. Choice apples are being sent to Canadian local markets this season very generally in peach basket style. The half-bushel wicker crate would do if it were strong enough to be packed in the vessels without crushing, though it would cost a little more freight being charged per cubic foot of space occupied. Fruit in them would not heat, and there would be less chance of the packer putting up a poor article. A half-barrel (called "ventilated") has been made with space between the staves that would probably fill the bill, and we understand had this been a good apple season it would have been on the market.

Sheep in the Orchard.

An easy and effective way to fertilize an orchard that is in grass is to turn in a large flock of sheep; far more than is necessary to eat all the grass. Of course they will have to be fed from outside, which will put mutton on the sheep and manure on the land. By doing this all the wormy, fallen apples will be eaten as soon as they drop, and the sheep will revel in the cool shade of the trees. This practice is not advisable where there are young trees, as the sheep may gnaw the bark, or may rub the trees, which latter will injure the trees by the grease of their fleeces, and the land in which young orchards are growing should be kept in cultivation.

Cold Storage Shipments of Fruit.

Several shipments of peaches, plums, pears, grapes, tomatoes, etc., are to be made from the Niagara district during September, in cold storage, to Great Britain, via Montreal.

Care of the Lawn.

Newly-seeded lawns should be allowed to become well-established before mowing with the lawn-mower. If seeded in the autumn, say about September, and it comes out the following spring in a promising condition, the mower can be started perhaps by the middle of May, but no harm will come by waiting till later. If coarse grass and weeds come up, they can be kept down with a scythe till the lawn grass is well-established, when the mower can be started. At this time the mowing helps the grass by forming a slight mulch, and also tends to thicken it up in the bottom. When the seeding is done in the spring it is generally best not to commence using the lawn-mower upon it before the cool weather of September. The first two cuttings should be done with the mower at the highest notch. In the meantime the coarse growth of grass and weeds may be kept down with the scythe. Impatient ones may think this a slow way of getting a lawn, but in this case it is wise to make haste slowly.

Established lawns require more attention than simply cutting and watering. If the soil contained a liberal amount of fertility at the time of seeding, it will need nothing to enrich it for two or three years. At the end of that time a dressing of fertilizer will keep it up to the previous standard, and it will even become thicker and better if mown frequently and kept moist. After that time a light annual dressing should be given. March or April is a good time to apply it. As an artificial fertilizer, L. H. Mead, in the Country Gentleman, recommends at seeding time four parts fine ground bone or dissolved bone-black, and three parts each of sulphate or muriate of potash and nitrate of soda. If such a mixture is used, it may be better to apply the bone and potash in the fall, and the soda in the spring. Nitrate of soda should never be applied in the fall, because of its extreme solubility. To those who have or can easily procure well-rotted stable manure, nothing else will be necessary. It should be spread evenly as possible and allowed to lie till the warm weather of spring, when it should be carefully raked off. It is well to be careful that the manure contains no foul seeds whose germinating power have not been destroyed by heating.

Every spring some bare spots will be noticed, which should be given a sprinkling of seed, over which a few handfuls of soil should be scattered. A slight dusting of seed over the whole lawn two or three weeks after fertilizing will not be lost. The action of the frost will cause more or less of an uneven surface, which can be easily put into shape by a light raking over, followed by the heavy roller while the ground is soft. If a horse is used he should wear boots. Above all things, in laying out a lawn keep the size down to what can be kept in order without the work becoming irksome. A half-kept or neglected lawn is an eyesore, whereas a well-kept green is a thing of beauty, and takes the place of more expensive decorations.

QUESTIONS AND ANSWERS.

MANGE IN HORSES.

D. C. B.:—"I have a mare about fourteen years old; in good order. Did very little work this summer. She seems to be very itchy all over the body, and has rubbed herself against stumps and trees till she has taken a great deal of the hair off her shoulders and neck. She will get across a big log and rub her belly on it, and scratch herself with her teeth when she has the chance. Can you tell me what is ailing her and prescribe a remedy?"

Mange is a very highly contagious affection. It spreads with amazing rapidity from one horse to another, and the early symptoms are well-described in your letter. It generally commences at the roots of the hair of the mane and tail, and, unless checked by proper treatment, the animal very shortly becomes denuded of hair and presents a bleached appearance, the skin being dry, scurfy, and deeply furrowed, with here and there a few solitary hairs projecting from its surface. At this advanced stage of the malady the skin emits a peculiar odor. A dry, burning heat is present. If the extremities are diseased, the hair upon them will exhibit a dry, ragged appearance, and sores become scabby and ulcerated from the animal constantly rubbing one limb against the other. The general health is affected: appearance, unthrifty and mean-looking. The immediate cause of mange is beyond all doubt due to a species of insect or parasite, known as the "*Acari Equi*," being present upon the skin in immense numbers, and can be readily determined by combing a quantity of scurf upon a piece of black cotton and observing closely the movements of the animal. A common lens will aid the observer. Treatment: Sulphur, in one or more of its various forms, has been a specific remedy against mange from time immemorial; but it depends on the method of application, as by many this disease is considered incurable. Take of sulphur, one pound; mercurial ointment, four ounces; lard, two pounds; olive oil, one-half pint. The above ingredients should be thoroughly combined, and a portion should be liberally applied to every part of the skin. After the first application wash the animal with warm water and soap and apply again. It is seldom that over three or four dressings are required to effect a radical cure. The stable, clothing, harness, brushes, combs, etc., should be scalded and thoroughly cleansed, otherwise the disease will again appear and run a similar course to which it did in the first instance.

DR. WM. MOLE, M.R.C.V.S., Toronto.

POULTRY.

The Type of the Egg Producer.

BY MRS. TILSON.

"Shape makes a breed; color, a variety of a breed," says the Am. Fancier. We see this statement is true, regardless of color's justly great importance, because, for instance, there have long been White, Black, Brown, and Cuckoo Leghorns, and now fanciers have just added a Buff. With two styles of combs—rose and single—and with such different origins and colors, how are they all Leghorns, except in typical shape?

Plymouth Rocks, also, are pea and single-combed, Barred and White; hence, how can the new Buff P. Rock establish relationship, except through similar shape? F. W. Hitchcock, the accomplished poultry judge, told me he judged shape of fowls by comparing each with an ideal carried in his mind's eye. Every breed has an ideal shape, peculiar to itself alone, and independent of color, hence no fowl should use that name unless it possesses its one unchangeable and main evidence. Form is harder to define and recognize than color is, hence should be especially studied.

I have long been considering the type of good layers; because in all animals habits are cultivated and established by their exercise, and parts are developed by use, or remain undeveloped, even shriveling away, through non-use; hence I early believed good layers would be told somewhat by their shape, as well as through their records; then by breeding from hens satisfactory in both ways, laying strains could be established. I consulted many experienced poultrywomen; when I visited a flock, always asking, "How do you select your pullets? What sort of a hen lays best?" From some I got one, from others, two or more signs. All this while I was watching my own flock, and now conclude that I desire in a layer:—

1. Good breast development, because it means use of wings and activity.

2. Width from shoulder to shoulder, measured across at base of hackle, because that is the vicinity of the great respiratory and digestive organs, and we wish to be sure of much and good blood.

3. A fairly long body gives room for reproduction. This must not be confounded with length of back, because position of tail and style of hackle often put short backs on fair-bodied fowls, like Leghorns and Langshans. A prize-winning White Cochins at the Columbian Fair (as her owner, Mr. McNeil, pointed out to me) had no back at all—hackle and tail fairly met; but she had a body—though, of course, a short one. The line measuring length of body should be taken about midway of frame, between top and bottom.

4. A triangular body, apex at rear well tucked up behind, gives no opportunity to attach fat there, where hens naturally do, as one who has dressed poultry and seen the rolls of yellow fat knows.

5. Rather short legs, set well apart, and a firm carriage, indicate vigor.

6. A bright eye and red, tremulous comb show good circulation.

Such a hen as above will make and circulate blood, send it to the desired place, nor waste it running to the neighbors.

When I was mentioning these points, at the Kansas City Poultry Show, to that veteran breeder and judge, Theo. Sternberger, he said: "Come see my Campines, they'll answer your description." I stepped over, and selecting my ideal layer, learned her to be a bird not much more than a year and a-half old, which had already laid over 200 eggs, by actual count. Last summer a White Leghorn of my own, combining in a remarkable degree my favorite characteristics, kindly chose a nest all by herself in the barn. She laid over 60 eggs before resting, laying some of the time every other day, sometimes two days in succession. I first studied crosses and common hens; but when I reached the "standard," saw I had anticipated its main requirements for shape of those great layers, Leghorns, Red Caps, Minorcas, Andalusians, etc.; from amongst which I should always choose the shortest-legged, however.

A late visit to six prominent commission houses in Minneapolis added much to my information on market requirements. One man asked how could be solved the, to him, vexing problem of uniting large chickens and small hens in one breed. He did not buy Cochins at all; because, though restaurants take them for stews, families find them too large, and want a neat five-pound carcass. If not taken by hotels, etc., carcasses of large hens lie around unsold for a week. Hotels have to keep on their bill of fare, "chirpers," as wee chickens are called; but few families afford them till weighing two pounds. Here were some strong points in favor of Wyandottes: Their chickens mature quickly; Armour, I am told, prefers them to all others, while the hens do not grow so large as P. Rocks. The latter will answer requirements pretty well, if all flashing, coarse, overgrowing hens are promptly culled out. White Leghorns, which dress a small, compact carcass, will not be found far behind. The chickens are tender eating, have fine breast meat, grow rapidly, and can, by liberal feeding, be brought to good size in fair season.

Ducks and geese are preferred young; but there is some market for older ones. They are always expected to be fat, hence become rather gross after two years of age.

Hotels take large turkeys, finding they carve to better advantage; and when men like Pillsbury and Washburn give their employees Christmas or Thanksgiving turkeys, they generously order large ones, ten pounds or over; but the great, steady, and most important trade—family trade—wants a medium size—seven to ten pounds; hence White Hollands and Bronzes (only grades) were well spoken of. The message sent farmers was: raise the turkeys early, get quick-maturing but not large kinds, strive for a compact body, and have as fat as possible before sold.

VETERINARY.

Ringworm of Calves.

In the recent issue of the journal of the Royal Agricultural Society, of England, there is a useful article, by Professor G. T. Brown, on the disease commonly known as ringworm of calves, a summary of which we here give. It is a fact, a knowledge of which may create some surprise, that the disease is not in any sense the work of a worm, therefore the name is a misnomer. The disease, which every farmer knows at sight, is the effects of the growth of a fungus in the skin and hair of the calf. It may be well just here to say that a fungus is a cellular flowerless plant nourished through the spawn or mycelium, living in air, propagated by spores, chiefly growing upon decayed organic substances or soil, arising from their decomposition. It is highly probable that when the designation ringworm was given the disease, even scientific men believed the disease to be due to the action of a worm, but now it is thoroughly understood to result from the action of a fungus which does not penetrate beneath the surface skin, although the secondary effects of the irritation thus set up reach beyond the local derangement, and according to their intensity act and react on the nervous and nutritive functions, and thus injuriously effect the health of the subject.

The ringworm fungus grows with equal luxuriance on rotten wood, in malt, or in gelatine and kindred substances, and there can be no doubt that its continued existence on a farm is due to the vitality of the spores of the fungus lodged in the bark of trees, gateposts, or in other places against which cattle affected with ringworm are disposed to rub themselves. A careful experiment has proved that the spores are active eighteen months after their removal from the skin of a diseased animal, even if exposed to severe frosts for a period during that time. These facts clearly point to one department in which great care in disinfecting must be exercised. The disease would be greatly circumscribed in its ravages were all such seats of its incubation thoroughly cleansed with lime wash after a preliminary washing with a disinfecting fluid such as Bordeaux mixture or a solution of sulphate of copper. A top-dressing of lime should be applied to all grass lands where calves with ringworm have been grazed; manure and litter charged with the products of ringworm should be burned, or put out of the way until they can be plowed in; and as the fungus thrives best on putridity and what is moist, all that is putrid and moist should be removed and strict sanitary regulations enforced. It has already been observed that an improvement in the animal's condition is invariably associated with a rapid decline of the disorder. Cleanliness in outward condition, and a thriving state of individual health, will do more than anything else to ward off the disease of ringworm.

While ringworm is a disease that runs its course, and if the stock be reasonably healthy, will sooner or later exhaust itself in from six weeks to three months, farmers cannot afford to wait for this, and there are remedies well-fitted to accelerate a cure. The object of all remedial measures is to render the affected part unfriendly to the growth of the parasite. Thoroughness of application is as necessary in this case as in any other. The course followed by the disease is such that a cure is much more likely to be effective at a later than at an earlier stage of its history. The best cure for ringworm, however applied, is active inflammation. First of all clear away all crusts, scabs or scurf which protect the fungus. The currycomb, and plenty of soft soap and water, will accomplish what is needed in this case, and the stuff removed should be destroyed by quicklime, or better still, by fire, to prevent the disease from spreading. Applications of the following agents should be made to the parts most affected:—Bichloride of mercury (corrosive sublimate), ammonio-chloride of mercury (white precipitate), chloride of zinc, perchloride of iron, tincture of iodine, sulphurous acid, and acetic acid, and should only be used sparingly, and where the disease is most virulent. The others may be used, with ordinary care, with perfect safety. Any strong disinfecting fluid, mixed with vaseline or glycerine, applied with a brush, answers well. Carbolic acid, mixed with four times its bulk of sweet, linseed, or castor oil cures with two or three applications. As, however, prevention is better than cure, the most effective method of dealing with ringworm is to thoroughly cleanse and disinfect every place, nook or cranny in which scurf, hair or scales may lurk, thoroughly washing all of them first with disinfecting fluid and thereafter with lime wash.

THE HELPING HAND.

Handy Farm Contrivances and Methods.

Upon almost every farm there are some handy, original devices, or improved methods and practices not generally known, which, if given to the public, could be utilized by others in rendering farm management more economical and remunerative. This department is intended to bring out such information for the benefit of our readers, and is to be maintained by them in holding out a helping hand to their fellow-workers by the interchange of descriptions of labor saving tools and contrivances, particular ways of management, original and successful experiments tried, or any other feature in connection with farming not generally known.

To encourage subscribers to contribute to this department of the FARMER'S ADVOCATE, we offer a cash prize of \$2 for the best, and a second prize of \$1 for the next best contribution received prior to the 15th of each month. These and other contributions deemed of sufficient merit will be published as rapidly as our space will permit, but will not necessarily appear in order of merit. Compensation according to our standing offer for accepted matter will be allowed for suggestions published, but not awarded a prize. The decision in every instance will be final. Suggestions must be written upon one side of the paper with pen and ink, and must bear the contributor's full signature and address. They must be as short and concise as possible, 100 words being just as good or better than 500 if they tell the same story. Where an illustration will assist in making a description clearer, a rough pen sketch should accompany it on a separate sheet from the written matter. Every contributor must be a subscriber to the FARMER'S ADVOCATE. These contributions must not be mere reproductions of what have been published elsewhere. What we want is original matter. Plan sufficiently ahead so that the contributions will be as seasonable as practicable.

The following received from one of our readers recently, illustrates one class of articles suitable for this department:—

Keeping Up Fertility Without Live Stock.

SIR,—While stock feeding and rich land always go hand in hand, there is a way of managing to obtain a salable crop every year with very few more animals than is necessary to do the work, and at the same time increase the fertility and mechanical texture of the soil. This could be accomplished by the use of artificial fertilizers and other purchased manures, but that is not the method to be dealt with in this article. While the ploughing in of any crop improves the mechanical condition and also adds fertility to the soil, there are some of the so-called soiling crops that have more value than others. Such crops as buckwheat, rape, rye and corn ploughed under obtain their plant food almost entirely from the soil in which they grow, and therefore add very little fertility. The improved crops that follow such manuring is largely due to the improved mechanical condition, which allows the roots to spread out and go deeper for their food than if the soil had been more soggy and solid. Not only that, but much of the fertility which was already in the soil (but not available to the growing crops) was rendered soluble by the action of the decaying crop after being ploughed in. This being the case, an opportunity of growing a soiling crop of any kind should not go unimproved. There is not a grain field which, when cleared, but will cover itself with a soiling crop before winter, if it is well worked up and sown to rape, buckwheat, or corn, which, if ploughed down, will produce better crops the following years than heretofore.

It is, however, now well-understood that there is a class of crops that do not depend entirely upon the soil for the gaining of fertility, but reach up, as it were, and extract from the exhaustless store of nitrogen in the air, and take it to itself to feed its own growth, and also store up a quantity in the roots for the following crops. Among this class of crops—the legumes—we find the clovers, which, if judiciously grown year by year, will build up land until as large crops can be grown as will stand up till harvested. Now, the beauty of using any of these soiling crops is, that no season need be lost, but each year a selling crop can be taken off and sold. The rotation to be recommended is clover, peas and wheat, or clover, beans and wheat, or clover, potatoes and barley, or clover, corn and oats—any of these according to the adaptability of the land to their growth. Whatever else is grown, clover must not be left out, and to grow this well the land should be thoroughly drained. To get the best results the grain crop, be it wheat, barley, or oats, should be seeded with clover in the spring. After harvest nothing should be allowed to run upon it, but just before winter the mower should be run over pretty high, leaving the cut stubble and clover to lie as a mulch to protect the clover roots. The following summer, in most years, a good crop of clover hay can be taken off, which, if cut at the proper time and well-cured, will be a profitable crop. Now, a great many people think they must have the second crop or aftermath, but just here is where a mistake is made. If potatoes, beans or corn are to be grown the next season, it will do best to allow the second clover crop to stand or lie until the spring, when as good as a heavy coating of stable manure can be ploughed in. If, instead of one of these hoed crops, grain is to be grown (peas, for instance), the clover would be as well ploughed down in the fall, because if ploughed under in the spring, and a dry season follows, the land will be kept too open and will dry out, but, with a hoed crop, surface cultivation will retain the moisture. Of course there will be some straw, but if box stalls are used for the working horses, much of it can be turned into manure each year, and when rotted should be spread with a manure spreader upon the knolls that show a need of it.

S. J.

SHOWS AND SHOWING.

Toronto Industrial Exhibition.

About as striking an evidence of the success of the coming Toronto Industrial Exhibition, so far as the extent of the display is concerned, as could well be afforded may be found in the fact that it has been necessary to erect two large tents on the grounds to accommodate goods for which room could not be found in the buildings. In one of these, located directly to the west of the music pavilion, will be shown a large and miscellaneous collection of manufactured goods. The other, just south of it, will be devoted to wooden ware, washers and wringers.

Live stock entries closed on the 17th; a very large number coming in just at the last. The total volume is greatly in excess of any previous season, and ensures a very fine and thoroughly representative display in cattle, horses, sheep and swine. Nearly all the leading stock farms and stables of Ontario will be in evidence, together with not a few entries from Quebec and the United States. There will be a choice showing of Shorthorn cattle, and the milk breeds will be especially well represented. The display of horses will be superior to anything yet witnessed, more especially in the Thoroughbred, trotter, carriage, and saddle-horse classes.

The agricultural produce display will be augmented by a collection of grains and grasses from the Province of Manitoba, furnished in accordance with special instructions of the Provincial Minister of Agriculture, which will exemplify the productive capacities of the Province.

