

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

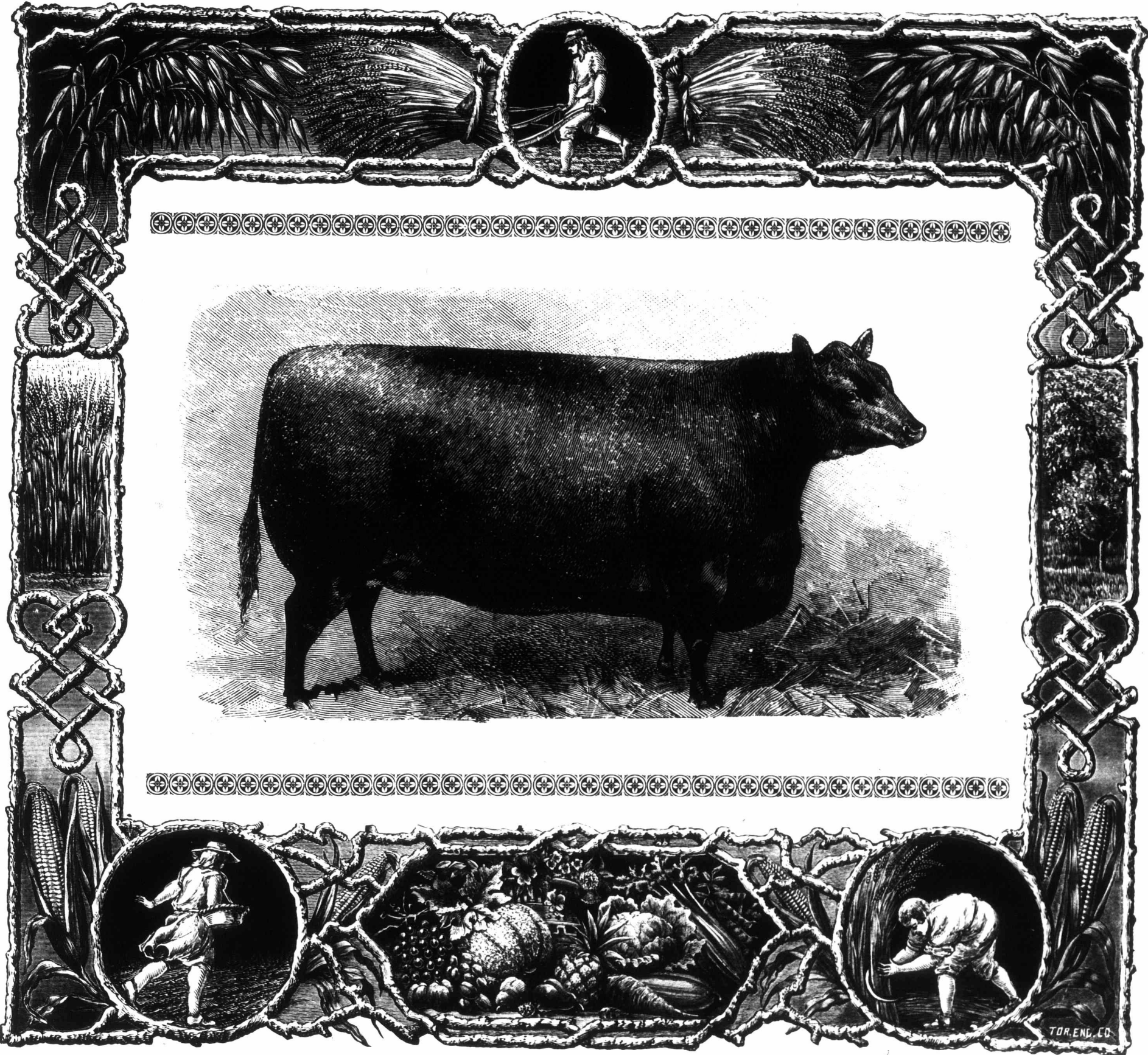
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VOL. XXX.

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No. 375.



ABERDEEN-ANGUS HEIFER, BENTON BRIDE 19843.

THE PROPERTY OF MR. CLEMENT STEPHENSON, WINNER OF PRESIDENT'S PRIZE, ELKINGTON, AND THORLEY CUPS, AS BEST ANIMAL AT THE LAST BIRMINGHAM FAT STOCK SHOW.



## EDITORIAL.

There is a very marked uniformity in the way members of the Ontario Farmers' Institute delegations write us regarding the satisfactory condition and sentiment which appear to prevail in those localities where dairying is pushed as a leading branch of farming.

It has been decided by the Victorian Minister of Agriculture to reduce the amount of the bonus paid on cheese shipped from Melbourne to England which realizes 50s. or upwards per cwt., from £6 to £3 a ton. About 300 tons were exported last season, but it is expected, notwithstanding the reduction in the bonus, that the shipments during the coming season will exceed those of last year.

We devote a considerable portion of our space in this issue to reports from Ontario Farmers' Institute delegations. A great variety of practical subjects have been presented by various speakers, a synopsis of whose principal papers, together with salient points brought out in discussion, or observations made in passing from place to place, are given. We believe that this new feature of the ADVOCATE will be appreciated. Future issues will contain additional reports.

According to the New Zealand Gazette, under the new Dairy Industry Act, which came into force on November 20, the Government agree to provide, free of charge, cold storage for butter at Auckland, Wellington, Lyttelton, and Dunedin. The official experts for grading the butter for export have been appointed. The Government undertake no duties in connection with the shipping, for which owners must make their own arrangements, but strict attention is paid to inspection and branding.

It is very evident, from the various meetings we attended in January, that fruit culture is destined to receive more and better attention, as a feature of Canadian farming, than ever before. We are only waking up to the immense value of this too generally undeveloped asset of our agricultural resources. Next season will witness greater care in the selection of varieties, fruit tree planting, orchard cultivation, spraying, etc., as a means of resisting fungous diseases and insect pests.

In the FARMER'S ADVOCATE for December 15th we give from the pen of Mr. James Fletcher, Dominion Entomologist, an admirable contribution, describing the San Jose scale, its ravages and remedies. Reference was made to the fact that it had appeared in various parts of the States, and also in British Columbia. A recent despatch from Albany, N. Y., reports that it has been found in nurseries on Long Island and Columbia County. State Entomologist Lintner has been investigating the ravages of the pest for several months, and reports that unless active measures are soon taken the fruit-growers of New York will feel disastrous results.

If Royal Commissions, and organizations *ad infinitum*, were a help to the oppressed British farmer, he ought soon to have relief. His latest would-be champion is a clergyman, one Rev. Lancaster McAually, who proposes to found an Agricultural Clergy Union to co-operate with the Central Chamber of Agriculture in securing "justice for the British agriculturists." The Mark Lane Express raps this gentleman sharply over the knuckles, reminding him that any society having the real interest of the farmer at heart must, sooner or later, begin an agitation against tithes, and demand a more equitable adjustment of that imposition, in which case the farmer would doubtless have to cry out to be saved from his new found friends, the "Agricultural Clergy Union."

A U. S. bill has been drafted, and is now under consideration at Washington, to substitute for the present wasteful and extravagant free distribution of seeds, a limited distribution of new and rare varieties through the agricultural experiment stations now in operation in all the States and Territories. These stations are in charge of trained experts, who are familiar with the needs of their respective localities. In co-operation with the U. S. Department of Agriculture, the stations can easily ascertain what new and rare varieties are available, and can select such kinds of seed as will be most likely to give good results in their respective localities. They will be able to engage the service of competent farmers, who will make full tests of the seed under directions given by the stations. The results of these experiments will be made public through the press and otherwise.

## Our Illustration.

On our first page, in this issue, we give a portrait of the Aberdeen-Angus heifer, Benton Bride 19,843, bred by Mr. Clement Stephenson, Sandyford Villa, Newcastle-on-Tyne, and exhibited by him at the last Birmingham Fat Stock Show. She was calved Jan. 11th, 1892; got by Albion 6,525; dam Bride 13,343, of the old Craigo family. She was a very perfect specimen of the breed, being considered by many to surpass any of the heifers with which, in former years, Mr. Stephenson gained championship prizes at the fat stock shows. The "block test" article in the English Live Stock Journal (from which our portrait is reproduced) contains the following details regarding her:—"No. 162. Aberdeen-Angus heifer, Benton Bride; first in class £20, winner of breed cup £25, cup as best heifer or cow £50, the champion plate £105, and first winner of the Queen's challenge cup £150; also, first prize £15, extra prize as best Scot £30, the President's prize £25, the Elkington challenge cup £105, and Thorley's challenge cup £105 at Birmingham; altogether £460, besides the Queen's challenge cup of £150, or £610 in all; bred and exhibited by Clement Stephenson; sire Albion, dam Bride by Sir Peter; age, 2 years 11 months and 3 days; live weight, 16 cwt. 2 qrs. 13 lb.; average daily gain of live weight, 1.77 lb.; weight of dressed carcass, 1,328 lbs.; percentage of carcass to gross live weight, 71.36."

We might say that Mr. Stephenson achieved a similar victory in 1893, so that the two valuable champion prizes (the Elkington Cup, value 100 gs., to the breeder of the best animal, and the Thorley Challenge Cup to the exhibitor of the best animal) have become his absolute property, this being the second time he has won the Elkington Cup outright.

## "Queen of the May" and the old Warlaby Shorthorn Herd.

The portrait of the famous heifer, Queen of the May, which appeared a few issues ago in the FARMER'S ADVOCATE, seems to have attracted a good deal of attention in breeding circles. Mr. G. McLellan Smiles, of "Streonshath Farm," Victoria Plains, Regina, N. W. T., encloses us the following excerpt from Carr's "History of the Rise and Progress of the Killerby, Studley and Warlaby Herds of Shorthorns," published back in '67, in which allusion is made to her:—

"Queen of the May was in almost every respect a model of what a Shorthorn cow should be. Her loins and chine were very wide, flat, and deeply fleshed; her quarters long and level; her head sweet and feminine; her shoulders, girth and bosom magnificent. Her only failing point was a want of fullness in the thighs proportionate to the even massiveness of development displayed everywhere else. During her short career—for she was permanently injured in a railway journey, being then for the first time in calf—she won six prizes at the Royal, the Yorkshire, and the County of Durham shows, being awarded at one of the latter the 100-guinea challenge cup in 1857. It has been reported that Mr. Booth refused for Queen of the May an offer of 1,500 guineas, the highest price ever bidden (up to that date) for a Shorthorn. The circumstances—which are given on the late Mr. R. Booth's authority—are these:—Two gentlemen from America, apparently agents for an American company, came to see the herd, and when they saw Queen of the May were completely riveted by the fascination of her beauty. After dwelling for some time upon her perfections, they enquired of Mr. Booth whether he would part with her. He replied that he would not sell her for the highest price ever given for a Shorthorn. 'That, sir,' said one of them, 'was, I believe, 1,200 guineas?' Mr. Booth answered in the affirmative. They consulted together, and asked him whether he would take 1,500 guineas, which Mr. Booth declined to do, remarking that if she bred a living calf, and he had the luck to rear it, she was worth more to him to keep, and they relinquished her with regret, leaving on Mr. Booth's mind the impression that, if he had entertained the idea, even that large amount might possibly not have been their final offer."

In the January 1st ADVOCATE, in dealing with the subject of road improvement, we took this position in regard to one aspect of the case:—"With regard to the good roads campaign, we believe it will be found that educational work will, in the end, be found more beneficial than any attempt at sweeping or radical changes in the road law." We are inclined to think that this fairly represents the consensus of opinion on the question, after hearing a good deal of discussion at farmers' meetings this winter. Ontario has permissive legislation, of which municipalities can take advantage, in respect to commuting statute labor, so that people can proceed to change their system of road management according to the advance of practical knowledge on the question. Unless we are obliged, up to a change, it will be found both expensive and unsatisfactory to embark in radical changes in the law."

## Prospects for Manitoba Wheat.

BY INVICTA.

Most of the wheat in Manitoba and the N. W. T. was sold this past fall and winter under 45 cents, an average of 15 cents less per bushel compared with present prices. Now comes the announcement that the Ogilvie Company, the Lake of the Woods Milling Co., and the Northern Elevator Company, all intend building several more elevators each this year to handle the next crop. It seems to me there is evidently the hope on the part of these and other large dealers in wheat, that the farmers will again be forced to sell their wheat early in the season, and that they will be able to make a handsome profit by keeping it till February or March. It also implies that there is likely to be keener competition for our wheat, and consequent higher prices. I think for those who are able to hold their wheat till February or March, there is every encouragement to sow a good breadth of wheat this coming season.

## PORTABLE GRAIN CAKES.

A gentleman, named Powell, writing in the Montreal Gazette, throws out the suggestion that if the coarse grains of Canada were crushed and then pressed into cakes, they would find a ready market. It would be necessary, as he points out, to mix the grain with some glutinous constituent, so as to make compact cakes. I would suggest that barley be mixed with one-tenth of its weight of linseed, the whole roughly crushed, and then pressed into cakes, after the shape of linseed oil cake;—oats would require about the same proportion. There is no question that to many consumers these barley and oat cakes would be far more convenient than either whole or crushed grain in sacks. They could be packed away anywhere, and in almost any quantity, and I think Mr. Powell is quite right in thinking the English consumers, especially the cartage and omnibus companies, would buy it freely. Who will try the experiment?

## Chickens Coming Home to Roost.

We have all long contended that the British people, in their crusade against Canadian "stores" and the embargo upon Canadian beeves, were simply playing into the hands of the dressed meat magnates of the United States. Without reviving the question of the motives underlying this embargo, or the merits of the "discovery" by British "Vets." of contagious pleuro-pneumonia (which cannot be found in the Dominion from whence the cattle go), we have observed that, amid the clamour about the imperilled health of the British herds, American dressed beef has been steadily fastening its grip upon the English trade. Periodically, of late, there has been and outcry for the labelling of foreign meat, or some other restriction, in order that no innocent Britisher might be misled into consuming Texas steers under the delusion that his palate was being tickled with "Prime Scots." Still more recently, we observe that a great indignation meeting has been held by the Cattle Trade Section of the London Chamber of Commerce, "to consider the combined action of the North American shippers, in relation to this recent breach of the trade customs, and their endeavor to obtain control over the meat trade." The chairman, Sir A. K. Rollit, M. P., remarked that the question before them was one not only for the trade, but also for the community. For a long time there had been what were called "trade allowances,"—in other words, an allowance of one pound to the retail dealer on every quarter of beef he purchased, originally given to cover shrinkage between the time he bought the meat and when he sold it. This is now rebelled against. The cessation of this allowance was calculated to mean a loss of £100,000 a year to the London trade, or £1,000,000 per annum to the trade of the whole country. He said the Americans already possessed the great advantage over the native producer of preferential rates of carriage to the country, and were seeking to control from Chicago the meat trade of Old London. He hoped they would "never see in England 'rings' and 'trust,' which, if they came to deal with the prime necessities of life, might become both economically and socially most dangerous monopolies." A resolution was unanimously adopted expressing "indignation" against the "retained action" in question.

These Old London butchers have suddenly awoken to the realization that the American shippers are endeavoring to seize complete control of the meat business, and the Agricultural Gazette, we notice, suggests an official inquiry into the condition of the Canadian cattle and meat trade. This inquiry suggests that the shippers may open shops in London for the sale of American meat, and that it is well to watch the conflict, which may have far-reaching effects.



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**Circulate the Advocate.**

If you have a neighbor or friend engaged in any branch of farming, you will do us a favor and render him a good service by calling his attention to the FARMER'S ADVOCATE, and sending us his address for a sample copy, which we will mail without charge. A new and useful feature is the "Farmers' Institute Department," in which we are giving "the cream," so to speak, of what has been gathered at the Ontario meetings last month. Persons subscribing at once will thus receive, while fresh, a concise and valuable record of what has been said on a wide range of farm topics, by practical and successful men. We are also devoting a good deal of space to the various conventions held, in addition to all our regular standard departments.

**STOCK.**

**Chatty Stock Letter from the States.**  
(FROM OUR CHICAGO CORRESPONDENT.)

Top prices: Native beef steers, \$5.50; heavy hogs, \$4.50; light hogs, \$4.15; export sheep, \$4.00; lambs, \$4.00. Compared with two weeks ago these prices show a slight decline in cattle: 20 cents decline on heavy hogs; 10 cents on light; steady on sheep and lambs. At the corresponding time last year best cattle sold at \$5.00; heavy hogs, \$5.65; light hogs, \$5.55; sheep, \$4.00; lambs, \$4.85.

Texas cattle form quite a fair proportion of the offerings, and sell at \$3.25 @ \$4.25, mainly at \$3.75 @ \$4.00 for cottonseed-meal-fed stock, being a little higher than a year ago.

The market for native butcher cows and canning stock has been very high of late, as there has been a scarcity of that kind of stock, and a very good demand for it. A carload of fancy 1,200-pound spayed heifers recently sold at \$4.50, when fat export steers were selling for only a quarter more, but these were, of course, far and away above the average. By the way, there is a very foolish custom in this country of underrating the value of heifers. It has been shown by competent tests that a spayed heifer, other things being equal, will make as much good beef as a steer, but there is usually a difference made on the hoof of 50 cents to \$1.00 per 100 pounds.

The French papers are talking about American wheat, which is dutiable in that country, getting in in the form of beef on the hoof. In other words, they estimate that since wheat feeding has been so generally developed in the United States, many millions of bushels have found their way into France in the manner stated. As a matter of fact, comparatively little wheat has been fed to cattle; where farmers have not had the corn, they have either bought cottonseed-meal or sold their young cattle to the butcher. The hog feeders and sheep men have used wheat quite largely, though the freezing weather has put a stop to slop feeding on the average farm.

A Dakota feeder says wheat feeding, even for hogs, is not a success in that country, but it must be that there are some good reasons not stated why he and his neighbors have made an utter failure of it.

Mr. Cannon, of the firm of Cannon Bros., Pear-sall, Texas, says: Ranchmen expect better prices, and at present steers are selling at \$20, and cows at \$10 per head, or \$2 to \$3 higher than a year ago.

Armour bought nearly 6,000 packing hogs one day recently that averaged 234 pounds, and cost \$4.15, the lowest in nearly three years, or since March, 1892.

The hogs coming are of very good quality, though they are largely of light and medium weights.

Both packers and shippers bought 380 to 430-pound hogs as high as \$4.45.

A load of Texas hogs, averaging 195 pounds, sold in Kansas City at \$3.60.

Iowa packers are buying some hogs in Omaha.

Omaha received 41,888 hogs for the week ended the 19th, which averaged 195 pounds. Receipts a year ago, 26,631, and two years ago, 30,078. Average last January, 250 pounds. Hogs received thus far this month, 116,000, or 43,000 more than a year ago.

Arrival of hogs at Kansas City thus far this year show 47,000 increase compared with a year ago.

Thus far this year St. Louis received an increase of about 3,000 compared with a year ago.

The hog crop is not as short as country men have been talking.

From the best information at hand it appears that the crop of fat cattle is short, and the supply of hogs is larger than generally expected.

The efforts to get Congress to rectify some of the glaring inconsistencies in the new tariff law have thus far been unsuccessful. The cattle men have been especially anxious to get the discrimination against German beet sugar removed, as it rests on the live stock industry of this country, but there is little prospect of getting anything done at the present session.

A Liverpool correspondent, speaking of the attempt of the U. S. cattle and beef shippers to change certain customs of the trade there, says:—"At the present time live cattle shippers have been forcing the carrying of small numbers at unremunerative rates, while the dead meat shippers have been sending only short quantities of beef in the face of a rising market. This combination is taken to be an organization to control the retail trade here, but the immense supplies of cattle in River Plate are only prevented from being brought here by the high freight asked. There was also large supplies in Australia, which will in the near future be brought over here in chilling-rooms, so that it will be seen we are some distance from being entirely dependent on American supplies."

Earl Cowper, of England, has offered to place a farm of nearly three hundred acres, with a residence and buildings, at the disposal of the Herts County Council (of which he is chairman), rent free, for the purpose of providing practical instruction in agriculture, on condition that the Council stock the farm and work it. His Lordship will also erect a laboratory and the necessary dormitories. A sub-committee of practical agriculturists has been appointed to consider His Lordship's offer, and report to the Council upon it.

**Milk Fever.**

BY D. A.

This trouble is misnamed; it ought to be milk chill. Everything about it points to extreme chill. The body, ears and horns become very cold, and where the fever comes in we could never find. There is not even a moderate relapse to warmth, unless brought about by measures adopted by the attendant. Seeing that this is the case, we have got some tangible hold on it, and can, in most cases, so guide matters that the patient may be helped through the ordeal, if not kept free from it altogether. The writer has had several cases of it in pure-bred Shorthorns, and I can safely say that our best remedy, easiest and most reliable every way, is milking before calving, assisted by a rather spare diet. In cases where the animal has been prostrated and with careful treatment been carried through, to prevent an attack at the next calving, milking alone will not suffice. We have had cows badly prostrated the second time, after most careful attention to milking ten days before calving. The bowels, even on luxurious grass, will become deranged as the time for parturition draws nigh, and this must be attended to. Nothing in our experience is equal to a dose of black molasses for this. And, right here, we may say that a quart of black molasses is the finest remedy for impaction, in cases where "loss of cud" (unable to ruminate) happens in any cattle. We have had cows off their feet for hours at the second attack, even when thus treated, but always save them. The third attack, if managed in this way, was very slight.

To have such an animal in high condition would be unwise, but the animal can be in condition good enough to do her best when danger is past. For a cow in high condition at calving, being a good milker and liable to milk chill, as I wish to call it, or one that has had an attack, a starvation diet for eight or ten days previous is a wise precaution, even if milked, but it is not a positive prevention. However, I would not now fear almost any kind of condition, for we have brought several through the ordeal, and made a light attack of several cases that might have proved fatal if not thus treated.

Should any one find their cow showing a slight stagger while standing or walking, the second, third or fourth day after calving, they will have to look alive and provide a warm, comfortable place, well littered with straw. Give the animal a good dose of salts, one to one and a-half pounds. Salts are quicker than molasses, but if the bowels are in their natural condition I prefer the molasses; they do their work complete, while salts will often make a passage through the bowels and not remove a quarter of what is wanted. Blanket the animal well, neck and body; that is what is wanted; get the flat-irons on the stove and iron the cow all over on the blanket; have the irons hot and iron well on both sides of the spine (with us a post-mortem showed the spine most effected). Keep at it and you will save your cow. We have done it for twenty-four hours, and very good judges would not give us a dollar for our hundred-dollar cow. The same cow has had five calves since. A celebrated Jersey breeder buries them up in the hot horse-manure pile. A very good way, if one has the pile hot enough and big enough. We have kept cold, wet cloths on the head, but could never see any benefit. We do not believe that anything fed previous to calving will prove a remedy further than to keep the bowels regular, and the trouble will come when the bowels are in good order. The standard prevention and remedy is to milk.

**Shipment of Live Cattle from Australia.**

A meeting of persons interested in the meat and stock export trade has been held in Sydney, at the suggestion of the Minister of Agriculture for New South Wales, to consider whether it will pay to ship fat cattle to England. Mr. Alexander Bruce, the chief inspector of stock, presided. Mr. C. Taylor, secretary of Messrs. Geedes, Birt & Co., stated that the account sales of twenty cattle sent by the "Maori King" showed that they had realized £14 or £15 a head in London, and that it was reported that eighteen animals shipped per "Port Pirie" had realized £18 per head. Letters received from London stated that the cattle exported ought to be ripe four-year-old bullocks and fat. Messrs. Potter & Co., of London, wrote that the store cattle ex "Maori King" did not fatten on the voyage, and that they did not care to be interested in shipments where cattle had to be sent between decks because of the difficulty of ventilation. After a careful inquiry, they believed that the cost per head would be from £13 to £14, exclusive of 15s., the London charges. Mr. R. T. Keys, of Bengalla, Muswellbrook, expressed his firm conviction that, in view of the failure of the freezing of cattle, the only outlook for the Australian grazer was to send live stock to London. He was satisfied that it could be done, and he had, with other residents in the Hunter River district, tried to induce the Queensland people to join in shipping 900 head, but much apathy had been shown in the matter. Mr. F. B. Birt stated that even with specially-equipped steamers, the cost of a shipment to England would be about £8 a head, and that therefore it was felt that the trade would have to be served by the present ocean "tramp" steamers. It was then resolved to form a committee to report on the subject, and secure the co-operation of the pastoralists in the movement.—[Agricultural Gazette.]



### The Provincial Spring Horse Show.

At a meeting of the Canadian Clydesdale Association, in Toronto, it was resolved to make a grant of \$250 to the Agriculture and Arts Association, and that they be asked to furnish the balance to complete the price list, the same as in 1894. It was resolved that the horse show be held on the 5th and 6th April next, and that two judges and a referee be appointed for 1895. Robert Beith, Bowmanville, and David Pluff, Spring Hill, were appointed judges; and John Lee, Highgate, and Thos. Good, Richmond, referees. Resolved, that the same rule as applied to the Canadian-bred Clydesdales in 1893 be adopted. Messrs. R. Davies, R. Graham, John Davidson and R. Miller were appointed a committee to attend the horse show of 1895; and A. Johnson, R. Graham and Peter Christie, a committee to collect subscriptions. R. Davies was appointed a member of the Special Committee to act with the Special Committee of the Agriculture and Arts Association.

The Hackney breeders contributed \$10 and the Shire men \$20.