A feature of special interest to farmers and dairymen is the milking machine imported from Scotland, which acts upon the suction principle, and effects a great saving of time in dairying. It has been thoroughly tested and pronounced highly satisfactory by experts.

Preparations are going on actively for the great water fête to be given on an artificial lake in front of the grandstand. A great variety of special attractions have been secured, including many gifted vocalists, musicians, acrobats, and all kinds of specialty artists. The Fair begins on 2nd September, but the formal opening, by Lieut.-Gov. Kirkpatrick, will take place on the following day.

Quebec Provincial, Montreal.

The Provincial Exhibition which is advertised to take place in Montreal from the 12th to 21st Sept., and which is to be opened to the world, promises to be one of the most successful fairs that has been witnessed in that city for many years past. The entries are coming rapidly, and the various committees organized are now at work. The buildings have been materially improved and extended. They are receiving a new coat of paint, while each portion of them will be tastefully decorated. Handsome prizes, such as medals, as well as prizes in cash value, will be given for the best exhibits. Persons desiring information should communicate at once with the Manager and Secretary, Mr. S. C. Stevenson, 76 St. Gabriel St., Montreal. The Horticultural Department has been entrusted with the decoration of the grounds.

Among the prizes offered in the Sheep Department—Class 35, Oxfords—are in section 8, for the best pen of four lambs of either sex: \$25, \$15 and \$10. In Section 9, for the best yearling ram, \$15 and \$10; for best pair yearling ewes, \$15 and \$10. These prizes are given by the American Oxford-Down Sheep Record Association.

In the Swine Department—Class 40, Berkshires—a special prize by the American Berkshire Association will be given. It will consist of the first ten volumes of the "American Berkshire Record," and is valued at \$50. These prizes are offered for the best breeding pen of Berkshires, registered in the Berkshire Record, to consist of a boar and four sows over one year of age, owned by a resident of the Province of Quebec.

A special prize of a gold medal has also been awarded for the best design of a diploma, suitable for an Exhibition. The horse Committee has considerably improved its department this year, and has built some one hundred new stalls; several new features have likewise been introduced.

New stalls have been built for the cattle department, while the sheep and swine pens have been enlarged and considerably improved.

The Percheron Stud Book of Canada are offering a special prize, consisting of a silver medal, for the best Percheron stallion exhibited.

A gold medal is offered for the best Hackney exhibit, while a prize, consisting of \$30, is offered for the best pair of matched carriage horses 15 1/2 to 16 hands high (no cross allowed) and to be driven by owner in a gentleman's carriage.

A gold medal is also offered for the best road turnout, also a gold, silver and bronze medals offered in the high jumping contest. In Section 8—Fat Cattle for Export—an additional prize of a medal is offered to the winner of the first prize. In the Poultry Department new coops are being added, while the building is being extended.

The Montreal Provincial Exhibition is offering a number of special prizes in the dairy department, with a view to stimulate every branch in the dairy industry. The building appropriated for the exhibit of dairy products and utensils has been well-fitted up and repainted, and refrigerators, which will be kept well-iced, have been erected at great cost. There is to be a special competition open to syndicates of butter and cheese factories, under the care of an inspector having one or more years' experience. The prizes for the inspector are to be \$10, \$30, and \$20, and for the syndicate, \$100, \$75, and \$50. There will also be a competition open to syndicates or cheese factories, under a new inspector (first year's experience), for which the following prizes are offered: For inspector, \$30, \$20, \$10; for the syndicate, \$75, \$50, \$25. In either competition each factory must exhibit one ordinary export cheese, white or colored, made between the 1st and 15th August, 1895. There will also be a competition open to butter factories, each to exhibit a tub, barrel or box of butter, made between the 1st and 10th September, 1895. The prizes to be offered for this competition are: For inspector, \$40, \$30, and \$20; for syndicate, \$100, \$75, and \$50. Uniformity of exhibits will be one of the chief points considered in judging, and this will apply as well to packing and furnishings as to the quality and nature of the exhibits. The points which fit butter and cheese for export will be the only ones taken into account.

The Hon. Commissioner of Agriculture has awarded special prizes for essays written by practical farmers; those on butter and cheesemaking, by makers, directors, or proprietors of cheese and butter factories. First, second and third prizes of \$30, \$20, and \$10, will be given for essays on each of the following subjects: "Making of Cheddar Cheese," "Butter-making," "Raising and Fattening Swine," "Feeding and Fattening Sheep," "Feeding Milk Cows," "Cultivation of Mangolds," "Cultivation of Carrots for Fodder," "Making and Care of Farm Manure," "Plowing and Subsoil Plowing," "Artificial Manures and their Uses." The competitors must exhibit sheep if writing the essay on sheep, or pigs if competing in the pig essay, the same with cattle essays. Each competitor in the last three sections must exhibit grain, vegetables or fruit grown by himself. Entries made after Aug. 26th must be made on a separate entry form, and pay the regular fee. No entries will be accepted after the opening of the Exhibition. Lack of space forbids further publishing of rules and regulations, which can be obtained from S. C. Stephenson, Manager and Secretary, 76 Gabriel St., Montreal.

Bay of Quinte Exhibition.

The Bay of Quinte District Agricultural Exhibition will be held at Belleville, Ont., on Sept. 17th to 21st. From the Secretary and Manager, Mr. J. M. Hurley, we have received a copy of the extensive prize list, rules, regulations, etc., from which it appears that this show is being conducted with a great deal of enterprise. A special announcement is made regarding it in another column, to which attention is directed. It deserves success, and should prove a healthy stimulus to agriculture in the district.



HIS FRIEND'S DECEIT.

There was a dejected look on Paul Gardner's face as he seated himself at his writing-table, and, in spite of himself, a sigh escaped him. He had come to the parting of the ways in his existence—was now confronting the fact that the career of honor, ease, and usefulness which, three or four years ago, he had mentally mapped out for realization, was impossible of attainment. His hopes were dead. Only one thing remained for him to do now. But that was surely the hardest of them all! That was the primal cause of his dejection; and that was the source of his sigh. His lip quivered, and his fingers trembled as he stretched forth his hand and took up a pen. For a moment he toyed nervously with it, as if unable to trace the necessary words on the paper before him. Then he wrote:—

"Dear Brenda,—My heart fails me as I begin this task, but honor compels the conviction that it is a necessary one. By the time this reaches you, I shall be many miles upon my journey. It seems but yesterday since I settled here and opened my doors for the reception of patients. I had some £2,000 then, and I believed that by judicious management, it would suffice until I had made a connection. In spite of energy, frugality, and, I believe, skill, my practice has yet to be begun. My waiting has been in vain, and my brass-plate insufficient to attract the practical attention of those requiring medical aid. Now I have come to the end of my resources, and I must leave you—you whom I love better than life. I have made up my mind to woo Fortune in a foreign clime. I know you love me, and the recollection of the many happy hours we have spent together will, in the future as in the past, be a cheering incentive to me in my work. But I dare not ask you to wait my return. I hope for success, but I had hoped for it at the outset, and the future may possibly be as unpropitious, and the hopes as visionary as those of the past. No; however powerful my inclinations, justice to yourself compels me to relinquish the claim I have hitherto had upon you. Consider yourself, then, dear Brenda, under no obligation to your old love. Pray for me, and may God bless you. Ever yours in heart,

PAUL.

It was written at last. He dare not breathe a good-bye—dare not utter one of those terms of endearment he had been so accustomed to use. His heart was quickly sinking within him. To pause for a moment would be a fatal hesitation. He did not read the letter through, but placed it quickly in an envelope and, hurriedly directing and sealing it, deposited it on the mantelpiece out of sight, as if he would fain forget its existence. At that moment the door opened, and Paul looked up as his friend, Mark Trevor, entered.

"Come in, Trevor, and don't mind the confusion," he said. "I'm glad to see you, as I was just going to look you up."

"By Jove! Then you really intend leaving us?" said Trevor, elevating his eyebrows and attempting a smile. "I thought when you mentioned it last week, that it was the outcome of impulse and disgust. But, my dear fellow, why this haste? And Miss Heathcote—Brenda! You surely—"

"Trevor, don't. At times, as I think of her, my resolution wavers, and yet I know I am right in what I am about to do."

"But is she not aware of your departure?"

"No, neither can I tell her verbally. Her tears would make me weak, and I want to spare her, as well as myself, the pain of saying farewell."

"Farewell! Nonsense. You'll get an appointment out there on landing, and in a few months at most you'll be back again for your bride," and a cloud, evidently the outcome of contemplating such a possibility, obscured Trevor's face.

A silence of some moments followed. Then Trevor resumed his gait, his face lit up with hope, and his eyes scintillated with more than ordinary brilliancy.

"Well, well," he said, "you know your own affairs best, I suppose, and, after all, you're only doing what an honorable man ought to do. But if I can help you in any way, don't be afraid of commanding me. I'm at your service, Gardner, although I don't suppose you have any commissions to give."

"Yes, I have. You can do me a great favor, old fellow. I—the fact is I am just a bit short of funds, and—if you could see your way to lend me, say, £50, I should be uncommonly grateful. One never knows what may happen, you know, and, all going well, I will return it in the course of a few months."

"Certainly! I'm glad you mentioned it, my boy. It would never do to cripple yourself at the outset by being short of the ready. I'll lend it you with pleasure. When do you start?" he asked, eagerly.

"In the morning—early."

"Fact is, I haven't the money by me, but I can get it in an hour. D'Arcy owes me fifty, and promised to let me have it this morning without fail. I'll just run round and get him to draw the cheque in your favor instead of mine, and—"

nothing but imprisonment awaited him. And it turned out as he feared. Trevor denied every word of Gardner's statement, even going to the length of saying that they had never met on the day that Paul stated the cheque was handed over to him. His intended flight, and his arrest just as he was about to leave the country, were construed into evidence against him. He was committed for trial by the magistrates, and eventually sentenced to three years' imprisonment.

For months Mark Trevor shrank at the thought of going near Brenda Heathcote. In spite of his craft and duplicity he could not summon the necessary courage to confront her, but eventually sought her out, and endeavored to persuade her that her impressions were false, that Paul was deserving of his fate, and that he—Trevor—was much injured by being dragged into the horrible affair.

"Explain that telegram," said Brenda, showing him the wire Paul had contrived to send her. "Explain that. I believe every word of it, and I know the man who sent it too well to think that, even in misfortune, he would make such a charge falsely against one whom he had professed to honor."

Trevor took the wire, and his face turned ghastly white as he read the words, "Beware of Trevor—he is at the bottom of my ruin. Am innocent."

"When did you receive this?" he inquired.

"On the night, or, rather, early morning, of his arrest. I know the reason you betrayed him, and, evidently, Paul did too. The reason he wired me was to prevent all possibility of your diabolical plot succeeding so far as your intentions with me were concerned. Now, go, and never seek my face again. Only remember, that those who suffer innocently may make even their suffering a stepping-stone to future success, while those guilty of such offences as yours must eventually sink deeper in crime."

It was a memorable morning when the young doctor found himself once more at liberty. The very thought that he was free was almost sufficient to overwhelm him; and as he confronted the traffic of the busy streets, he could scarcely credit the fact that he would not be summoned to continue the daily routine of prison life. Beneath his desire of vindication there lurked an inclination for revenge—and Paul knew it. Forgive! No, he could scarcely do that. How he longed to see Brenda!

How would she counsel him to act? Should he go to her? He scarcely knew. He required time for thought. After procuring suitable clothing, he repaired to one of the parks and sat down upon a seat. The thoroughfare he had chosen was well-nigh deserted, and Paul was soon lost in the intricacies of thought. He had just determined that he would not visit Brenda until he could take convincing proof of his innocence, when his privacy was intruded upon. Two men, supporting the tottering form of an elderly gentleman between them, came up to the seat.

"You are ill, sir," said Paul, making room, and assisting the old man into a comfortable posture.

"Ye—yes—I—I'm very ill," was the reply.

"Can I be of any service to you? I am a medical man."

"Then—as you value suffering humanity—follow to my residence," and the man brokenly whispered his name and address.

"What is the name of the doctor attending Mr. Easton?" Paul asked of the attendant as soon as he arrived.

"Barrow, sir," replied the man. "And between you and me, sir, I believe there's something wrong between him and Mr. Mark. He's broken-down, drink-ridden beast, sir, and Mr. Mark won't hear of anyone else being called, and—"

"Who is Mr. Mark?"

"Mr. Easton's adopted son. He ain't no relation, sir," said the man, subduing his voice to an almost inarticulate whisper. "but he's the master's heir, and—"

"Enough," said Paul. "See, take this prescription to the chemist, and bring back the medicine at once. Then run round and ask Dr. Roose Feldter to come here instantly: it is a matter of life and death."

The man set off at once, and speedily returned with the requisite medicine, and then went as requested for the specialist. When the eminent scientist appeared, Paul, without more ado, asked him to make an examination of the invalid, and to state what he considered was the nature of his complaint. Several minutes elapsed, then, taking off his pince-nez, Dr. Feldter said:—

"I see by the remedies you are employing that we have both arrived at the same conclusion. You are giving chloral!"

"Quite right. This condition is owing to the cumulative properties of strychnine."

"So I conjectured. The patient seems easier now; may I have a word with you in private?"

The two were conducted to an elegantly furnished dressing-room, and, in a few moments, Paul announced his belief that Mr. Easton was being slowly but deliberately poisoned. The specialist looked exceedingly grave, but counselled him to take up his quarters in the dressing-room and await developments. An hour after Dr. Feldter's departure, two men entered the bedroom. A cry of horror almost escaped Paul, as he saw from his hiding place that one of these was Mark Trevor, and the other, he had no doubt, was doing his bidding. The dominated medical man who was broken-down, morphia-sad story, and a week later, his name stood in his patient's will in the place recently occupied by that of Mark Trevor. Nor was this all. A sudden fame attached itself to him, and with Dr. Roose Feldter as his patron, his professional career was quickly established.

Trevor and his accomplice were sentenced to a long term of imprisonment. On conviction, the former at once made a written statement, completely exonerating Paul from the offence for which he had suffered; and only two days later, Paul and Brenda were together.

"Proof of my innocence, darling," said he, producing the document.

"I do not need it," she replied. "I knew it."

THE CHILDREN'S CORNER.

A prize will be given in January for the best short original fairy tale. The writer must not be more than sixteen years of age. Send the stories, with name, age, and address of writer, to Cousin Dorothy, FARMER'S ADVOCATE, London, Ont.

DEAR COUSIN DOROTHY,—

I am going to tell you what we have on our farm. We have 19 milch cows and 25 others, 5 horses, no sheep, 2 dogs, 1 cat, and a lot of mice. My eldest brother is Harry, and the next is John, that is my name, and next is Violet, and the next is Fred. Harry is 9, John is 8, Violet is 4, Fred is 2. There are many pretty flowers on the prairie—lilies, buttercups, daisies, roses, cowslips, maiden hair. Age, 8 years old.

I remain, yours truly, JOHN NEWMARCH.

[Not a bad letter for such a small boy; do they call you Jack or Johnny? Do you know that cat of yours is lazy. Perhaps you give it too much milk. Why don't you make it work for its living? The Manitoba prairie must be beautiful if all the flowers you mention grow wild. Four stories have arrived during the last fortnight, but only one is a real fairy tale, written by L. Welber, Peterboro, Ont. We have not room for any of them this month. I have also received letters of thanks from prize winners. COUSIN DOROTHY.]

Pearl and Daisy.

(Continued from page 345.)

"I don't quite like being princess here!" said Margaret to herself. "I can't do as I like, and my bed is so hard! Besides, I get tired of dry bread every day, and cold milk and water; and, oh! I hate mutton-chops for dinner always!" So saying, she slipped off another pearl from the silken string, which rolled away out of the gilded door. When Margaret followed it, and opened the door, she found herself in a very strange room. The four corners were filled with terrestrial and celestial globes. A huge blackboard filled one side of the room, and the other walls were covered with shelves containing lexicons, grammars, and courses of study on all the "ologies" then known or invented. It was a long time ago, and, of course, there were not nearly so many as the poor children have to learn now.

Margaret found that her pretty dress had changed into a dark blue blouse and skirt, perfectly plain. Then in came Professor Steinherr and Herr von Krakenfelt to give the Princess Bluet her morning lecture on the art of government, and the codes of law of all countries under the sun. Margaret felt her head more than once, in the course of her morning's lessons, to see whether it were still whole, and her tutors evidently thought that something was wrong, for she heard Professor Steinherr mutter to his colleague that "Princess or not, she was a dummkopf!" and Herr von Krakenfelt quite agreed with him for the first time.

After a very unappetizing dinner, Frau von Mittelheim gave her a lesson on the deeper mysteries of knitting a stocking, and Fraulein Banda helped her to embroider a tobacco-pouch with beads. Then, again, more lessons till bed-time. In fact, all was solid, not to say stupid. "I shall die here, or go into an everlasting nap, like the Sleeping Beauty," yawned Margaret; "so here goes for another change, but I shall try a daisy this time for variety." So saying, she chose a large ox-eye and shook it till all its leaves fell off. As the last petal dropped the walls crumbled round her, the books and globes vanished, and she found herself sitting on a wild common by a fire of sticks. An old woman gave her a rough push, saying: "Go out, Rita, there's some folks coming, and you can, maybe, sell 'em a basket, or tell their fortunes for 'em."

Poor Margaret hung back, frightened at the wild scene, and horrified at her own attire—a ragged frock and a thin, patched shawl. Her feet and head were bare.

"I should like some dinner," she murmured, "I am very hungry."

"You idle good-for-naught," shrieked the old woman. "Here, take that; it's all you'll have to-day, my lady!" So saying, she flung at her a half-picked bone and a crust, which Margaret was too hungry to refuse. After a week spent with the gipsies, she one day received a sound beating from the old woman, then, resolving to bear it no longer, she shook another daisy, and at once found herself in a wretched garret in London. Here she was ever in a worse condition, her frock was quite as ragged and even more dirty—clean water being a great luxury. There were no stolen fowls or ducks there, and some days she had to be content with but one scanty meal. Her play-ground was a muddy court, where all the forlorn children of the miserable alley met and quarrelled over their toys—some oyster-shells, bones, and a brick-bat!

One evening she saw Jim, the little sweep, aiming a sharp stone at a sparrow perched on the wall. She caught his arm, and the sparrow flew off unhurt. "Poor little bird," said Margaret; "why did you try to kill it? I used to save up my crumbs for them when I was at home."

"Did you?" said Jim. "How kind of you, to be sure! As you are so obliging, just stand still a minute and see if I can hit you!" As he spoke a sharp flint came skimming by her head. This was more than Margaret could bear, so, putting her hand in her pocket, she drew out her silken string, and dropped another pearl, which rolled out of the door. As she stepped across the threshold after it she found herself in a stately garden. Beside her walked a terrible old lady in a huge hoop and with powered hair. "Your Royal Highness must hold your head up," said she, sharply; "and, dear me, I fear you will be humpbacked if you don't keep your shoulders back better. Miss Muffet, fetch me

Princess Gracia's back-board and collar. Your Royal Highness must wear them out-of-doors, as well as in, for the future!"