#### A JOINT MEETING.

At a subsequent joint meeting of the Clydesdale Association and the Agriculture and Arts Association (Mr. J. C. Snell in the chair) it was resolved: "That we accept the proposition of the Clydesdale Association as to a partnership in the horse show, and that the show be held in the month of April, and in the first week, if possible."

It was also decided that the Prince of Wales' prize be awarded to the Shire horses this year. Also, in view of the fact that we have not yet been able to secure the armory, that the Special Committee be empowered to secure the most suitable place for holding the show, either in partnership with the Hunt Club or not, they to receive half the profits, and we to pay half the expenses of advertising and fitting up the building. Also, that the prize list for stallions be provided by the Agriculture and Arts Association, and the prizes for extra events, such as driving, jumping, etc., by the Hunt Club.

It was further decided that, in case the Hunt Club do not join with us, the Special Committee be empowered to offer special prizes for driving, jumping, etc., to the extent of \$500; and that, in case no attractions can be secured within reasonable terms, the show be again held in the old drill shed.

The following judges were appointed: Thoroughbred horses—Dr. Tremaine, Buffalo, N. Y.; Dr. Sweetapple, Toronto; alternate, W. Fuller, Woodstock. Carriage or Coach—Charles Brodie, V. S., Claremont; E. P. Lowes, Brampton; alternate, James Henderson, St. Mary's. Standard-bred—Charles Eaid, Simcoe; John Scott, Galt; alternate, C. Brown, Toronto. Hackneys—R. C. Stericker, Springfield, Ill; alternate, John Holderness, Toronto. Suffolk Punch and Shires—J. Y. Ormsby, Toronto; R. Gibson, Delaware; alternate, Alexander Doherty, Ellesmere. Clydesdales—R. Beith, Bowmanville; David Pluff, Spring Hill. Referees—John Lee, Highgate; Thomas Good, Richmond.

### Capt. Young on "The Battle of the Breeds."

Noticing in the *ADVOCATE* the criticism of Mr. J. C. Snell on my paper in the 1893 report of the Swine Breeders' Association (I was not able to attend the late annual meeting at Guelph), I beg a little space in your valuable journal to reply to my friend and brother breeder. We did not expect to convince Mr. Snell of the superiority of the Poland-China over the Berkshires; what we wrote was more for men who have not as yet decided what breed to invest in, and in pointing out the preference of the American people (especially the Western men) for the Poland-China, we referred to a class who have informed themselves on the merits of the different breeds before adopting the mainstay of the pork breeds (at least so they think). If any breed can be made to succeed as a scavenger, what may we expect when, in the hands of the progressive farmer, he is fed as no doubt Mr. Snell does? As to his ears being an advantage in the way Mr. Snell speaks, we can't see why, if a Berkshire were in the same position, that his eyes would take any harm, but we think the plums would be sorted out just as surely as by our favorite.

As an argument that the Poland-Chinas are not preferred to Berkshires, he cites his sales of the latter, and says Americans do not come to Canada for the former. We think Mr. Snell will agree that England is the home of the Berkshire, and as he draws fresh blood from the home country, so do we Poland-China breeders draw on the American breeders for fresh strains. Is it not just as unfair for us to assert that because Poland-China breeders ship more or less to England and the continent (and Mr. Snell is not so likely to) that the Berkshire is not still a favorite there? No, sir, the argument won't hold. Still, Mr. Snell talks of the battle of the home-made breeds, black, white and red, and says the Berkshire, with conscious superiority, sails majestically ahead. Although he claims an independent position, it is easy to see the direction the wind bloweth. Come, own up, friend Snell, and admit that the stand in your criticism is similar to the one in the proverbial old lady's, where she said she could be convinced, but she would like to see the man who could convince her. Mr. Snell does not like to let an assertion go unchallenged where his favorite breed is in question, and we relish an encounter of that sort. Any one who espouses the cause of a breed should not let a

challenge go unanswered, provided he has a worthy cause to defend. In conclusion, this is the first criticism we have seen on the paper in question, and we take it for granted that the other breeders are willing to concede the truth of the assertions contained therein. I believe in competition, and when a friend of mine wanted to try Berkshire, I directed him to Mr. Snell and Mr. Coxworth, and he purchased one of each, so you see I was willing to carry out the opinions of my paper. In conclusion, I offer the right hand of fellowship and good will to my brother breeders, and wish the *ADVOCATE* the success it so well deserves.

A. W. YOUNG, Tupperville, Ont.

## DAIRY.

### A Convention of Buttermakers at Chesley.

The tenth annual Convention of the Ontario Creamery Association was held in the village of Chesley, Bruce Co., Jan 8th, 9th, 10th. This locality has a very intelligent and enterprising population of farmers, who have hitherto been successfully engaged in the feeding of cattle, but within the last few years have seen fit to change their line of action, and engage in what now appears to offer a more remunerative return for skill and labor. The people are not heard complaining of hard times, and of the unprofitable drudgery connected with agriculture, but have come to the conclusion that they are in the best business in the world.

**Corn Growing for the Silo.**—Mr. John Gould, of Ohio, said the practice of feeding dairy stock hay, as compared with corn ensilage, was much like burning green wood, or coal with a large per cent. of clinkers, for the reason that ordinary hay contains less feeding value than corn, and only 61 per cent. of it is digestible, while 78 per cent. of silage is assimilated by the consuming animal. The nutriment obtained from hay is chiefly starch; just so with corn. Which furnishes the most remunerative returns from the same amount of labor and expense? The corn that will mature and yield the largest crop should be chosen. Corn, as a crop, requires a liberal supply of decayed vegetable manure, plenty of moisture and heat. An easy and practical way of obtaining the first, is to spread fresh stable manure on sod, and plow it down about four inches. Now, by fermentation, the temperature is materially raised; therefore, two of the conditions are at once obtained with very little trouble. Before planting corn, the surface soil should be worked up very finely; then plant the corn in straight rows from 3½ to 4 feet apart, not more than 2 inches deep. As soon as the corn appears above ground, it should be gone over with a harrow, with short teeth, every three or four days for about three weeks. This serves to keep down all weeds and forms a mulch of loose soil to hinder evaporation. An acre of good corn uses 300 tons of water during its season of growth; therefore the necessity of saving every drop of moisture possible. The cultivation between the rows should never be more than an inch deep, because of the far-reaching lateral roots that ramify the soil very near the surface, often extending 1½ feet from the stalk, and it is not uncommon for under-roots to go down 2 to 3 or even 4 feet in friable soil.

**The Silo.**—Cows give more milk in summer than in winter, under ordinary conditions; therefore it behooves feeders to supply as nearly as possible summer conditions in food and warmth during the winter. If winter dairying is to be successfully carried on, corn ensilage more nearly approaches grass than anything else we can provide. Corn fodder loses in drying 22 per cent. of its digestibility, and, if left out in the shock till April, it will take 300 lbs. to equal 100 lbs. the previous autumn. The advantage of the silo comes in again in the little space required to store a winter's supply of fodder,—just one-seventh of that needed to hold the same amount of hay. Mr. Gould's silo is made of two thicknesses of inch-lumber, dressed on one side, with tar-paper between. The depth should not be less than 20 feet, and may be 35 with better effect. All the floor necessary is dry earth, basin shaped. The walls should be painted with gas tar, made as thin as paint, with gasoline. Curtains of tar-paper were recommended to be placed over the inside of feeding doors as the silo was being filled. Last autumn no covering was put on the ensilage, except about twenty pails of water, which caused an air-proof mould to form on the surface in a very short time. The entire loss on the top was fifteen bushels.

After remarking that a good cow was something like a poet—born, not made, Mr. Gould recommended feeding just twice a day in winter, because, as a rule, the food fed at that season is much slower to digest than fresh, green grass, which is taken at not more than three meals when she has her own way in a good pasture. She should have pure water constantly before her, he thought, because a cow in milk takes about 100 lbs. daily. Now, if this is taken from an icy stream, or trough, at one drink, surely it is not hard to see that it will require a great draught of animal heat to raise it to the temperature of the body. The fact is, that a cow should be treated the same as any other mother, be she bovine, equine, or human, if she is to perform her function at a profit to her owner.

**Co-operative Dairying** is the only profitable plan for the future, in Mr. Gould's opinion, in order to meet competition. Unless we co-operate, a uniform

product cannot be made. Another advantage is the great saving of apparatus. It is estimated that an ordinary sized creamery will save its patrons at least \$200 in equipment alone.

**When to Dry Cows.**—The time for dry cows is August and September. Mr. Gould thinks, when pastures are dry, flies bad, and farm work most pressing. By this system men get pay for winter food. If they do not, the yearly profits cannot amount to much.

What sort of cow to use? was a question asked Mr. Gould. Farmers seldom have much money for doubtful speculation. In view of this fact, it was advised that the best possible use be made of the stock on hand, by culling out all unprofitable animals, retaining only the best and most thrifty. Then purchase a pure-bred sire, of one of the dairy breeds, being sure that his ancestry were healthy, robust and liberal producers of good milk. Breed up, keeping heifers from only the best cows; keep them growing rapidly from the first without taking on fat. Their flesh should be nearly all red meat. In buying a cow, be suspicious of those whose udders, when milked out, empty right down to a flat, flabby skin, as they almost invariably give very poor milk.

**"The Constituents of Corn."**—This paper, a scientific one, by Prof. Shutt, Central Experimental Farm, Ottawa, bore out many of John Gould's practical teachings. The value of corn at the different stages of cutting may be represented by 14 at tasseling, 28 at silk, and 42 when the grain begins to dent; therefore the value of thin sowing and a long season of growth. To those who object to the slight acid smell of ensilage, it may be well to know that it is nothing more than the first step in digestion, the acid being hydrochloric, which is present in considerable quantities in the stomach of a cow or sheep at any time. The stalks and leaves of corn are equally valuable, containing the same substances as the grain, but very much more dilute or less concentrated.

**The Preservation of Manures** received a good share of attention from Prof. Shutt. Seventy-five per cent. of the food a cow eats is returned to the land in manure; the most valuable and easily lost is in the liquid; therefore the necessity of close stable floors and the use of sufficient litter to absorb all moisture. Cut straw was highly recommended as an absorbent, in the absence of which dried swamp muck or sawdust may well be used. Manures from different kinds of stock should be mixed and kept moist, or there is danger of much nitrogen being lost in the form of ammonia. Land plaster, if scattered on a heating manure pile, enters into chemical combination with the ammonia and hinders waste. No manure pile should be subjected to washing and leaching, or the available plant-food, which is largely in liquid form, will be lost in the drainage water. Wood ashes should never be used with farm-yard manure, because a destructive chemical change would go on liberating nitrogen.

**Value of Education to Dairymen.**—Mr. J. S. Pearce said the most successful business men are constant students; they put in long hours of close application, and succeed in proportion to their understanding of the lines with which they have to deal. The business of dairying has many knotty problems to deal with, and only those who know the relation of cause and effect in the dairy can hope to make the best use of his fodder and labor. Mr. Pearce is of the opinion that the time is not far distant when a butter or cheesemaker who applies at a factory for a situation will be asked to show a certificate from one of the recognized dairy schools before he can secure the position.

**The Influence of Good Roads on Dairying.**—Mr. A. Pattullo, Woodstock: It is necessary to economize expense in every possible way. The haulage of milk to factories is a considerable item, being less where the roads are kept in best repair. In some districts the cost is only three cents per hundred pounds, while in others it reaches seventeen cents for the same quantity, the difference being largely due to the condition of the roads. The average cost just now is about eight cents, while, if the roads were all as good as they may easily be made, the cost would drop to three cents per hundred pounds, which would furnish quite a nice nest-egg of profit in many of the large factories.

**Creaming Milk.** The principal points in Prof. Dean's address were the results of creaming milk by the different methods now in vogue. As a result of two years' careful experiments, it was learned that the average loss from the use of the shallow pan was 3.26 pounds from 1,000 pounds of milk; by using the deep-pail creamer, the loss was 1.63 pounds, and from the separator plan, the loss was .12 pounds of fat was left in 1,000 pounds of skimmed milk, the first year; while the experiments of the second year showed a difference of 3.57 from pans, 2.93 from creamers and 1.52 from separator. The loss from a creamery using the milk of 500 cows would be \$300 from separator creaming; \$700 from deep-pail, and \$1,000 from the shallow-pans system. Shallow pans gave best results in a temperature of about 50°; deep pails at 45°, and separator at from 57° to 67° Fahr.

Prof. Jas. W. Robertson, Dairy Commissioner, Ottawa, said: Exhaustive churning is materially aided by the addition of a fresh cow to the herd at intervals, as very fat milk. Turnip flavor is a great objection which may be gotten rid of by keeping cream at a constant temperature of 40 degrees for fifteen minutes, and then cooling it to 60° in the fact that these



**Buttermaking and Marketing.**—Prof. Robertson said every market pays the least possible price for any commodity. Our future market must be Britain, where the price is governed by competition of Australia and Denmark, both of whom have high reputations in the "Old Land." Our butter trade with Britain has been injured because of the poor quality so often shipped. We now have that to overcome, which can only be done by supplying a first-class article in first-class condition. Butter is at its best when four days made; therefore, it must be got to the consumer as soon after that as possible. If cold storage can be obtained to keep butter down to the freezing point of water, no deterioration of value will take place. It was, therefore, recommended to provide refrigerators at different points in Canada and in Liverpool, so that the butter need not be put upon the market during the hot months of July, August and September.

This plan was objected to by Mr. Graham and others, on the ground that if a market is to be secured and retained in England, a constant supply must be provided in order that customers once obtained may be held.

It was recommended that a regular quantity of first-class creamery butter be sent to England weekly by refrigerator cars from the creameries to the sea, and that refrigerator space be secured in the coming fast liners to the British market, where a Canadian shall look after the proper disposition of the same by auction. Prof. Robertson was, therefore, asked to use his influence in securing the support of the Government in a movement of that sort; but the Convention did not go to the length (as announced in a Toronto paper) of committing itself to the general principle of Government bonuses to stimulate the butter trade.

**Bacteriology.**—Mr. J. W. Wheaton, Secretary of the Western Dairymen's Association, addressed the Convention on the "Relation of Bacteriology to Dairying." There are two kinds of bacteria in milk—one reproduced by division, the other by spore formation. The casein and milk sugar are suitable mediums for their development. It is found by experiment that in less than three minutes after milk is drawn from the cow, one-third of a cubic inch will contain upwards of one hundred thousand germs. These are all floating about in the atmosphere; the purer the air, the fewer and better are the germs. If milk-pails and cans are thoroughly scalded and kept in a sunny location, they, at least, will not foster germ life. Proper ventilation of the stables and the admission of plenty of sunlight will do much toward keeping bacterial trouble in subjection. The bacteria that sours or ripens milk will not thrive in a temperature below 50 or above 140 degrees, and, except within these limits, milk can be kept sweet for a considerable length of time. Bacteria that produce slimy, red, blue, or other objectionable forms of milk, can mostly be destroyed at 212 degrees. Some of the bad flavors of milk come from the cow; these can be detected as soon as milked, while those that come from an external source will not be noticed for some time after milking, and will increase in influence the longer it is kept at an ordinary temperature.

**Officers Elected.**—President, D. Derbyshire, Brockville; First Vice-President, Mr. Wm. Halliday, Chesley; Second Vice-President, J. Miller, Spencerville; Directors, J. H. Croil, Aultsville; A. Campbell, Ormond; Chas. Johnson, Athens; John Sprague, Ameliasburg; A. A. Wright, Renfrew; A. A. Allan, Toronto; John S. Pearce, London; W. G. Walton, Hamilton; John Hannah, Seaforth; A. Wenger, Ayton; W. Snider, St. Jacobs; James Carmichael, Arva; John Seinkam, Wellesley; Secretary and Instructor, Mark Sprague, Ameliasburg.

**Dairy Farmers' Clubs.**

Mr. Andrew Pattullo, Woodstock, President of the Western Ontario Dairymen's Association, writes us as follows:—"I have read with very great interest the account you give of the Bothwell Dairy club. I, myself, have been urging the formation of such clubs at every cheese factory and every creamery in the country. I did so at the Eastern Dairymen's convention and at the creameries meeting, and at smaller meetings of farmers which I have attended recently. I hope you will use the powerful influence of the *Advocate* to make the organization of dairy clubs general. Our big conventions have done an immense amount of good, but perhaps more has been accomplished by the district or local meetings which were held during the past two years throughout different parts of Western Ontario. Still we have failed to get at the patrons *who most need* to be inspired to right effort. We have been working in their direction at the annual meetings of the factories. It seems to me much would be accomplished if we could only organize the patrons at our factories into dairy clubs for self help, self instruction, and friendly emulation with those of other factories. I believe the Bothwell people have really started a great movement, and one which the *Advocate* can do a good deal to promote."

Aside from the danger of burning the barn, smoking should never be permitted in the cow stable, because the fumes of the tobacco are certain to get into the milk, and thence into the butter, and depreciate its value. If you must work in the dairy barn before daylight or after dark, see to it that there are safe and substantial fixed lights, and then let those be the only lights there, for lanterns are almost as dangerous as pipes.

**Paying for Cheese-factory Milk.**

(Paper prepared by Prof. Van Slyke, of Geneva (N. Y.) Experiment Station, for the Western Ontario Dairymen's Association.)

In response to the request that I should prepare a discussion of the proposition made by Prof. Dean in Bulletin No. 95, advising a somewhat radical modification of the fat-basis in paying for milk at cheese factories, I send you the following, in which I shall confine my statements to the following points:

- (1) Is this proposition warranted by facts?
- (2) In whose interests is such a proposition made?
- (3) What is the immediate effect of such a proposition?

Before taking up the first point, let us consider what the proposed modification is, and what object it is supposed to accomplish. Suppose two patrons furnish milk containing respectively 3 and 4 per cent. of fat, then under the regular fat-basis system one would receive three-sevenths and the other four-sevenths of the money received for the cheese made from their milk. The proposed modification would call three per cent., four, and four per cent., five, thus making nine shares instead of seven, of which one would receive four-ninths instead of three-sevenths, and the other five-ninths instead of four-sevenths. In other words, under the proposed change, one pound of fat in poor milk would receive more money than would one pound of fat in richer milk.

The object sought to be accomplished by the change is absolute justice, or greater justice than can be secured by any other system, on the supposition that a pound of fat in poor milk makes more cheese than a pound of fat in richer milk; and, moreover, that the cheese is of the same commercial value, whether made from poor or rich milk. This proposition is based on the claim that milk poor in fat not only makes more cheese per pound of fat, but that such cheese made from poor milk has an equal if not greater market value than cheese made from richer milk.

Now, coming to our first point:

- (1) *Is the foregoing proposition supported by facts?*

On what ground is the claim made that more cheese can be made from poor milk than from richer milk for each pound of fat? The two compounds of milk which are of most account in determining cheese-yield are fat and casein. Now, it is claimed we shall always find in poor milk more casein for each pound of fat than we shall in richer milk, and hence, a pound of fat in poor milk will make more cheese, because it has more casein associated with it.

I have this to say on this point: We have worked for three years on this question, and have carried on over 300 experiments, both at our Geneva Station and in numerous cheese factories. We have carried our work through the entire factory season, and have obtained the averages of many million pounds of milk, produced by many thousands of cows. We have also worked with individual herds of cows. As a result of this work, we are warranted in saying that, so far as our New York factory milk is concerned, we find on an average that within the limits of 3 and 4.5 per cent. of fat the variation of casein from a uniform proportion with the fat is insignificant. While there are marked variations in individual cases, we should do injustice more often than justice by trying to recognize variations from the general rule. The proposed change claims or implies that the rule is always the other way, that poor milk *always* contains more casein for its fat, and it makes no allowance for variations on any kind from such a rule.

Granting, however, that the milk produced by Canadian cows is different from that produced by cows in New York, and that in the milk of Canadian cows the richer milk *always* makes less cheese per pound of fat than does milk poorer in fat,—how can we justly pay the same for a pound of fat in rich milk as in poor milk?

Under such circumstances, *quality* as well as quantity must be considered. If a pound of fat in poor milk makes more cheese than does a pound of fat in richer milk, it is due to the larger proportion of casein contained in the poorer milk. The increased yield per pound of fat is due to an increased amount of casein per pound of fat in milk. The results will be a cheese richer in casein, and hence, poorer in quality and market value. On an average, casein is worth 2½ cents per pound; milk-fat, 25 cents. The proposition under discussion is practically to make the value of casein equal to that of milk-fat; whereas, its presence in the cheese in increased quantity makes a poorer cheese, under the same condition of manufacture. This is simply the old question, in a modified form, of paying for casein more than it is worth.

Now, the experimental data, which have largely been instrumental in establishing the fact that cheese made from milk richer in fat is worth more than cheese made from milk poorer in fat, were furnished by the investigation of your own Prof. Robertson, working with Messrs. Bell and Ruddick. Their work was done only two or three years ago, and it is a matter of no small surprise that the Bulletin of Prof. Dean should have so completely ignored Prof. Robertson's results, especially when the latter had at least ten cheeses for every one contained in the Bulletin under discussion.

On page 5 of the Bulletin, we find that the cheese made from milk poor in fat scored higher than the cheese made from milk richer in fat. These results, carried to their logical conclusion, would make skim-milk cheese worth more than whole-milk cheese, since they indicate that the less fat and more casein the higher the cheese scores. This may furnish an

explanation of the high quality of the cheese sent by Canada to the World's Fair, since milk on our side averages somewhat higher than yours. In our next competitive test, we shall endeavor to use the poorest milk we can find, and shall confidently expect to take all the prizes from you.

I may add, however, that the results secured by Prof. Robertson harmonize with the work done at no less than five different experiment stations in the United States.

- Let us now consider briefly the second point:
- (2) *In whose interests is the proposed change made?*

Is it demanded by the majority of intelligent dairymen? Is it called for by the dairymen who have done most to build up Canada's dairy interests? Take the progressive dairymen;—is he impatient for the change? Not at all. This proposed change is made *solely in the interests of the producers of poor milk*. Has not this class of dairymen had the advantage long enough? For a whole generation they have been sharing the profits earned by their better neighbor dairymen. Even if some slight advantage may accrue to the producer of richer milk on the regular fat-basis system of payment,—a point which we do not for a moment concede,—it would take a century to get back the money that has already gone into the pockets of poor milk producers under the old system. It remains yet to be proved that facts will support any such change. Any slight absence of absolute equality under the regular system would not be corrected under the proposed change, because this change is based on claims not established, and assumes that what may sometimes be true is always true. In our work during the past summer with different factory herds of cows, we have found poor milk, containing about the same amount of fat, differing in proportion of casein to fat as much as the poorest and richest milks. How would such cases be helped by this proposed change? A similar case occurs in Prof. Dean's Bulletin; taking May 7 and June 6, the milk contained just the same amount of fat (3.19 per cent.), as shown on page 10, and yet one milk made 9.19, and the other 9.92 pounds of cheese, the difference being due to more casein in one.

- Coming now to the last point I shall discuss:
- (3) *What is the immediate effect of such a proposition?*

The first effect is to cast doubt upon the whole system of paying for fat in milk for cheesemaking. The producers of poor milk, who are always and everywhere the "kickers" against the fat-basis system, are only too glad to lay hold of any excuse for overthrowing a system that takes from them money which they formerly received, but which in justice belonged to others. They dwell simply upon one point—the *unfairness* to them of the fat-basis system; not upon the slight amount of injustice, if there is actually any. The proposed change will in this way work more injury than it possibly can good, allowing that it would completely render justice to every individual.

Last year, at Ingersoll, I talked with young Mr. Ballentyne, who told me of this plan, and also the reasons why he adopted it. His reason was simply this: a pound of fat made more cheese in May that year (1893) than later in the season when the milk was richer, the yield going down somewhat as the season advanced. Hence, he reasoned, if we take herds of cows at any one time, or for an average of the whole season, the milks of different quality will vary as the milk does from month to month during the summer. Under normal conditions this reasoning would hold good, but I pointed out in my address last year that the drought prevailing in 1893 affected the milk, making the casein actually decrease for awhile, when the fat increased. The facts observed under these abnormal conditions formed the original basis of this proposition. Similar conditions prevailed during 1894, and the same facts were noted in our experience.

**SUMMARY.**

Reviewing the points upon which we have touched, we feel warranted in saying that the weight of known facts does not justify us in the belief that any stricter justice would be rendered under the proposed change than under the regular fat-basis system, because if different milks vary in quantity of cheese produced per pound of fat, such differences will be compensated for by differences in the quality of the cheese produced.

The proposed change is solely in the interests of the producers of poor milk, and will create dissatisfaction with the fat-basis system, because the producers of poor milk will make it an excuse for returning to the old system. Any plan which encourages the production of poor milk, or which fails to encourage constant improvement in milk production, should be unhesitatingly condemned.

Mr. James Peter, Berkeley, Gloucestershire, explains, in the North British Agriculturist, his system of using carbolic acid as a preventive of abortion in cattle. "Commence by mixing with sufficient hot water to make a bran mash, ½ oz. ordinary crude carbolic acid, then add the bran, gradually increasing the carbolic acid up to ½ oz., which is the maximum quantity I can get a cow to take in a bran mash. For a number of cows, I measure out the requisite number of ½-oz. doses, and mix with water and bran in a fodder barrow, and then give a good, broad shovelful to each animal. Before I got rid of the disease I administered the carbolic mashes three times a week. I find it equally safe to give an animal a ½-oz. dose daily."



### Dairymen Meet.

The Western Ontario Dairymen's Association held its eighteenth annual convention in Stratford, Jan. 15th to 17th. The attendance was good at every session; in some instances the numbers present reached about 600, a record upon which the promoters are to be congratulated. Within the last few years improved methods of transportation have brought the ends of the earth together in competition. Our present market is Great Britain, which we furnish with half their cheese supply, and if we furnish them a uniform fancy article, such as we have proved ourselves capable of producing, there is no reason why we should not increase the demand for Canadian brands. Now, one of the objects of conventions such as this is to encourage more and better work on the part of patrons and makers, and co-operation as much as possible between patron and maker, factory and factory, district and district, province and province, so that cheese branded "CANADIAN" will mean something definite and desirable to foreign markets.

#### PRACTICAL HINTS RE THE TRADE.

In the course of President Pattullo's address, it was shown that the shipment of butter from this to the Old Country during the last ten years has decreased very materially, while the output of cheese has gradually and substantially risen. He showed the necessity of factories engaging only the most competent makers, who should be liberally paid, so that encouragement would be given to intelligent men to equip themselves by attending a term at one of the dairy schools of the Province.

There are some cheese dealers who have been selling one month's cheese for another, thus deceiving the market; the result is to bring discredit upon the whole Canadian product. Therefore a resolution was passed recommending that every factory obtain a set of stencils, to be used in stamping every cheese with date of day and month, as soon as it comes out of press.

Another matter was that of shipping cheese of positively inferior quality. An object lesson was given the convention in two boxes of cheese being placed on the platform which had been shipped from factories to dealers within the last few weeks. One was entirely void of rind, and when the cloth was removed needed only a little shaking to spread it about as loose particles of curd; by its appearance it had been put to press at too low a temperature, and with great development of acid. The other box contained just part of a cheese, and had reached the dealer in that condition. Such work as that cannot fail to bring discredit and ruin if continued.

The folly of holding cheese from one month to another for a higher market was discussed at some length. Mr. Derbyshire referred to the fact that too often shipments contained the makes of two or three months, thus very uneven in quality. The result is, when they are placed on the British market a dealer tries one and finds it too new, another is drilled and found too long made, thus the whole shipment would fall into disrepute. It would be a much better way, according to Mr. Derbyshire's idea, to ship all cheese as soon as ready, and take the price offered, whatever it may be.

A resolution was carried appointing a committee to arrange for subjects and discussions on practical cheesemaking for the next annual convention.

**Exhibits.**—Mr. J. S. Pearce delivered a short address on dairy goods at our exhibitions. One new and important suggestion was that of dividing the premium money according to the score of the goods, so that good cheese would always get a prize of some sort, and thus encourage a larger display of exhibits.

**Cheesemaking Experiments.**—Professor Dean stated that sufficient Canadian experiments had not been conducted in cheesemaking, and urged that the "Experimental Union" be brought into use in this important work. Experiments should be conducted so as to have some practical conclusions to offer when completed, then such information should be put before the people in an intelligible form. The late Bulletin from the Ontario Agricultural Department, known as the "Disturbing Bulletin," went to show that richer milk made more cheese than poorer milk, but not enough more to warrant its value to be decided by the fat reading alone, and casein should be taken into account as well as the fat in paying for milk. Casein is almost a constant quality. Adding two per cent. to the fat reading gives nearer the value of milk for cheesemaking than any other method, he contended.

Prof. Robertson, in referring to the Bulletin in question, thought a mistake had been made in introducing any new method before it had been thoroughly tried. He states that Prof. Dean had only succeeded in shifting the difficulty from that of paying by weight of milk regardless of quality to that of paying by weight of cheese regardless of quality, leaving the real question about in its former position.

A letter was read from Prof. Van Slyke, which appears in another column of the Advocate.

In answer to Profs. Robertson and Van Slyke, Prof. Dean said that the only point upon which they differed was the relative value of the cheese made from the rich, and that made from the poor milk. According to his experience, cheese made from 3.15 per cent. milk scored higher and kept longer than cheese made from 4.70 per cent. milk.

To settle this question, Hon. Thos. Ballantyne had two samples of cheese, which were made by A.

T. Bell, Tavistock, placed on the platform, one made from rich, the other from average milk, which showed a great difference in quantity and quality, in favor of the richer milk.

#### OFFICERS.

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(TO BE CONTINUED.)

### Farm Buttermaking.

F. J. S.

It is our intention to offer a series of articles on farm buttermaking, considering first the different methods of raising the cream and caring for the same, and afterwards, the making and marketing of the butter.

#### WHERE SHALLOW PANS ARE USED.

The milk-room is, perhaps, the first thing to be considered. If this be in a portion of the cellar, it should, of course, be free from the odors arising from the root or vegetable compartment, or even from the room where food for the table is kept. In short, milk-rooms should contain naught but milk or milk products. Stagnant air is bad, being usually impure; therefore a gentle circulation of good air is a necessity, secured either by windows or by pipes laid underground, out of reach of frost, and entering the cellar near the floor, with escape pipes in the upper walls or ceiling. In securing ventilation avoid draughts, as they tend to dry the surface of the cream, making it leathery. If these tough portions of cream pass through the strainer, they may appear in the butter without change; and if removed by the strainer, there is just so much loss. Avoid the use of a sink in the milk-room, unless a first-class exit is provided for the same, and the sink be kept well cleaned and disinfected. Cement, brick or stone makes a good floor. Arrange the shelves about a foot to eighteen inches from the floor, and set in pressed pans, not deeper than three inches. Greater depth means loss of butter-fat in the skim-milk. Strain and set the milk immediately after milking, in milk-rooms where the temperature does not exceed 60° F. Set twenty-four hours in summer and thirty-six in winter, as experience and experiment prove this to be sufficiently long to get all the cream. If milk sours, skim at once, as all the cream is up that will come up under such conditions, and to leave it unskimmed is but to injure the quality. We will say nothing further, but refer your readers to our article on "Cream," in the Advocate of Dec. 15th.

As some may not have a suitable cellar for this work, we would offer a few hints on the erection of a building for the purpose: Build convenient to the house, and large enough to churn in, as well as to work and store the butter. If you wish to store a little ice, which is very useful, make the house large enough to store it under the same roof. The walls should be double; so should the doors and windows. V siding makes a nice inside lining. Floor tightly with good, hard lumber, and slope floor slightly, to carry off water, etc. A false roof under the regular one is good, keeping the heat of the sun from penetrating easily. If the house has the benefit of the shade of trees, all the better. Whitewash the whole outside of the building, and draw the blinds down over the windows during hot summer days.

It may be that some have an unused building on the place that a little expense in lining, etc., would convert into a satisfactory milk-room.

Artificial heat will likely be required during cold weather, and this may be supplied by a small coal or wood heater, or in any other convenient way that suggests itself to the individual under his or her conditions. By using a starter to assist in ripening the cream, the latter may be ripened at a much lower temperature than otherwise, and thus necessitate less heat in the building.

To sum up:

1. Strain and set immediately after milking. Milk set at a high temperature and reduced as fast as possible to a low temperature, gives up its cream most readily and thoroughly.

2. Set in clean, well-aired milk-rooms.
3. Set not deeper than three inches.
4. Twenty-four hours in summer and thirty-six in winter, is long enough for the cream to fully rise.
5. Give the best possible attention to ventilation and circulation of air, as the greater proportionate exposure of milk and cream in this system makes these imperative, if good butter is desired. In our next we will speak of the handling of creams.

The Central Farmers' Institute meets in Toronto on Feb. 5th and 6th, and the local Board of Agriculture, on Feb. 7th and 8th, in the same place.

Clover is a living substance, and its leaves are a valuable fertilizer factory. Its leaves are found under layers of soil and are a source of food for the soil while the leaves suck food from the soil and are left down.

### FARMERS' INSTITUTES.

#### Practical Gleanings from Division No. VII., Province of Ontario.

##### Dairy Farming.

J. F. Beam, Black Creek:—"Dairying is the most profitable calling to-day in our country. In selling dairy produce and feeding our grain on our farms, we will enrich them. We have many advantages. We make a finished article, which is ready for the market; our cheese has been a great success, but in butter we are away behind; we have co-operated in cheese,—we have not co-operated in butter. Our cheese has a good reputation,—our butter has a bad reputation. Of course, cheese keeps better, and can be shipped more easily and more safely. Steps, however, are being taken to put our butter on the market in a better shape. One buttermaker at the creamery can make a more uniform and better article than a hundred different persons in a hundred different ways. There are many disadvantages in making butter on the farm, and the tendency is to have it made in our creameries. This will add uniformity and quality, and save labor on the farm. It is a good plan to make small cheeses for consumption near the factory and to the patrons. A long, small cheese of six, eight, ten or twelve pounds each is the most salable kind. By cutting these through the middle and using a slice,—and then putting the two pieces together again, it will keep moist and much more will be used. The price is larger, and so it pays better. We have an endless market abroad for all the cheese we can produce. The local market for butter, however, may be glutted, and we have no redress. The question is often asked: Where, then, will we sell our butter? Experiments are being made to send butter to England, and no doubt, by co-operation and care, we will have a good market there. By making butter in winter and cheese in summer seems to be the best solution to the difficulty. Winter dairying is the most profitable way of disposing of our grains and fodder, and a combined factory is the most satisfactory and pays best. In creameries you get back the skim-milk, and so can raise calves and pigs. In cheese districts calves are raised by having the best cows calve in the fall and raise the calves during the winter. Cream separators are good, and can be used to advantage if the farmer has fifteen or twenty cows, but not if a smaller number. The dairy business is keeping pace with the increase in consumption, and the future is safe. There are many difficulties connected with dairying, and this is a good guarantee for large numbers not going into it."

##### Poultry on the Farm.

W. J. Haycraft, Agincourt:—"Poultry has not received that attention on the farm that other kinds of live stock have; but, with care and proper attention, poultry may be made to pay better, if cost of labor is considered. It requires system and suitable arrangements. Too often the manure is wasted, and for want of cleanliness disease and vermin increase and loss results. The four essentials in poultry breeding are: good birds, good houses, good food, and a good market. Fowls that are large layers and also good for table use are the most profitable, and the Plymouth Rocks do best in these respects. For eggs alone the Minorcas rank very high. Turkeys, geese and ducks are equally profitable, and are less liable to disease and less care is required. Bronze turkeys are as good as any. Geese can be raised with water from the pump as well as from a pond. Toulouse geese are prolific layers, but not good sitters. They are large, and crossed with the common breeds, produce the ideal market bird. The best ducks are the Pekin, Aylesbury and Rouen. The Pekins are large and good feather-producers, but hard to get in full feather. The Aylesburys are good for table use, and are large, but the Rouen is the best general purpose bird. The Pekin can be put on the market earlier than the Rouen, and are very remunerative. By using pure-bred males good results are obtained. The most profit is obtained from young birds, and those that go beyond two years of age are, as a rule, unprofitable. Early hatching is good, as the pullets lay earlier and bring in the best returns. Stone, brick and frame houses are used, but frame hen-houses are preferred, because they are dryer, and dampness is very unhealthy for fowls. A warm house, facing the south, with a good yard, is desirable; the roosts about two feet high and all of a height, with a board floor underneath, and gravel in other parts of the house. The nests and roosts should be movable, so as to be easily cleaned. Coal oil is good for lice, and smoking the room with burning sulphur is necessary to destroy all vermin. Spraying the inside with water and carbolic acid is a good plan, or put in the whitewash. Land plaster will destroy odors in the yard. Oat-chop, corn-meal and bran shorts, moistened, make a good morning food. Myer's poultry spice, or Waterloo egg food, are good as a stimulant. Scraps of meat and vegetables should also be given. Wheat makes a good evening meal; buckwheat is also good. For chickens, milk and bread are best. Peas or corn can be fed to turkeys, geese or ducks, just before the laying season. Leave the chicks with the hen for about a day, then put in a coop without a bottom, and keep moving daily, always on dry ground. Dry bread, or bread dipped in milk, rolled into balls, or dandelion leaves and lettuce chopped fine, are excellent. Feed a little and often prevent smothering. Water should be of easy access, and the house may also be near at



hand. See that gravel may be obtained by the fowls. If the young are weak when they come from the shell, drop a little milk into their mouths and it will greatly help them. Early eggs and early chicks are most profitable. Put the fowl on the market in an attractive form, and you will get a much better price, as it takes the eye of the purchaser. By using care, and giving strict attention to all the particulars in breeding and care of fowl, there should be money in raising all kinds of fowls."

#### The Feeding of Dairy Cattle.

D. E. Smith, Brampton:—"Experiments have been made in Germany, England and America, showing the composition of the animal, the composition of milk, and of all grains, hay, straw and fodders. They found out that foods too strong in one ingredient are not profitable, and foods too strong in another opposite ingredient are also unprofitable. For example, corn-meal, corn ensilage and straw (the carbo-hydrates) are too strong in the heating and breathing parts; whereas peas, clover hay and bran predominate in the flesh formers, and include the albuminoids. By mixing these opposite ingredients we get an even-balanced ration, which is far more economical and healthy. Corn ensilage, with clover hay and pea-meal, makes a very cheap and well-balanced ration. A cow must take from the food the material to make the milk, and if the ration is too one-sided she must waste a large amount of it, as she cannot use it to so great advantage as when properly mixed. Cows should have a large quantity of coarse food, and all foods should be open and porous and not too concentrated. Regularity, comfort and pure water add very much to the producing qualities of dairy cows. The stomach and the machinery that produces milk can be developed by carefully studying the animal and the foods most suited for her; then by gradually increasing the quantity of food, all these organs become strengthened and soon much better results are obtained. Clover hay, peas and all leguminous plants do not impoverish the soil. They take their most important constituents from the atmosphere, —the nitrogen; but they also obtain, by means of their roots extending down far into the soil, other elements. We find that forty-five pounds of well-matured corn ensilage, five pounds of bran and nine pounds of clover hay cut on the green side, make a very satisfactory mixture, and the cheapest and best we know of. It is almost the same in composition as five pounds of pea-meal, five pounds bran, nine pounds clover hay, seven pounds straw and eighteen pounds of roots; but the latter mixture costs very much more, and gives no better results."

#### Corn and Cultivation.

There are but few remarks necessary on this. The corn should contain as many large ears as possible, which should be allowed to mature well before putting into the silo. The cultivation should be frequent surface cultivation, as deep cultivating disturbs the roots and retards growth. The land should be well manured.

#### Gleanings from Division No. V.

##### The Points of a Good Dairy Cow.

Mr. T. G. Raynor, B. S. A., of Rose Hill, described the Dairy Cow as being wedge-shaped, tapering from a thin neck, widening gradually backward. Her face should appear a little long, with a large muzzle and large nostrils, which denote strong lung power, and the large muzzle a good feeder, without which no cow can be a success in the dairy. The eye should be large and prominent, with quick movement, which shows a nervous temperament. A cow does not require to be a kicker to show nerve power; but if she be suddenly disturbed, the first look should be stern and firm, as much as to say, "I am just as good a man as you are;" but when she finds you do not mean her any harm, she will become perfectly docile.

The navel should be large and prominent, as that is the organ through which the animal is supported while in the foetus stage. She should have a long, tapering, ewe-shaped neck; shoulder blades closely fitted and reaching to within one and a-half or two inches of the top of the backbone. Ribs should be well sprung, so that there will be a large barrel. The back should be straight, with a few loosely put together joints about half-way between the shoulder and hoop-coupling, as that is where the nerve line from the milk-producing organs connect with the spine. Tail long, small and tapering, reaching well below the hocks.

Udder should be large and elastic, reaching well forward and back, covering as much of the body as possible, and when milked out, receding into small proportions—folds of slack skin. When the udder is full of milk, it should show as if divided into four equal parts; teats wide apart, and cork-shaped, not tapering; thighs thin, and wide apart, to allow room for a large udder; escutcheon long, wide and well-defined; milk veins large, zig-zag, covering as much of the body as possible, and entering the body as far forward as possible. The cavity where these milk veins enter the body should be as large as possible. She should stand on short legs, with enough of bone to carry the body, and no more; shanks flat-shaped, showing no signs of fleshiness; joints of the legs, and in fact of the whole body, rather loosely put together; legs placed rather wide apart, the hind-legs to allow room for a large udder, and the fore-legs to allow of plenty of heart and lung power. The whole body, but especially the brisket, shoulders and neck, should show no signs of superfluous flesh or fat; skin, a deep yellow color, thin and pliable to handle, and loose, that it would

appear as if it were meant for a much larger animal than the one it is on; covered with a thick coat of fine, silky hair, and appear to the touch as far as possible from the feel of a dead animal.

#### What is Good Food?

Good, wholesome food, means food well-cured and free from must; or, in fact, anything that would likely interfere with the quality of the milk. Good, pure water should be given, and not stagnant water or dirty, pool water. The value of the food given depends largely upon two things: (1) its composition, and (2) its digestibility. The composition of a food will depend upon the kind; i.e., of what elements it is most largely composed, those containing the most nitrogenous compounds, or flesh-forming elements, being the most valuable. The digestibility of a food depends upon its maturity, manner of curing, and degree of concentration. For instance, well-cured clover hay is much more digestible than clover hay allowed to stand too long, or exposed to rain and dews. All foods contain, in different proportions, what may be termed *flesh formers* and *heat and work producers*, and these, in a well-balanced ration for the production of milk, should be in the proportion of 2.5 lbs. of digestible flesh formers to 13.5 or 14 lbs. of digestible heat and work producers. Peas, bran and oil-cake were mentioned as flesh-forming foods, and corn, corn fodder, straw, barley, etc., as examples of heat and work-producing foods, while clover hay and oats had the proportions in the right ratio, or about 1:6.

It was claimed that there was a serious loss on the part of many feeders in the way they mixed their foods, to attain the same end. For instance, one man was cited as having made his grain ration of pea-meal largely. This was feeding his peas at a great loss, as the animals could not assimilate all the flesh-forming elements they contained. A mixture of grains and coarse fodders would constitute the best feeding rations.

#### Two Successful Rations.

One or two gentlemen at the Innerkip meeting submitted their feeding rations for criticism. The ration of 10 lbs. of cut hay and straw, 25 lbs. ensilage, 4 lbs. bran, 2 lbs. peas, 2 lbs. oats, 1 lb. barley, and 2 lbs. oil-cake, was the average amount fed to the average animal of a herd of Jerseys and Jersey grades.

Another very successful feeder, who was feeding larger cows with good results, fed 10 lbs. cut straw and chaff, 35 lbs. ensilage, 5 lbs. bran, 2½ lbs. pea-meal, 1½ lbs. barley-meal, and 2 lbs. oil-cake.

Both these gentlemen were satisfied with their returns.

#### General Management of Cows.

The next point was the management. Cows should be at all times as comfortable as possible. Large dairymen in the States, and elsewhere, make a practice of keeping the dairy cow in the stable the whole year, or at least when milking. They bring everything to her. Warm, well-ventilated stables were necessary in winter, a temperature of about 60° being the best. Much stress was laid on cleanliness, quiet handling and regularity with dairy cattle, to attain the best results. Plenty of salt should be given regularly; about four ounces may be allowed.

With attention to all the little details about the dairy herd, success in this branch of the farming industry is assured, provided we have the right man with the right cow, in the right place, and furnish her with the right kind of food, in the right way.

#### How to Enrich an Impoverished Farm.

Mr. Joseph Yuill, of Carleton Place, near Ottawa, a well-known and successful farmer, Ayrshire breeder and exhibitor, is another member of the deputation.

One of his most interesting subjects was, How to Enrich an Impoverished Farm. Clover was the most valuable plant to the farmer, that grows in Canada, and he advised farmers to grow less wheat and more clover, and to feed everything on the farm that grows on it. The clover plant has the power of collecting the free nitrogen of the air and storing it in the soil, so that other crops may get the benefit of it. If once he got a field to grow clover, he had won the battle. He instanced a farm which he had purchased some twelve years ago, and it was so poor that it would not grow a decent thistle; now it is one of the richest farms in the country. His mode of culture was as follows: If the field is too poor to grow clover, then sow buckwheat, at the rate of 2½ or 3 bushels per acre; sow early in June, plough under when in full bloom. Turn the sheep on to pick off any part of it which has not been covered, to prevent it from going to seed. Sow barley next spring, with ten or twelve pounds early red clover seed to the acre. The clover should not be grazed off the first autumn, but if the seeding has been done with barley, oats or wheat, and a long crop of stubbles left on the ground, the mower should be run over the field. The young clover and stubbles will drop to the ground and make a splendid mulch to protect the young clover plant the first winter, and the stubbles will not rake up with the first crop of hay. If there is enough manure to be had, the clover should receive a liberal top-dressing the first winter. The first crop should be cut when it is in full bloom, —not a brown head to be seen in the field. If cut at this stage, there should be a splendid second crop. This second crop may be either cut and cured for fodder, grazed off, or it may be ploughed under. If there were time, Mr. Yuill advised cutting and feeding the second crop, but if time and weather

did not permit, then graze it off or plough it under; but, in any case, the land should be ploughed that autumn. Sow peas next spring. After the peas are harvested, plough the land; this will turn up the clover sod which was turned down the year previous, and will make the very best seed bed imaginable to seed down next spring, with either barley, oats, or any kind of grain grown on the farm. Top-dress again the first winter with manure, fresh from the stables, without being heated, made while the stock are being fed clover. This manure will be full of clover seed, which will grow so thick that there will not be one inch square on the field that will not be full of clover. Continue this rotation; that is, two years grain and one clover. If the field is required for corn, turnips, or any other kind of hoed crop, there is no better place to grow it than on a clover sod. After the hoed crop has been taken off, plough in autumn. This field will be in splendid condition to grow a crop of barley; or, in fact, a crop of anything. Do not fail to seed down with this crop, using, as already described, at least ten or twelve pounds early red clover, and apply a liberal top-dressing in winter; by this time the field will be so rich that it will grow any kind of crop required on the farm.

Mr. Yuill recommended the use of about 200 pounds fresh ground gypsum per acre. This should be applied to the surface, either in early spring on the frozen ground, or when the clover plant is a few inches high. He does not teach that the clover plant is nourished with the gypsum through the leaf, but that in dry weather, the gypsum being spread on the leaf, it draws a moisture to the leaf and through the leaf to the plant; and gave instances where the crop of clover (especially the second cut) had been more than doubled by the use of gypsum.

#### "Fodder Corn and the Round Silo"

was ably handled by Mr. Yuill, who recommended the round silo, which should be at least twenty feet high (thirty feet would be better). A small, high silo is better than a large, low one. A round silo was found at the O. A. C., Guelph, built with lumber, and one owned by P. J. Patter, Mono Mills, built with 2x6 scantling, twenty-two feet long, run through the planer to give it the required bevel for the circumference of the silo, and was banded together with ½-in. round, iron rods, tightened with nuts. This was by far the best silo seen; it has a capacity of 100 tons, and only cost \$90.00, his own labor not included.

#### Corn for the Silo.

Grow the kind of corn that will mature in your locality. Mr. Yuill recommended growing several varieties of corn, planted in hills 3½ or 4 feet apart each way, planted with a corn planter. Drop 4 or 5 grains in the hill; if they all grow, thin out to three stalks in the hill; plant the smaller varieties on the south side of the field, so that the large varieties will not shade the smaller ones. As soon as the corn is sprouted, say an inch long, harrow; continue harrowing at intervals until the plant is eight inches high; then use the scuffler freely as long as the horse can get through the corn. The time to cut the corn is when it has reached the glazed stage, so that the best ears will do for next year's seed. (Always test seed before planting.) Cut across the rows, so as to mix the larger and small varieties on every load.

When filling the silo, tramp well round the outside and in the corners; cover with cut straw—pea straw or marsh hay. Feed 40 pounds per day to a cow in full flow of milk, or to a beef animal; for young or store animals, 10 pounds per day will be a fair ration. In all cases the ensilage should be supplemented with some more concentrated food.

#### Tillage.

Another of Mr. Raynor's subjects which elicited good attention and some discussion was tillage. It was the preparation of the seed-bed for the crop intended to be grown upon the soil prepared. Some one has said that "tillage is manure"; strictly speaking, this is not true, but indirectly it is true, as it helps to make plant-food available. The three soil ingredients of importance, and necessary for all fertile soils, were *nitrogen*, *phosphoric acid* and *potash*, and these were valuable in the order mentioned, nitrogen being the most valuable, hardest to get, and most unstable to retain. Plenty of nitrogen was present in the atmosphere, but only a few plants had the power of making use of it from that source directly. The clover plant was the one most useful for this work. Phosphoric acid was to be obtained from the bones of animals and some mineral rocks, as the phosphate rocks. Potash was found in wood ashes, and it was argued that wood ashes should be kept on the farm, and none of them sold, as is the too frequent custom of farmers. Tillage operations aided nature in making unavailable plant-food available. In our soils, by the united action of frost, air, acids vegetable and mineral, the solid material of the soil give up their solidity for more unstable forms suitable for plant life and growth. Tillage aided these transforming processes. Commencing after the crop was removed in the harvest time, it was contended that the gang-plough should turn lightly the soil, to be followed as frequently as practicable with harrow and cultivator, until time to plough for the last time, when the land should be thrown well up to the action of the frost. In the spring, as early as possible, begin to fit the seed-bed well for the reception of the grain to be sown. The amount of tillage and the depth of it should be gauged by the crop to be sown, thus: For barley, a shallow-rooted crop, the soil should not be stirred



too deep, but a firm under-bottom was best; for peas and oats, a deeper seed-bed was desirable, as the roots of these crops penetrated the soil deeper in search of food. The different classes of soil required different treatment: a light, sandy soil, worked lightly, was preferable to deep cultivation, which would tend to make that class of soil leachy. On the other hand, a deep, clay soil could scarcely be worked too deep for beneficial results. Tillage operations, if carried on at the right time, could scarcely be overdone. They also aided in the even distribution of the manure.