Poor Princess Gracia! She was allowed no peace for fear of spoiling her fine figure. She had to lie down for hours on an incline plane; wore a back-board and a steel collar when she worked or read. She stood in the stocks to make her turn out her toes properly. Two hours each day Monsieur Kit taught her dancing, and two hours besides did Madame Agile exercised her in calisthenics. If she dared to run or jump, one of her tutors would cry, "Oh, how sad! Your Royal Highness will never be graceful if you throw your limbs about in that fashion." If she lounged back wearily in her chair, Madame Agile would shriek, "Bring the department-chair for the Princess; she will be crooked, she will have a hump!" And then the poor child was forced to sit on a high seat with a very high and straight back, so that she could only perch on it with great care and pains.

[TO BE CONTINUED.]

Archimedes.

FROM THE ORIGINAL PAINTING BY NICCOLO BARABINO.

None of the old philosophers has invested his memory with more of storied interest than Archimedes. Born 287 B. C., he became the friend and most useful servant of Hiero, king of Syracuse. He was philosopher, astronomer, geometrician and practical inventor. It is probable that his more abstract pursuits were those in which he himself took most delight; and no doubt some of his wonderful inventions would never have been made but for the pressing demands of King Hiero. Among the first of a series of remarkable stories that have come down to us concerning Archimedes is that relating to a golden crown which the king had ordered, and the metal in which, he suspected, had been alloyed. The problem was to detect the imposition, and he finally laid the task upon Archimedes. Stepping one day into a bath-tub brimful of water, the displacement of the water suggested to the philosopher not only a method of testing the question as to the crown, but opened to him a line of investigation which led to the discovery of his celebrated theorems. The joy of his pregnant thought was so great that, forgetting all else, he leaped out of the bath, and, without stopping to dress, ran through the streets crying, "Eureka! Eureka!" ("I have found it"). He afterwards made for his royal friend various engines of war which proved most serviceable to the city in a time of siege. He is said to have set fire to the ships of the enemy by an ingenious arrangement of mirrors, whereby he focused the sun's rays after the manner of a powerful burning-glass: this story, however, lacks confirmation. Archimedes superintended the building of an immense ship which was partly propelled by a screw; and he invented a simple but ingenious screw-pump, which proved very useful in his own day and is still in use, being called, in honor of the inventor, the Archimedean screw. He was an enthusiastic student of the stars, and constructed, with peculiar satisfaction to himself, a kind of orrery which exhibited the various movements of the heavenly bodies. He possessed that power of intense and prolonged concentration of thought which is often an accompaniment of extraordinary mental gifts. Socrates, for example, is said to have stood for a day and a night in one spot, wholly absorbed in thought. In our own century the philosopher Hegel was quietly elaborating his philosophy in his house at Jena while Napoleon was cannonading the city. The roar of cannon, clatter of artillery and cavalry, groans of the dying, and all the terror and confusion of such a scene, did not disturb his mental absorption; it was only when he had completed his task and went into the street and was seized by French soldiers, that he apprehended the situation. When the Romans took Syracuse, Archimedes was absorbed on one of his profound problems. The din of strife fell unheeded on his ear. The rush of the victorious enemy through the streets, bent on pillage and slaughter, disturbed him not. Soldiers discovered his retreat and looked curiously at him for a moment, possibly taking him for a madman; but he saw them not. Then, alas! sword and spear did their bloody work, and the brightest light of the age was extinguished. Marcellus, the Roman commander, learned with sorrow of the philosopher's death, and gave him an honorable burial.

Niccolo Barabino was born at Pier d'Arena, near Genoa, in 1833, and studied art in Florence. He has achieved distinction as a painter of history.

His works exhibit a fertile invention, correct design, and harmonious coloring. The original painting of the death of Archimedes is in the Orsini Palace, Genoa.

THE SOCIAL CORNER.

Under this heading, communications relating to the home or any subject of interest will be published and questions answered.

MINNIE MAY.

"DESPERATION."—Bad breath may come from either the teeth or stomach; if from the former, all cavities should be filled and the teeth brushed daily, for which purpose a mixture of tincture of myrrh and prepared chalk will be found excellent. If the offensive breath arises from the stomach, the cause must be removed by proper medical treatment.

M. M.

"BEATRICE K."—It is not proper for a young lady to call on a young gentleman at any time except on business, and even then she should not go alone. The only gifts considered proper for a

"RUSTIC MAIDEN."—The capes used for spring and fall wear this year reach only to the waist line, while many are even shorter. White shoes are in good form for street wear only with a full white suit.

M. M.

"MAGGIE MAY."—John Greenleaf Whittier, the Quaker poet, was born at Haverhill, Mass., in 1807 A. D., and died in 1892 A. D. His poems show great simplicity and appreciation of nature, while his sympathies were largely for civil and religious liberty. One of his best-known pieces is "The Barefoot Boy." Dickens was born in 1812 and died in 1870.

M. M.

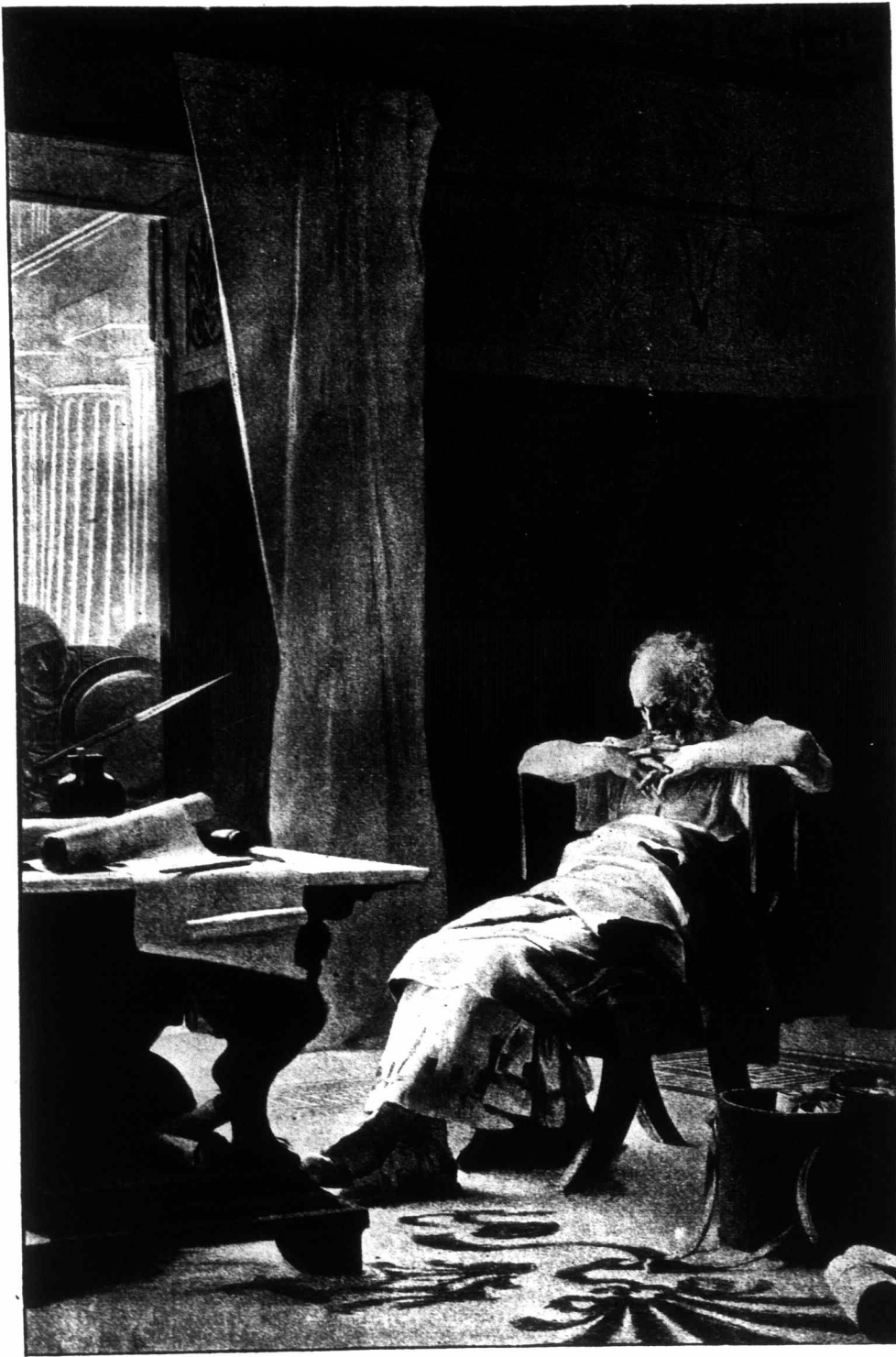
MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,

I have just returned from a most enjoyable visit to the "City of the Thousand Islands," and I can imagine no more delightful spot in which to pass the summer months. Brockville is situated in a sort of opening in the rocks, which rise gradually until they attain a height of fifty feet, either side of the town. On the west side in these "High Rocks," as they are generally called, are numerous small caves, safe from the visit of the most adventurous tourist; safe even from the intrusion of the reckless small boy in search of birds' eggs, who will hesitate a long time before he will let himself down with a rope over the side of a perfectly perpendicular wall, to be repelled by that intense darkness which can be felt when he *does* reach the opening. On the smooth surface of one of these rocks can still be seen the traces of a picture painted by Indians of the Huron tribe more than a century ago. It represented two white men falling out of a canoe paddled by Indians. The story runs thus: In the time of the wars between England and France, when each was striving for supremacy in the New World, a party of Hurons took prisoners two Englishmen, and started to row them down to Montreal, where they were to be given up to the French. A little above Brockville a violent storm came up, and the Indians were compelled to throw their prisoners overboard to lighten the canoe. They soon shared the same watery grave as their victims, for just as the canoe passed the High Rocks it capsized, and all its occupants—one of whom was a renowned Huron chief—were drowned. Other members of the Huron tribe regarded this as a just punishment for their cowardice in throwing their captives overboard, instead of reserving them for sacrifice, according to their brutal custom, and in memory of this deed the picture was painted on the face of the rock near which the catastrophe occurred. For nearly a hundred years members of the same tribe came annually to re-paint the picture and there make sacrifices to propitiate their gods with barbarous ceremonies in keeping with their rude faith.

From the main street, which runs parallel with the river, cross streets slope gently down to the water, and at the terminus of each of these streets you are sure to find a "boat livery," for the Brockvillians are so fond of their lovely river that it is reckoned that one-tenth of the population at least have boats of their own. Day after day, in favorable weather, you will see canoes, skiffs, and boats, propelled by men, women, and children, going up and down between the town and the islands, or across to Morristown, on the opposite shore. Yachts of all sizes steam their way along in an intrusive, business-like manner; the large propellers, with all their passengers and freight, do not look one-half as important as some of these saucy little yachts! A sailing yacht is a different creature entirely; time is of no consideration on board one of these crafts. I was one of a picnic party on a yacht to sail to an island seven miles distant. We started about three o'clock in the afternoon, and having failed to reach our destination by nine, gave it up and sailed for home, which we reached about midnight, more than satisfied with our outing. Even if we did not reach the island of our choice, we had had a delightful sail, and what more could be desired?

"Another day we had a jolly picnic at an island called "Black Charlie." A dozen of us paddled up in six canoes, landed, and at once went to work to get tea. We chose a nice flat rock for our table and laid the cloth; around this the men placed the boat cushions for seats; then they went off to build a fire on the shore, no insignificant affair, but a tall, stately bon-fire, made of three immense branches of pine, set up in the form of a triangle! Around this



ARCHIMEDES.

gentleman to give a lady to whom he is not engaged are fruit, flowers and books. It would be better for the lady not to receive even these unless from a very particular friend.

M. M.

"NITA."—The birth-stone for February is the amethyst, and it is supposed to give sincerity of speech to the wearer; that for March is the blood-stone, which signifies courage.

M. M.

"CONVENTIONALITY."—The initials R. S. V. P. attached to a note or letter request an answer, being the abbreviation of the French phrase "repondez, si vous plait," which means "answer, if you please." The other letters, P. P. C., are also abbreviations of the phrase "pour prendre conge"—"to take leave."

M. M.

"LORNA DOONE." To make lemon butter, beat six eggs, one-fourth pound of butter, one pound of sugar, the rind and juice of three lemons together, and cook by setting in a pan of hot water and stirring constantly. If not thick enough, a sufficient quantity of cornstarch may be added. This makes an excellent filling for layer cake.

M. M.

we all gathered after tea, and not until nothing of it remained but ashes, did we leave the island and return to our canoes, to drift home in one compact line, with "never a sound but the waves' soft plashing, as the boats drift idly the shore along," in silence so intense that we were almost relieved when it was broken by the noisy whistle of an impertinent little yacht, though we owed her a grudge for intruding on the stillness.

"All dark and silent, each shadowy island
Like a silhouette lies on the silver ground.
While just above us, a rocky headland
Towers, grim and dusk, with its pine-trees crowned."
MINNIE MAY.

UNCLE TOM'S DEPARTMENT.

MY DEAR NIECES AND NEPHEWS,—

Holiday time is over! Ere you read these lines the old home will have ceased to echo the gay voices of the young folk and their friends. Both have gone back to the "classic shades" of their different schools and colleges, and an unwonted stillness has fallen on the scenes of their happy vacation. I hope the breathing-space they have taken will send them back with renewed energy and vigor, with firmer hope and higher aspirations, to their daily round of work.

But my lads and lasses who help to work father's farm may object and say: "We have had no holiday time; this is our busiest season." My dears, I do not think you need it so much as those who have come to visit you. Now, do not think your old uncle is thoughtless or inconsiderate for you. Have you ever read the fable of Antæus? Antæus could not be conquered while he was in contact with his mother earth. Every time he was thrown down he rose with increased strength and renewed the combat. "In the world's broad field of battle" the combatants need to come into contact with Mother Nature, who will refresh their powers and give health and courage to carry on the struggle. Those whose work is done in the busy haunts of men have not your advantages, who can each day

"Go forth under the open sky and list
To Nature's teachings."

So be glad that you can bring them into communion with Nature, while the thoughts and ideas of the school and workshop that they share with you give you companionship with your fellow beings.

This companionship is necessary for all of us, so that each may help the other and all work together for the good of all. So you, my older nephews and nieces, go back to your work or your school and try to make use of all the fresh, bright thoughts you have gained in your vacation; and you who stay at home, do your work on the farm or in the house as you would wish to do the greatest task that could be given you, remembering that "all labor is noble and holy."

For the little ones I wish I had space to quote the story of the bluebell,—but I shall tell it to you in a few words: A little white bell-shaped flower grew in a narrow cleft between two high walls of rock. These walls were so high that the little white flower could see only a narrow strip of the beautiful blue sky. How the flower looked up to it and rejoiced in a bright golden star that rose in the azure dome each evening and threw its light into the deep ravine! After a time a change came over the white blossom, but only to make it more beautiful: its white bell became blue and inside of it shone a little golden star.

"Now, little people, sweet and true,
O find a lesson here for you
Write in the floweret's bell of blue.

"The patient child whose watchful eye
Strives after all things pure and high
Will take their image by and by."

The names of winners for solutions are not yet ready, but will probably appear in next issue. I was pleased, Charlie, to receive once more one of your bright letters, and hope you have really "come to stay." No, indeed, Sadie, you are not too young to begin puzzling; many of the puzzlers started as young as you.

I expect to receive many letters and essays in our new competition. Every one try; there's nothing to lose, but something to gain. Don't you pity one who has had no holiday about which to write? Such a one is your poor old

UNCLE TOM.

Annals of Christian Heroism.

From the days of the Apostles to our own days, the annals of Christian missions have been the annals of Christian heroism. St. Paul's account of his own ministry has been again and again repeated. He describes himself as "always bearing about in the body the dying of the Lord Jesus," and as having fellowship in Christ's sufferings. And this intimate connection with Jesus Christ in His Passion is the note and the temper of all true missionaries, and in not a few cases the correspondence is carried out to the very last extremity. The spirit of self-sacrifice is shown, perhaps, most completely in the willingness, after years of toil, to dispense, if it be God's will, with proofs of success. Our practical English temperament prompts us to insist upon tangible results as a test of the value of spiritual work. But although such results are a blessing and an encouragement for which a man may well thank God, yet their absence is by no means a proof that no real work has been done. The seed which is sown in one generation must take time to mature, and will only bear fruit in the next. Long before the Roman Empire became Christian, the air, so to speak, was filled with

Christian ideas. The Christian creed was discussed and rediscussed by those who did not yet hold it; and while stray conversions took place in all ranks of life the mass of the people remained apparently attached to the old paganism. In the middle of the third century, not more than one-twentieth part was Christian. In the next century the conversions came with a rush; the ground had been prepared, the seed had taken root and matured—Canon Liddon.

Puzzles.

1—CHARADE—(A medley).

Oh where, oh where have the old friends gone,
Oh where, oh where can they be?
In sadness TOTAL I seen our page
But never a one can I see.

Come to me, Lily D.,
Come, old friend, Charlie E.,
And you two old cronies, Reeve and Sir Fair B.:
Ada Smithson, Thomas Banks,
Can't you quit your naughty pranks
And return into the ranks
Of Uncle T.?

Once we had Irene Craig,
Irvine D.,
M. Smithson, Georgie Blyth,
Harry D. P.,
All in our circle gay—
Hadn't we fun?

But they won't play in our yard,
Oh pray, what have we done?

When I think of the friends of my youth,
Whom I greeted some LAST year's before,
It quite makes me sigh for the days gone by;
Oh, will they not greet us once more?

The clever posers in the "Dom,"
First often times remind us,
Our memory fondly wanders to
The friends we've left behind us.

Come back, come back, we cry in grief,
Come singly, or in dozens,
And bring again the good old times
My cousins, oh! my cousins.

ADA ARMAND.

2—CHARADE.

My FIRST's a toilet article
We all use every day;
My SECOND the greatest egotist,
As anyone will say,
My THIRD is a community;
Now cause these three to meet,
And you'll agree that it will be
A curious COMPLETE.

X. Y. Z.

3—TRANSPOSITION.

Eh yarethp steb ohw tovelh tel s
Lal hngsit hobt targe dan samll,
Fro eth egart Gido hwo hovelt su,
Eh edam dna sevol emth lla

4—CHARADE.

"FIRST all you do be faithful,"
Is a maxim good and rare,
The SECOND will grow upon you
Ah, foster it with care;
Go watch the little FINALS
And a lesson it will be,
That will make you worthy TOTALS
Of Canada the free.

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The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or bluish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.
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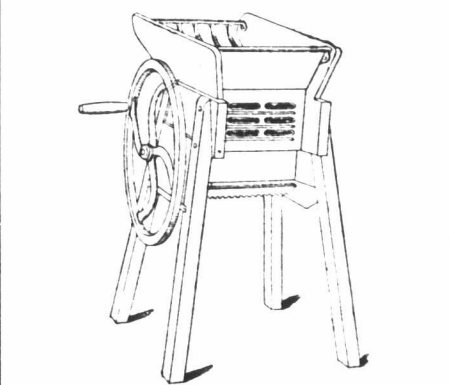


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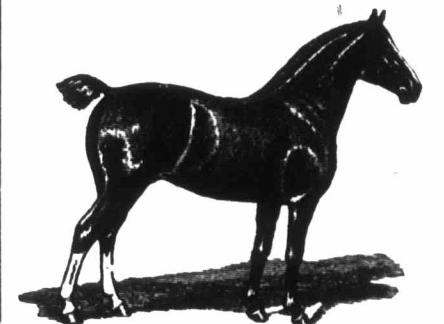
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5-y o

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H. CARGILL & SON,
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11-y om

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FOR SALE Young Heifer in calf, and Heifer Calves. The Golden Drop bull, Golden Nugget 145, by imp. General Booth 666, 6133, at head of herd. **WM. GRAINGER & SON, Lonsdaleboro, Ont.** 13-y om

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Novel and new attractions. Reduced rates on all railways.
H. M. WARSHIPS IN HARBOR.

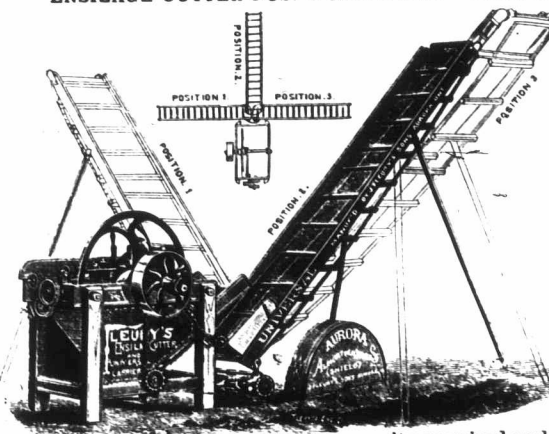
S. C. STEVENSON,
Manager and Secretary.
Send for Prize List. 12-1f-om

BAY OF QUINTE DISTRICT FAIR
—HELD AT—
EXHIBITION PARK, BELLEVILLE.
September 17, 18, 19 and 20, 1895.

\$2,000 OFFERED IN PRIZES
For all leading breeds of Horses, Cattle, Sheep, Swine, Poultry, etc.; also Large Prizes for Cheese and Dairy and Agricultural Products.
First-Class Attractions, Fireworks and Parade of 14th Battalion at Night.
For Prize List, Programme, and all information, apply to
W. N. PONTON, M. A., J. M. HURLEY,
President. Mgr. and Sec.

Stock Raisers' Machines of all Sorts.

ENSILAGE CUTTER NOS. 6 AND 8 AND "UNIVERSAL" CARRIER.—Patented.



Cutter the heaviest and strongest of any made. Runs by belt or by rod from front or rear. Cuts several lengths. Feed rollers can be stopped or reversed instantly. Cuts 6 to 10 tons of corn per hour. Special Lever for stopping carriers at any time instantly. Is finished the best possible in every way.

Carriers can be run in position 1 or 3—which are directly opposite—or at any position between, and can be moved to any position in a minute, without taking out so much as a bolt, screw or nail. The only Perfect Carrier. No. 8 Cutter and Carrier—Capacity 10 to 15 tons per hour.

To insure fulfillment of order in good time, order before required. Ensilage Cutters of from 2 to 5 tons capacity per hour. Straw Cutters, from hand Cutters to

very large sizes. Write us.—State capacity required and power to be used. S. C. Mason, Manager Bothwell Dairy Co., writes:—"I have found your Ensilage Cutter (No. 6) far ahead of any other I have seen. We cut from 80 to 90 tons per day with it." Mr. F. H. Elliott, Todmorden, writes re No. 8 Ensilage Cutter:—"I have cut from 12 to 15 tons per hour with it. It is beyond doubt the best machine for its purpose in the market." In reference to Mr. Elliott's No. 8 Machine:—"It beats everything we have hitherto seen, etc."

(Signed) Peter Aitcheson, P. Kelley, Robert Peel, Joseph Burton, M. O. Coners, Frank Smith, Adam Spears, John McGuire, Geo. Cook, Henry Colburn, Edward Colburn, Richard Cook, L. Martin, Moses Logam, James Yule, Daniel Jebson.

SEE US AT TORONTO OR LONDON FAIR.

J. FLEURY'S SONS, Aurora, Ont.

The Wilkinson Plough Co., Ltd.

Trade "W" Mark TORONTO. Trade "W" Mark
22 Different styles of Walking Ploughs; built of the best material that can be purchased, by men thoroughly conversant with the business, and each one a STANDARD plough, eagerly copied and imitated by our rivals. Can a farmer hesitate from whom to buy his plough? Which will you have? The genuine or a poor imitation?
THE GREATEST CHOICE! ABSOLUTE SATISFACTION!!
REASONABLE PRICES!!!

We hope to meet all our friends at the Fairs: Ottawa, London, Toronto.

TWO POINTS WE ARE PROUD OF:

OUR MOULDBOARDS—The best United States Soft Centre Steel. Can't be approached on this continent.

OUR CASTINGS—Of a mixture which knows no rival for durability and toughness. Mouldboards all bear our name in full in the steel at the back. Every casting has a "W"; an absolute guarantee of merit.

LAND ROLLERS, STRAW CUTTERS, ROOT PULPERS AND SLICERS,
ALL KINDS OF WHEELBARROWS, DRAG AND WHEEL SCRAPER,
RAILROAD AND HIGHWAY PLOUGHS, POTATO DIGGERS, ROAD PLANERS.

FIRST ANNUAL...

Provincial Dairy Show

UNDER THE JOINT AUSPICES OF
The Agriculture and Arts Association of Ontario,
and the Cananoque Horticultural Society,
To be held on the Fair Grounds, in the Town of
GANANOQUE, CAN..

On Tuesday, Wednesday and Thursday,
October 1st, 2nd and 3rd, 1895.

Prizes for Dairy Cattle, Products and Appliances.
Entries close on Saturday, Sept. 14th, 1895, in time for Catalogue, and should be addressed to HENRY WADE, Secretary, Toronto. 17-b-o

For Sale at a Bargain.

Several CHOICE Shorthorn cows and heifers in calf to "Commodore." Also young bulls in nice shape. And young Berkshires of both sex. WM. RIVERS, Successor to R. Rivers & Son, Springhill Farm, 13-1-y-o-m WALKERTON.



SIMMONS & QUIRIE.

Shorthorn Cattle, Berkshire Swine—Money-making Sorts.

The matchless bull, ROYAL SAXON = 10537 = (by Imp. Excelsior), 1st at Toronto, 1894, heads the herd, with BARMPTON M. = 18240 =, by Barmpton Hero = 324 =, in reserve. Female representatives of the celebrated Mina, Strathallan, Golden Drop and Mysie families.

The Berkshires are choice, prize-winning stock. Easy to feed, quick to sell.

Stock for Sale. C. M. SIMMONS, Ivan P.O., Ont. 1-1-y-om JAMES QUIRIE, Delaware, Ont.

MAPLE HILL HOLSTEIN-FRIESIANS.

Have you the blood of the great butter cows, DeKol 2nd, Empress Josephine 3rd, Mechtild and Pauline Paul, in your herd? If not, why not? The demand for this blood exceeds the supply. Speak at once if you want some of it 1-1-y-om G. W. CLEMONS, St. George, Ont.

HOLSTEINS AND YORKSHIRES.

None but the best are kept at BROCKHOLME FARM, ANCASTER, ONT. R. S. STEVENSON, Proprietor.

Write me for prices if you want first-class stock at moderate figures. Holsteins in the advanced registry. Yorkshires all recorded. 13-1-y-om

I NOW OFFER FOR SALE 6 YEARLING DAUGHTERS OF Colanthus Abbeckerk

(whose five nearest female ancestors average 28 lbs. 14 ozs. of butter in seven days), safely in calf to Bonnie Queen's 3rd, Pieterje Netherland, the richest-bred bull of his age in this country. Who will have them at hard-times prices? I have not yet seen their equal. Also young cows and calves for sale at any time. Write for description and prices.

H. BOLLERT, 3-1-y-om Cassel, Ontario.

SEE our Holsteins at the Fairs. SEE those cows and heifers. SEE them milked—be convinced. SEE their capacious udders, veins, etc. SEE the result of systematic breeding and feeding. SEE great sires; great dams; great offspring. SEE us if you want to buy such. Also some Poland-China Pigs; same quality (the best).

A. & G. RICE, Brookbank Stock Farms, CURRIE'S CROSSING, Oxford Co., Ont. 19-1-y-om

MEET ME at the INDUSTRIAL, TORONTO Will again make a representation of Holstein-Friesians, mostly young stock. Only in breeding condition. Have also a very choice lot of Tamworth swine on hand. 7-1-y-om A. C. HALLMAN, New Dundee, Waterloo Co., Ont.

SUNNYSIDE HOLSTEIN-FRIESIANS Choice animals, either set, all ages, for sale at any time. Correspondence solicited. Address: McDUFFEE & BUTTERS, Stanstead, P.Q. 16-7-om

GEM HOLSTEIN HERD STOCK FOR SALE BY HELLIS BROTHERS, BEDFORD PARK P.O., ONT. Three miles north of Toronto, on Yonge Street. Electric cars pass our gate. Inspection invited. Correspondence solicited. 7-y-om

JOHN NEWMAN & SONS, Box 221, Lachine, Quebec, breeders of Ayrshire Cattle and Carriage Horses. We have a choice young two-year-old bull and a yearling, bred from imp. cows and from our grand stock bull Glencoe, fit to top any herd; also yearlings, bull calves and heifers of all ages. Prices to suit the times. Write or call. 15-1-y-om

WM. BUTLER & SON, Dereham Centre, Ont., breeder of Guernseys and Ayrshire Cattle; also Chester White and Duroc-Jersey Swine. Our cattle have been selected with care from the best of milking strains, and we will now offer for sale a grand Guernsey Bull, fit for service, the winner of first in Toronto, Belleville and Ottawa; also one Ayrshire and one Jersey Bull Calf. The dam of the latter tested 8.20. Both are fashionable colors. For the next thirty days we will allow 25% discount off price in order to reduce our stock of swine to make room for exhibition stock. Choice young stock from imported and sweepstake herds. Write for catalogue, description and price list. 7-y-om

Champion Dairy Herd of Ayrshires at various government tests. Prize winners at the World's Columbian Exposition, Chicago. Write MESSRS. ROBERTSON & NESS, Howick, Que. 19-y-om

GLEN ROUGE JERSEYS WILLIAM ROLPH, Markham, Ont., offers Twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right. 21-y-om

JERSEY-CATTLE Of the heaviest milking strains. One of the largest herds in Canada; bred closely to the great dairy cow at Chicago, also the famous two-year-old. Sires of both were sold from this herd. Also Welsh Blood Ponies for ladies' and children's driving. Stock for sale always on hand. GEO. SMITH & SON, Grimsby, Ontario. 3-y-om

\$40 will buy a beautiful grand-son of One Hundred Per Cent., registered A.J.C. C., eight months old. His dam is a grand cow, seventy-five per cent. St. Lambert. F BIRDSALL & SON, Bird-sall, Ont. 11-1-y-om

Pure St. Lamberts

YOUNG BULLS fit for service, and bull calves sired by Jolie of St. Lambert 3rd's Son, 29731, and Lady Fawn of St. Anne's Son, 25703. The get of these two bulls have swept everything before them at the Toronto, London, Ottawa and Quebec Shows of 1893-4. Dams of the young bulls are daughters and granddaughters of

The Famous St. Lambert Cows, Jolie of St. L., Pet of St. L. and Lady Fawn of St. A. Farmers! If you wish to double the butter yield of your herd, buy a pure St. Lambert Jersey bull. The St. Lamberts, for size, constitution, and wonderful production of milk and butter, lead all other strains known. PRICES VERY LOW. Apply to W. A. REBURN, St. Anne de Bellevue, P.Q. 20-y-om

JERSEYS FOR SALE

At the head of the herd is the grand young St. Lambert bull, Nabob, son of Nell's John Bull. Stock of both sexes and different ages, and of choice breeding, now on hand. JONATHAN CARPENTER, WINONA, ONT. 13-1-y-om

A.J.C.C. FOR SALE. Two bull calves, 5 months old. Medium Fawn, from fine tested cow, sire St. Lambert of Arkfost 36343; Arkfost, by One Hundred Per Cent. 16590, full brother to Stoke Pogis 3rd, sire of Mary Anne of St. Lambert. Price \$38 each, worth \$75. Express prepaid. H. E. WILLIAMS, Sunny Lea Farm, Knowlton, P. Q. 17-1-y-om

JERSEYS, STANDARD BRED HORSES. Chocily bred Stoke-Pogus and St. Lambert Jerseys. Standard-bred and Road Horses for sale. DR. E. P. BALL, Rock Island, Que. 17-y-om

Ingleside Herefords!

ANXIETY 4th - - - THE GROVE 3rd. LARGEST HERD IN CANADA. An extra lot of young bulls for sale. H. D. SMITH, Ingleside Farm, G. T. R. Station, 2 1/2 miles. COMPTON, QUE. 17-1-y-om

WM. J. RUDD, Eden Mills, Fairview Stock Farm, breeder of Choice Devon Cattle, Cotswold and Suffolk Sheep, Berkshire Pigs, and Plymouth Fowl. Young stock of the above, and of the best quality, always on hand. I can also furnish a carload of Cotswolds, shearing rams and ewes of the choicest quality. Write me for particulars. Shipping—G.T.R. and C.P.R., Guelph. 13-1-y-om

GUERNSEYS This is the Dairy breed for ordinary farmers. Large, vigorous and hardy, giving plenty of rich milk. Imported Bull Benefit, son of Vice-Pres. Morton's famous butter cow Bienfaitrice 4th, heads the herd. Address: SYDNEY FISHER, Alva Farm, Knowlton, P.Q. 17-y-om

GUERNSEYS The grandest of all dairy breeds. CHOICE BULL CALVES For Sale. Also 40 grand Improved Yorkshire pigs from 4 to 6 months old. Stock, prices and pedigrees right. Come and see or write. 20-y-om W. H. & C. H. McNISH, ELM GROVE FARM, LYN, ONT.

SHEEP BREEDERS' ASSOCIATIONS. American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEV-ERING, Sec., Lafayette, Indiana. 3-1-y-om

THE GLEN STOCK FARM Shropshires We will sell at moderate prices a number of Yearling Rams and Ram Lambs, also a choice lot of yearlings and two-year-old Ewes and Ewe Lambs. Our herd of Ayrshires are in splendid form, and parties in need of young stock of either sex will do well to see what we have to offer before purchasing elsewhere. WHITESIDE BROS., INKERRIE, ONT. 7-y-om

ADVERTISE IN THE ADVOCATE

Largest Flock of SOUTHDOWNS in the Dominion.

Bred from ROYAL and WORLD'S FAIR winners. Awarded Twenty Premiums at World's Fair, Chicago. Show sheep and field sheep, of both sexes and all ages, for sale at prices to suit the times. Specimens will be exhibited at Toronto Show. Address, JOHN JACKSON & SONS, ABINGDON, ONT.

"Best Quality with Greatest Quantity" STILL THE MOTTO AT MAPLE SHADE.

OUR Shropshire lambs are not numerous, but they are of good quality and good size. We still have left also a few strong, smooth, home-bred yearlings of good breeding and character. Our Shorthorn Calves are developing finely, and present the characteristic quality and thick flesh of the typical Cruickshank Shorthorn. Prices moderate; if you doubt it, write and believe. Address—JOHN DRYDEN, Brooklin, 16-2-g om (30 miles east of Toronto.)

SHROPSHIRE FOR SALE.—A number of choice imp. breeding Ewes, from noted English flocks, also home-bred shearing rams and ewes. Correspondence solicited. 15-1-f-o W. E. WRIGHT, Clonworth, Ont.

JOHN A. MCGILLIVRAY, Jerseydale Farm, Uxbridge, Ont., Midland Div. C. T. R., importer and breeder of Dorset Horned Sheep 19-1-y-om

MAPLETON STOCK FARM. A carload of PURE-BRED OXFORD-DOWN YEARLING RAMS. A few young ewes, also ram and ewe lambs for fall trade. 5-1-y-om HERBERT WRIGHT, Box 47, Guelph, Ont.

OXFORD-DOWN SHEEP Rams and ewes of all ages for sale. Singles or trios (not akin) or in carload lots. Prices to suit the times. Nothing but "Royal winning rams" used. Won many honors at "World's Fair." Won highest honors through Canada and other in-formations. All registered. Railway and Telegraph. Guelph; Railway and Telephone. Arkell. HENRY ARKELL, 9-1-y-om Arkell P. O., Ont.

SMITH EVANS, Gourock, Ont. Breeder and im-porter of registered Oxford-Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited. 5-1-y-om

To Stockmen & Breeders. LITTLE'S PATENT: FLUID NON-POISONOUS SHEEP DIP AND CATTLE WASH. For the destruction of Ticks, Lice, Mange and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc. Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy. The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock: "MAPLE SHADE" HERDS AND FLOCKS. BROOKLIN, ONT., Sept. 4th, 1890. DEAR SIR,—I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested, I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders. JOHN DRYDEN. Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to ROBERT WRIGHTMAN, DRUGGIST, OWEN SOUND, Ont. Sole Agent for the Dominion. 7-1-y-om

See the Exhibit

OF SASKATCHEWAN BUFFALO ROBES MANUFACTURED BY NEWLANDS & CO. Galt, Ontario,



IN THE CARRIAGE BUILDING, INDUSTRIAL EXHIBITION, TORONTO; ALSO IN THE MAIN BUILDING, OTTAWA. 17-a-o

VALENTINE FIGHT,

MAPLE LEAF FARM, ORIEL, ONT., Breeder of Scotch Shorthorns, Clydesdale, and Shire Horses; Cotswold and Shropshire Sheep; Yorkshire Hogs. Young stock for sale at hard times prices. Young bulls supplied in carload lots. 7-1-y-om Write for particulars.

FOR SALE. Six Leicester Shearing Rams, \$12 each; also Ram Lambs. One Shorthorn Bull Calf (red), nine months old, \$75. Also young Cows and Heifers VERY CHEAP. 17-d om MUNCO McNABB, Cowal P. O., Ont.

FOR SALE. A choice lot of Shorthorn—bulls & heifers—of good quality and of the most approved breeding. Show animals a specialty. The accompanying cut represents Fair Queen 2nd, the foundation of my herd. Her produce offered for sale. Come and see us, or write for particulars. JOHN MORGAN & SONS, KERWOOD, ONT. 21-y-om

NOTICES.

We direct the attention of our readers to the advertisement in another column of Steele, Briggs Maroon Seed Co., Toronto, who announce seed wheat for this season's seeding. Communicate with them at once for circular and other information. There will be a large area of winter wheat sown this season, and special care should be taken in deciding not only on good varieties but in selecting the choicest possible samples. It is not many years since people were beginning to wonder what they would do for fences when timber became scarce and dear. They little thought that something much better and more economical than ever rails and boards had been would rise up to take their place. At this age, even though rails were as cheap as ever they were, it would be a poor plan to separate fields by the old zigzag structure, as they harbor weeds and rubbish, occupy a great deal of land, need frequent repairing, blow down and allow stock into the grain, cause snow blockades, and finally sink into oblivion, or summer fire wood. Yes, this inventive age has given us something better in the Lock and Wire Fence Co., from the Toronto Picket Bessemer Steel Wire No. 12. It is safe, firm, visible to stock, and easily put up.