#### How the Public Highways May be Improved.

Mr. A. W. Campbell, C. E., of St. Thomas, pointed out that a number of men interested in bettering the public highways had met together last year in the City of Toronto, and formed what is known as the "Good Roads Association." He represented that Association on the deputation. He thought that in most parts of the Province this must be a live question, and that there was considerable room for improvement on nearly all our highways. He first showed up many of the defects in the present system of statute labor, such as too little work performed, and much of that performed to no purpose. Often one pathmaster undoes what another had done a year or two before. At one of the meetings one gentleman, a municipal officer, was given the contract of digging a ditch for 300 rods along a roadway, and, coming in contact with a big elm tree, he left the outlet there. That was only a sample of the many blunders made under the present system. He enunciated certain principles to be followed out in road construction, such as digging ditches of uniform depth and flow to carry away the storm water, and, where necessary, underdrains should be laid to carry off the subsoil water. Drainage, in fact, was the most important thing, and if so, it should be seen that the outlets were clear of all impediments. The next principle was the making of the road-bed. This should be at least twenty-two feet wide, and its foundation would depend on the kind of road to be constructed. The grading should be high enough to raise it above the soil level, and slightly curving in the centre, so that all the water would freely flow into the side ditches after a storm. In case of earth roads, where no gravel was to be had, he advised that they should be scraped down level in the spring of the year, and a five-ton roller used to pack the earth solid. He used a road machine to do the ditching and grading, and then followed with the roller. If gravel were convenient, there was no better material for the surface. He liked fine gravel, free from earth or sand, and a good liberal coating—not a dribble for a long stretch, to be lost sight of in one year. He thought the present system could be greatly improved, and thought the boys of to-day should be instructed in the principles of road-making, and become the road commissioners of the future. He advised that some uniform system should be followed up from year to year, until all our roads were so improved that at a very small cost they might be maintained. He claimed that if the statute labor of each township were commuted at seventy-five cents per day, that, with that and what is already spent from the general funds for road improvement, in a very few years the public highways could be so improved, if the work were wisely directed, that after that point they could be maintained in first-class condition with about the amount now used on them from the general funds. He strongly urged the farmers to consider this question, and see if they could not devise some scheme that would be practicable, and give better satisfaction than the present one in vogue in most places.

#### A Racy Account of the Travels of the Delegation in Division No. VIII.

Deputation consisting of H. L. Hutt, B. S. A. Horticulturist, O. A. C., Guelph, the writer on Dairying, and Mr. J. C. Judd, of Morton, representing the Good Roads Association.

The first meeting held was at Blackstock, in Durham county, four miles north of Burkton Station, on C. P. R. On the drive out from Burkton we passed a number of comfortable homes, judging by the fine buildings and surroundings. There was, however, no evidence of corn having been grown to any extent, a crop for which the land seemed eminently adapted.

#### The Cheese Factory

here is owned and operated by Mr. Houston, but from what could be learned it is not sufficiently patronized to make a first-class factory, having made only 66,000 pounds of cheese the past season. The whey is handled in a manner somewhat peculiar to managers of factories in Western Ontario. An objection being felt to taking whey back in the same cans in which the milk has been delivered, it is bought by Mr. Houston at about five cents per barrel, and re-sold to a few of the patrons who live near the factory, and who can get it home and feed it without having to put in same cans in which the milk is drawn. A meeting had been advertised for 10.30 a. m., but none was held, as there were not more than two or three persons present. A few more coming in, the first meeting was opened at 1.30 p. m., with an address by the writer on "How Dairying Benefits the Farm," and during the time the address was being delivered, the audience increased to a fair size. In the discussion that followed, a number of enquiries were made as to the advisability of purchasing and the use of hand separators. This is contrary to what might be expected in the neighborhood of a successful cheese factory. The audience also manifested a lively in-

terest in the right management of fruit trees, and road improvement, upon which addresses were given.

Passing on east by C. P. R., through Peterboro, the country becomes somewhat rocky and broken, improving, however, in appearance as we approach Tweed, in E. Hastings. We were informed that Dairying is also the chief industry in this section, the cheese factories being at regular distances of four to five miles apart. Upon our arrival at Tweed we found that no Institute meetings had been advertised, and as a consequence, of course none could be held.

Tamworth, in Addington county, being our next place, a fair sized audience was present, and here we met the genial secretary for Addington, Mr. J. B. Ailsworth, father of A. B. Ailsworth, Q. C., of Toronto. After the opening address by the chairman, Prof. Hutt discussed

#### "The Proper Management of an Orchard,"

emphasizing such points as the thorough level cultivation of orchards without plowing, young orchards never being allowed to run to sod, and old orchards only when there is an excess of growth of wood at the expense of fruit production; liberality in the application of fertilizers. In young orchards the fertilizers used in growing a hoed crop will be found sufficient. One of the best fertilizers for all purposes is wood ashes, to be applied not closely around the trunk of the tree, but over the entire surface of the ground as far as the roots of the trees extend, which is indicated by the spread of the branches above; ashes, having a tendency to produce fruit rather than growth of wood, may be safely applied at all times. Pruning should be done regularly once every year; in young trees, however, light pruning may be done at any time, but the best time for the annual pruning is just after the severe frosts of winter are past, and before growth starts in the spring. Thin out the branches, wherever crowded, sufficiently to admit plenty of air and sunlight to ripen the fruit. Spraying trees in spring for destruction of insects and prevention of fungous diseases: use Bordeaux mixture for fungous diseases, and add three ounces of Paris green to barrel of mixture for destruction of insects; spray twice before blossoms open and twice after. Speaking of small fruits, Prof. Hutt urged the importance of every farmer growing a liberal supply of small fruits. When trees are inclined to over-bear, thin out the fruit when small, and thus secure a crop every year.

Mr. Hutt's address on "Window Gardening" and "Farming as an Occupation" were well received, the former especially by the ladies.

From Tamworth we drove to Centreville and on to Napanee. In this vicinity dairying is the leading branch; and as

#### The Good Roads Movement

is closely identified with that of delivering milk at cheese factories, the question was fully taken up by Mr. Judd, at Centreville and other places. He gave a synopsis of the agitation for road reform in Europe, the United States, and in Ontario. He referred to the neglect of common roads in contrast with the advancement and assistance hitherto given to Provincial railways. Common roads are the leaders to and the feeders of railways and commercial centres. In referring to the economic side of the question, he showed a large estimated loss to the dairy interests of the Province, and gave individual instances where loss had occurred in drawing milk and whey. He humorously referred to the present system of statute labor, and declared it pernicious, although he does not advise its abolition until we have something better to take its place. He condemned, *in toto*, the system of the appointment of Pathmasters, and recommended the appointment of a Road Supervisor for each township, under whose supervision the roads of the township shall be placed. He called attention to the proper road machinery for the township, viz., an improved road scraper and roller, also a stone-crusher, for the county.

In conclusion, he solicited the attention of every farmer to the subject in order that a uniformity of opinion may be arrived at as to the best system to adopt to secure road reform.

Mr. Judd's addresses were well discussed at all our meetings, and a desire was expressed by the majority of those present for the improvement of our roads.

#### Milk of Good Quality.

Centreville cheese factory is owned and operated by Mr. William Whelan, who has secured very satisfactory results the past season, in fact, his average of pounds of milk to make a pound of cheese, being rather phenomenal to us Western men, being a little under 10 pounds, his price for the season being about 9.88 cents. The factory at Newburg, on the road to Napanee, owned and operated by Mr. Madden, is now making butter in the winter season; also, the Palace Road factory, near Napanee, owned by Mr. Gerow, who is, however, not paying for milk according to per cent. of fat, but by weight alone.

#### Travelling Under Difficulties.

Our meeting at Napanee on Tuesday, following the municipal elections, was poorly attended, and at night an informal talk with the few present was all that was done. The deputation started early Wednesday morning for Stella, on Amherst Island. Driving as far as Bath, opposite the Island, we were informed that a thin ice covered the Bay, and it would be impossible to cross. However, it takes something to dampen the ardor of an Islander, and shortly after we received a message by telephone

from the President on the Island, that they were coming for us. Just at noon they arrived, having crossed opposite Millhaven, two miles farther down the Bay, where, by carefully picking their way with a small, flat boat with runners on the bottom to run on the ice, they had crossed, being the first persons crossing on the ice this winter. It being a clear day, we picked our way around open water and newly-formed ice, back to the Island, a distance of about three miles, and landed in safety. We were rewarded for our efforts by three splendid meetings, the evening being a "rouser." Addresses from resident ministers and good music enlivened the meeting, and cheered the deputation and everyone present.

In re-crossing the ice we were not so fortunate, the day being stormy and the wind blowing a gale. We added a sail to our craft and thought we might be able to all ride. The wind was too strong, however, and a runner on the leeward side was broken. We then proceeded as the day before, some walking and some pushing the boat. Not being able to see ahead but a very short distance, we ran upon a stretch of newly-formed ice, not being more than 1 1/2 inches thick, and it was only by the utmost exertion in keeping the boat moving rapidly along for a distance of about 20 rods that we avoided going through. Speaking especially for myself, I think we all breathed with relief when we struck thicker ice and took a rest. Mr. Judd, who carries an averdupois of 230 pounds, says he will "go around by Jerusalem" rather than consent to cross any more ice.

#### Dairying.

At Shannonville we had clearly an audience of five dairymen, a number to whom the writer talked keeping 30 to 40 cows each. Cheese factories here are well patronized, and the whey returned in the same cans that deliver the milk. Only one factory near Deseronto has commenced the manufacture of butter, and is also making skimmed cheese, a portion of which the manager states he has sold at 7c. per pound. This looks like a profitable business, as the cheese was made from skimmed milk after going through a separator. As at the other meetings, the writer dealt with dairying, emphasizing the importance of selecting cows with great care, keeping only those we are certain will give a clear profit over the cost of feeding and caring for them. From having tested the milk from a large number of cows of common herds, he had proven that 100% was not an uncommon difference in the value of cows in the same herd. He took the ground that any cow giving from 30 to 40 pounds of milk testing from 4 to 5 per cent. of fat was worth double another giving from 20 to 30 pounds of milk testing from 3 to 4 per cent. of fat, and this difference was very common in the same herd. One would sell for almost as much as the other, at almost any auction sale, but the one would consume as much as the other, and for every dollar you could get from the one, you could get two from the other. This was no guess work. Hence the importance of purchasing cows only when giving milk, so that we can be sure of the quantity, and then test and be sure of the quality also, this being more important than hitherto, as butter was now being made in many factories as well as cheese. By milking the cows a longer season, we would increase the yield, and thus cheapen the cost of production. Select cows also with good constitutions, which can be determined to a great extent by general appearance. He gave as his opinion that a great mistake was made by dairymen, especially those keeping a small number of cows, in using bulls that had no dairy breeding, having been bred for generations for their beef qualities alone. He believed that the profits of future dairying depended to a great extent upon winter dairying and corn production. He urged the importance of closer co-operation and confidence between factory managers (whether private or joint stock) and the patrons. He urged keeping whey tanks clean, sterilizing the whey where it was returned in the milk cans, and emptying the cans as soon as returned to the stand. He gave particulars of co-operative buttermaking in cheese factories, and ventured the opinion that to make all butter first-class, meant doubling the consumption in Canada. He laid stress upon the losses that occurred in treating cows with unkindness, and in creaming milk improperly.

The hearty manner in which these different points were received and discussed showed that there were many good dairymen in every audience. Passing the beautiful county of Prince Edward, noted for the production of very fine apples, we met live officers, and plenty of intelligent dairymen also, and in our drive from Wellington to Picton we thought it one of the finest spots in the Province. Thus it was to the end of our work at Grafton.

I. W. STEINHOFF.

#### Preparation for Spring Building.

In view of the growing popularity of cement-concrete for walls, floors, silos, hog-pens, troughs, cisterns, etc., we have no doubt many concrete structures will be built this coming season. We would say to those intending to build, it would be well to begin time in preparing for going at it as soon as possible in the spring by securing the necessary sand, gravel and stone while the sleighing is still going on, as building the walls can be made much easier and earlier in the season than if the materials were not on hand. Because the cement concrete is the strongest form.



QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Legal.

**SUBSCRIBER, Windermere:**—"Some years ago I effected an assurance on my wife in an insurance company, and some time afterward the company started to publish and sent me a copy of an advertising periodical, but without any order from me. At first I took the paper from the post office, but only for a short time, when I ordered both the editor of the paper and the company to stop it, and since then I ordered the paper to be returned by the Postmaster. I am now asked to pay for the paper from the first edition. Can the company compel me to do so?"

[We think, under all the circumstances of this case, that you could successfully defend any action that may be brought against you to compel payment.]

FENCE PATENT.

**ENQUIRER:**—"Could you tell me through your columns of the ADVOCATE if the patent of the Shad straight rail fence is run out, or if not, when it expires?"

[Enquiry has been made of the Dominion Patent Office re this matter, but you have not sent enough detail in order to obtain the information you desire. There are many kinds of rail fences patented, and it would be impossible to make an examination of any particular patent, unless the name of the patentee were furnished. If you will send this, we will cause additional enquiries to be made.]

Veterinary.

ACTINOMYCOSIS.

**MR. ISAAC JOHNSTON:**—"I have a steer, two years old, that has a lump on back part of jaw as big as a turkey's egg. What will cure it?"

[This disease is known as actinomycosis; is due to a vegetable parasite that gains access to the alveolar of the jaw, by the teeth causing an enlargement of the part, and then known as "lumpy jaw." This disease has received a great deal of attention from the fact that repeated doses of iodide of potassium have relieved the whole of the conditions. It is most probable that the other steer, whose hocks are swollen, is from the same disease.]

"(2) I have a young mare that has a wart on shoulder (back of collar) two inches square; it is flat."

[There is only one method of treatment of warts that is entirely successful,—that is to cut them out with a knife; but of course a qualified veterinary should only perform that operation. I have heard good results from the following ointments, though not always successful: Ammonia chloride, two drachms; savin, powdered, 1 drachm; lard, sufficient to form a stiff ointment. Apply every day.

W. MOLE, M. R. C. V. S.]

THROAT DISEASE IN SHEEP.

**JOSEPH MYERS, Markdale, Ont.:**—"One of my sheep is troubled with gatherings under the lower jaw. Have opened two or three of the gatherings and they run freely, leaving quite a hole in throat. More will be ready to open in a week. She has snuffles; coughs when eating. Can you tell me what the trouble is, and what treatment would you put her under?"

[Sheep are liable to several diseases of the mouth and throat; the most frequent is known as blain or glossanthrax. It is one of the many forms of blood-poisoning due to a bacilli. Symptoms:—A number of vesicles or bladders appear in side of face and throat, with discharge of saliva which sometimes becomes bloody and offensive. These bladders burst or are opened, leaving behind large sores, which sometimes become troublesome ulcers. There is little doubt that the disease is infectious, and the affected sheep should be separated from the rest of the flock. The vesicles should be freely lanced and dressed with a lotion of boracic acid and glycerine, twice a day. Give a laxative of Epsom salts: 2 oz., in gruel; and keep up the strength by some whisky stimulant.

W. MOLE, M. R. C. V. S.]

LAMPAS.

**JAMES MACCARTHY, Eastman's Springs:**—"Please answer the following question in your next issue: What is lampas; how can it be cured, and how applied; at what age does it cease to exist; how does it affect the horses? Some people resort to burning them out, but I think it is cruel in the extreme."

[Lampas may be described as a congested condition or swelling of the mucous membrane of the roof of the horse's mouth; and particularly when teething. It rarely interferes with the animal's feeding, and is more a disease of the imagination than of an actual fact. Burning of the lampas is cruel and unnecessary, and the most simple remedy, if any is really required, is the following:—Take of honey, 4 ounces; boracic acid, 1 oz.; mix together and apply a small quantity to the parts once a day.

W. MOLE, M. R. C. V. S., Toronto.]

ADDRESS WANTED.

"ALFA."—If you will forward your name and address, we will send you an answer by mail.

INDIGESTION.

**J. K. TESTER, Oak Lake, Man.:**—"Will you tell me the best thing to do with my horse? His coat keeps rough and scurvey, and he has dirty-looking hind-legs, and his belly is also slightly swelled. He seems fairly hearty, but is thin. He is six years old. I keep him blanketed and his feed is wheat straw, and one-half gallon of chopped oats and wheat three times a day, with occasional boiled feed; is doing nothing but just a run two or three times a week in the cutter."

[Give your horse the following purgative:—Barbadoes aloes, six drachms; calomel, one drachm; ground ginger, two drachms; soft soap or syrup, sufficient to form a ball. Before administering the ball, give an exclusive bran mash diet for sixteen hours. Keep fodder rations from the horse until the physic has ceased to operate. After this, give morning and evening for three days: Sulphate of iron, powdered gentian and nitrate of potassium, of each one drachm. Give in the morning in a moderate ration of good oats, and at night in a bran mash, made by boiling a teacupful of flaxseed in sufficient water to scald your quart of bran. Give hay to eat instead of wheat straw. Give also a few carrots or a few good potatoes daily. Groom thoroughly every day. W. A. DUNBAR, V. S., Winnipeg.]

INFLAMMATION OF THE UDDER.

**F. J. CURRY, Goring:**—"I have a very fine heifer rising three years old. She calved last October and since that time one of the quarters of her udder caked and refused to give any milk. She appears to get worse at each attack. At first it just affected one teat, but this last attack has made her almost dry. If you can give me any information on this subject it will be very acceptable."

[This disease, more commonly known as caked bag, is frequently met with in heavy milkers just after calving,—heifers especially; the mammary gland becomes enlarged, hot, tense, and tender to the touch. The animal will evince much pain and distress in progression; very often lameness will be the first symptom observed. The constitutional symptoms are often severe loss of rumination, and the animal will refuse her food. The course of the disease is sometimes rapid, at other times slow, as in this case. Two or three attacks may cause the bag to dry up and the inflammatory product to remain in the gland, which develops into a solid mass, causing permanent hardening. Treatment:—In all of these cases we recommend that the calf be allowed to strip the udder, as the kneading or punching done by the calf greatly hastens the improvement. Strip the gland thrice daily with active rubbing and the application of camphor liniment as follows:—Olive oil, six ozs.; ol. turpentine, two ozs.; strong ammonia, one oz.; tincture camphor, one oz. Support the udder by means of a belt with four holes cut for the teats, packing it with hot cloths. Should the enlargement and hardness become permanent, try the effect of iodine liniment: one part of iodine to eight parts of spirits of wine. This will produce a powerful absorbing action and may be repeated every few days. Give internally: Epsom salts, one lb.; powdered ginger, one oz., to a quart of gruel, and repeat in about ten days.

DR. W. MOLE, M. R. C. V. S., Toronto.]

Miscellaneous.

CEMENT FLOORS FOR CATTLE.

**THOS. G. MCLEAN, Ormond:**—"Could you inform me through your paper about cement stable floors for cows; how built; if better than plank; and cost?"

[Many of the best floors in the country are now constructed of cement-concrete. Their chief advantages are durability, ease of cleaning, the saving of all manure—liquid and solid, and being on the solid ground, no drafts or cold can get in from below. Having tried both plank and cement, the writer has no hesitation in recommending the latter, after five years' experience. The cost will vary according to circumstances. In the first place, a substantial, dry, smooth bottom must be secured, and graded so as to allow a slight slant down towards the gutter, about eight inches deep and a foot or more wide, for which an excavation must be made. A layer of stones, well rammed down, may be laid on the bottom of the floor to begin with. Take about five parts good sharp, coarse sand and gravel, and on a platform thoroughly mix, dry, with one part cement; then add water, making a good stiff, well-mixed mortar (not sloppy). Ram this well down, finish with a smooth coat about one inch thick, using a plasterer's trowel. The material for the finishing coat should be about two or three parts good sharp sand to one of cement, depending somewhat upon the strength of the latter. The surface must be made very smooth. It is most important that there be no clay in any of the sand or gravel. The bottom of the gutter should slant slightly to the outer edge. Behind the gutter nothing is better than a solid clay floor, separated from the gutter itself by a firm, durable scantling. Ample time must be allowed the floor to "set" or dry before stock is allowed on it, and the work should be done early enough in the season so that it will be perfectly hard before frost comes. While setting, it is well to sprinkle with water occasionally. For further details on the subject we refer our readers to our issues of July 16th, August 1st, and December 15th, 1894.]

INFORMATION WANTED.

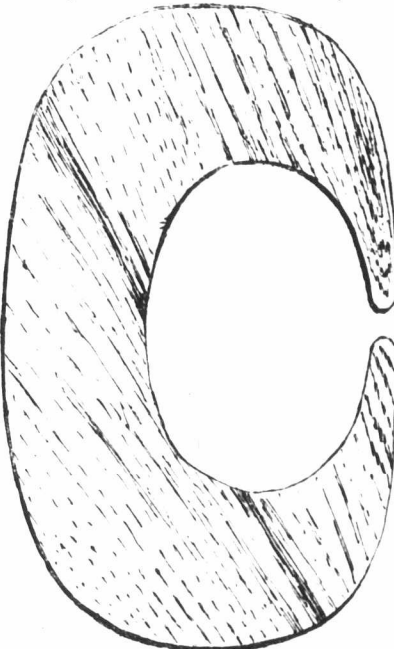
**J. T. B.:**—"I like the ADVOCATE very much; I have only one fault with it, it makes me wish to write for information about every other number. For instance, I would like to ask Mr. Whitton, of Belleville, how he feeds his cows? In yours of

March 1st, 1894, you report him as saying before the Creameries Association that his eight cows bring in \$853 per annum, at a feed cost of \$294. This seems so much like a reversal of the old rule, "ex nihilo nihil fit," that I (and I think some others) would be much obliged by details of feeding, and price got for milk and butter. I would like to make enquiries for further particulars of the owner of the herd of 24 French-Canadian cows, spoken of in the issue of Aug. 15th, 1894. I cannot get such results from feeding dry hay, straw and bran, unless indeed the straw is, say a mixture of peas and oats, cut rather green and not threshed; but then it is worth more than \$3 a ton. Can you give me any probable cause for a cow standing with her nose pressed hard on the rail of her manger; she seems fairly well, except she is at times a little off her feed and is rather thin?"

[Our columns are open to Mr. Whitton, and the owner of the French-Canadian cows, whom we hope will avail themselves of the opportunity to reply to "J. T. B.," though he should have made his enquiries more promptly. With reference to the cow that stands with her nose pressed on the rail of the manger, this would point to the cow's teeth being disordered, although he does not state the principal symptoms of large quantities of saliva dribbling from the lips.]

TO CURE A SELF-SUCKING COW.

**DONALD FRASER, Emerson, Man.:**—"I notice in the ADVOCATE a question by E. C. Y., asking how he can cure a cow of the habit of sucking herself. This question was answered, but not to my entire satisfaction. I have a good contrivance for preventing young cattle from sucking cows, which has worked well, and I venture to say that it will work equally well on older cattle, which have learned the habit of sucking themselves: Take a piece of light, tough wood, which will not split (basswood, for instance), about eight inches in length and five in breadth; on one side of it whittle an oblong opening, which will fit in-



nose, somewhat after the manner of the old-fashioned bull-ring; when the animal tries to suck itself this small piece of wood will flap down over its nose in such a manner that it cannot reach the teat, for the wood comes between the animal's nose and the teat. This contrivance does not prevent the animal from eating—either grazing or stable feeding."

[ED.—We have seen contrivances of this kind used, and also made of tin, but they are liable to make the animal's nose sore. We have seen animals learn to hold their heads sideways with one of these on, and suck away quite contentedly. We might say, however, that Mr. C. Davis, of Perth, Ont., recommends the same contrivance.]

ADDRESS IN FULL REQUIRED.

[NOTE.—We would again remind readers making use of this department, that their name and address must accompany the enquiry, as requested in the announcement at the head of this department.]

THE SUGAR BEET INDUSTRY.

**H. C. LISLE, Wetaskiwin, Alta.:**—"I wish to establish among the farmers here a sugar beet industry; if it be found that the undertaking would probably be a success, I shall be glad if you will kindly give full particulars in your paper as to cost of plant, quantity of beets required, and any general information."

[Sugar beets may be grown, of very good quality, in the West; are grown in small quantities for stock feed, for which purpose they are excellent. But we do not think it possible to establish a paying sugar beet industry there, the capital required for buildings and machinery being enormous, and can only be used a couple of months each year, and that just at a time when labor is most expensive and difficult to obtain. The beets could not be raised by the farmers in sufficient quantities at a profit. The following extract is from the "Report on the Production and Manufacture of the Sugar Beet," prepared in 1892, by Prof. Saunders, of the Ottawa Experimental Farm (Mr. Lisle should send for a copy of this interesting pamphlet):—

"From the facts presented, relating to the history of this industry in the United States and Canada, it appears that many carefully constructed factories have been established in the different parts of the country, backed by a liberal supply of capital, managed by men thoroughly trained in the business, having at their command the most approved machinery and labor-saving appliances; but, leaving out of consideration the factories recently built, it may be said that in no instance has the industry prospered sufficiently to give a fair return for the capital invested, and in almost every instance the effort has resulted in financial failure."