HOW TO GET "SUNLIGHT" BOOKS. Send twelve "Sunlight" Soap wrappers to Lever Bros. (Ltd.), 43 Scott St., Toronto, who will send post-paid a paper-covered book, 160 pages. By leaving the ends of the parcel open, it will go for one cent postage. Remember "Sunlight" now sells at six cents per twin bar.

FREE LUNCH. We have much pleasure in calling the attention of our readers to the advertisement of the People's Wholesale Supply Co. in this issue. We have all confidence in the manager, R. Y. Manning, and you can rely on finding everything as represented. We have personally visited 35 Colborne St., and found everything in a thorough business going shape, and we doubt if there is a man in Toronto who stands higher with the wholesale trade than does Mr. Manning.

GOULD, SHAPLEY & MUIR CO.'S WINDMILLS. Messrs. Gould, Shapley & Muir Co., Ltd., Brantford, Ont., manufacturers of the celebrated "Ideal" steel Windmills for pumping and power purposes, inform us that although they are very busy filling orders, they intend making a first class exhibit of their goods at both Toronto and London Fairs. They have new patent features, to which they invite close attention. This enterprising firm have put up an extensive galvanizing plant, and furnish both wheels and towers galvanized after completion. BEST FOR MAN OR BEAST.

Owen Sound, Ont., Jan. 18, 1895. The Lawrence Williams Co., Cleveland, O.: Gombault's Caustic Balm is the best in the world for both man and beast. Would not be without it. F. & G. MONNELL.

STOCK GOSSIP.

We draw attention to the advertisements of Herron & Dufour, Putnam, who can supply Poland-Chinas, Chester Whites and Tamworths; H. Revel, Woodland Farm, Ingersoll, Tamworths and Poland-Chinas; John S. Revel, Putnam, and Andrew Dunn, Ingersoll, Tamworths. Look up their advertisements, then go and see their valuable herds.

Mungo McNabb, Cowal, Ont., writes:—"The shearing rams I advertise are strong, lusty fellows of good size and well-wooled. They have never been grain-fed and are just in splendid condition for work. They are sired by Billie 517, A. L. B. A., bred by Nicol Bros. Plattsville, the dams of many of them being sired by the imported Royal winner Excelsior 356. The produce of Billie 517 have been shipped to every province in the Dominion, and have always pleased the buyers. The Shorthorn calf is an extra good one; very deep red in color; sired by Starlight; bred from Bampton Hero stock, his dam being a cow of Bates breeding and an extra good milker."

Mr. J. C. Snell, Edmonton, Ont., reports an increasing demand and recent satisfactory sales of Cotswold rams, for the shows and for breeders. Enquiry for carloads of rams for the Territories are more numerous than for years, and the outlook is encouraging. Berkshire pigs are in steady demand from a large field, extending from the far south to the extreme west, and there is large demand for Jersey cows and heifers. The Jersey cow has stood the drouth wonderfully well, and though the quantity of milk has fallen lower than normal, the quality has stood the test, and the churn has registered a surprisingly steady supply of firm and golden colored butter; truly a wonderful cow is the Jersey.

MR. W. S. HAWKSHAW'S SHROPSHIRE. We recently had the pleasure of calling on Mr. W. S. Hawkshaw, of Glanworth, one of the leading Shropshire importers and breeders of Canada; in fact, we should say of America. We found the flock in good thrifty shape, and numbering at present some two hundred head, including lambs. The breeding ewes are a large, well-wooled, uniform lot, and are from the best flocks of England and Ireland. This year's crop of lambs are from a choice imported ram, and are an even, nice-qualified lot. Mr. Hawkshaw does not fit for the show ring, but his stock is well and most favorably known to sheep men throughout Canada and the United States, and frequent shipments are made to the West, South, and other points. Now is the time for the lovers of the golden hoof to obtain from leading Canadian breeders imported stock, and the descendants of some of England's best blood, at unheard-of prices, and it is only a matter of a little time until good, substantial prices will be again realized, as mutton and wool are on the rise on the other side, and sheep men of the West are becoming encouraged, hence an inevitable demand for good sheep at paying prices.

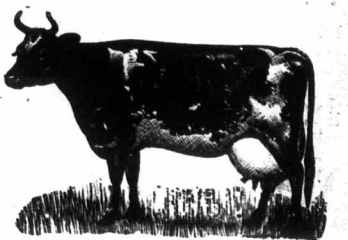
MR. SYDNEY FISHER'S GUERNEYS. Beautifully located on Broom Lake, near Knowlton, is Alva Stock Farm, the property of Mr. Sydney Fisher. The farm comprises some 400 acres, but only a small portion is under cultivation, the rest being land and pasture. The lovely grounds face Broom Lake on two sides, and is artistically laid out with ornamental and shade trees; gravel walks, bordered by well-kept cedar and spruce hedges; while in the background the beautiful residence gives the finishing touch to the picture, which in the writer's mind left little to be desired as a home. Mr. Fisher takes great pride in his Guerneys, for which he has the best of accommodation. The barns are large, convenient and well-arranged, while an 81 x 33 ft. stable accommodates the milking cows. A new barn, 30 x 26 feet, was under construction at the time of our visit, which was being fitted out mostly in box stalls for the calves and younger stock. The herd consists of some forty-five head (twenty-five registered and the rest being high graded), and are of a useful type and good milking, judging from their udders and other milking signs. Mr. Fisher informed us that some of his cows have tested as high as 6 and 7 per cent. butterfat; and he considers them model dairy cows. Others, also, who have tried Guerneys speak highly of them, and no doubt when they become better known throughout the country they will be very favorably received. The foundation stock of this herd are of Sir John Abbot's and Governor Morton's (of New York) breeding. Benefit, the stock bull, is a grand one. He was selected from the herd of Mr. Morton, along with four heifers; his dam was one of four that took the sweepstakes for largest butter producers, against all breeds at New York. A very fine yearling bull, Nerous, was seen by Benefit, and from Nerous, a cow of Mr. Abbot's stock. This young bull has grand milking points, is in fine trim, and gives promise of some good work in the show ring. In the next stall was another very fine young bull, Queen's Benefit, under one year, by Benefit, dam Queen of the May. This bull is very thrifty, has a fine skin, and is remarkably large for his age, and at the same time retains a smoothness and finish not often found in one of his age. Some of the best cows are: Narisa, the mother of the above young bull, Queen's Benefit. Narisa usually gives about 45 pounds of milk when in full flow. Sea Foam and Evelyn Star are cows of a grand dairy type; and Nora, a cow of Mr. Abbot's breeding, has tested 7 per cent. butterfat. A number of fine bull and heifer calves were seen, sired by Benefit and Rosanna's Florist, a bull in use last season, of the Abbot stock. Mr. Fisher contemplates coming out to the leading fairs, and we expect to hear a good account of his stock.

NOTICE.

A WARNING TO SMOKERS. For some time past certain dealers have been selling inferior brands of tobacco when "T & B" is asked for, thus not only trading on the reputation of the manufacturers but also injuring the sale of the article. The Geo. E. Tuckett & Son Co., of Hamilton, have taken the matter in hand and intend prosecuting the offenders. Smokers should be careful to see the "T & B" stamp on each plug, as to gain extra profit, unscrupulous dealers tear the tag off other brands and say it is "T & B" and "just as good."



W. C. EDWARDS AND COY
IMPORTERS AND BREEDERS.



PINE GROVE STOCK FARM,
Rockland, Ont.
SCOTCH SHORTHORNS.

The imported Cruickshank bulls Knight of St. John and Scottish Sportsman are at the head of this herd of imported and home-bred Cows & Heifers of the most approved Scotch families.
JOS. W. BARNETT, Manager.

ELMHEUR ST STOCK AND DAIRY FARM
CLARENCE, ONT.

Shorthorns, Shropshires and Berkshires. Our flock is from the choicest English flocks, headed by the ram sent out by Mr. Thos. Dyke; also milking Shorthorns, with imported bull Pioneer at the head of the herd.
HENRY SMITH, Manager.

Laurentian Stock AND Dairy Farm

NORTH NATION MILLS, P. Q.
Ayrshires, Jerseys and Berkshires. Imported Emperor at the head of a grand lot of imported and Canadian-bred Ayrshires; also St. Lambert Jerseys and Imported Berkshires.
7-1-y

CLYDESDALES AND HACKNEYS



A FEW FIRST-CLASS CLYDESDALE Stallions, Mares & Fillies for sale. Prices to suit the times. Come and see them, or write for prices.

GRAHAM BROS.,

Claremont, Ontario.
25 miles east of Toronto, on C. P. R. 4-1f-om

SPECIAL OFFERINGS AT REDUCED RATES

TO THOSE WHO WISH TO—
DOUBLE THE BUTTER YIELD OF THEIR HERDS.

6 Jersey bull calves, 2 to 4 months old, bred entirely for GREAT BUTTER YIELD. Sired by bulls whose dams make 17-1-2 to 26-3-4 lbs. Butter a Week. As my fall cows gave an unusual number of bull calves, I have decided to place them within reach of all who want an extra bull for next summer, viz.: \$80 to \$90 each, registered, and express prepaid by me to their destination. MRS. E. M. JONES, Box 324, Brockville, Ont., Can. Mrs. Jones' great book, Dairying for Profit, 30c. by mail. Address, ROBT. Y. BROWN, Agent, Box 324, Brockville, Ontario, Canada. 8-y-om

LARGE SALE OF THOROUGHbred STOCK

One of the Greatest Stock Sales that has ever taken place in this Country.

Mr. J. N. GREENSHIELDS, Proprietor of the Isaleigh Grange Farm, and Mr. A. McCALLUM, of Sprucehill Dairy Farm, have decided to hold a joint sale on Mr. Greenshields' farm (which comprises over 800 acres) about the FIRST of OCTOBER, date to be announced later, when they will offer an immense herd of pure-bred Ayrshire and Guernsey Cattle, Shropshire Sheep and Yorkshire Swine of all ages and both sexes. A grand opportunity for breeders to secure first-class animals of the above breeds at their own prices. The stock contains no culls. This sale is to be made an annual event, and conducted in such a manner as to merit the fullest confidence and support. Catalogues containing full particulars of stock will be ready about the first of August, and a copy will be sent free to any one applying to
T. D. McCALLUM, Manager,
Danville, Quebec. 9-y-om

AGRICULTURAL COLLEGE

The Ontario Agricultural College will reopen on the 1st OCTOBER. Full courses of Lectures, with practical instruction in Agriculture, Horticulture, Live Stock, Dairying, Poultry, Bee-keeping, Veterinary Science, Chemistry, Geology, Botany, Entomology, Bacteriology, English, Mathematics, Book-keeping, and Political Economy. Send for Circular, giving terms of admission, course of study, cost, etc.

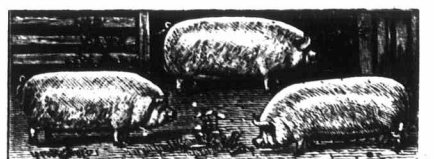
JAS. MILLS, M. A., President,

Guelph, July 6th, 1895. 11-c-o Guelph, Ont.

USE **GOCCOON** LIQUID **SHEEP DIP** NON POISONOUS KILLS TICKS LICE AND ALL INSECTS
4-y-om MYERS & CO., Niagara Falls, Ont.

40-BERKSHIRE PIGS FOR SALE-40
Four to ten weeks old, eligible for registry. Prices right. Call or write to 12-y-om A. J. C. SHAW & SONS, Thamesville.

Specialty of Large White Yorkshire Swine.



Over 250 pigs of different ages on hand of the most desirable type. Quality of stock guaranteed as described. All stock delivered free of express charges. J. E. BRETHOUR, Burford, Brant Co., Ont. 3-y-om

J. G. CLARK, Woodroffe Stock Farm, OTTAWA, BREEDER OF CLYDESDALE HORSES, AYRSHIRE CATTLE, and IMPROVED LARGE YORKSHIRES.

I now have on hand a number of choice young Yorkshires, both sexes, which I will sell at prices to suit the times. Pairs supplied not akin. Correspondence solicited. 11-1-y-om

LARGE IMPROVED WHITE YORKSHIRES AND ENGLISH BERKSHIRES

Now ready, young fit for service; bearing sows ready to mate, and sows in farrow. Prices reasonable. Pairs supplied not akin. Apply to WILLIAM GOODGER & SON, 11-y-0 Box 160, Woodstock, Ont.

YORKSHIRE PIGS
Of the best type and breeding. Pairs not akin for sale at all seasons. J. M. HURLEY & SON, Belleville, Ont. Box 442. 17-1-y-om

ASHTON GRANGE HERD IMPROVED YORKSHIRES

Imported or out of imported stock. We have a choice lot of young stock ready for shipping. We ship to order, and guarantee satisfaction. W. M. TAIT, St. Laurent, near Montreal. 7-1-y-om

MAPLE LODGE STOCK FARM

We have a grand lot of young Berkshire Pigs for sale now. Can supply pairs not akin. 9-1-y-om
JAMES S. SMITH, Maple Lodge P. O., Ont.



BERKSHIRES. We have a choice lot of Registered Berkshires, from 4 to 5 months old. Bred from imported stock. Pairs not akin. Also Ayrshire cattle and Shropshire sheep. Prices to suit the times. J. YUILL & SONS, Meadowside Farm, Carleton Place. 17-a-om



Gold Medal Herd of Berkshires
Young Boars and Sows of spring litters For Sale, bred straight from first-class imported stock. Size and quality combined. Orders booked for September and October pigs, and for young sows bred to our best boars. High-class Cotswold Sheep and Jersey Cattle of all ages for sale. J. C. SNELL, Edmonton, Ont. 8-y-om

FOR SALE! Some very fine young Berkshire Pigs; pairs not akin;

Also COTSWOLD RAM LAMBS, EWE LAMBS, and BREEDING EWES.

F. BONNYCASTLE & SONS, 11-1-y-om CAMPBELLFORD, ONT.

BERKSHIRES AND YORKSHIRES!

Choice stock for sale at reasonable prices. Orders filled in rotation. Inspection invited. Write for prices. THOMAS WATSON, Springvale, Ont. 11-1-y-0

Large English Berkshires!

J. G. SNELL & BRO., Edmonton, - Ontario.

We are now booking orders for young pigs. Have several litters now, and more to follow in Mar. and April. These are by imported Star One, 88 lbs., 1st prize aged boar, Toronto, 1894; Lord Ross, 1st p. yearling boar, Toronto, 1894; Regalia, 540 lbs. at 12 months old, 1st p. boar under a year, Toronto, 1894; Baron Lee 4th, 602 lbs. at 14 mos. We never had so many good sows to breed from as at present. Write for prices. 2-y-om

LARGE ENGLISH BERKSHIRES

My herd are imported or bred from imported stock, and have carried winnings at leading shows for years, including sweepstakes over all breeds at last Guelph Fat Stock Show. Pigs of all ages for sale, pairs supplied not akin. 9-y-om
GEO. GREEN, Fairview, Ont.

ISRAEL GRESSMAN, New Dundee, -IMPORTER OF- Large - English - Berkshires 4-y-om

H. J. DAVIS, Woodstock, Ont., Breeder of Short-horn Cattle, Imp. Large White Yorkshire and Berkshire Swine. Some very fine young bulls of good color and breeding, from 12 to 18 months old, for sale. Also a number of Yorkshire Boars of splendid quality, fit for service, and a good lot of Yorkshire Sows ready to breed. Berkshire Boars of the right stamp fit for service; also sucking pigs of both breeds for sale at moderate prices. Inspection invited, or write for description and prices. 8-y-om

MODEL BERKSHIRE HERD
D. A. GRAHAM
PARKHILL, ONT.
I am prepared to book orders for spring pigs from prize winners & imp. stock. Pairs supplied not akin. Prices moderate. Can also book orders for W. & B. P. Rocks, W. and S. L. Wyandottes and Bronze Turkey Eggs. 3 1/2 miles from Parkhill Station, G. T. R. 17-1-y-om

GLENBURN STOCK FARM.
FOR SALE.—A splendid lot of young Berkshire pigs, from 5 to 6 months old; also a few good Shorthorn bull calves. Prices reasonable. 17-1-y-om

JOHN RACEY, Jr.,
17-1-y-om
LENNOXVILLE, QUE.
BERKSHIRE, Chester White, Jersey Red & Poland China Pigs. Jersey, Guernsey & Holstein Cattle. Thoroughbred Sheep, Fancy Poultry, Hunting and House Dogs. Catalogue. S. W. SMITH, Cochranville, Chester Co., Pa. 17-y-om

ENTERPRISE STOCK FARM.
FOR SALE.—Large English Berkshires and Poland-China Swine. I am prepared to supply young stock of the above, either sex, any age. Pairs supplied not akin. Prices moderate. Correspondence solicited. 11-1-y-om
E. CAVERLEY, Sine P. O., Ont.

NORMAN BLAIN,
Cold Spring Farm, St. GEORGE, BREEDER OF
CHOICE TAMWORTHS.
Young stock for sale of both sex, from four or five months old. Orders booked for April and May pigs. Prices moderate. Correspondence solicited. 7-1-y-om

Summit Farm Herd of Duroc-Jersey Swine.
I have young stock for sale, bred from imp. stock. Both sexes, from two to nine months old. Including a few choice young sows in farrow. Prices to suit the times. F. W. TERHUNE, 3-1-y-om Box 690. BRANTFORD.

PIONEER HERD.—DUROC-JERSEY Swine. Oldest herd in Canada. Careful breeding. Only good pigs shipped. Write. PETER L. MARSH, 5-1-y-om Wheatley, Ont.

Tamworths for Sale. Young stock of all ages and either sex, descended from Grant & Co.'s importation. Stock choice, and prices right. Prompt attention given to all orders and correspondence. Address—JOHN L. REVEL, Putnam, Ont. 17-1-y-om

HERRON & DAFOE, PUTNAM P.O.
Importers and breeders of Poland-China, Chester White and Tamworth Swine. Young stock of the above, any age and either sex, imp. and descended from imp. stock. 17-y-om

FOR SALE
AT
Hard-Times Prices.
All stock registered.
Mention ADVO-
CATE. 17 0

Tamworths for Sale. Cheap. Anyone wanting young pigs of the best blood can get them cheap by sending in orders at once to
ANDREW DUNN, INGERSOLL, P. O., ONT., as I am over-stocked and short of feed. Sires and dams were imp. by Grant & Co. 17-1-y-om

To Threshermen.

See our Traction and Portable Engines at the leading Exhibitions. Test and examine them yourselves.

Don't waste time and money, and lose good jobs, through tinkering and bothering with your old engine. We will allow all it is worth in part payment on a new one. We are now finishing up a further supply, and can fill all demands.

GEORGE WHITE & SONS,
London, Ontario.



MR. H. REVEL,
INGERSOLL,
WOODLANDS FARM,
Breeder of
Choice Tamworth and Poland-China
SWINE.

Young stock of all ages and either sex for sale at reasonable prices; bred from or descended from imported stock.

TAMWORTHS AND POLAND-CHINAS
Young boars fit for service. Sows bred to farrow in February and March. Pairs of weaning pigs of each breed not akin for sale.

FRANK ROW,
91-y-om
Avon, Ont.
IF YOU ARE IN WANT OF IMPROVED Chester White Swine or Dorset Horn Sheep of first-class quality, at rock-bottom prices, write to
R. H. HARDING, IMPORTER AND BREEDER,
20-y-om Mapleview Farm, THORNDALE, ONT.

E. D. GEORGE
PUTNAM, ONT.
Importer and Breeder of
Ohio Improved Chester White Swine
The largest and oldest established registry in Canada. I make this breed a specialty, and furnish a good pig at a fair price. Write for prices. 15-1-y-om

O. I. CHESTER WHITE SWINE.
Stock for sale. All stock registered. Toulouse Geese, Pekin Ducks, Bronze Turkeys, eggs \$1.50 per 11. Partridge and Buff Cochins, Plymouth Rocks, Silver Gray Dorkings, Golden, Silver, and White Wyandottes, Brown and White Leghorns, Black Hamburgs, American Dominiques, Black Red and Black Summatras, and Indian and Pit Games, eggs, \$1 per 13. Will mix sittings if desired; also a few pair of Wild Turkeys for sale. G. BENNETT & PARDO, Charing Cross, Ont. 7-1-y-om

CHESTER WHITE AND TAMWORTH SWINE
From imported stock for sale, having 75 head from eight to ten weeks old now ready to ship. Send for prices. H. GEORGE & SONS, Middlesex County, Crampton, Ontario. 7-y-om

W. H. JONES, Mount Elgin,
Ont. Our herd took first place at the largest Fairs in Canada, and is headed by DARKNESS QUALITY, who took first prize over 41 entries at the World's Fair in Chicago, Ill. Our stock is LARGE IN SIZE, FINE IN QUALITY, well adapted for the Canadian trade. Young stock for sale at all times. Prices reasonable. 15-y-om

CANADA: WILKES
Spring pigs ready to ship June 1st. 4 fall boars ready for service. Stock of all ages ready to ship. PRICES LOW, Quality Considered
Send for illustrated catalogue of Poles and poultry. Correspondence solicited. CAPT. A. W. YOUNG, Tupperville, Ont. 17-y-om

REGISTERED POLAND-CHINA SWINE.
I offer the following first-class stock for sale: 1 first-class Stock Boar, two years old; 1 first-class Sow, two years old, to farrow in August; 2 first-class sows, one year old this last spring; 1 first-class Boar, nine months old. The above stock will be sold very reasonable, either single or in one whole bulk. Must sell to make room. 5-1-y-om
WESLEY W. FISHER,
Benmiller, Ontario.

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

JERSEYS AT SUNNY LEA FARM.
Sunny Lea Farm is conveniently located to Knowlton, P. Q., and consists of some three hundred acres. The cultivated land is in the valley, while the side-hill pastures afford fine grazing land for the Jerseys. The stables are nicely fitted, and are kept in the best of order. Mr. H. E. Williams, the owner, has been steadily increasing his herd of Jerseys, until he now has some sixty head, twenty-five of which are registered, the rest being high grades. The herd is headed by Baron Hugo of St. Anns, by Hebe's Victor Hugo, dam Dora of St. Anns. And among the cows, Draco's Last, Nell of Bellevue, Wyn's Daisy, Lady Gordon of Bellevue, May W. of Knowlton, and Lady Chamberlain are among the best. The herd is of the St. Lambert strain, are of a solid color, and are a uniform, even lot. Some very good young stock were noticed, which will be sold at reasonable figures. Description and prices will be given on application to Mr. Williams. MR. W. G. PETTIT'S SHORTHORNS, SHROPSHIRE AND BERKSHIRES.

We recently had the pleasure of calling on Mr. W. G. Pettit, whose stock farm is conveniently located to Burlington, being only a few minutes' walk from the depot; and where breeding operations are conducted on quite an extensive scale. The home farm comprises some two hundred acres of the choicest farming land, and is situated in one of the most desirable localities in the Province; Toronto being but a short distance to the east, and Hamilton only a short distance to the west; the climatic influence of the lake also permitting the growing of all kinds of fruits to perfection. The handsome brick residence; extensive and well-painted barns; convenient and comfortable stabling for the Shorthorns; the nicely-arranged sheep barn and pigsty; and the general air of neatness pervading both farm and buildings, gives the visitor an idea of what an ideal country home should be. Mr. Pettit is also the owner of another choice two hundred acres, some two or three miles distant from the home farm. We found the climatic influence of very good quality, and in good, thrifty condition.

The Shorthorns number some fifty head, and have been bred by Mr. Pettit for the last twenty-five years. In selecting his stock bulls particularly careful, as he has always been particularly careful to choose those from good milking cows; and judging from the udders carried by a majority of the breeding cows, we would conclude that Mr. Pettit had been breeding for milk as well as beef—a quality which is utilized through the pail, instead of by the calf, as is often the case. Some of the best cows in the herd are: Mara Tenth =1777=, by Prince James =968=, dam Mara Seventh =7078=, a fine red cow that has proved one of Mr. Pettit's best breeders; Mara Eleventh =1778=, by The Premier =6114=, and from the same cow as Mara Tenth; Mara 12th =1779=, by The Premier, and also from Mara Tenth (we saw a very nicely-turned roan bull calf from this cow); and Mara Thirteenth =17780=, by The Premier, dam Mara Tenth. These are fine cows, and are all descended from Mara 6th =7076=, a cow which was purchased from Mr. C. M. Simmons, Ivan, Ont. Jessie Wentworth =20836=, sired by The Premier, and tracing to Lady Jane (imp.), is another very fine cow, and the dam of a very fine red bull calf. Many other good cows were seen, but space forbids the mention. The Premier, the sire of the above mentioned cows, was bred by Mr. Arthur Johnston, Greenwood, and was got by Premier Earl (imp.) =1281=, and from Fame 2nd =2137= (imp.), an exceptionally good milking cow. The young stock are a thrifty lot, and are got by Grand Fashion =1504=, a Johnson by Hospodar (imp.) =2703=, dam Fashion =6091=. Mr. Pettit reports a good demand for Shorthorns this spring, having disposed of all his young bulls which were fit for service, one lot of three young bulls and one steer going to C. A. Archibald, Nova Scotia.

Shropshires.—The Shropshire stock numbers some 125 head in all, and includes importations from the noted flocks of Bradburne and Instone, England. The rest of the flock are descended from imported cows, and Monarch, an imported ram used at the Ontario Experimental Farm, Guelph, and imported Thomas and Bradburne rams—both winners of 1st prizes in England, and 1st and 2nd in their classes at Toronto. This season's crop of lambs are from the Bradburne ram, and are a nicely covered, promising lot.

Berkshires.—A noticeable feature in many pigs in this herd is their length of body—a point in the Berkshires which must be carefully looked after at the present time. Among the sows in this herd probably Fame =3061= is one of the best. She was bred at the Asylum, Hamilton, and was got by Jasper =2720=, dam Barton Polly =1643=. She has proved herself a good breeder—a fine litter being seen from her and Victor A. =2151=, a boar bred by Geo. Green, Fairview, a winner of 2nd at the Industrial, and sired by Lord Belmont =1328=. Another good breeding sow is Miss Bain =3504=, bred at the Asylum, sire Dexter =2377=, dam Grace Darling =3059=. This is a sow of extra breeding, that was suckling a litter of nice, young pigs at the time of our visit. Miss Bain traces back through Homer to imported Enterprise, and Sir John, one of Mr. Teasdale's (of Concord) stock boars. May Queen =3503=, also bred at the Asylum, and by Sir Allin =1272=, dam Barton Polly 2nd =3500= is a good sow, and suckling a nice, lengthy litter of young pigs. A couple of other good sows were also seen, and a good yearling boar from Victor A. and Fame =3061=. A number of young pigs were seen from one to four months old, mostly sired by the above mentioned boar, Victor A.

The writer also had the pleasure of driving over the beautiful property known as Balsam Lodge farm, owned by the late John Potheringill, which is under the supervision of Mr. Pettit, and where quite a number of his young stock were pasturing. This property, it will be remembered, was offered in the April number of the ADVOCATE, and is still unsold. It comprises two hundred acres of the choicest land, and is one of the most desirable and lovely homes in the Province.

THE FARGO HERD OF POLAND-CHINAS

Are of the choicest quality and breeding. I have young stock for sale from an imp. boar and imp. and home-bred sows, also a few choice sows in farrow to the imp. boar Black Joe. Those desiring a first-class article at the right price, should write at once or come and see my stock. OLIVER DRURY,
13-1-y-0 FARGO, ONT.

AYER'S Hair VIGOR
Restores natural color to the hair, and also prevents it falling out. Mrs. H. W. Fenwick, of Digby, N. S., says: "A little more than two years ago my hair began to turn gray and fall out. After the use of one bottle of Ayer's Hair Vigor my hair was restored to its original color and ceased falling out. An occasional application has since kept the hair in good condition."—Mrs. H. F. FENWICK, Digby, N. S.



"I have used Ayer's Hair Vigor for three years, and it has restored my hair, which was fast becoming gray, back to its natural color."—H. W. HASELIOFF, Paterson, N. J.

AYER'S Hair VIGOR
PREPARED BY
DR. J. C. AYER & CO., LOWELL, MASS., U. S. A.
Ayer's Pills cure Sick Headache.

To Smokers

To meet the wishes of their customers The Geo. E. Tuckett & Son Co., Ltd., Hamilton, Ont., have placed upon the market

A Combination Plug of

"T & B"
SMOKING TOBACCO.

This supplies a long-felt want, giving the consumer one 20-cent plug, or a 10-cent piece, or a 5-cent piece of the famous "T & B" brand of pure Virginia Tobacco. 5-y-om

The tin tag "T & B" is on every piece

Jacob B. Snider, German Mills, Ont., Breeder of choice Light and Dark Brahmas, Black Langshans, Plymouth Rocks, Golden Wyandottes, Black Minorcas, Red Cap and Indian Game. Eggs, \$1.25 per 13. Correspondence solicited. 7-1-y-0

JOHN J. LENTON, Park Farm, O-shawa, Ont., sell Bone Cutters and Pure bred Poultry of the best quality at low prices. Send to him for catalogue, etc. 22-y-om

ADVERTISE IN ADVOCATE

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

Mr. A. H. Moore, of Philadelphia, has purchased the famous trotting stallion Red Wilkes, age 21 years, from Messrs. France, for \$9,800. He was a son of George Wilkes, dam Queen Dido by Membrino Chief, and has thirty-one sons and daughters with records as fast as 2.20.

Attention is specially directed to the advertisement elsewhere of John Jackson & Sons, "Woodside Farm," Abington, Ont., the celebrated breeders and importers of Southdown sheep. They make just now some extra good offerings of this deservedly popular breed. Write them. They will be at the Toronto Show.

Mr. A. C. Hallman, New Dundee, Ont., changes his advertisement in this issue. He has the sort of stock that always wins, and he always keeps them in the most profitable condition for health and productiveness. His Holstein-Friesians should be seen at the Toronto Exhibition, and on the farm at New Dundee, Waterloo County, Ont.

A. & G. Rice, Currie's, Ont., write:—"We enclose change of advertisement. We are receiving inquiries for Holstein-Friesian stock from Manitoba to New Brunswick, which attests your wide circulation. Our high testing cow, Eunice Clay, recently calved twins. Her udder a few days after was immense. Some who saw her were astonished. Several other cows and heifers are also doing great work. We are especially gratified at the way our heifers are milking. It assures us we are on the right track: which adds much to the pleasure we take in our herd."

ISALEIGH GRANGE.

It will be noticed in the advertising columns that Mr. J. N. Greenshields and Mr. A. McCallum, of Danville, P. Q., intend holding a very extensive joint sale later on in the season at Isaleigh Grange, when there will be offered (without reserve) a large stock of Guernseys, Ayrshires, Yorkshires, and Shropshire sheep.

Guernseys—A large number of this choice dairy breed will be offered (registered stock and high grades), including the grand stock bull Ontario's Pride 1929, as the three-year-old imported bull Adventurer will now take his place. The young stock which will be offered are sired by the above bulls.

Ayrshires—Some thirty head of registered animals will be offered, including many very choice individuals, also a number of good high grades.

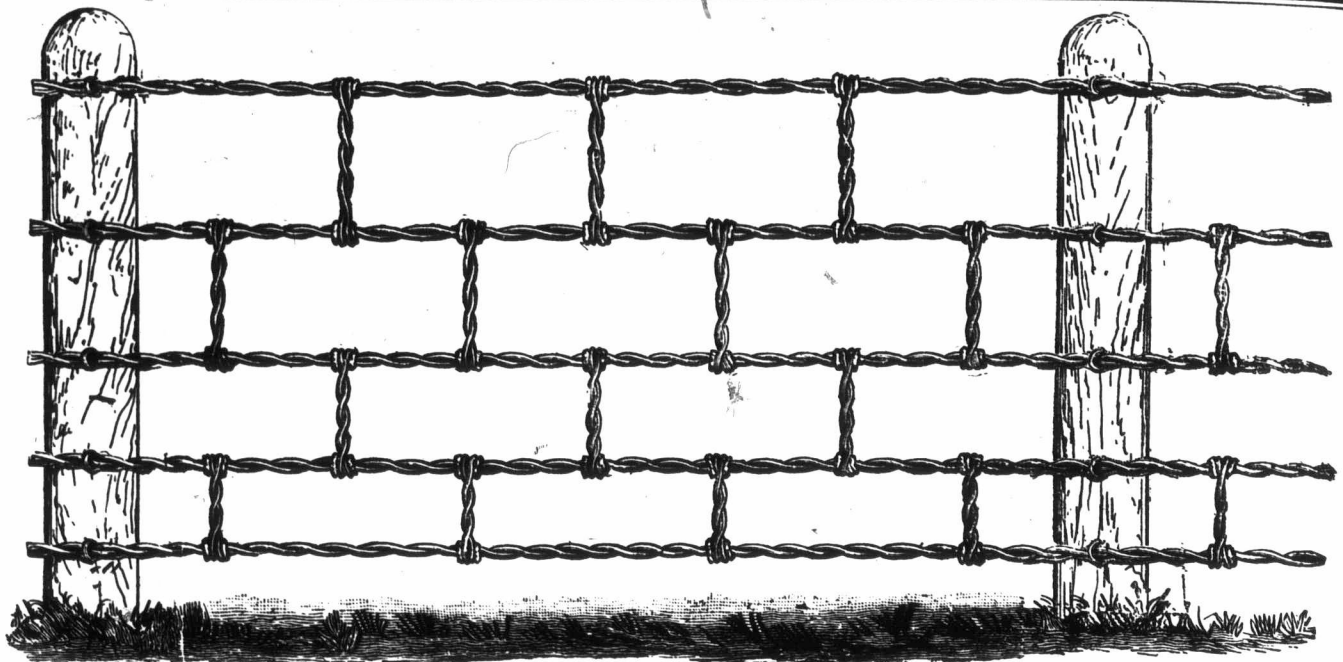
Yorkshires—About two hundred registered Yorkshires will be put under the hammer, got by imported sires and from imported sows. The young pigs are a thrifty lot, and of good quality.

Shropshires—Some two hundred registered sheep will be offered, consisting of imported ewes and this season's crop of lambs, sired by such imported rams as Coming Blue Blood, St. Ledger, and other good imported rams. The imported stock is of Thompson, Thonger, and Bowen Jones breeding. Also a number of good shearing rams. A large number of good high grades will also be put up.

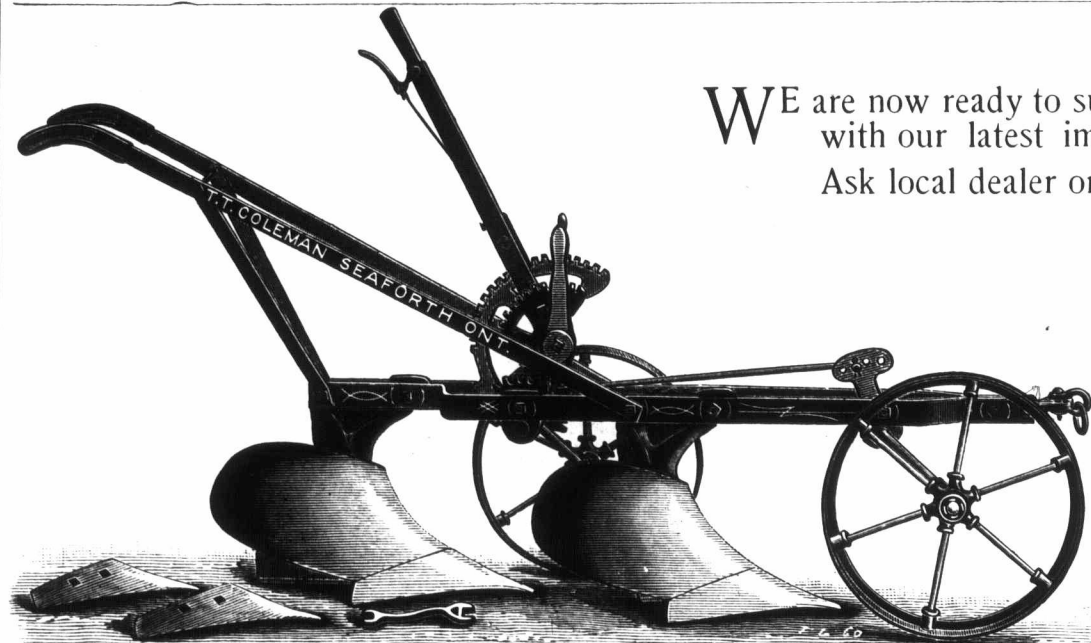
This extensive sale is the beginning of an annual auction, and will furnish an opportunity of the year for replenishing the flocks and herds of the country and for new beginners to avail themselves of the best blood obtainable. A catalogue of the stock is being got out, and will be furnished on application. **ADVOCATE** readers should bear this sale in mind and endeavor to attend if possible, as no doubt there will be some exceptional bargains.

KINGSTON ROAD STOCK FARM.

A short drive east from Belleville, on the gravel road leading to Kingston, is the stock farm of Mr. J. M. Hurley & Son; the specialties are Yorkshires and carriage horses, and it was here we had the pleasure of inspecting some of the finest specimens of the Yorkshire breed as we have yet seen; in fact, the thoroughbred, both old and young, are of good quality and are of a uniform, useful type. This herd was first established in 1888 by a selection from the herd of Messrs. Ormsby & Chapman, and in looking over the books we found that a good trade has been worked up, as pigs have been sent to every county in the Province, and to many of the neighboring States of the United States. Fresh blood to the herd, Mr. Hurley informed us that they were always selected from the best herds, and nothing is purchased or retained in the herd but the best, and in supplying customers at a distance, nothing but a first-class animal is sent out. At the head of the herd is the grand yearling show, Isaleigh Baron—1370—bred by J. N. Greenshields, Danville; sired by Holywell Fisherman (imp.)—1325—, his dam being Isaleigh Pride—1187—, Isaleigh Baron is a lengthy, deep boar, with a good back, a well-sprung rib, and a deep, thickly-fleshed ham; he is proving himself a valuable sire, as the youngsters of his get are hard to fault. White Joe is another good yearling boar, sired by Madoc Bob—1223—, and having for his dam Susan, one of the finest brood sows of the herd. We were very much taken with a young boar, Isaleigh Grange Lad—1811—, a year old in September next; bred by J. N. Greenshields, and sired by Isaleigh (imp.)—716—, dam Holywell Hopeful (imp.); this boar is of the right stamp, and should mature into something extra good. Susan (575), the sow referred to above, is a grand aged show sow, by Patsy (78), dam Madame (15), a lengthy, deep sow, possessing a smoothness and finish that makes her a hard one to compete with in the show ring. A daughter of hers, Lady Aberdeen, is a reproduction of the many grand qualities of the mother. She was sired by Maxim, for which Mr. Hurley paid \$100, and which he recently sold at a good round figure. World's Fair—1676—, bred by Joseph Featherston, and sired by Halton King (imp.) and having for her dam Lancashire Maid (imp.)—158—, is a very fine yearling sow, from which, no doubt, good accounts will be heard this fall. Beauty of Isaleigh—1976—, by Holywell Minor (imp.)—612—, dam Mithley Beauty (imp.)—723—, is an exceptionally fine eight-months-old sow that will be shown in the "under a year" class. Some very choice young boars and sow pigs were also seen, which were being fitted for the under six months class. Some very good Standard-bred and carriage horses are also bred at this farm.