## POULTRY.

## A Few Notes on the Late Ontario Poultry Show held at New Hamburg.

BY L. G. JARVIS, OF THE O. A. C., GUELPH.

The show was a grand success, both in quantity and quality of stock. The building was not nearly large enough to accommodate the number of birds shown. The superintendent, Mr. Goebel, had the birds well classified and properly arranged; but space would not allow of proper arrangements.

The Light Brahma class was hardly as large as we have seen, yet the quality was very good, especially in the pullet class; nearly all specimens were standard weight. While we admire a nice comb and a nice, striped hackle, a nice shaped tail with nice edging, we still must not overlook other points that help to make up a perfect bird, such as shape of breast, breadth of shoulders, well-shaped back, and—last, but not least—size.

Dark Brahmas, a fair class. Cards well placed; and the penciling, in hens and pullets, quite up to any previous year.

Cochins were numerous, and fine in quality; several of them winners at Kansas City the week before.

Langshans, a fine class: tickets well placed. The 1st, cockerel; 2nd and 3rd, pullet, had been selected by Mr. Jarvis for the Poultry Department, Agricultural College Farm, Guelph. I noticed a great improvement in lustre of plumage, also nearly all specimens standard weight.

Leghorns, all varieties, made up a fine class. The winners were fine in style; and in whites, fine in color and condition. Browns, loftier birds, not of that bantam type, and winners well striped in hackle and saddle—and carried a uniform color.

Barred and White Rocks were not so numerous as last year, but embraced several A I birds. We noticed in the barred class several pullets up in size and of good shape, but barring not even or straight across the feathers, and the black lacked lustre. Whites, on the whole, were clean in color, free from any yellow tinge or yellow in quill.

Wyandottes, a large class; and on the whole, probably better than last year. All varieties represented excepting buffs, tickets well placed. I find better lacing in the golden than in the silver class.

Dorkins, fair. Silver grey, only a few shown; 1st and 2nd, hens; fine size, good color. Cocks and cockerels not as good as we would like. Colored, good. Hens and pullets large, over standard, and right in color. Whites, not a large class, but several fine birds.

Polands, probably as fine as ever shown, several of them winners at the Mid-Continental Show at Kansas City: all in good condition; and, in the Golden variety, a great improvement in color—free from white in wings and tail.

Javas, both black and white, the best I ever saw; the blacks, in lustre of plumage, could not be improved upon: a few birds that had been shown at Cleveland were out of condition, and lost in weight. Whites, a fine class, the winners good enough to show at any exhibition.

Dominiques, only a few shown: the hens extra fine, only one pullet shown off in color of plumage.

Red Caps, extra fine; several imported birds shown, some with too much comb: in two or three cases would interfere with eating; also eyes obstructed: we must have smaller combs. Some of the winners had nearly perfect combs—not too large, and well set.

Minorcas, both varieties shown, and several imported birds, some winners at the Crystal Palace Show. As in the Red Caps, we must breed for smaller combs. The 1st cockerel a gem, also 1st pullet, 2nd pullet crowding hard for 1st place. 1st cock and 1st hen grand in lustre of plumage, free from any white; cock a trifle short in leg. Whites, all good birds, pure in color and good size.

Hamburgs, all varieties represented and competition close; no complaints being made as to the awards.

Turkeys, Geese and Ducks, on the whole the best ever exhibited at the Ontario Show.

The Judges were Messrs. Butterfield, Smelt and Jarvis, on fowls, and J. B. Johnson, on pigeons.

## Broilers for Market and the Use of Incubators.

BY E. JOHNSTONE.

The raising of broilers for an early market is a profitable branch of poultry farming, under certain conditions. I add that qualifying clause because a good many people are so reckless about going into a new thing in which they have heard others have made money, with perfect disregard of their own circumstances. Farmers need to study the business end of farming very much more than they do. Then there would not be so many complaints that "farming doesn't pay." Nothing pays unless you put your brains into it.

You can make broilers pay if you are near a good market. Study your market. See when it wants broilers, and have them ready at that time. If near a large city, there is a constant call for such things, and you cannot get far out of the way. But if you depend on supplying resorts, summer hotels, etc., conditions are very important. These summer resorts open at about the same time, one year with another, and the rush of boarders follows as a more

variable incident. The hotels at Saratoga open the first of June, but are run at a heavy loss the first few weeks, because the guests do not arrive until later. Not many spring chicks are wanted till the guests and the cash begin to come in. Later, teams scour the country for poultry, and quantities are shipped up from New York, because the country supply isn't sufficient. I think I could get rich in the broiler business, if I lived near enough to Saratoga. Near small towns and villages it does not pay, generally, to go in extensively for early broilers, because people will not pay the price you ought to get to make both ends meet over a little balance.

Whoever goes in for broilers on a large scale must employ the incubator as a substitute for the hen. And here his trouble begins. It takes eternal vigilance and a lot of good common sense, practically applied, to manage an incubator. First acquaint yourself with its characteristics.

Of course, some incubators are better than others, but they are all run on about the same principle, so hints on the management of one will apply to others. The beginner generally finds it true that "experience is a dear teacher," but in some small things he may profit by the failures of others.

The lamp which furnishes the heat that hatches the eggs must receive daily care. It must be kept clean and supplied with oil, and the wick trimmed that it may not smoke. The thermometer used needs to be a tested one: this is important, because the cheap thermometers vary so much; they do not register correctly, and the temperature is really higher or lower than indicated, either tending toward disaster.

The eggs must be changed and turned every day,—turned by hand (unless done automatically), and their position changed in the egg-chamber, because the temperature—of some incubators, at least—is not the same in all parts. There are "patent turners," but they are not all as entirely satisfactory as hand-turning; once a day is sufficient, beginning the second or third day and continuing about fifteen days. A good authority on hatching by incubator says from the eighteenth day on to the finish of the hatching the machine should not be opened, as it is fatal to expose the eggs to cold drafts at this period. The chicks should be left in it until they have become fluffy, or the down is well dried off. It is highly important that the incubator should be in a room secure from changes of temperature. A cellar would be the best place but for the necessity of having fresh air to replace that which has had its oxygen burned out by the lamp, yet there must be no draft. A cellar with small windows, or a basement, is preferable, and no sun should be admitted.

In managing the incubator lamp, remember it does not differ from any other in some of its peculiarities. After filling, do not turn it up as high as you really want it, because, like the parlor lamp, it burns brighter as soon as combustion increases the capillary attraction, and you may cook the eggs, or, what is as bad almost, smoke everything up. Some incubators are provided with an automatic regulator, to control the egg-chamber temperature.

It sounds simple enough to hatch chicks in an incubator,—as long as we know heat, steady and continuous, is the agent. But the difficulty lies in keeping the heat even. One "forgot" may ruin a whole machine full of eggs at a time when eggs are rather expensive.

After the chicks are hatched, they must be transferred to the brooder-house, which should be at about the temperature of the machine at first and gradually tempered off. A board floor is best for the house, and there must be a yard, well drained, dry and sanded, or gravelled, for them to run in as soon as old enough. The house must be kept clean, and the warmth maintained until the chicks are old enough to not mind changes of temperature. One extensive poultry-raiser near me has his brooder-house warmed by a coal-stove, and uses the old-fashioned cloth substitute for mother hen's downy wings. These are little tank-like reservoirs of hot water, properly protected so the chicks cannot be burned, with a curtain round them, under which the chicks soon learn to run as if it were the hen. A critical period is when the chicks begin to feather out: then they need variety and change of food, exercise and a good range, for feather-building is a heavy demand on the vitality.

Many raise broilers successfully by using the hens as incubators, in the old-fashioned way, and I am by no means sure that they are not more cheaply grown, if one has warm hen-houses, and a breed of hens in which the maternal instinct is well developed, than in a machine. Where it is possible to arrange to have several hens "come off" at about the time a lot of incubator chicks are hatched, the latter can be added to the hen's legitimate families (especially if the lot is small, and the trouble of brooding be avoided).

Find your market before you begin the broiler business; then conduct your operations accordingly. Don't begin on a large scale; work into it slowly. To "go slow" will save you a lot of money, for there are a great many things you can only learn by dear-bought experience. Probably as much money has been lost in the poultry business by those who were in too great a hurry to do great things as has ever been made by the successful. It's largely a question of facilities, care, and stick-to-it-iveness, coupled with good business management.

The big American dressed meat magnates contemplate adding the dressing of poultry to their operations.

## GARDEN AND ORCHARD.

## Points on Winter Care of the Orchard.

BY PROF. E. E. FAVILLE, NOVA SCOTIA SCHOOL OF HORTICULTURE.

There is too often a prevailing idea running riot among the average fruit growers that as soon as the harvest is gathered and the ground frozen the orchardist should have a long winter vacation. It is an undisputed truism that most people enjoy vacations, but the successful farmer, artisan or philosopher, must keep ever before him the motto: "Forego the lesser pleasure for the better good." Fruit growing, like every other industry, in order to secure the best results, involves careful attention to the orchard in all the seasons. So the winter problem in the orchard is a most interesting and important one. Tools or utensils of any description should be carefully housed, brightened and sharpened, ready for use. Time is never wasted in sharpening tools. Where drifts of snow lodge in young orchards, there is great danger of attacks from mice and rabbits. Manure should never be used as a mulch in the fall, as it serves as winter quarters for mice, whose depredations may be stopped by placing bands of zinc or strips of bark about the trunks, extending two feet in height above the ground. These can be removed and used again next season. Tramping about the trunk on the snow is also of use. For rabbits, painting trunk in fall with solution of one pound of bitter aloes to five gallons of water is useful; cheaper still, shoot the rabbits. Trees that are found badly girdled in spring, that have been untreated, are often saved by using connective scions, connecting the bark above the wound with that below.

At the beginning of the New Year, while the merchant is taking an inventory of his stock, the farmer should be taking an inventory of his orchard trees and plants, finding where trees need re-setting, pruning, grafting, etc.; constructing a map of orchard, locating varieties and making changes, so as to be ready to begin work systematically in the spring. If orchard land needs draining, a map of the drains should be made, the surveys being taken during warm winter days, and carefully drawn out for future reference. Another important point is the removing of old, decayed or lodged fruit from the limb, such as apples, pears, and "mummied plums." These should be destroyed, as they furnish storehouses for germs of fungous diseases living through the winter. Great care should be exercised in winter packing of apples to destroy all refuse, old apples, leaves, etc.; inspecting cracks of barrels for pupa of insects, such as codling moth, which often hibernates in this manner.

Trees should be inspected for the bark-louse, and scraped,—exercising care with young trees,—letting the scales fall upon the snow; using a hoe on large trees. The tar paper bands, for prevention of canker worm, should be renewed frequently with printer's ink. On bright, sunny days, in passing through the orchard, look for the cluster of eggs of the tent caterpillar, found in a circle about young twigs, easily discernible. The black-knot that infests the plum and cherry trees should be looked after and the knots cut off and burned at once, as they are now filled with winter spores inclosed in little sacks, which burst open in the spring and are distributed by the wind. The cut surfaces should be treated with an application of kerosene or turpentine, rubbed on with a cloth. When trees or limbs are badly affected, they should be removed and burned.

The manure heap should never be neglected during the winter. An amateur fruit grower writes that his horse-manure heap was destroyed last winter by burning. This is remedied by mixing other manures with the heap, or by adding earth. Watering thoroughly and often will also serve the same purpose. Too many permit their manure heaps to suffer. This is wrong, as stable manure is one of the great agents in profitable orcharding; its presence in the soil regulates to a large extent the heat and moisture, which commercial fertilizers will not do. All the manure possible should be applied, and then, if necessary, pieced out with commercial fertilizers. The cutting of apple scions for winter root-grafting should be done now, and stored away in a cool cellar, in leaves or sand, until ready to be grafted upon the roots of seedlings grown from apple seeds. These seedlings can be easily raised or can be purchased from nurserymen for from three to four dollars per thousand, and every fruit grower should do his own root-grafting, the process being easily acquired, thus keeping down the nursery expense. These are a few of the many points that enter into profitable winter orcharding.

Mr. Thos. A. Duff, Toronto, writes us that the Ontario Poultry Association has a balance of some \$150 in the treasury, but this is not sufficient to purchase the coops for the use of exhibitors. The suggestion made at the recent convention was to memorialize the Government to purchase the coops for the Association, the idea being that it is not practicable to move the show to small places on account of the great expense attached to the procuring of coops by the local Associations in such places. Referring to our report of his address at the convention, he calls attention to the fact that the price he mentioned as obtainable the year round for guaranteed "new laid" eggs in Toronto was 19 cents per dozen, which he estimates in his article published in the paper at the farm, the cost of producing being about a dozen.





De Profundis.

"Out of the depths of the darkness,
Into the midnight air,
Up to the throne of the Father,
Ascended a prayer.
"Only the prayer of a mortal,
Praying the Immortal One
To dispel the shadows of trouble,
For the sake of His Son.
"For the sake of Him who hath promised:
'All ye who do truly believe
And will ask in My Name of the Father,
Ye shall receive.'
"So when our troubles are thickest,
Darkest and hardest to bear,
Joy shall come like the sun in the morning,
But—only by prayer."

A MAIL DEPREDAATION.

It is now some two or three years since a young gentleman entered the office of a special agent of the post office department in one of our large cities and announced that he had a serious case of mail depredation to report, which he would like to have investigated immediately. Being requested to give the particulars of the matter, he produced from his pocket a letter addressed to himself, and postmarked with the name of a small town in the State of Pennsylvania. The envelope bore most unmistakable evidences of having been opened and resealed, and the address was in a lady's handwriting.
"Here, sir," said he, carefully removing the letter and handing the envelope to the agent for inspection, "that ere letter's been robbed by some post office thief of twenty-six dollars. Now I want you to catch him and put the screws to him—give him ten years, at least. I don't care for the loss of the money" (it is singular, by the way, how sublimely indifferent to pecuniary considerations most people are who prefer these complaints), "but I'd like to see the rascal caught.
Now, the agent, having had considerable previous experience in the investigation of cases of rifting, was quite sensible that a very necessary preliminary to such investigations was a thorough knowledge of all the circumstances connected with the affair, and, after attentively examining the envelope, which was liberally debauched with muckilage, he observed:
"Well, sir, I will take a memorandum of your statement, and if it proves to be a 'post office thief,' as you say—and if it does, sir? Why, who else can it be? Isn't there the envelope to speak for itself—hasn't it evidently been torn open and gummed up again? Of course, it's a post office thief—any one can see that."
"Probably, sir; but I don't see it just yet. Be good enough to give me the name of the writer of this letter."
The young man hesitated, and at once his manner became confused and nervous.
"I'd rather not, if it is all the same, sir. It's a young lady, and there are peculiar circumstances about the case—and, in short, I don't want her name mixed up in it."
"But it will be absolutely necessary, in order to make a proper investigation, that I should know her name. Without it, I cannot undertake to do anything in the matter."
The gentleman still sought for some time to avoid giving the name of his fair friend, but at last announced it as Miss Emily Melville. Other questions followed, as to the circumstances which led to the inclosure of the money, etc., to which the complainant answered in an evasive, shuffling way—evidently striving to conceal something of which he was secretly ashamed. Perceiving that the investigation was likely to make but slow progress while conducted in this fashion, the agent finally observed:
"My friend, my time is too precious to waste in drawing information from you with a corkscrew, and you may as well make up your mind either to give me a clear and unreserved account of this transaction, or to go elsewhere with your grievance. Now, please to tell me why Miss Melville sent you (or tried to send you) this money?"
"To pay for some broadcloth for a cloak."
"Which you were to purchase for her?"
"Y—yes—that is, which I had purchased for her."
"Oh, I see—the young lady was probably visiting here, and, being temporarily out of funds, you gallantly forced her to accept a loan—eh?"
"Well, no, not exactly. The fact is, I sent the goods to her by express, at her request."
"Ah, of course, she being an old friend—?"
"No, not a friend, precisely."
"A relative, then?"
"No."
"Ah, I see—something nearer and dearer?"
"Well, yes," said the youth, with a sheepish simper, and nervously swinging his hat by the rim, as he gazed modestly on the floor; "we're low—engaged, I mean."
"Perhaps she forgot to enclose the money?"
"No, sir; I've had a letter from her since, and she swears—I mean she is certain—he put the money in."
"Perhaps, then," said the agent, striving to express his suggestion in the least offensive language; "perhaps she omitted to enclose it?"
"Sir!" exclaimed the fond lover, roused by this insinuation—"what do you mean? There is no doubt whatever, sir, that the young lady sent the money. I would stake my life, sir, on her honor."
"Oh, very well, sir—excuse me—no offense intended, I'm sure. But you know I haven't the pleasure of the young lady's acquaintance. By the way, how long have you known her—a long time, I presume?"
The young gentleman's embarrassment was visibly increased, as he replied: "About six months."
"Met her in Pennsylvania, I suppose?"
"Y—yes—that is—no—I can't say I did."
"Where did you meet her?"
"Wh—Why, I can't say where, exactly—don't know as I've met her at all, to tell the truth."
"Telling the truth seems to be a work of time with you," remarked the agent, dryly. "Now, if you will be good enough to give me a little light about what you do know of this young lady, whom you have never met, but whom you propose to marry, and on whose honor you are willing to stake your life, perhaps there may be some prospect of getting at the facts of this mysterious robbery—otherwise, you need waste no more time in this neighborhood."
"Well, if you must have it, here it is: You see, about six months ago, I just for fun, you know, advertised for a wife, and this young lady happened to advertise for a husband about the same time, and we answered each other's advertisement. But then, she was in earnest—all on the square. Oh, yes," continued he, observing, perhaps, an incredulous smile on the countenance of the agent, "she was all right—wanted a husband in earnest—wanted one bad. She was situated in this way: She hadn't got no father or mother, and was under the charge of a guardian—an old fellow about fifty—and as she's worth about twenty thousand dollars, there his eyes glistened covetously—in her own right, this guardian he takes and puts her into a boarding-school, and intends to force her into marry-

ing him. She'd rather have some younger fellow, of course—natural, isn't it?—and so she takes and advertises for a husband. So, as I was saying, I answered her advertisement, and she replied to my letter, and so we got up a correspondence. Now, there ain't no humbug about her—I can tell when a gal's in earnest—and I know she's all right by the way she writes. So, about two weeks ago, she says in the post-script to one of my letters, 'I wish you would go to Stewart's, and get me five yards of black broadcloth, and send it to me by express. I want it for a cloak, and I'll send you the money just as soon as it comes, and don't fail to let me know just how much it is, for I don't want you to be at any expense for me. So I went to Stewart's and got the cloth, and sent it by express, and wrote to her, and told her it was twenty-six dollars, and then she put the money into this letter, and some darned thief in the post office has gone and stole it—that's all there is about it.'
"Oh, that's all, is it?" said the agent, with difficulty restraining the laughter which this pitiful tale of true love was calculated to provoke. "Well, sir, there's no doubt that you're a very much abused individual, and, if you will call again in about a fortnight, I think I shall then be able to give you some definite information in regard to the matter."
"Thank you, sir—only put that post office fellow in State's prison, and I'll be satisfied. I don't care about the money—that is, I don't care so much about it—but if you could get it back—?"
"I shall do everything possible, sir. Good-morning."
"Good-morning, sir."
Punctually, at the expiration of the fortnight, the victim of this heartless "post office robbery" made his appearance to hear the result of the investigation. The agent, by writing one or two letters, and availing himself of certain other means at his command, had, in the meantime, entirely satisfied himself as to the author of the outrage, and was quite prepared for the visit.
"Good morning, sir. Have you found out yet who stole my money?"
"Y—yes, sir, I think I have."
"I am glad to hear it. Did you get any of it back?"
"Not a cent."
"Will, I suppose he's in State prison by this time?"
"Not that I know of, but it is not impossible that he may reach that institution one of these days. Here is a letter which will perhaps explain the matter better than I can. I received it a few days since, from Pennsylvania."
The anxious young gentleman recognized at once his "Emily's" handwriting, and hastened to read the following:
"MR.—, P. O. AGENT:
"DEAR SIR,—I find you have been making some inquiries about that twenty-six dollars I sent (in a horn) to Mr. George X. Well, you may tell him from me that that broadcloth is invested in a first-class 'Shanghai' overcoat. You may also tell him that I don't go to boarding-school so much as I did—also that I don't belong any more to the soft sex, though I think he does. You might mention, while you are about it, that when I got that \$20,000, I will send him half of it—in the same way I sent the other. Also tell him 'Ever of thee.'
"Yours truly,
EMILY MELVILLE
"(Of any other man.)"
There was deep silence during the reading of this epistle in the office of the agent, who had considerably turned his back while the unhappy victim was learning of his wasted affection and cash. The silence continued so long that at length the agent turned to offer what little consolation was in his power. But he was spared the task. The hapless young man had noiselessly departed—possibly to take the first train for Pennsylvania, possibly to meditate in solitude over the comparative advantages of "love at first sight" and love before sight. Wherever he went, he has not returned.

The Biter Bit.

A certain policeman on duty at the gates of one of the London docks has the credit of being one of the sharpest and most artful amongst his comrades. No person could ever boast of getting any excisable goods, such as tobacco or cigars, out of the dock whilst he was on duty, and he was proud of the same. If he was offered a bribe, he always took it, and had the offender arrested afterwards in the act. One day, however, a ship arrived from India, and the skipper, a cute, hard-headed Scotsman, came ashore in the evening and proceeded to the gates. Walking up boldly to the policeman, he whispered in his ear, "I've got some rare tobacco and some valuable cigars which the Customs folks have overlooked, and I want to smuggle them out th' morn's night. It'll be a' richt, I suppose?"—and at the same time he slipped half-a-crown into the policeman's hand. The redoubtable Robert smiled a malignant smile, and said it would be all right, and the merry skipper passed out of the gates and went on his way rejoicing. The next night the skipper was walking boldly out of the dock gates, when he was seized by the policeman and taken into his watch-box, where he was confronted by a sergeant and underwent a thorough search. To the officer's great chagrin, however, neither tobacco, cigars, nor anything of an excisable nature was found on his person, and he asked the skipper what he had done with them. "Oh," said the skipper, quite innocently, "I had them on me last night when I gave you the half-crown, and I just thocht I'd better tak' them out there and then, which I did!"

The Higher the Better.

"Yes," said the old man, addressing his young visitor; "I'm proud of my girls, and should like to see them all comfortably married; and as I've made a little money, they won't go to their husbands penniless. There's Mary, 25 years old, and a real good girl. I shall give her five thousand dollars when she marries. Then comes Bet, who won't see 35 again; shall have ten thousand; and the man who takes Eliza, who is 10, will have fifteen thousand with her." The young man reflected a moment or so, and then nervously inquired: "You haven't one about 50, have you?" [Tid-Bits.]

A lady, passing along a narrow alley, meets a tipsy man reeling from side to side. She does her best to avoid him, crossing rapidly from one side of the alley to the other, but in vain. "Ah, my lady," he hiccoughs, "so you have been taking a little drop too much, have you?"

GOOD REASON.—Teasing friend—"What makes that new baby at your house cry so much, Tommy?" Tommy, indignantly—"It don't cry so very much; and, anyway, if all your teeth was out, and your hair off, and your legs so week you couldn't even stand on them, I fancy you'd feel like crying yourself."

THE QUIET HOUR.

"The Idolatry of the Heart."

Think not because thou dost not bow
Within some pagan fane,
And breathe'st not a senseless vow
To idols dead and vain;
Because thou dost not bid the "stone"
"Awake," and be thy fear,
Idolatry thou hast not known,
Nor hast an idol near.
If thou in gold hast put thy trust,
And loved the shining pelf,
Then a mere slave to sordid dust,
Thou hast betrayed thyself,
And made an idol doubtlessly,
Enshrined within thy soul;
Mammon has been set up in thee,
And holds thee in control.
Or be it pleasure that prevails,
With all a siren's smiles,
To lead thee on through flowery vales
With soft seductive wiles,
That is thy idol and thy baue,
Forsake the witching sin,
And turn to Him whose love should reign
First and supreme within.
Talk not of pagan deities,
Or gods of wood and stone;
Fall many a passion worse than these
Their willing votaries own;
Ambition, power, whatever tells
With all the tempter's art,
Dethrones the Infinite, and dwells
An idol in the heart.

The Blessing of the Lord Maketh Rich.

Prov. X. 22.