Have you seen our **LOOK GRIP SECTION WIRE FENCE?** The best wire fence on the market to-day at about half the cost of other wire fences. Our prices are from 40c. rod. Active agents wanted. Send for price list. Address, **TORONTO PICKET WIRE FENCE CO., - - 221 River Street, Toronto.**



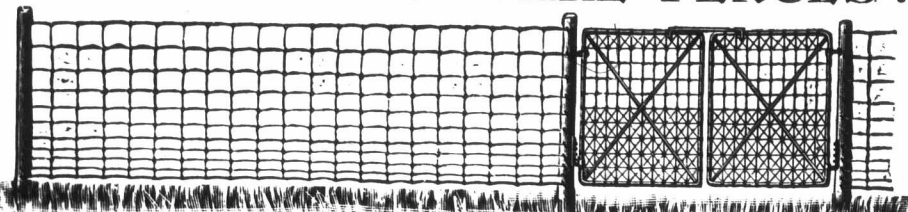
WE are now ready to supply our customers with our latest improved Gang Plow. Ask local dealer or write direct to

THE ESTATE OF T.T. COLEMAN SEAFORTH, ONT.

THE Fall Fairs give every farmer a good chance to see the Page and other fences, and decide what is best for his use. The Page Wire Fence will be on exhibition at Toronto, London, Ottawa, Kingston, Sherbrooke (P.Q.), and at most of the smaller fairs in Ontario. At the fairs named, and many others, we will use our "bunter" test. The "bunter" is a large weight hung so as to swing against a section of fence, and will show you in a few hours the effect of a year's ordinary usage on the farm. We are always willing to loan the "bunter" for testing other kinds of fence. In **COMPARING FENCES**, notice in connection with the price:

1. The number of wires, and the distance between them at the bottom where pigs and sheep are sure to try a fence. (Page standard has 11 wires.)
2. The distance between the cross or tie wires (12 inches in Page Fence.) Of course cross wires, whether large or small, add no strength to a fence, but are put on to keep the horizontal wires from being spread apart. A man, a sheep or a hog can easily crawl through a smooth wire fence where the cross wires are 18 inches or more apart.
3. The strength of wires. (Page Fence is made of the strongest steel wire.) The strength of Page Wire is increased by the coil, which

WHY NOT COMPARE FENCES?

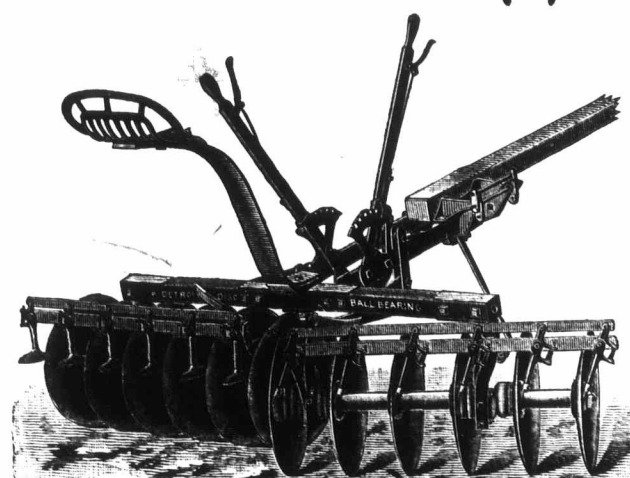


takes off the force of a shock by giving way a little at first, just as it is harder to break in two a branch of willow than a dead twig of equal size.

4. The means of overcoming the expansion and contraction of the wires. (Each wire in the Page Fence is made into a coiled spring, drawn out to its greatest length.) If the slack is taken up and let out at the end, all staples must be left loose and the wire must run perfectly level so that the wire can slip backward and forward. If there is no provision made, the wires stretch and become slack. If you cannot see us at the fairs, write for pictures and description, and we will direct you to the nearest Page Fence in use.

THE PAGE WIRE FENCE CO. OF ONTARIO, LTD., WALKERVILLE, ONT.

THE DETROIT BALL-BEARING DISK HARROW



Double Levers.
Easy to Operate.
The GENUINE BALL-BEARING.
Right Adjustment.
Of the Best Material.
Is Light in Draft.
Try it.

Write for circulars and prices to

AMERICAN HARROW CO.,
Detroit, Michigan. 17-a-o Windsor, Ontario.

ADVERTISE IN THE FARMER'S ADVOCATE.

PRESTON POULTRY YARDS.—L. and D. Brahmas, Buff. W. and P. Cochins, B. Langshans, B. and W. Rocks, S. Wyandottes, W. and Blk. Leghorns B. B. R. and I. Game, W. B. S. and G. Polish. Pekin Bants. Send for circular. Eggs, \$2 per sitting. G. D. SMITH, Preston, Ont. 7-1-fo

CHAMPION EVAPORATOR

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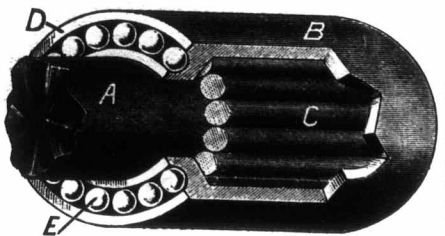
THE CHAMPION EVAPORATOR

Will be exhibited at TORONTO FAIR, SEPT. 2ND TO 14TH; WESTERN FAIR, LONDON, SEPT. 12TH TO 21ST, AND OTHER LEADING FAIRS THROUGHOUT THE DOMINION. DON'T FAIL TO SEE IT! 17-1-o



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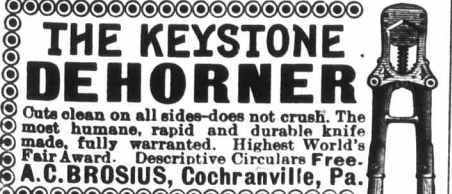


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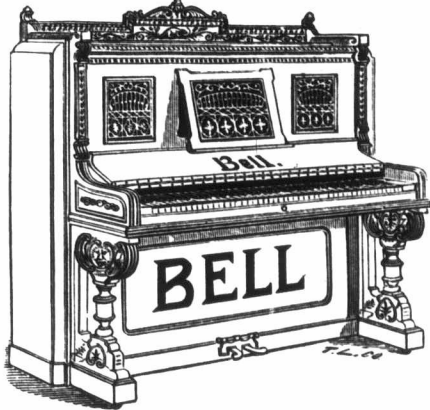
If you will send us your name and address, on a post-card, we will take great pleasure in mailing to you one of our new fall catalogues. These books are free to all who ask for them. No matter in what part of Canada you live it may pay you to buy your goods from us; at all events it will do no harm for you to know our prices. We sell everything that farmers use, as follows:—

Horse Blankets, Single Harness, Double Harness, and all pieces of Harness; Fur Robes, Fur Coats, Fur Caps, Fur Mitts, and farmers' Winter Mitts of all kinds; Cross-cut Saws, and Axes; Farmers' tools of all kinds; Stoves and Stove Furniture; Tinware Granite-ware; Watches and Jewelry and Clocks; Guns, Rifles, Revolvers, and Ammunition; Dry Goods; Groceries; Crockery; Boots and Shoes; Hardware, Iron Beds, Builders' Hardware; Churns and Butter-workers; Brushes and Woodenware; Window Blinds and Curtains, and Wall Paper; Wash Boilers, Wringers and Washing Machines; Knives, Forks, Teaspoons and Silverware; Farm Bells; Sewing Machines and Knitting Machines; Wheelbarrows; Saddles; Hay Knives; Cook Books; Horse Doctor Books; Post-hole Augers; Razors; Scales; Stovepipes; Sleigh Bells and Skates; Grain Bags; Thread; Tar Paper; Valises and Trunks; Men's Underwear, Etc.

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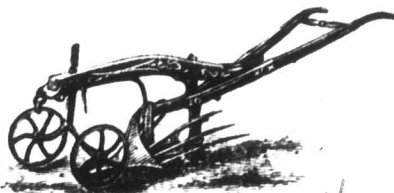
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STOCK GOSSIP.

In writing to advertisers, please mention the Farmer's Advocate.

Mr. Alex. Galbraith, Secretary of the American Clydesdale Association, is to act in the capacity of judge at the Toronto Industrial Exhibition.

Mr. John Arthur, proprietor of the Canadian Sale Stables, New York, on his return from a trip to Canada and the West, reported high-class trotting-bred animals to be very scarce and prices correspondingly high.

HON. H. M. COCHRANE'S HACKNEYS, SHORTHORNS, SHROPSHIRE AND DORSET-HORNS. The very extensive breeding establishment of Hon. H. M. Cochrane is located at Hillhurst, P. Q.; and the half day of our visit there passed all too quickly; inspecting the Hackneys of which there are some forty head, high-class Shorthorns, Shropshire and Dorset-Horn sheep, and driving over the farm, which comprises some one thousand acres of choice farming and grazing land. The hay crop was just about housed at the time of our visit, and a heavy crop of fine quality had been stored. The oat crop was looking magnificent, and gave promise of a very heavy yield; and the corn (of which there was a large acreage) was very rank, and would furnish an enormous amount of fine ensilage. The elegant buildings, beautiful lawns, lovely hothouses, and flower gardens and fine pastures, will create pleasant memories for the writer for many a long day to come.

Hackneys.—As already mentioned, some forty head of Hackneys were seen, consisting of imported stallions and mares, and young stock. A number of the stallions and mares were led out on the rein, and a proud, high-stepping lot they proved themselves to be. The first to come under our inspection was Royal Dane, an imported three-year-old stallion, sired by Canny Man, his dam being the prize winning mare Princess Dagmar; he is an exceedingly nice-turned horse, and able to handle his front feet in good style, following them up with a good clean lift of the hind feet, showing the shoes well up from behind. He was a winner of 1st in Toronto as a yearling, and 2nd as a two-year-old. Hayton Shales is a big, strong four-year-old imported stallion, a good mover, and should prove a valuable sire, as he has plenty of size; and the Hackney with plenty of size and good knee and hock action is, in the writer's estimation, destined to rank deservedly high in popular esteem for many substantial reasons, newspaper chat concerning the coming "horseless age" to the contrary notwithstanding. Barthelemy Performer (imp.) is a fine two-year-old, high-spirited, and a fine actor, and he could show himself off to wonderfully good advantage for the amount of training he has had as yet. He is the first son, as yet, of Garter Duke of Connaught, imported into this country, and his sire is looked upon by Yorkshiresmen as one of the best stallions in England. Gentility is a yearling, imported in dam. He is the first Gentility colt ever brought to America, and is a right good animal, and if he matures as he promises at present, something extra good may be looked for. These two colts are sons of two of the most favorably known Hackney stallions in England. Another fine yearling was seen, Danish Duke, by Fordham, and out of Princess Dagmar. Among the mares, probably the imported bay mare Charwoman is one of the very best. She was sired by Matchless of Londesboro, a horse for which Dr. Webb paid \$15,000. Charwoman is descended from Fireaway. She was a winner of 1st money at Toronto as a three-year-old. She is of grand conformation and a remarkably fine actor with both knee and hock, and her graceful movement on the rein would certainly have evoked enthusiasm and admiration from the most fastidious horse fancier had they been there to witness. Princess Dagmar, an imported bay mare, was the next one led out. She also could handle her feet in right good style. This mare was sired by Danegelt, a horse that cost Sir Walter Gilbey 5,000 guineas. Miss Baker (imp.) is a beautiful brown mare, the dam of the yearling colt Gentility. She was good enough to win three 1sts in one afternoon in Toronto, and also won a 4th place at New York last fall. Matchless Maid is a fine two-year-old, by Fordham; dam Nancy, by Matchless of Londesboro. This is a nicely turned colt and a good mover. She was winner of 1st as a yearling at Toronto, and no doubt good things will be heard of her this season, as well as from a number of others. Remeo, one of the brood mares, with a beautiful foal at foot, by Hayton Shales, was winner of 1st at Toronto as a yearling, and 2nd at New York the same year. A number of very fine youngsters and some good yearlings were seen on the pastures; a strong-boned, growthy and stylish lot that speak well for the reproducing qualities and high breeding of the sires and dams.

Shorthorns.—Riverside Hero 2nd, by Sultan Selim, and from the imported prize-winning cow Bracelet 2nd, heads the herd. He is a massive, deep, sappy three-year-old, and a winner of 1st at Toronto as a yearling. Some of the best young animals in the stable were: Alvira 20th, a yearling roan of grand quality and evenly fleshed, a winner of 1st last year at Sherbrooke. In the next stall was a good bull calf, from a heifer purchased from Messrs. John Miller & Sons, Brougham. Another fine calf was seen, out of Rose of Strathallan, a cow purchased from Simmons & Quirie, Ivan, Ont. In the next pen was a very fine heifer calf, a daughter of the 1st prize cow in Toronto last year. This cow was got by Mr. Arthur Johnston's celebrated Indian Chief. A large flock of Shropshires are kept, and also a good flock of Dorset-Horns. Mr. Cochrane having purchased the entire flock of Mr. T. W. Hector a year or two ago, drafts had been made from the flocks, and were under flat the time of our visit; and it is unnecessary to add that many remarkably good individuals were seen.

Beside the home farm, it is well known among stockmen that Mr. Cochrane owns one of the most extensive and successful cattle ranges in the West, at Ft. McLeod. The range comprises some one hundred thousand acres, sixty thousand of which is owned by Mr. Cochrane and forty thousand being rented. This large range is heavily stocked with many fine and head of Shorthorns and Herefords, and from which a handsome income is annually derived. Much more might be said of the flock and their surroundings, but lack of space prevent.

STOCK GOSSIP.

In writing to advertisers, please mention the Farmer's Advocate.

W. H. & C. H. McNish, "Elm Grove Farm," Lyn, Ont., write:—"We have just added to our herd of Guernseys 10 head, personally selected with great care from the fine herd of E. R. Brow, Charlottetown, P. E. I. Mr. Brow is one of the pioneer importers of this grand dairy breed, and, previous to our selection, had the largest herd in the Dominion. In 1886 Mr. Brow imported the grand cow Adele III. 3895, which gave 41 pounds milk per day on dry feed in February as a three-year-old, testing 5.5. She is a regular breeder, having produced seven heifer calves, three of which we are fortunate enough to own. Linda of Eastview 4801 is another marvelous cow, and a pillar of Mr. Brow's herd. She has given 45 pounds of milk a day on grass alone, testing 5.1 per cent. fat. We secured three daughters and one granddaughter of this great cow, which, although getting up in years, does her share in the production of that beautiful golden butter. This addition to our herd gives us the largest and most carefully selected herd of Guernseys in the Dominion. We intend showing at Kingston, Toronto, London, Montreal, Ottawa, and the dairy show at Gananoque, where we will be pleased to meet our friends and all interested in the production of gilt edge butter and bacon. Our pigs have done well, and we have forty of the best young boars and sows we ever offered to the fall trade. People who want either show pigs or breeders should write us. We also have two grand Guernsey bull calves for sale. Note our change of advertisement."

AYRSHIRES AT BURNSIDE FARM.


Burnside Farm is situated but a short distance from Howick Station, P. Q. and it is at this farm that Messrs. Robertson & Ness have succeeded in establishing one of the choice Ayrshire herds of Canada. Representatives from this herd did much towards upholding the honor of Canada at the World's Fair, Chicago, in the Ayrshire classes, having won a number of firsts and other prizes. A number of the best animals of the herd were in the stables at the time of our visit, and are again being put in shape for the fairs this fall, and, from appearances, we expect they will sustain the credit of the Burnside herd. The two-year-old stock bull Lockerby Lick is in fine trim, has a soft, pliable skin, and is well up in all the points necessary to the production of good dairy stock. A grand yearling bull was seen, full brother to the sweepstakes bull at Chicago. Bell Hamlin is a very fine three-year-old that stood fourth in the yearling class at the Columbian. Budd of Burnside is a credit to the breed as a two-year-old, and will be hard to beat. She was first as a calf at the World's Fair, and first as a yearling all round, last season. Queenie of Burnside is another good two-year-old that compares favorably with her mate, also a winner. Silver Maid is a rare, good yearling, by Silver King. This heifer was able to make a clean sweep of it wherever shown last fall, and no doubt she will do her best this year to sustain her reputation. Many other very choice animals were seen, and the herd in general is in good shape, and are of a uniform color and conformation. Ayrshire fanciers will have an opportunity at the leading fairs of examining representatives from this herd; and visitors will always be welcome at Burnside Farm.

MR. McCALLUM'S AYRSHIRES.

During our visit in Quebec we had the pleasure of calling on Mr. A. McCallum, of Danville, P. Q., and spending a few hours among his high class Ayrshires of which there are some fifty registered animals, and also some good high-grades, and it is seldom that one will see as many choice individuals in a large herd as at Mr. McCallum's. The herd was first founded by selections from the herds of Mr. Wm. Rodden, of Plantagenet, President of the Ayrshire Breeders' Association of Canada; Mr. Robinson, and the late Thos. Brown, and importations. Some of the best cows we noticed were: Derby of Petite Cote (5363), by Traveller (1441); Scotland, dam Derby of Bogside 3623, bred by Andrew Mitchell, of Bercheskie, a model dairy cow, a winner at Sherbrooke in 1892, and the mother of a fine bull calf this year; Lady Grey (4022), from Lady Grey (imp.), and by Laird of Plantagenet (4024); Moss Rose (4734), by Hanlan of Howick (3482), dam Florina (3552); Sybal 3rd (4657), by Royal Charlie (4516), dam Sybal 2nd (4025). These are cows of a model Ayrshire type; while in Danville Blossom they have a very heavy milk, having averaged fifty pounds of milk a day that tested 4 per cent. butter-fat, and a sweepstakes cow at Sherbrooke. Maud Spotty (4833), by Earl of Plantagenet, is a cow whose progeny have proved extra good. Rose Bud (4631), by Earl of Plantagenet, dam Jess of Ottawa (4027), we also considered a very worthy cow. An extra good cow is Hatty 5th (5170), well marked and a good milkier, by Solomon (6166), dam Hatty 11th. We liked this cow fully as well, if not better than any in the herd. A two-year-old bull, Lord Derby (6501), by Silver King, dam Derby of Petite Cote and granddam Derby of Bogside, is being used on the herd. He is of a first-class dairy conformation, of fashionable color, and should show well in the ring. A good yearling coming two this fall is Baron of Danville (6613), by Baron Renfrew (imp.) (5862), dam Moss Rose. In the next stall were two exceedingly fine bull calves. One by Lord Derby we considered extra fine, good size, well formed, of fashionable color, and very stylish. The other is rather darker in color, while in points he is almost equally as good. This one is by Baron Renfrew (imp.), dam Arabella. Some sixteen fine yearling heifers are now on hand; and a number of good bull and heifer calves were seen. As will be seen in our advertising columns, Messrs. Greenshield and McCallum intend holding a joint sale later on in the season, when a number of the choicest animals of this herd will be offered (without reserve), including most of the above cows. This will be a grand opportunity for breeders to add fresh blood to their herds, or for new beginners to start by.