The truth here is two-fold. The cord, as it lies, seems single, but when you begin to handle it, you find it divides easily into two. It means that God's blessing gives material wealth, and also, that they are rich who have that blessing, although they get nothing more. (1.) The silver and the gold are His, and He gives them to whomsoever He will. A business may prosper at one time, and decay at another, while no one is able to detect the cause. It is not by accident. He who rules in the highest, reaches down to the minutest concerns of this world, and controls them all. Long ago, a certain people diligently plied their agricultural labors, and yet misfortune succeeded misfortune, and general poverty was closing round the commonwealth. They could not read on earth the causes of their failure, but a voice from on high proclaimed it:—"Ye have sown much, and bring in little; ye eat, but ye have not enough. . . . He that earneth wages, earneth wages to put it into a bag with holes. Thus saith the Lord of hosts; consider your ways." (Hag.: I. 6, 7.) They had forgotten God, and He had withheld his blessing. There is the religion of the case, and the philosophy of it too. Will a poor, short-sighted creature prate about the causes of things, to the exclusion of God's displeasure against sin, as if there were no causes of things which lie beyond our view? There are causes of things which we have never seen yet. He is a sounder philosopher, as well as a better Christian, who owns that the blessing of the Lord has something to do with the prosperity of his business. (2.) But His blessing makes rich—is riches, although the wealth of the world should flee away. "Godliness, with contentment, is great gain." There are two ways of acquiring wealth. Some people grow rich without God's blessing, and some grow rich by it. It would appear that the god of this world gives riches to his subjects sometimes, when neither giver nor getter owns the supremacy of the Almighty, and that God Himself gives riches to some who are His children. Wherein lies the difference, since both the godless and the godly have gotten wealth? It lies here: "He addeth no sorrow with it," but that other lord does. When you are permitted to obtain wealth on which you do not seek and do not get God's blessing, that wealth becomes a sorrow. There are many arrows of judgment in the Almighty's quiver. Men may well tremble, when they find themselves growing rich on a trade whose secrets they are obliged to hide in their own hearts, and dare not pour out before the All-seeing day by day. To heap up these treasures is to treasure up wrath over their own head. If you take God into your counsels, and so grow rich, there will be no bitterness infused into your gains. Such wealth will not hurt its possessors, whether it abide with them or take wings and fly away. A human soul is so made that it cannot safely have riches next it. If they come into direct contact they will clasp it too closely; if they remain, they wither the soul's life away; if they are violently wrenched off, they tear the soul's life asunder. Whether, therefore, you keep them or lose them, if you clasp them to your soul with nothing more spiritual between, they will become its destroyer. Certain tortures that savages have invented bear an analogy to the process by which his money makes the miser miserable: alike when it abides with him and when it departs. They wrap the body of the living victim in a thick, impermeable plaster, and then set him free. If the covering remains, all the pores of the body are clogged, and the life pines away; if it is torn off, it tears the skin with it,—the pain is sooner over, but it is more severe. Thus the soul of a thorough worldling is either choked by wealth possessed, or torn by wealth taken away. The Maker of the soul is its portion. He made it for Himself. When riches are clasped closest the heart, He is slighted and dishonored. An idol has usurped His throne. "Covetousness is idolatry." Seek first the Kingdom of God and His righteousness, and these other things may be safely added outside. If riches be added



outside, while Christ is taken closest in, the riches will not hurt their owner while they remain, nor tear him asunder when they depart. When your "life is hid with Christ in God," you will live there, whatever amount of the world's possessions may be attached outside; and though, in some social concussion, all the world's thick clay should drop off, you will scarcely be sensible of a change. If you have "put on Christ," great riches may come and go;—you will not be clogged while you have them; you will not be naked when they leave. But if the wealth be the first and inner wrapping of the soul, how shall that soul ever get into contact with the Saviour, that life from its fountain may flow into the dead? Many disciples of Jesus prosper in the world; few who have courted and won the world in their youth become disciples in their old age. It is easy for a Christian to be rich, but hard for a rich man to become a Christian. REV. WM. ARNOT.

**THE SOCIAL CORNER.**

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

DEAR MINNIE MAY,—A welcome addition to your well-filled pages is the Social Corner! I have not yet noticed any cooking recipes in it, and as they are generally welcome, I will give one that I have tested and know to be reliable; I hope we may often hear from our sisters skilled in the culinary art, as I have more faith in well-tried recipes than in those from many of the cook books:

**SOFT GINGERBREAD.**

One-half cup brown sugar, one-half cup butter, two eggs, one cup black molasses, one-half cup sweet milk, one tablespoon ginger and two of cinnamon, one teaspoon soda and two of cream of tartar, two heaping cups of flour. Beat well and bake moderately quick in a buttered breadpan. MRS. R. B.

DEAR SOCIAL CORNER,—May I come in and offer my little quota to the general fund of information? Yes. Thank you; here I am, then. Welcome to every house-keeper will be the knowledge that oyster juice will remove fruit and wine stains from linen. A mixture of one and a-half ozs. of water, one ounce of alcohol and a drachm of sweet oil, applied plentifully with a small sponge, will cleanse

bronze ornaments from dust and mildew. They should not be rubbed hard.

Vaseline is an excellent thing to rub on fine boots, keeping them more pliable than any other dressing; but equal parts of ink (black) and sweet oil, well mixed, is also said to be beneficial.

Ivory knife-handles, which have become discolored, may be whitened by rubbing with fine sandpaper. Yours sincerely, ELSIE IRWIN.

DEAR MINNIE MAY, Springtime, with its bleaching and the use of colored calicoes, is fast approaching, and the following item, which I got several years ago, may not be unseasonable:

**CHEMISTRY OF THE LAUNDRY.**

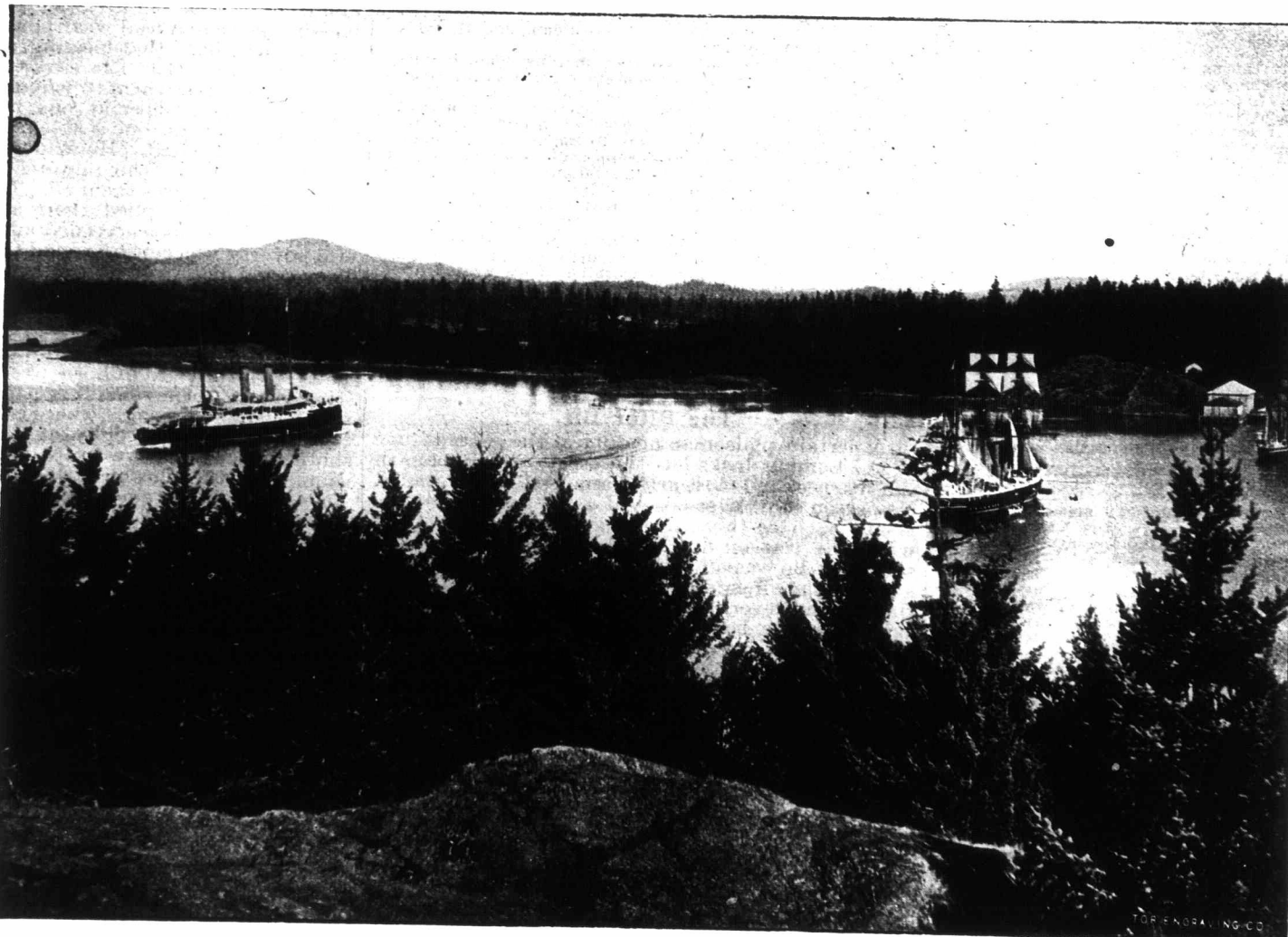
Thirty yards of cotton cloth may be bleached in fifteen minutes by one large spoonful of sal soda and one pound of chloride of lime, dissolved in soft water. After taking out the cloth, rinse thoroughly in cold, soft water, so that it may not rot. The color of French linen may be preserved by a bath in a strong tea of common hay. Calicoes with pink or green colors will be brightened if vinegar is put in the rinsing water, while soda is used for purple and blue. If it is desired to set colors previous to washing, put a spoonful of oxgall to a gallon of water, and soak the articles therein. Colored napkins are wet in weak lye before washing, to set the color. The color of black cloth is freshened if it is put in a pail of water containing a spoonful of lye.

Hoping some of these hints may be of service to your readers, I remain, Yours truly, EMILY WARE, Glenholme.

**Esquimalt Harbor.**

If you are an admirer of the picturesque, and have leisure and means to travel, it is not necessary to go to Europe to gratify your tastes. British Columbia, a part of our own grand Dominion,—with its giant, snow-clad mountains and great glaciers, fertile valleys and peaceful rivers, foaming canyons and pretty harbors,—if not as historic, can boast of as much grandeur as can the Old World. Here, it is true, there are no famous churches, nor ancient castles;—everything done by the hand of man bears the stamp of modern times; but so little has been done that the works of nature may be surveyed fresh from the hand of that Master-artist, proving that "beauty unadorned is adorned the most."

At times you pass along, clinging, as it were, to the mountain sides, and the majestic sight of glaciers several hundreds of feet thick, glistening in the sunlight, and the calm river valley, form a view at once peaceful and terrible. But to describe all the beauties and wonders that here await you would require a whole volume, and I have involuntarily digressed from my original intention of giving a short sketch of Esquimalt Harbor, the illustration of which is here presented to you. The little town of Esquimalt, the North Pacific Naval Station, is only three miles distant from the capital, Victoria, with which it is connected by an electric car service. It contains several Government buildings, as a naval hospital, an arsenal and dock-yard, a public school, two churches, some hotels, business buildings, and residences. But the principal feature is the harbor, which is three miles long and almost two broad, the average depth being from six to



ESQUIMALT HARBOR.

eight fathoms. The Canadian Government has here constructed the finest dry-dock on the Pacific Coast; it is 450 ft. long and 90 ft. wide at the entrance. Our illustration forms a pretty picture, with the distant mountains looming up, the luxuriant forests, and the calm water on whose peaceful bosom the great ships lie at rest.

**THE DUCHESS'S WATCH.**—In the earlier years of her reign Queen Victoria was inclined to be very exact as regarded matters of business, more especially in respect of punctuality as to appointed times and places. At the time the Duchess of Sutherland held the office of Mistress of the Robes, and on public occasions her position was very near the royal person and deemed of great importance. A day and an hour had been appointed for a certain public ceremony in which the Queen was to take part. The hour had arrived, and, of all the Court, the Duchess alone was absent, and her absence retarded the departure. The Queen gave vent more than once to her impatience, and at length, just as she was about to enter her carriage without her first lady of honor, the Duchess, in breathless haste, made her appearance, stammering some faint words of excuse. "My dear Duchess," said the Queen, smiling, "I think you must have a bad watch;" and, as she spoke, she loosened from her neck the chain of a magnificent watch which she herself wore, and placed it round the neck of Lady Sutherland. Though it was given as a present, the lesson conveyed made a deep and lively impression. The proud Duchess changed color, and a tear, which she could not repress, fell upon her cheek. On the next day she tendered her resignation, but it was not accepted.

eyes were of the darkest and most sparkling blue, and her complexion like newly-gathered roses in a ground-glass vase. But the Princess Brillantine, if the most beautiful, was also the most vain woman in the world. All she thought about from morning to night was how to preserve and increase her charms. She had a perfect army of milliners and jewelers, and a factory for her own use, where every costly material was manufactured for her sole wearing. Twenty perfumers were busy alone in preparing essences for her handkerchief, while more than a hundred laborers were employed each morning in collecting the dew-drops for her bath, and acres of ground were planted with flowers to furnish scent for various purposes. One lovely afternoon the Princess was languidly reclining on her embroidered cushions, while her attendants combed and arranged her golden tresses, when she was startled by a loud report which shook the palace to its foundations, and sent her maids shrieking and flying from the room. When she looked up she beheld, standing before her, a tall, severe-looking woman.

"Is this," said she, sarcastically, "the famous Princess Brillantine, of whom every one talks? Is this the heiress and future queen of this fair island, this vain creature, who cares only to gaze into her mirror;—is this the pretty, innocent, royal infant who was once my godchild?"

"I don't know who you may be," replied the Princess Brillantine, fretfully fanning herself for the first time in her life, "and I am not at all anxious to know, but any one can tell you who I am without my giving myself the trouble."

**THE CHILDREN'S CORNER.**

All communications to be accompanied by the name, age and address of the writer.

This is the Children's Corner, Where little ones may sit, And, like young "Jacky Horner," May exercise their wit. He thought himself quite clever Because he found a plum, And yet, I'm sure, he never Was half as bright as some Of our own young Canadians Who read the *Advocate*. You little boys and maidens Like writing on a slate; Could you not write a letter, Amusing, short, and true? Or, if you think it better, Some little tale will do. Each month we'll print the best one, And someday you may be The winner, then you'll cry,—"What fun! I'm in the Corner! See!" A kind of "Puss in Corner" game I'll be, without a doubt; And yet it is not quite the same, For all but one are "out." If you should feel too tired to play, Don't think the game will stop, For plenty more will wish to stay, And in the "Corner" pop. In six month's time we'll give a prize— All under age may try— For, though we do not judge by size, No "old folks" need apply. The tales that please the children best Most suitable will be— Be sure your letters are addressed To COUSIN DOROTHY, "Farmer's Advocate," London, Ont.

**The Jewel Princess.**

Once upon a time their was an island called the "Isle of Perpetual Pleasures." The climate was perfect, birds of beautiful colors sang sweetly among the flowers all the year through. The king who governed this little paradise was very old. He had long ago lost his beloved queen, who left him with one only child, a daughter, the sole heiress of her father's kingdom. As may be imagined, her father idolized his little daughter, and did not educate her quite so judiciously as he might have done. She was remarkably beautiful; her hair rolled in ringlets of the purest golden hue, almost down to her little feet; her



"You foolish, frivolous butterfly," replied her visitor, "you may not wish to know, but it is my duty to tell you that I am the powerful fairy, Sensilla, whom your excellent mother selected as the sponsor for her little babe. There is some excuse for you, in that I have not been able to fulfil the task I had set myself, of educating you, —partly owing to the folly of your father, who has always refused to give me up the charge of you!"

"I do not regret my dear father's kindness in this," pouted Princess Brillantine, "for, judging from your own statement, my kind godmother, your court cannot be the most lively in the world!"

"I can afford to pass over your impertinence," replied the fairy, calmly, "because the power is now in my own hands to dispose of you as I please. I

give you the choice of returning with me to my dominions, where the mistakes of your education may be corrected, or remaining here, subject to the punishment you will receive and risk you will run—"

"I will stay here, at all hazards!" interrupted the Princess, eagerly. "I am ready to brave all, rather that give up my own way."

"Let me warn you," persisted the fairy, "that if you elect to remain here with your father, a heavy penalty will await your further indulgence in the vanity to which you give way. Every charm you possess will, one by one, pass from your control, while you worship them as you do, till all your beauty will remain the hollow mockery and shell of yourself, lacking utterly the spirit and life that could have preserved them fresh and pleasant."

**"The Tiny Tea Party."**

Blow, wind blow! and come and go, to shake the old Oak-tree,  
And shower down the acorns that upon high I see!  
For Gnat and Bee are coming to tea before it's very late,  
And I'm in want of acorns to make them cup and plate!  
The table, spread on a Mushroom head, is under the White  
Rose bush,  
While overhead will music sound from Blackbird and from  
Thrush!  
So blow, wind blow, and scatter below each dainty earven  
cup—  
The choicest from the topmost bough, that I may pick them  
up.  
The golden wine of her honey fine, the scented Lime bestows,  
And I've found the sweetest of all the dew in the petals of the  
Rose!  
So blow, wind blow, for I must go to welcome Gnat and Bee;  
For if I tarry longer here, they will not wait for me!

**AUCTION SALE OF FARM**

Near Burlington.  
**BALSAM LODGE FARM, County of Halton,**  
The Property of the late JOHN FOTHERGILL,  
will be sold by Public Auction about the  
MIDDLE OF MARCH, 1895.

The farm has won three medals in the County and Provincial prize farm competitions, and is one of the most beautiful farms ever offered for sale by public auction in Ontario.

Intending purchasers desiring to inspect can do so on application at the property to Mr. Christopher Fothergill, the executor. The date of sale and other particulars will be announced in the next issue. Further particulars can also be obtained from Mr. W. G. Pettit, Freeman P. O., and the undersigned.

28th Jan., 1895. **MARTIN & MARTIN,**  
3-c-om 47 James St. S., Hamilton.

**IMPORTANT AUCTION SALE**

**60 IMPORTED SHEEP**  
**OXFORD-DOWN**

Wednesday, 6th March, 1895,  
AT 12 O'CLOCK, SHARP.

HAVING disposed of 100 acres of my land, and having a large stock of Suffolk Sheep, I have decided to sell, without reserve, my entire flock of choice imported Oxford Sheep, including all my last fall winners, Doncaster Royal, the acknowledged champion ram, also Lord Gloucester, and seven show ewes of different ages, that won every first at all the leading shows, both in England and in this country; also 42 shearing ewes imported from the best English flocks—Brassys, Adams and Treadwell, all in lamb to above rams, and 9 ram lambs all in fine condition, and very choice quality. Come and get what you want at your own prices, as they all will be sold without reserve. Particulars on application. Corwin Station, C. P. R., or Guelph, G. T. R. Teams will meet trains on day of sale. Terms—12 months' credit on approved joint notes, or 6 per cent per annum off for cash. Lunch provided.

W. B. COCKBURN, Prop., Aberfoyle P. O., Ont.  
INGRAM & HEFFERMAN, Auctioneers,  
17-y-om

**DISPERSION SALE**

OF PURE BRED  
**HEREFORD CATTLE**

AT THE  
**PARK FARM, WESTON, COUNTY OF YORK, ONT.,**  
ON  
**WEDNESDAY, FEB. 27th, '95**

The undersigned having rented his farm, is obliged to sell all of his well-known

**PRIZE-WINNING HEREFORDS.**  
about forty in number, also his horses and other stock and farm implements. Sale begins at 11 a.m., Herefords at 2 p.m.

Terms—Ten months' credit on approved notes; six per cent. per annum discount for cash.

Weston is only eight miles from Toronto market, and all trains to and from Toronto stop at Weston. The farm buildings are only half a mile from the G. T. R. and C. P. R. Stations. A conveyance will meet trains. Send for Catalogue.

**F. A. FLEMING, Proprietor,**  
3-a-om 24 Front St. E., Toronto.

**W. A. Pettit,** Breeder of S. C. W. Leghorns (Knapp Strain).

Prize-winners at Winnipeg Industrial '92, '93 and '94; also at Manitoba Poultry Association Show, March, 1894. Cockerels for Sale, \$2, \$3 and \$5 each. Hens for Sale, \$2 to \$3 each. Also my four-year-old imp. Cock "Prairie Ranger" for sale cheap, in good vigorous breeding condition.

Winnipeg White Leghorn Poultry Yards,  
1-d-om 80 YD AVE., WINNIPEG.

**113 1st PRIZES.**

Plymouth Rock Cockerels and Pullets from Hero pen. (Butterfield, in Toronto Poultry World, says: "Hero is the best all round bird in Canada.") Bronze Toms and Hens from 23-pound Hens and 40-pound gobblers. Pekin Ducks, very large. Prices moderate. Write and send stamp for reply.

**M. MAW, Winnipeg.**  
om

**FOR SALE.**—Two choice Short-horn Bull Calves, also Berkshire Boars fit for service, and younger of both sexes. Prices very moderate.

**R. RIVERS & SON,**  
1-y-om Springhill Farm, Walkerton, Ont.

**DISPERSION SALE WEDNESDAY, MARCH 13, '95.**

THOMAS BALLANTYNE & SON, of "NEIDPATH FARM," STRATFORD, ONT., will sell at AUCTION their entire herd of choice bred Scotch Shorthorns, comprising four bulls and twenty-four cows and heifers, eleven (11) of them having calves at foot, two (2) to calve in March and one in May. They include the imported cows (selected from the well-known Aberdeenshire herds of Duthie, Marr and E. Cruickshank) and their progeny by the very best of Scotch-bred sires, such as Methlick Hero (imp.) = 2723 =, bred by William Duthie & Son, of £1,000 cow (imp.) Mademoiselle; Prince Royal (imp.) = 6118 =, Royal Baron = 9242 =, by Baron Lenton (imp.) Indian Prince = 13011 =, by Indian Chief (imp.), and Scotsman = 18357 =, by Barmpton Hero. Scotsman is stock bull now, and is one of the best two year-old bulls in Canada to-day. All but one of the calves are by him, and cows will be bred again to him. All the cattle are in nice breeding condition, and are an exceptionally healthy lot.

TERMS—Ten months' credit on approved joint notes; six per cent. off for cash.

Farm adjoins city, and sale will commence as soon as lunch is over, after arrival of noon trains. For full particulars, write for Catalogue, to be ready about February 20th. POSITIVELY NO BYE-BIDDING.

3-c-om

**PUBLIC SALE, Feb. 20th, '95.**  
**DISSOLUTION OF PARTNERSHIP.**

**30 Head of Choice Holstein-Friesian Cattle**  
of different ages and sexes, at your own price. No reserve, Cattle choice, best strains richest breeding. Now is your time if you need new blood to strengthen your herd, a good family cow, a dairy cow or foundation stock.

We have dissolved partnership by mutual consent, Mr. Hillgartner (the silent partner) retiring from business. Herd equally divided. Balance of herd continued with more zeal than ever.

Write at once for Catalogue and full particulars.

**A. C. HALLMAN & CO.**  
New Dundee, Ont.

**FORT ROUGE POULTRY YARDS.**

Still left for sale, a few choice Brahmas, P. Rocks, White, Gold and Silver Wyandottes, Brown Leghorns, Langshans, Bronze Turkeys and Pekin Ducks. Also fancy Pigeons and Rabbits. As the breeding season is now coming on, will sell the above cheap to make room. Eggs for hatching the second week in March.

Write, **S. LING,**  
om WINNIPEG, MAN.

**HORACE N. CROSSLEY,**  
PROPRIETOR OF THE  
**SANDY BAY STOCK FARM,**  
Importer and breeder of  
**SHIRES, HACKNEYS, AND COLLIE DOGS.**



The above stud, though only commenced in 1890, has achieved unparalleled success at all the leading Canadian shows, such as Montreal, Toronto and London, also at the CHICAGO WORLD'S FAIR. The most notable in this stud are, the Shire horse Bravo II, 12835, winner of first at Toronto, Montreal and London, and also beating all Clydes at the latter show in the sweepstakes. Hackney, Fireworks No. 3602, winner at Chicago, Toronto and London. Shires and Hackneys always on hand for sale. For further particulars apply to the Proprietor, ROSSEAU, Muskoka. 10-y-om

**FOR SALE.**—Shorthorns: Bull Calf one year old; Heifers giving milk and younger ones. Also Fruit Farm, at Clarkson, 16 miles west of Toronto. Sandy soil, 80 acres of land, good house and outbuildings; 425 apple trees, 10 cherry trees, 600 grape vines, 330 plum trees, 500 pear trees. Possession immediately. Apply to C. G. DAVIS, Freeman P. O., Ont. 13-y-om

**CARGILL HERD OF SHORTHORNS.**

Stock from imp. bulls and imp. and home-bred cows. Catalogue now in printer's hands. Send for one.

**H. CARGILL & SON,**  
CARGILL, ONT.  
11-y-om

**For Sale.**—Two SHORTHORN BULLS; also several choice Berkshire Sows, 10 months old, in farrow to our imp. boar "Randolph." Prices low.

**JOHN RACEY, Jr.,**  
17-1-y-om Lennoxville, Que.

**Shorthorns for Sale.**

**EIGHT SHORTHORN BULLS,** including Canada, second prize yearling at Toronto, the best show bull in Canada of his age, and a sure getter. Also a lot of young cows and heifers.

**J. & W. B. WATT,**  
3-a-om Salem P. O., Elora Station.

**AMPLE SHADE STOCK FARM**

—HAS FOR SALE—  
**SHORTHORN BULLS**  
14 to 16 months old, of the best breeding. Large size, thick and well-fleshed; grand quality. At reasonable prices. Address,

**E. GAUNT & SONS, St. Helens, Ont.**  
Lucknow Station, G.T.R. 13-1-y-om

**DEEP MILKING SHORTHORNS**

For sale, 4 young bulls, 2 reds and 2 roans also yearling heifers and heifer calves. The Golden Drop bull, Golden Nugget = 17548 =, by Imp. General Booth = 6365 =, (54353), at head of herd. Address **WM. GRAINGER & SON,** London, Ont. 13-y-om

**SHORTHORNS.**

I have for sale two Shorthorn heifers and two bull calves of fine breeding, fine colors, fine form and carriage, in fine condition, at fine out prices. Also one or two cows.

**D. ALEXANDER, BRIGDEN, Lambton Co., Ont.**  
5-y-0

**IMPORTED SHORTHORNS.**

**D. D. WILSON,**  
Ingleside Farm, SEAFORTH, Ont.  
IMPORTER AND BREEDER OF  
**SCOTCH SHORTHORNS.**

Imported stock from the herds of Wm. Duthie and W. S. Marr for sale; also Canadian-bred from imported bulls and out of imported dams. Farm one mile from G. T. R. station.

I intend having a sale of above stock some time in March, of which further notice will be given. 13-1-y-om

**LARGE IMP. YORKSHIRE PIGS**

—AND—  
**HOLSTEIN: CATTLE.**

We breed nothing but the best, and sell cheap and guarantee satisfaction, or ask no pay. Come and see us, or write for prices and be convinced. **FLETCHER BROS.,** Oxford Mills P. O., Ont., Kemptville Station, C. P. R. 5-1-y-om

**SIMMONS & QUIRIE.**

Shorthorn Cattle, Berkshire Swine—Money-making Sorts.

The matchless bull, ROYAL SAXON = 10537 = (by Imp. Excelsior), 1st at Toronto, 1884, heads the herd, with BARMPTON M. = 18240 =, by Barmpton Hero = 321 =, in reserve. Female representatives of the celebrated Mina, Strathallan, Golden Drop and Mysic 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.

**ARTHUR JOHNSTON.**



Arthur Johnston has for sale an extra good lot of

**SHORTHORN HEIFERS AND YOUNG COWS**

At moderate prices, as well as a choice lot of young bulls. He is also breeding REGISTERED BERKSHIRES

Of the purest breeding and finest quality GREENWOOD P. O. AND TELEGRAPH OFFICE, Clarendon Stn. C. P. R. or Pickering Stn. G. T. R. Parties met on shortest notice. 4-2-y-om



**Eight Bulls FROM 10 TO 15 MOS.**

FOR SALE. From my best dams, and got by PREMIER EARL and INDIAN CHIEF, which I will sell very reasonable. Clarendon on C. P. R. and Pickering on G. T. R. Write for prices or come and see my stock.

**DAVID BIRRELL, Greenwood, Ont.**  
1-1-y-om

**Shorthorns, Shropshires and Berkshires.**

Having rented one of my farms, I will sell at very much reduced prices, six young Shorthorn bulls; thirty Shropshire ewes, in lamb to imported ram; fifteen ewe lambs; six Berkshire sows, due to farrow in March and April, and two boars, six months' old. All registered and choice quality.

**W. G. PETTIT,**  
13-y-om Freeman P. O., Burlington Stn., G. T. R.

**\$312.00 and SILVER MEDAL**

won by **BROOK BANK HOLSTEINS,** at Toronto, 1894. Including 1st & 2nd in Milk Test, and prizes on females in every section, from Cow to Calf. We keep the best to be produced. All ages. For sale—right sort and right prices. Correspondence cheerfully answered. Also a few choice young Poland-China Boars for sale. **A. & G. RICE, Currie's P. O.,** 19-1-y-om Oxford Co., Ont.

**HOLSTEIN-FRIESIANS**

Maple Grove Stock Farm, Cassel, Ontario.

Herd headed by Colanthus Abbecker, whose five nearest female ancestors have an average seven days' butter record of 29 lbs. Large production and strong, vigorous constitutions a specialty. All stock guaranteed strictly first class, and as represented. Stock of all ages and the most fashionable breeding for sale at hard times prices. Correspondence answered.

3-1-y-om **H. BOLLERT.**

**MAPLE HILL HOLSTEIN-FRIESIANS.**

FOR SALE. The third-prize bull calf at London, 1891. Sire, Siepkje 3rd's Mink Mercedes Baron; second at the Columbian. Dam, Margaret 1st; record, 429 lbs. milk and 2 1/2 lbs. of butter in a week as a three-year-old. This bull is ready for service. Full sister tested 420 per cent. fat. **G. W. CLEMENS,** 10-y-om ST. GEORGE, ONT.



STOCK GOSSIP.

We direct the attention of our readers to the "auction sale of farm" advertisement in this issue. We understand that "Balsam Lodge Farm" is a very desirable property, and can be bought at the price set by the public, on the date to be made known in our next issue, when more information will be given concerning farm and sale.

Messrs. J. and W. B. Watt, Salem P.O., Klora Station, are offering for sale in this issue, some noteworthy Shorthorns. The Messrs. Watt's herd needs no recommendation from us, as their annual show-ring winnings say that they have as good as can be found in Canada. Before buying a bull from any other herd, Messrs. Watt's stables should be visited. They also wish to dispose of a number of young cows and heifers.

R. G. Steacy, importer and breeder of high-class Ayrshires, Maple Grove Ayrshire Stock Farm, Lyn, Ont., writes us as follows: "For the year 1894 the demand for Ayrshires has been far beyond my expectations, especially for my noted imported strains. In order to keep to the fore in these great dairy strains, I imported in 1891, Carlyle of Lessnessock, who heads the herd, and I will be in a position to place the young stock, during 1895, at lower figures than the calves that were imported in dams. At one year old, in 1893, he was awarded first prize at Glasgow in a strong class. He is the only descendant of the most noted milking and prize record strain in Scotland imported to Canada or the United States. His dam on four years old milked sixty pounds per day on grass for two months; granddam was never defeated in a milking contest, England and Scotland, competing against all other dairy breeds for years in succession, and awarded more prizes in gold medals, cups and money than any Ayrshire ever exhibited. Four weeks after calving she milked as high as 84 pounds per day. The sire of Carlyle is also a direct descendant of a proved strain of milkers, and is counted one of the most impressive bulls of his age in Scotland, having been also fifteen times champion and thirty-eight times first at leading exhibitions in England and Scotland. Carlyle of Lessnessock's winnings at last year's Canadian fairs are still fresh in the minds of your readers. Daniel Drummoud, Jr., Petite Cote, Que., purchased a remarkably fine bull calf, imported in dam, which should make a marked improvement in his herd. The dam of this calf is Irene, imported in 1893, and sire Lord Glencairn, both of choice milking strains. The dam is proving herself this year (1895) to be a very heavy milker. The first sale for 1894 was made to Mr. C. A. Archibald, Truro, N. S., who made no mistake in securing Eva 2nd of Southwick's milk calf to head the herd of females purchased from Messrs. Morton & Sons, Hamilton. Eva 2nd Douglas, Lanark, and Dalbattie shows in 1892; second at Castle Douglas, fifth at Ayr, first as one of pair at Castle Douglas, and second as one of pair at Ayr in 1893. With her mate, White Rose of Alicane, she was entered for the Highland Show, which, according to the Glasgow Herald, was robbed of part of its interest, as the two were sold to go abroad. Her sire and dam in their turn were great prize-winners, and her granddam had a record of 75 pounds per day, averaging 60 pounds milk per day on grass alone for three months, having also a splendid prize-ring record. Mr. Archibald has been fortunate in securing such a choicely bred sire to head his herd. All our Ayrshires are doing exceedingly well at the present time."

SHROPSHIRE AND LARGE YORKSHIRES.

There was never in our recollection such opportunities of obtaining the best lines of pure-bred stock at such reasonable rates as this winter affords. Surely the folly of keeping common or mongrel sheep and swine is sufficiently understood to induce all farmers to get into something better. Messrs. James Smith, Paris, Ont., is leaving the farm, and therefore must sell his entire stock, as enumerated in their sale advertisement in this issue. Their stock stands in more than local demand, and a large gathering of prospective purchasers will doubtless be attracted to the sale on February 13, 1895.

ENCOURAGEMENT FOR HEREFORD BREEDERS.

It has been felt that Canadian Hereford breeders were entitled to some encouragement from the American Hereford Association in the way of special prizes, such as are given to members across the line. Accordingly, Mr. H. D. Smith, of Compton, Que., had this matter brought before the meeting in December, with the result that the Association has appropriated \$50 for that purpose, and through his instrumentality the Montreal Exposition Co. has added \$25, the whole to be competed for at their exhibition in September next, viz: For the best young herd of Herefords, consisting of one bull under two years, owned by exhibitor, and four heifers under two years, bred and owned by exhibitor; 1st prize, \$30; 2nd prize, \$15. For best cow and two of her produce, either sex, and any age, all owned by exhibitor; 1st prize, \$20; 2nd prize, \$10. All animals competing for these prizes must be recorded in the American Hereford Record, ages to be governed by the entry rules of the Montreal Exposition Co. These premiums will no doubt stimulate Hereford breeders in preparing exhibits for the sections to which these good premiums have been allotted.

NOTICES.

Messrs. Dick & Co., Montreal, I have analyzed and tried your Blood Purifier in a large number of cases, with the most satisfactory results. I am continually prescribing it in my practice. It is invaluable for worms, skin blemishes, impoverished blood, and debility, which I know not how to equal it for general improvement of stock, and enhancing their value. VETERINARY EDITOR, Family Herald, Montreal.

Mr. George Griffin & Co., 38, Falbot Street, London, have sent us their 1st catalogue of field, garden, and flower seeds. Mr. Griffin having been in the seed business for a long time, is quite conversant with all the branches, and the catalogue gives new and valuable varieties, a place along with the old sorts, so that they can be readily compared. All seeds are tested before being put on the market. Cheap seeds are not dealt in at all. See advertisement and send for catalogue.



SCOTCH SHORTHORNS.

The imported Cruickshank bull Grandeur is at the head of this herd of Imported and Home-bred Cows and Heifers of the most approved Scotch families.

ALEX. NORRIE, Manager.

W. C. EDWARDS AND COY

IMPORTERS AND BREEDERS.



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.

ELMHURST STOCK AND DAIRY FARM

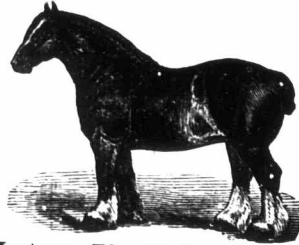
CLARENCE, ONT.

Shorthorns, Shropshires and Berkshires

Our stock 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.

THORNCLIFFE STOCK FARM!



Montrose, The Ruler, Carnuchan Stamp, Knight Errant and other celebrities. My stock in the above lines were very successful at all the large shows last year. Call and examine our stock before purchasing elsewhere.

19-1-y-om

I have on hand the best young Clydesdale Horses and Mares on this continent. Bred from the well-known sires, Prince of Wales, Darnley, Macgregor, Energy, Lord

SHROPSHIRE.

Orders can now be booked for Shearling Rams, Ram Lambs and Ewes, sired by the celebrated prize-winning English ram, Bar None. Also Rams and Ewes of this year's importation.



SHORTHORNS!

CHOICE YOUNG

HEIFERS and BULLS

by the celebrated Cruickshank bulls

NORTHERN LIGHT

—AND—

VICE CONSUL



ROBERT DAVIES, Proprietor. P. O., Toronto.

SPECIAL OFFERINGS AT REDUCED RATES

DOUBLE THE BUTTER YIELD OF THEIR HERDS.

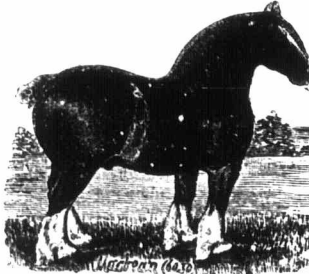
6 Jersey bull calves, 2 to 4 months old, bred entirely for GREAT BUTTER YIELD.

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.: \$60 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.

The Most Celebrated Stud of Clydesdales and Hackneys in Canada is owned by

GRAHAM BROS., CLAREMONT, ONT.



The choicest animals that money and experience can buy, and well qualified to maintain the reputation of our stud for importing. More first prize and sweepstakes winners at the leading shows in Canada and the United States than all other establishments of its kind in the Dominion. The Clydesdales have immense size, large flat bone, with style, quality and choice breeding combined. The Hackneys have fine colors, style, quality, high knee action and choicest breeding. The home of the Champion Clydesdale Stallion, Queen's Own, and the Champion Hackney Stallion, Firefly. Parties wishing the best animals at reasonable prices are cordially invited to examine our stock. Catalogues free.

GRAHAM BROS., CLAREMONT, ONT. 25 miles east of Toronto, on C. P. R. 7-b-om

SHROPSHIRE RAM LAMBS.

We are entirely sold out of yearling Rams, but still have a few Choice Ram Lambs for immediate delivery. Also a fine lot of Ewe Lambs from imported stock. We are booking orders for choice pigs for spring delivery from and some nice young Breeding Sows. Order early, as from present demands they will not last long.

GUERNSEYS - Two choice Bull Calves left, fit for spring service, sired by "Adventurer," winner of 29 1st prizes in Britain previous to importation. Correspondence solicited and promptly attended to. T. D. McCALLUM, Manager Isaleigh Grange Farm, Danville, Que. 9-y-om

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

SUNNYSIDE HOLSTEIN-FRIESIANS Choice animals, either sex, all ages, for sale at any time. Correspondence solicited. Address: McDUFFEE & BUTTERS, Stanstead, P.Q. 18-y-om



C. C. & G. F. CLEVELAND (J. L. Goodhue & Co., Mfrs. Leather Belting) BREEDERS AND IMPORTERS OF Durham Cattle, Standard Bred Horses, Chester White Swine. Young Stock for Sale. Address: C. C. & G. F. CLEVELAND, Greenlands Stock Farm, Danville, Que. 17-1-y-om

JERSEY FOR SALE. To breeders of fine dairy stock. A pure bred A. J. C. C. Bull (son of Canada John Bull), in prime condition for active service. PRICE \$50. F. O. B. Mitchell, Stanstead, Jan. 19th, 1895. J. D. STEWART, 3-a-om

A. J. C. C. - Twenty Jersey Cows, Heifers and Calves of both sexes at reasonable prices. Baron Hugo of St. Anne's heads the herd; first prize winner at Ottawa and Kingston, 1893, and second prize winner at Toronto. Write your wants - bargains here. H. E. WILLIAMS, Sunnylea Farm, Knowlton, P. Q. 17-1-f-om

JERSEYS, STANDARD BRED HORSES. Choicely bred Stoke-Pogus and St. Lambert Jerseys. Standard bred and Road Horses for sale. DR. E. P. BALL, Rock Island, Que. 17-1-y-om.

Pure St. Lamberts YOUNG BULLS fit for service, and bull calves, sired by Jolie of St. Lambert 3rd's Son, 2931, and Lady Fawn of St. Anne's Son, 2503. 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 Jolie of St. Lambert 3rd's Son, 2931, and Lady Fawn of St. Anne's Son, 2503. 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

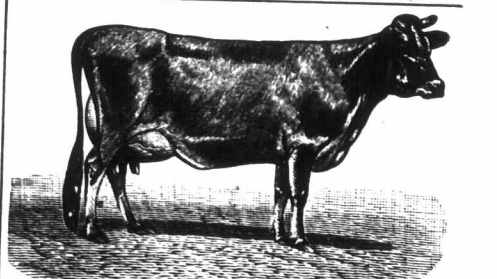
JERSEYS FOR SALE

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 choicest breeding, now on hand.

JONATHAN CARPENTER, 13-1-y-om WINONA, ONT.

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



JERSEY COWS in Calf and in milk. Heifers in calf, Heifer Calves and Bull Calves, - registered, pure-bred, unregistered, and high grades. Rich breeding, good color and good looking. Pedigrees written in butter. Write or come. R. R. Station, Brampton, G. T. R. and C. P. R. 8-y-om J. C. SNELL, Edmonton, Ont.

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

INGLESIDE HEREFORDS!

Three choicely bred yearling Bulls; good individuals and at rock-bottom prices. BARGAINS IN SWINE. Our large Yorkshire Boar (bred by J. E. Brethour), 18 months old, at half price. Also three nice young boars, farrowed in Nov. last, for the price of weanlings. Orders now booked for early Spring pigs. Improved Large Yorkshires and Tamworths, of choicest breeding; and satisfaction guaranteed. Come and see them, or write for particulars. H. D. SMITH, Ingleside Farm, G. T. R. Station, 2 1/2 miles, COMPTON, QUE. 17-1-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. 17-1-y-om

GUERNSEYS AND LARGE YORKSHIRES

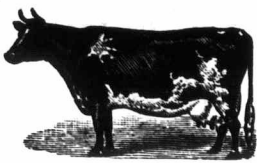
FOR SALE - A choice bull calf, two months' old, bred from heavy-milking, high-testing stock. Also ten grand young pigs ready to ship. W. H. & C. H. McNish, LYN, ONT. 20-y-om

ADVERTISE IN THE ADVOCATE



The GLEN STOCK FARM AYRSHIRES

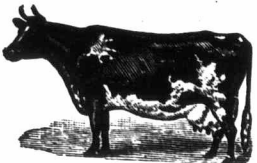
We have 6 young Bulls that will be fit for service in the Spring. They are good individuals, are well bred, and will be sold on reasonable terms. We have also a number of imported and home-bred Shropshire Ewes and Ewe Lambs for sale at very low prices.



WHITESIDE BROS., Innerkip, Ont. 7-y-om

J. YULL & SONS, Meadowsdale Farm, Ontario.

Our herd is composed of seventy-five head. Leonard Meadowsdale -1423-, first prize at World's Fair, heads the herd. Cows of the deepest milking strain, having won several medals at provincial tests. Shropshire sheep and Berkshire pigs. Young stock of both sexes for sale. Visitors welcome; met at train. Give us a call. 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

Ayrshires. - Ayrshires.

IMPORTED IN 1893 AND 1894, AND Will be Exhibited at TORONTO, LONDON, AND OTTAWA.

Largest and most expensive importation combined with Milk, Butter and prize record Ayrshires procurable in Scotland.

Make it your special business to see them and their first calves, 7 months old, imported in dam.

Maple Grove Ayrshire Stock Farm, LYN, ONTARIO. Line G. T. R. R. R. G. STEACY, 7-1-y-o. Importer & Breeder

Imported and Home-bred LINCOLNS

The first Royal winner, Royal Chester, at the head of the flock. Ewes from the best English flocks, such as those of Dudding, Bailes, Wright and Clark. Rams to head flocks a specialty. 5-y-om

R. W. STEVENS, LAMBETH, ONT. London Station.

JOHN A. MCGILLIVRAY, Jerseydale Farm, Uxbridge, Ont., Midland Div.

C. T. R., importer and breeder of Dorset Horned Sheep 19-1-y-om

HENRY ARKELL, Arkell P. O., Ont.

Importer and breeder of Oxford Down sheep, winner of nine prizes out of ten entries at World's Fair. Fifty rams and ewes for sale, both imported and Canadian-bred; 100 ram and ewe lambs for 1894, from Royal and World's Fair winning rams. Prices reasonable. Guelph, G. T. R.; Arkell, over all breeds. C. P. R.; Telegraph, Guelph; Telephone, Arkell. 7-1-y-om

FOR SALE. SHROPSHIRE RAMS (Registered)

AND: SHORTHORN BULLS (Registered) Also a few females. Apply to C. HARLESTON IRVING, "Bonshaw Farm," NEWMARKET. P.O. Box 288 9-1-y-om

MAPLE SHADE SHROPSHIRE AND SHORTHORNS

My yearling Shropshire rams are all sold. I now offer a select lot of ewes in lamb at reasonable rates. Also young Shorthorn Bulls and offers good enough for anybody. Satisfaction guaranteed. Full information cheerfully given.

MR. JOHN DRYDEN, BROOKLIN, 3-1-y-om ONT.

SHROPSHIRE and LARGE YORKSHIRE PIGS

FOR SALE BY AUCTION, On Wednesday, Feb. 13, 1895,

At my residence (the D. A. White farm), 4 miles S.W. of Paris; 8 miles from Brantford.

41 Registered Shropshire ewes, due to lamb April 1st; 20 ewe lambs, and one imported ram; 12 choice Yorkshire sows and boars; 1 extra good, blocky, red Shorthorn bull, bred by Wm. Douglas. Terms—10 months' credit on approved notes, or 6 per cent. per annum discount for cash.

JAMES SMITH, Proprietor. D. B. WOOD, Auctioneer.

N. B.—Only imported rams have been used in the flock. The ewes are large in size, with good fleece, and well covered. This will be a rare chance to procure first-class stock at moderate prices. As Mr. Smith is leaving the farm, everything will be sold without reserve. 3-a-om



TO FARMERS, STOCK DEALERS & WOOL GROWERS FOR SHEEP, CATTLE AND HORSES.

LEICESTERSHIRE TICK & VERMIN DESTROYER It effectually destroys Ticks, Lice, Worms or Grub, to which sheep, horses and cattle are subject, and enables the animal to thrive. It will be found far superior to other preparations used for the similar purpose. The proprietors will guarantee perfect success when used according to directions, as will be found on each box. It prevents scurf and scab, and renders the wool bright and clear. It is put up in tin boxes, price 30 cents each. One box is sufficient for twenty ordinary sized sheep. It only requires to be tried to prove itself all that is claimed for it. Sold by Druggists and Grocers. Manufactured by G. C. BRIGGS & SONS, 31 King St. West, Hamilton, Ont. 2-1-y-o

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 WICHTMAN, DRUGGIST, OWEN SOUND, ONT. Sole Agent for the Dominion. 7-1-y-om

YORKSHIRE PIGS

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

IMPROVED YORKSHIRES,

A few Sows three months old; a litter six weeks old, both from imported stock. Also a pure-bred Bates Princess Bull Calf of milking strain. WM. COWAN, V. S., Galt, Ont. 9-y-om

THE BRONZE MEDAL HERD OF IMPROVED CHESTER WHITE SWINE.

Headed by Cleveland Imp. 329, and Washington, a three-premium winner at the Columbian Exposition, Chicago, 1893. Dorset Horn sheep, imported and home-bred. R. H. HARDING, Thorndale, Ont. 20-y-om

BREEDERS OF Large Improved Yorkshire Pigs.

Markham Baron, the sweepstakes Barrow over all breeds at the Guelph Fat Stock Show, 1892, bred by us. A choice assortment of Pigs now on hand. Only first-class stock shipped to order. Markham Herd Farm, at Locust Hill, Station. 17-y-om J. M. PARK & SONS.

Large (White) Improved YORKSHIRES AND ENGLISH BERKSHIRES

The undersigned offers for sale this fall an exceptionally fine lot of Young Pigs, also a few Sows ready to breed, also a few Sows in farrow. Pairs supplied not akin. Prices to suit the times. Correspondence solicited. Apply to WM. GOODGER & SON, Box 160, Woodstock, Ont. 11-y-o

A Specialty of Improved Large Yorkshire Hogs



This herd has again won first prize, at Toronto Exhibition. Two hundred pure-bred Pigs, of the type most profitable to the feeder, and the pork-packer's favorite. Individuals from this herd have been prize-takers at the principal Canadian Exhibitions. I request a personal inspection of my herd. Visitors welcome. All stock guaranteed to be as described. J. E. BRETHOUR, Burford, Brant Co., Ont. 3-y-om

S. COXWORTH, CLAREMONT, ONT., Breeder and Importer of Berkshire Hogs

A choice lot of young pigs just fit to ship. Pairs supplied, not akin, sired by my three grand Stock Boars, "High Clear Prince," "King Lee" and "Champion Duke." Also a few choice sows of Oct. litters. Write for prices or come and see my stock. 8-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.

BERKSHIRE AND YORKSHIRES.

Choice stock for sale at reasonable prices. Orders filled in rotation. Inspection invited. Write for prices. THOMAS WATSON, Springvale, Ont. 3-1-d-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. Wyandotters and Bronze Turkey Eggs. 3 1/2 miles from Parkhill Station, G. T. R. 17-1-y-om

M. J. DAVIS, Woodstock, Ont., Breeder of High-class Large Berkshire and Imp. Large White Yorkshire Swine, Short-horn Cattle. — A grand

lot of young pig ready for shipment of both breeds; also boars fit for service from prize-winning stock. Stock shipped to order. Satisfaction guaranteed. Young Bulls generally on hand. 8-y-om

THE HOME OF THE BERKSHIRES.

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

We are now breeding a number of fine young sows, the get of Enterprise, to the imported sows Star One, British Cheer and King Lee 4th. Have a few good young boars fit for service and a fine lot of young pigs farrowed in September and October. Our Berkshires won eight firsts out of eleven offered at the late Toronto Exhibition. Write for description and prices. 2-y-om

ISRAEL GRESSMAN, New Dundee, - Importer of Large - English - Berkshires 4-y-om

O. J. GILROY & SON

Glen Buell, - Ont., BREEDERS OF HOLSTEIN - FRIESIAN CATTLE - ALSO: Large English Berkshires & Imp. Yorkshire Swine Bred from imported stock. Personal inspection solicited. 7-y-o

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, Box 699, BRANTFORD. 3-1-y-om

DUROC-JERSEY SWINE

On our herd of fourteen individuals at the Industrial Exhibition we won fifteen prizes. Young stock for sale at reasonable prices. Can supply pairs not akin. We ship to order and guarantee satisfaction. TAPE BROS., Ridgetown, Ont. 20-2-y-om

NOTICES.

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

The season of 1894 proved the absolute need for the use of spraying mixtures on fruit of all description. Fruit growers who sprayed intelligently and persistently reaped a rich reward. Among the few good spray pumps in the market we call especial attention to the Ideal sprayer advertised in this issue. It is made by the Gould, Shapley & Muir Co., Ltd., of Brantford, and has the strong endorsement of numerous purchasers for its simplicity and great force. In addition to other good qualities, Benjamin Squire, farmer and fruit grower, Essex Co., writes: "I have used the 'Ideal' spray pump with the best of satisfaction. It surpasses anything I have ever seen, and for work it is perfection. Anybody can operate it with ease. It will spray the largest fruit tree that grows."