You Will
never need another dose of Dyspepsia Medicine after a meal, if your food is cooked with **Cottolene**, the new vegetable shortening, instead of lard. **Cottolene** aids the digestive powers—lard destroys them, which will you choose? The genuine **Cottolene** is identified by this trade mark—steer's head in cotton-plant wreath—on every tin.

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The Best and Cheapest **STOCK FOOD** in the World!

Most **SATISFACTORY**, because it preserves healthy action at all times.
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Send for CIRCULARS and PRICES. 12-y-o

THE RIPPER FEED AND ENSILAGE CUTTER
STOCK FEEDERS' FAVORITE MACHINE—HAS NO EQUAL AS A CORN CUTTER.



SEND FOR TESTIMONIALS.

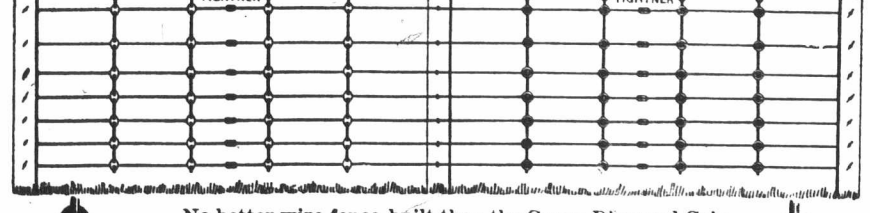
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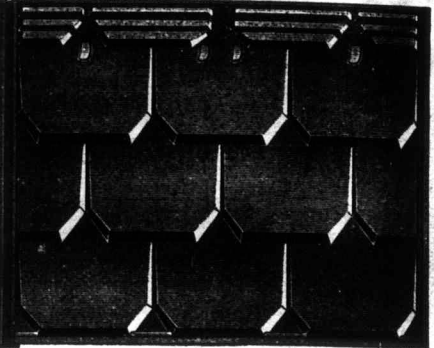


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Wire Fence, which is claimed by some to be second to none, the lateral wire of which, as well as the upright stay, being crimped at joints. Our agents build either on premises. Agents wanted everywhere in Canada, to whom sole territory will be allotted. County and Township Rights for sale. Our Gas Pipe Frame Gate takes the lead. Patented January 23rd, 1895. See our exhibit at all the leading fairs—Toronto, London, Ottawa, Kingston, etc.

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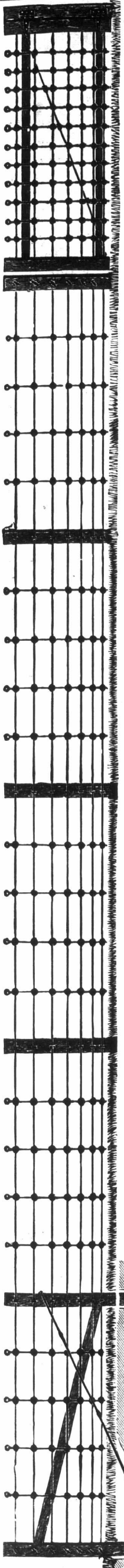
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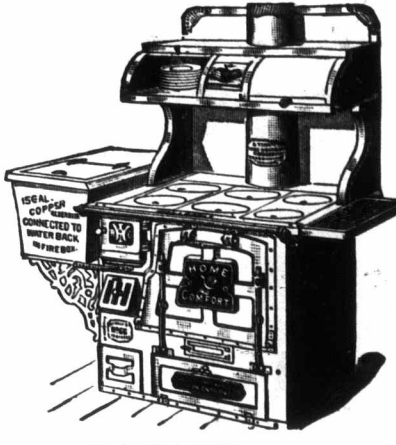
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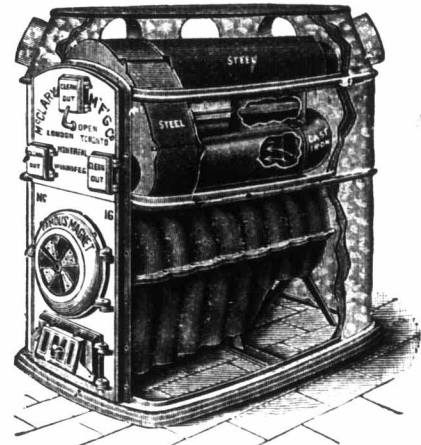
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I put up in rolls of 108 square feet each, 40 feet long by 32 inches wide, making a light, durable and inexpensive roofing suitable for buildings of every description, and can be laid by ordinary workmen. One man can lay from five to ten square in a day, which brings the cost of Mica Roofing about 75c. per square cheaper than shingles. Special terms to dealers who buy our Roofing to sell again. Orders and correspondence answered promptly.

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STOCK GOSSIP.

In writing to advertisers, please mention the Farmer's Advocate.

AYRSHIRES AT ARDGOWAN STOCK FARM. Messrs. John Newman & Sons, of Lachine, P.Q., established a herd of Ayrshires a number of years ago, by a selection from an importation of a Mr. Dodds, of Petite Cote, one of the first importers of Ayrshires into Canada, and have been steadily increasing the herd until at present it comprises over one hundred head of pure-breds and high grades. Among the pure-breds are a few imported cows, and the descendants of imported cows. After looking through the stables at the bulls and younger stock, a stroll was taken over the farm, which comprises some five hundred acres, to the pastures where the majority of the herd were quietly grazing. Dairying is pursued on quite an extensive scale, and the milking cows are certainly a useful lot. Heading the herd is Glencoe 5810, a four-year-old, bred by T. Brown, sired by Robby Dick 5363, and from Nellie of Bercheskie 5808 (imp.), a gold medal winner in England. Glencoe is being put in trim for the fall exhibitions, and will make a hard fight for honors, which will be very keenly contested, judging from the present outlook. A very fine two-year-old was also seen, by Glencoe and from Dandy 6th of Bercheskie (imp.) (5361); this bull is also being used on some of the herd. In the adjoining stall was a grand yearling bull also by Glencoe, and from the imported cow Dandy of Petite Cote (5369); these young bulls are choice and should be ready sellers. Another very nice yearling bull was seen, as well as a number of youngsters by Glencoe. Among the cows are such choice ones as Dandy 6th of Bercheskie (5361), by Blairquhan 363, Scotland, dam Dandy of Bogside 2357, Scotland, and her daughter, Dandy of Petite Cote, by Traveller. Cows of a very fine dairy type, and many others equally good. A number of choice animals of all ages are under fit for the leading exhibitions this fall, and no doubt they will win a fair share of the honors for which they compete. Carriage horses are also bred by Messrs. Newman, a couple of which were being put in shape for the ring, and good ones they certainly are. We would draw the attention of those interested in Ayrshires to the advertisement of Messrs. Newman, in which they make a special offering of choice young bulls.

HOLSTEINS AT SUNNYSIDE STOCK FARM.

Probably the largest and best herd of Holstein-Friesians in the Province of Quebec is to be found at Stanstead, P. Q. This fine herd (among which are many very successful prize winners at leading fairs), and a beautiful five-hundred-acre property on Stanstead Plains, with very extensive and well-fitted barns, is the property of Messrs. McDuffee & Butters. The cows were just in for the milking at the time of our visit, and a pall-filling lot they proved themselves to be. Among them were some exceptionally heavy milkers, some of them having a record of from sixty to eighty pounds milk per day, and testing as high as 61 per cent. butter-fat. Some of the best cows and heaviest milkers we should like to mention are: Liege (imp.), with a record of 84 pounds milk in one day; Procelain, imported from Holland, has a record of 67 pounds milk per day, which tested 61 per cent. butter-fat by the Babcock tester. This cow was selected to be taken to Chicago to compete in the milk test, but, owing to some misunderstanding, was not taken. She has had a very successful show ring career. Trintje, imported from Holland, is rather the best cow in the herd, in our estimation. She has a record of 76 pounds milk per day and twenty pounds butter per week. This cow stood second in Toronto, and has won many firsts, having won first in a contest of forty entries in Holland the year she was imported. Evertje (imp.) also ranks among the best—and worthily. Her record is 67 pounds milk a day. She was second at Toronto last year, and sweepstakes at Ottawa. Procelain 2nd (a four-year-old that has won many honors in the show ring, and many others, are well worthy of special mention did space permit. The stock bull Artis Peer (9048) is a grand individual that has given a good account of himself at the shows, having won twenty-one first prizes; and not only in the ring does he do himself credit, but as a sire he is getting some remarkably good stock. In another stall we saw Abba's Artis, a grand yearling bull, a winner last year as a calf of 2nd in Toronto, 1st at Ottawa and London and a number of fairs in the Province of Quebec. A number of other handsome yearlings and some remarkably good calves were seen, by Artis Peer. The Sunnyside herd at present numbers some sixty head, and are a well-marked, uniform lot. Selections have been made from the herd, and are being fitted for the coming exhibitions, and will, no doubt, do themselves credit—as in the past. Parties wanting young bulls and heifers would do well to inspect this herd at the fairs, by which they can get an idea of the quality and breeding of the stock—which contain some of Holland's best blood.

Canadian Fairs.

Sherbrooke, Que.	Sept. 2nd to 7th.
Kingston	Sept. 2nd to 7th.
Toronto	Sept. 2nd to 14th.
Montreal, Que.	Sept. 12th to 21st.
London	Sept. 12th to 21st.
Owen Sound	Sept. 17th to 19th.
Quebec	Sept. 17th to 19th.
Whitby	Sept. 17th to 19th.
Belleville	Sept. 17th to 20th.
Renfrew	Sept. 19th and 20th.
Ottawa	Sept. 20th to 28th.
Peterborough	Sept. 23rd to 25th.
St. Catharines	Sept. 23rd to 25th.
Charlottetown, P. E. I.	Sept. 24th to 27th.
Collingwood	Sept. 24th to 27th.
St. John, N. B.	Sept. 24th to Oct. 1st.
Chatham	Sept. 24th to 28th.
Orillia	Sept. 24th to 26th.
Woodstock	Sept. 25th and 26th.
Brantford	Sept. 25th to 27th.
Strafford	Sept. 26th and 27th.
Brampton	Sept. 26th and 27th.
Paris	Oct. 1st and 2nd.
Walkerton	Oct. 1st to 3rd.
Goderich	Oct. 1st to 3rd.
Markham	Oct. 2nd to 4th.
Ridge-town	Oct. 7th and 9th.
Tilsonburg	Oct. 8th and 9th.
Norwood, E. Peterborough	Oct. 8th and 9th.
Simcoe	Oct. 15th to 17th.

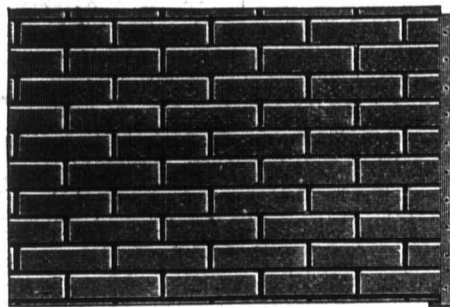


Every Man

Who has to work for the support of his family ought to be perfectly easy about their future. Nothing less ought to satisfy him than a financial guarantee that they will be provided for if he fails to do so. If he lives he can continue to find them day by day their daily bread; if he dies, the guarantee will. For particulars of the guarantee and the cost of it, call or write.

The Manufacturers' Life Insurance Company,
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Sheet Steel Brick Siding.



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Get our prices and New Catalogues. **THE PEDLAR METAL ROOFING CO.** Office and Works: OSHAWA, ONTARIO. 4-y-0

Successful Farmers Use FREEMAN'S High Grade Bone Fertilizers

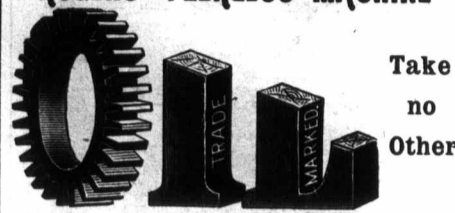
They produce large crops of wheat of superior quality. Try our Fertilizer for FALL WHEAT, which is especially manufactured for that class of crops. Terms easy. Prices low.

Having used your Sure Growth Fertilizer for the past three seasons, it is with pleasure I recommend its use to others. I commenced with one ton the first season, and two years ago purchased from you two tons, and last season two and one-half tons. Always use it on fall wheat at the rate of about 200 pounds per acre, and am fully convinced I had at least one-third larger yield and finer sample than where no Fertilizer was used. Thanking you for your prompt delivery, I remain,

(Signed) RICHARD SELDON, Township Clerk, North Oxford. **THE W. A. FREEMAN CO., Ltd.,** HAMILTON, ONT.

A PLEASANT TONIC Which will strengthen unnerved tired people and invalids, and quickly restore their appetites, is **CAMPBELL'S QUININE WINE.** Prepared only by K. CAMPBELL & Co., MONTREAL. Beware of Imitations. 21-1-y-om

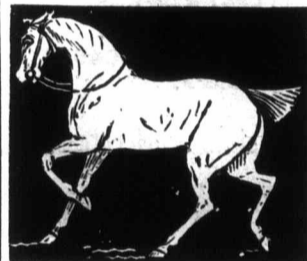
FARMERS! "USE SOMETHING GOOD." ROGERS' PEERLESS MACHINE



It's made specially for your use. Saves wear: Machines run easy. (12 GOLD MEDALS.) Hardware and General Stores all sell it. Best General Purpose Oil known: Ask for PEERLESS OIL. 17-b-o

USE RAMSAY'S CELEBRATED MIXED PAINTS!

To Exhibitors



OF Stock AT THE Fall Fairs

If you would secure First Prize you must have your animal in the finest condition; his coat must be smooth and glossy, and he must be in good spirits so as to "show off" well. **DICK'S BLOOD PURIFIER** is the best Condition Powder known for horses and cattle. It tones up the whole system, regulates the bowels and kidneys, strengthens the digestion, turns a rough coat into a smooth and glossy one. It gives horses "good life," making them appear to the best possible advantage. Get **DICK'S** from your druggist or grocer, or address **DICK & CO.,** 17-om P. O. Box 482, MONTREAL.

An Authority Says: "Eighty per cent. of all the Baking Powders sold are Alum Powders."

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BOYS FOR FARM HELP

The managers of Dr. Barnardo's Homes will be glad to receive applications from farmers or others for the boys whom it is proposed to send out from England in several parties during the coming season. All the young immigrants will have passed through a period of training in the English Homes, and will be carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars, as to the terms and conditions upon which the boys are placed, may be obtained on application to Mr. ALFRED B. OWEN, Agent, Dr. Barnardo's Homes, 214 Farley Ave., Toronto. 4-v-o

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The PEOPLE'S

We invite all our customers and Patron Friends to be sure and come to see us during the Exhibition. We will have a free lunch for all our Farmer Friends every day from 10 a. m. until 6 p. m., and we will give you a cup of our teas to prove to you that we have the best-flavored teas you have ever tasted. You will also have a chance to see our celebrated Patron Sewing Machine in working order; the like of it for \$16 was never seen before. You can see our 11-inch solid rubber rolls Clothes Wringer, for \$2.40. Our Trunks and Valises are right here to be seen. Rubber Threshing Belts, at manufacturers' prices. We have a full stock of Harness on hand from \$6 per set up. Leather Fly Nets, 60c. each. It will pay you well to have a look at them and learn what you can do by buying direct from the PEOPLE'S WHOLESALE SUPPLY COMPANY.

Do not buy your fall or winter Boots until you see ours. It will save you money. We have had them made to our order and we give them to you without middlemen's profits. We have them right here in case lots for you to select from. We have Cottons, Cottonades, Shirtings, Prints, Woolens, Flannels, Hosiery, Braces, etc. Our Winter Underwear is extra value. Do not buy without seeing them. We are having a splendid lot of Fur Coats and Robes made to our order in Montreal for the coming season. We hope to have the first lot here in time for the Fair. For description and prices see our fall list, sent to every farmer on application.

Our Tin and Granite Ware are well worth looking at. For Groceries of all kinds we are seldom equalled and never excelled; especially in Teas, we are the admitted leaders in 10-lb. caddies of Japan Tea at 30c. lb., is just the finest Japan ever offered for the money. Our Kaona Tea at 35c. is growing in favor every day. Our Japan at 25c. and old reliable special blend at 30c. are still favorites. Come to the Fair, and we will give you a cup that will cheer but not inebriate. In sugars we offer only the best Redpath's or St. Lawrence Granulated at \$4.25 per 100 lbs.; Light Refined, \$3.75; Golden Yellow, a Moncton sugar, at \$3.25. We are often asked how is it that you can sell so much cheaper than others? In answer, we buy for spot cash direct from the manufacturers. We owe no man a dollar, and therefore do not pay a big profit out in interest, but are well satisfied to have our cash discounts as profits; we have low rent and small expenses; we have no useless appendages hanging onto us for support. We do business on business principles. If you cannot come to the Fair, send us in your esteemed orders, and they shall have our careful attention.

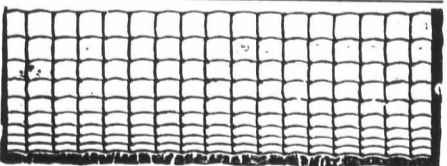
The People's Wholesale Supply Co., 35 Colborne St., Toronto.

R. Y. MANNING, Manager.

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Manufacturers of LUMBER, LATH, SHINGLES, DOORS, SASH, &c., &c. Special attention given to supplying lumber and bill stuff for barns, bridges, and houses. Mills at Callender, on G. T. R. Head Office and Factory, Toronto. 10-L-o



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One of our travelling men has invented a new test for wire fences. He weighs but 176 pounds, so he tries crawling through the fence to be tested. If he can crawl through anywhere without difficulty, he thinks hogs and sheep can too.

He can't get through the Page, but he has gone through every smooth wire fence which is sold as cheap as the Page. He has offered to give a roll of fence to anyone who has a cheaper fence that he cannot get through, but he has no takers.

The Page has cross wires every foot, and eleven horizontal wires of the strongest wire. Send for particulars and illustrated monthly paper, FREE.

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THE ZIMMERMAN The Standard Machine Different sizes and prices. Illustrated Catalogue free. THE ELYMYER IRON WORKS CO., Cincinnati, O. 6-1-o

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HAVE you a supply of pure water; if not have a well drilled on scientific principles by a practical driller. 3-1-y-o

WM. SHARP, Practical Well Driller, 184 Hamburg Ave., TORONTO, Ont.

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Will knit 15 pairs of sock a day. Will do all Knitting required in a family, homepun or factory yarn. SIMPLEST KNITTER on the Market. This is the one to use. A child can operate it. We guarantee every machine to do good work. We can furnish ribbing attachments. Agents wanted. Write for particulars. Price, \$8.00. Dundas Knitting Machine Co., 17-y-om Dundas, Ont.

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