The Alaska Feather and Down Co., of 10 St. Sacramento Street, Montreal, and 28 Front Street East, Toronto, write us that the money expended with us in advertising during the year 1894 has yielded them better returns than from any other Agricultural paper. This Company have recently completed arrangements with the Hudson Bay Co., whereby they secure the entire quantity collected annually on the coasts of Hudson's Bay and Labrador, amounting to the large aggregate of six tons per year. These feathers are gathered mainly by Indians, and are from geese, ducks, gulls and partridge. They have been shipped to England by the Hudson's Bay Co., for the last 200 years, to be sold at auction, but hereafter go to Montreal, where they are taken in hand and converted into pillows, cushions, eider-down bed covers, and in fact everything in which feathers can be utilized. Before being manufactured, they are put through a process which removes all animal matter from the feathers themselves. There is no magic about it either, as their machinery, etc., simply cleans the feathers thoroughly leaving them in really beautiful condition. Why not sleep on the more comfortable and healthy spring mattresses, and sell the feathers to this firm in Montreal? If feathers must be used to sleep on, they should be first purified, and therefore free from the animal matter so common under ordinary circumstances.

NURSERY STOCK AND FOWLS.

When one is driving through the country, it is refreshing to view a farm home upon the surroundings of which some little taste, time and expense have been devoted. Now, it is really surprising how great an improvement a very little well-directed outlay will make on any farm. A. W. Graham's catalogue of Elgin nursery stock, St. Thomas, will surprise many who read it, in the prices asked for really choice fruit, and ornamental trees and plants. His White Leghorns and Golden Wyandottes are known to be second to none as layers, therefore some attention should be given them. See Mr. Graham's advertisement in this issue.

"BODY RESTED, MIND AT EASE."

That is what it is when travelling on the fast trains of the Chicago, Milwaukee & St. Paul Railway; besides, there is no chance to "kick," for the accommodations are up to date, the trains keep moving right along and get there on time. These lines thoroughly cover the territory between Chicago, La Crosse, St. Paul, Minneapolis, Aberdeen, Mitchell, Sioux Falls, Sioux City, Yankton, Council Bluffs, Omaha, and Northern Michigan. All the principal cities and towns in that territory are reached by the "St. Paul" lines, connecting at St. Paul, Council Bluffs and Omaha with all lines for points in the far west. Write to A. J. Taylor, Canadian Passenger Agent, 87 York Street, Toronto, Ont., for one of their new map time tables and a brochure giving a description of the Compartment Sleeping Cars. Tickets furnished by any coupon ticket agent in the United States and Canada. The finest dining cars in the world are run on the solid vestibuled, electric lighted and steam-heated trains of the Chicago, Milwaukee & St. Paul Railway.

THE PEOPLE'S WHOLESALE SUPPLY CO.

As our readers are aware, Mr. R. Y. Manning (formerly manager of the Grange Wholesale Supply Co.) has opened out business for himself at No. 35 Colborne Street, Toronto, under the name of the People's Wholesale Supply Co. Mr. Manning, relying upon his past dealings with the public, now frankly and boldly makes the challenge that if any one during the past five years has sent him a consignment of an order, and has not been honorably used, they report the circumstances to the FARMER'S ADVOCATE, which he asks to investigate and report, charging all expenses giving to him, as we are pleased to read a large number of testimonials from wholesale men, manufacturers, and others with whom he has had dealings, speaking of him in the highest terms. We have not space for them, but reproduce one from Warring, a gentleman widely known in Canada, and which is a fair sample of the rest:—"To WHOM IT MAY CONCERN:—I have much pleasure in stating that I have known Mr. Manning, and have done business with him, as manager of the Grange Wholesale Supply Co., for several years. I consider him an energetic, upright business man. I understand Mr. Manning is now opening up in business for himself, and I feel satisfied that anybody having transactions with him will find him honorable and just and worthy of public confidence. Yours truly, W. KENNEDY, Mayor. Toronto, Jan. 10th, 1895."

Ordering goods by mail has become to an orthodox way of doing business nowadays, samples being sent out first which can be returned for comparison when the order itself is filled. With square dealing and confidence, confidence is established and matters run smoothly. Nearly everything needed in the household is handled, and a special feature of the People's Wholesale Supply Co.'s business is the handling of consignments of farm produce, such as butter, eggs, and poultry, the aim being, on Mr. Manning's part, to combine in the one establishment advantages of selling and buying, which certainly makes a very strong combination, and which, properly conducted, cannot but result in the development of a large and satisfactory business. We wish him continued success.



BOOK TABLE.

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

D. M. Ferry's Seed Annual, which has just reached us from Windsor Ont., is a beauty. This popular firm never sent us equal in attractiveness and usefulness. In their introductory, they state that a sample of every lot of seeds offered is tested at their trial grounds near Detroit, in order that everything sent out be true to type, possessed of vitality, and otherwise satisfactory. The first 16 pages are devoted to novelties and varieties of special merit. Their index and price list is very complete.

A. G. Hull & Sons, "Central Nurseries," St. Catharines, Ont., have favored us with a copy of their catalogue of fruit trees, plants, and vines, for 1895, which they designate as their "agent." By truthful representations, reasonable prices, promptness in filling orders with nothing but the best of stock, and careful packing, etc., year after year, they are building up an ever-increasing trade. There will be a large demand for fruit trees this spring, and the advice of this firm to their customers—to order early—is sound.

Now is the time to plan for next season's garden and field crops. "Rennie's Illustrated Guide," issued by Wm. Rennie, the well-known Toronto seedsman, a very complete publication, will be a great help in making selections of varieties. Mr. Rennie offers a general list of Vegetable, Flower, and Agricultural Seed, Seed Grain and Potatoes, and in addition to a large collection of standard varieties, has a number of sterling Novelties, which are worthy of a trial from our patrons. This handsome Catalogue will be mailed free to all upon application to Wm. Rennie, Toronto. Drop him a post-card at once.

Write by next mail, or as soon as possible, for a copy of the comprehensive and handsome seed catalogue issued by John A. Bruce & Co., Hamilton, a firm well known to ADVOCATE readers. It is a decidedly useful volume, containing practically everything needed in the way of seeds for the greenhouse, garden, or farm, great care being taken to offer only such novelties as may be relied upon. This firm suffered by fire in 1883, but rebuilt last year, and their premises and appliances are now larger and more complete than ever; in fact the growth of their business makes the use of more commodious premises imperative. A beautiful lithograph of their place of business appears on the cover of this very attractive catalogue.

J. A. Simmer's catalogue of garden, field and flower seeds has been received. It is compiled in its usual convenient and attractive style, illustrating, by cuts, the many fruits and flowers with which they deal. We would direct special attention to the many useful agricultural seeds, such as the New White Cap Yellow Dent Corns; Siberian, Peerless White, and Challenge Oats, all of which are of interest to the farmers of Canada. Now is the time to decide what is to be sown and planted next spring. We would therefore advise farmers to send to Mr. J. A. Simmer, 147-151, King St. East, Toronto, for their catalogue, which will indicate the various varieties, new and standard, which they are handling.

From Mr. Henry Wade, Secretary of the Agriculture and Arts Association, we have received a copy of Volume IV, Dominion Swine Breeding Record, published on the same lines as the two previous volumes, keeping each breed separate, so that at a future time the different breeds can be bound together if found necessary. A complete index of owners, breeders, importers, and swine is found with each part. This volume contains the records of the following:

Berkshires.....Boars, 700; sows, 800; total 1,500
Yorkshires....." 500 " 400 " 900
Suffolks....." 31 " 33 " 64
Chester Whites....." 100 " 100 " 200
Poland-Chinas....." 70 " 45 " 115
Tamworths....." 46 " 45 " 91
Grand Total.....2,925

The book is well indexed, and contains the rules governing the various records, making up altogether a useful and creditable volume.

We have received from Geo. Ertel & Co., London, Ont., a copy of their annual illustrated catalogue of the Improved Victor Incubator and Brooder, entitled, "A Pleasant Path to Prosperity." In view of the rapid growth of the poultry business in this country, all branches of the subject are receiving a great deal of special attention, and foremost among these is that of artificial incubation. This catalogue contains a great deal of up-to-date information on the subject of incubators and brooders as constructed by this old and reliable firm. Drop them a post-card for the catalogue. People who are using the Victor Incubator speak of it in the following terms:

Whittemouth, Man., Oct. 17th, 1891.  
GEO. ERTEL & CO., Quincy, Ill.  
SIRS, The Victor Incubator I bought from you last May arrived here in good shape. I am quite satisfied that if an egg is fertile your machine will do the work it is built for. "It is a dandy." I have some very fine fowl hatched by the Victor, June last. I intend rushing it from April 1st till August 1st, and have all confidence in the machine. Wishing you all kinds of success.  
Yours truly,  
M. N. TOBIN.

NOTICES.

IT PAYS TO SPRAY.  
Intelligent farmers who are watching the signs of the times, know that fruit-growing if conducted properly, will yield a handsome and very sure revenue. They also know that it cannot be properly conducted without combating the many destructive forms of fungous diseases and insect pests. These can be combated successfully by using a first class spray. We would therefore draw attention to Holmes & Halliday's pumps advertised in this issue. Our readers will remember how this spray pump was spoken of at that meeting. We therefore recommend all fruit growers who have not already a first class spray pump, to send to Holmes & Halliday, Clarkburg, N. C. The pump can also be used for washing windows, painting, putting out fires, and even for whitewashing outbuildings.

ALL FURS REDUCED

We give below a list of Fur Coats and Robes on hand, and also the low price to which we have reduced each article, in order to clear all out before the season closes:—

Each.	
5 Warmot Fur Coats, \$12.50; reduced to	\$ 7.50
4 Japanese Dog Coats, \$16; reduced to	14 00
2 Kangaroo Fur Coats, \$20; reduced to	12 50
1 Buffalo Coat, with Wombat Collar, \$20; reduced to	15 00
2 Large White Goat Robes, \$12; reduced to	7 00
2 Medium-Sized White Goat Robes, \$10; reduced to	5 00
2 Large Gray Goat Robes, \$8; reduced to	6 00
3 Large Black Goat Robes, \$10; reduced to	7 00
2 Small Black Goat Robes, \$8; reduced to	5 00
2 Australian Bear Robes, \$12; reduced to	8 00

If you really want to secure any one of the above Furs you will need to act promptly. Terms, cash with the order. We will return your money if the goods are sold when your order reaches us. Mention this paper to

STANLEY MILLS & CO'Y,  
Hamilton, - 2y-om - Ontario.



Hitch A Horse To A Hoe.

It's the up-to-date way of cultivating ground. But be sure and hitch him to the "PLANET JR." STEEL HORSE HOE AND CULTIVATOR. Light, strong and easily controlled by convenient levers. Has separate parts for doing close hoeing, furrowing, or ordinary cultivating. Our free-for-all catalogue tells all about it.

S. L. ALLEN & CO., Philadelphia, Pa.

E. D. GEORGE

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

PINE VIEW HERD CHESTER WHITES AND BERKSHIRES.

Young Boars fit for service. Young Sows in pig to an Imported Boar. And in fact I can supply any aged pig wanted of the two breeds mentioned above, at a price in touch with the times. Orders are solicited for weanlings; but I am anxious to clear out the older ones in order to make room for sows farrowing next month. For prices and other particulars address, JAMES H. SHAW, Simcoe, Ont. 21-1-f-om

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. 21-1-f-om

THE AVON HERD OF REGISTERED TAMWORTH, CHESTER WHITE AND IMPORTED POLAND CHINA SWINE.

Our herds are selected from the best strains from England and the U. S. We have some choice young stock of Tamworth and Poland-China from 5 weeks to 4 months old. Pairs not akin. Prices moderate. Correspondence solicited. Orders booked for spring pigs, Chester White. HERRON & DAFOE, Avon P. O. 22-f-om

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Young herds of Tamworths and Cheesters are selected from the choicest herds in England and United States; 80 choice fall pigs of the above breeds for sale, also 8 grand Tamworth boars fit for fall service, and 10 choice sows bred for spring farrow. Pairs furnished not akin. Reduced rates by express. Pedigrees furnished. Send for prices before buying elsewhere. H. GEORGE & SONS, Crampton, Middlesex Co., Ont. 7-y-om

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Young Stock of all Ages For Sale. Silver Gray Dorkings, W. F. B. Spanish, Brown and W. Leghorns, L. Brahmas, Partridge Cochins and Silver Hamburgs; a few cockerels registered for sale of B. Leghorns and B. Spanish. Eggs for setting after April 1st. 13 for \$1. 30 for \$2. Send for illustrated catalogue of Polands and poultry. Correspondence solicited. CAPT. A. W. YOUNG, Tupperville, Ont. 17-y-om

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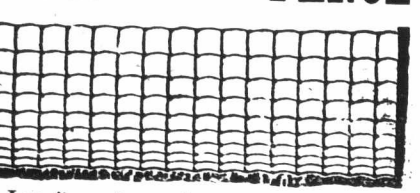
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"Do you see that corn over yonder?" said the ass one day. "Yes, we can see it," said the horse, "but what good does that do? We can't get at it, for between the corn and us is the

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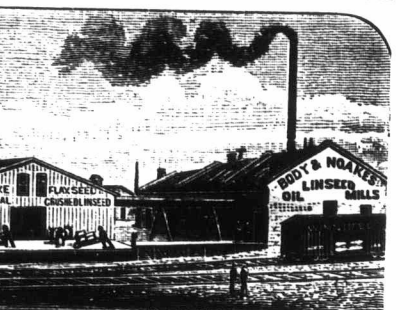
And I can't reach over it." "And I can't break through it, try my best," said the bull. "And I can neither squeeze through it nor under it," said the pig. "And between me and the summer's heat we can't injure it," said Jack Frost, as he turned the thermometer ten degrees lower. Just then the small boy passed by singing:—

"Oh! the Page Fence is a 'bummer,' For you see when it's summer It never fails to 'keep tight' All the while.

"Then, 'bout New Years it will swear off, But when Jack Frost says 'break square off,' It uncoils itself and 'tapers' With a 'smile'."

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**SEEDS** For nearly half a century we have been supplying the Farmers, the Gardeners, the Florists and the Horticultural Specialists in all portions of the Dominion with our selected and reliable stocks of Seeds for the Field, the Garden and the Greenhouse; and year after year their orders come to us as regularly as the seasons. The seeds annually carry thousands of packages to our customers in British Columbia, Manitoba and the Northwest Territories. Send for our Seed Catalogue for 1895, which we mail free to all applicants.

**JOHN A. BRUCE & CO., SEED MERCHANTS, Hamilton, - Ontario. 2-b-om**

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You may need it to-night

**AYER'S THE ONLY Sarsaparilla ADMITTED**

READ RULE XV. "Articles that are in any way dangerous or offensive, also patent medicines, nostrums, and empirical preparations, whose ingredients are concealed, will not be admitted to the Exposition."

Why was Ayer's Sarsaparilla admitted? Because it is not a patent medicine, not a nostrum, nor a secret preparation, not dangerous, not an experiment, and because it is all that a family medicine should be.

At the **WORLD'S FAIR** Chicago, 1893. Why not get the Best?

**RUSSEL'S CORN CURE**

A safe, sure and effectual remedy for the removal of all Corns and Warts. It removes those troublesome excrescences without pain or inconvenience, and without the use of the knife. There is no corn or wart that it will not cure, if the directions are strictly followed. Full directions around each bottle. PRICE, 25 CENTS, POST-PAID. T. R. MORROW, Chemist & Druggist, 426 Cordova St., & Mt. Pleasant, VANCOUVER, B. C. 21-y-om

**Moody Threshing Machines**

CLEANS THE GRAIN FIT FOR MARKET. HORSE-POWER MAY BE USED SEPARATELY, FOR RUNNING ENSILAGE CUTTER, ETC. WRITE FOR CATALOGUE.

M. MOODY & SONS, Terrebonne, - Que. 9th PROVINCIAL STALLION HORSE SHOW

**9th PROVINCIAL STALLION HORSE SHOW**

THIS SHOW WILL BE HELD About the First Week in April. Owners of stallions will please take notice.

HENRY WADE, Secretary, TORONTO,

**STOCK GOSSIP.**

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

R. Rivers & Son, of Springhill Farm, Walkerton, Ont., send in a change of ad. for this issue, in which they offer two Shorthorn bull calves, grandsons of the famous "Barnpton Hero" - 321 -; also large English Berkshires, of different ages. They report Shorthorns doing nicely, and calves coming along strong and healthy, the winter so far being very favorable for wintering all kinds of stock, although a good thaw would be very acceptable, as springs are getting very low.

A. H. Morrison, Snohomish, Washington, U. S., writes under date of Jan. 10th, says: "We are on the Pacific Coast and enjoy the Advocate very much. We look for it, and miss it when it does not come. We are starting a dairy, with a beautiful young bull, 'Carlo of Belvidere,' purchased from Mrs. E. M. Jones, of Brockville, Ontario, at the head of our herd. This is truly the dairyman's paradise. The cows and calves are out on pasture since 8 o'clock this morning, and will be brought in this p. m. at four. We house and feed at night from Nov. till first of April."

**PARTNERSHIP DISSOLUTION AND SALE.**

A. C. Hallman & Co., New Dundee, Ont., advise us that after February 20th they will discontinue doing business under the old firm name. They have dissolved partnership by mutual consent. Mr. Hillgartner, the silent partner, is retiring from the cattle-breeding, only keeping a few Holstein-Friesian cows for his own use. The herd has been kept on two farms some distance apart, which was at times very inconvenient. Owing to drought, last season was a most unfavorable one on pasture, etc., so that on this farm a lighter stock must be carried. The herd has been equally divided, throwing a large number of valuable breeding cows and young stock of all ages and sexes on the market, which will all be sold at his farm, on Wednesday, Feb. 20th. This will be a good opportunity to secure stock of the choicest individuality and breeding. The other half of the herd will be reduced for the same reasons. Mr. Hallman writes: "It is with much reluctance that we announce this selling of what has been our pleasure and pride for so many years, but it is our only course. We trust our old friends, and many new ones, will take advantage of the sale. The remainder of the herd will be pushed with more zeal than ever, under the old familiar name, without the 'Co.' Our cattle are doing well, a lot of very rich bred calves having just come. Our Tamworths are also doing well."

**"MAPLE LODGE" AND "SPRINGHURST" STOCK FARMS.**

A few days ago we visited the herds of Jas. S. Smith, Maple Lodge, and H. & W. Smith, Hay, both of which are widely and favorably known in this Province. One of the notable and prominent features of the former herd is the uniformity of type, which indicates that intelligence and definiteness of purpose has guided its founder and owner in obtaining the present desirable qualities there to be seen. It has been Mr. J. S. Smith's purpose from the commencement to combine by selection, breeding and care, all the qualities that go to make up the most desirable style of a Shorthorn herd. We may say that the beefy Crutch-shank characteristic is so well and wisely blended with the more stylish Bates form, that the result is a handsome formation without any loss of substance. The milking qualities of the herd at this dairy age is one of its most valuable features. The udders of all the cows in milk indicate that utility at the pail has not been lost sight of. It is sufficient to say that several of the matrons give upwards of fifty pounds of milk daily, some of which reach the butter tub weekly for several months after calving. It has been the practice to encourage deep milking qualities by rarely, if ever, allowing a cow to dry off more than seven or eight weeks before calving. Now, this herd has been bred and trained for many years along these valuable lines, so that the qualities are firmly established. The animals that are to be sold by auction on February 28th consist of six heifers rising two years old, one cow six years old and one heifer calf; nine bulls from twelve to twenty-two months old. The heifers are all in calf to that grand bull British Flag, by old Barnpton Hero. Two are sired by Old Conqueror, by Vanguard; two by Lavender Prince, by Sussex; one by son of Indian Chief, and one by Lord Lassie IV., by Conqueror. The six-year-old cow "Princess" is of pure Bates breeding, and is due to calve about the time of sale. Her milking qualities are of a very high order, being from a dam, grandam and great-grandam, all of which have reached fifty pounds of milk per day for a considerable time after calving. The heifer calf is a beautiful roan, about ten months old, by Lavender Prince, out of a "Lovely" cow. The bulls are bred very similar to the heifers, and are all of high individual merit, and the calves are chiefly red, but a few handsome roans are also among them. They have splendid, mossy coats, and every animal appears to be in the perfection of health.

H. & W. Smith's herd needs no introduction to those who have watched the showing results for the last few years, as the Industrial or Western seldom go by without Messrs. Smith securing some important premiums. The animals to be sold from this herd comprise the white three-year-old heifer, Fragrance, that has come in for a share of showing glory in several well-contested battles. She has a fine calf now at foot. Bonny Bird, a two-year-old, red heifer, by Blake, from Old Hospidar, is a desirable animal in many respects. There are also a number of splendid heifers between one and two years old, got by such bulls as Lavender Prince, Blake, and Prince Albert; among them is such family blood as Duchess of Gloucester, Lavender and Lovely. The two bulls to be sold have pedigrees and qualities which should make them desirable in any herd. A pure white yearling by Blake is bred almost identically with Messrs. Smith's sweep-stake steer at the late Guich Fat Stock Show, which dressed the extraordinary amount of 70 pounds to 100 pounds live weight. He is a strong, well-proportioned, fleshy bull. The roan, seven months old calf, by Abbot'sford, is a straight nice animal, that promises well for the future. His dam was an Industrial winner for several years.



STOCK GOSSIP.

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

Secretary W. A. Shafer, Middletown, Ohio, writes us that entries for Vol. 6, American Oxford-Down Sheep Record, will close on March 1st.

Mr. H. D. Smith, "Ingleside Farm," Compton, Que., reports that all his Herefords are wintering well, and that the calves are an extra good lot.

Capt. A. W. Young, Tupperville: "I have a number of fine Nominee sows that I am breeding to Wilkes, and two Wilkes sows to a young Nominee boar. Sold a young boar lately to Mr. A. Johnson, of Port Rowan, Ont."

Mr. C. M. Winslow, the well-known Ayrshire breeder, of Brandon, Vermont, reports to us that his herd has averaged for the past fifteen years 6,345 pounds of milk annually. The average for 1894 was 6,454 pounds each; butter-fat, 3.73 per cent.; butter, 302 pounds; and cheese, 645 pounds.

We refer those of our readers in quest of first-class Shorthorns, male or female, to the sale advertisement of Thos. Ballantyne & Son, Stratford, Ont., which will take place on Wednesday, March 13, 1895. One of our staff having visited this herd, particulars regarding it will be given in our next issue.

P. C. Kellog & Co. recently sold at auction in New York 280 trotting-bred horses at an average of \$318, the total being \$89,335. The highest price realized was \$10,000 for the great stallion Alcantara 223, purchased by A. Bonner, New York. Within a day or two he was re-sold to Mr. Chas. Backman, of Stony Ford, Orange Co., N. Y.

We had the pleasure of visiting the farm of W. J. Biggins, Clinton, where exists in well-kept form a splendid Shorthorn herd. We were pleased to notice the individual excellence of many females, and the general high quality of the herd. The well-tried Campbell-bred stock bull still retains his usefulness and bloom. This year's crop of calves are coming mostly red, and doing well.

Mr. F. A. Fleming, so widely and favorably known as a breeder of Hereford cattle, announces, in another column, a dispersion sale at Weston, York County, on Wednesday, February 27th. He has rented his farm and is, therefore, obliged to disperse his prize-winning herd, now numbering about 40 head, together with horses and other stock. Further information regarding this important sale may be found in the advertisement or catalogues, which may be obtained from Mr. Fleming on application.

W. B. Cockburn, Greenhouse Farm, Aberfoyle: "Having sold one of my farms, I have decided to dispose of my Oxford sheep, as I have plenty of Suffolks to keep on the rest of my land. My Oxfords are a very choice lot, without any doubt one of the best ever imported, all from the best and oldest English flocks. My rams and show ewes are a grand lot, having won nearly everything last fall. Those wanting Oxford sheep should not miss this chance of improving their flocks, at their own prices, as they will be sold on March 6th, without reserve, to the highest bidder. See ad."

We direct special attention to a change in the advertisement of Mr. H. Bolert, Cassell, Ont., in this issue. Mr. Bolert has long occupied a foremost position among the breeders of the "black and whites," and his success in securing and breeding dairy cattle of great capacity as producers and of sound constitutions is widely known. It is most important that cattle be not only profitable at the pail but of vigorous health, two points at which Mr. Bolert has steadily aimed. That grand bull, Colanthus Abbecker, whose five nearest female ancestors have a butter record of 29 lbs. per week, still heads the herd. Some special offerings are made just now.

J. W. Barnett, manager Pine Grove herd (W. C. Edwards & Co., proprietors), Rockland, Ont., writes: "I can report the Pine Grove herd of Shorthorns as doing well since the winter set in. Our stock bull, the Knight of St. John, is keeping in fine form, taking daily exercise with the cows, which we think is the proper place for a stock bull. His calves are coming nice—thick, growthy fellows, all solid red in color but one, which is roan. We have nothing loaded with beef, but everything is in good breeding condition. Our object is to produce good animals at prices to suit the times, therefore cannot feed as formerly. We have a few good young animals of both sexes that we could spare."

The American Oxford-Down Breeders' Association held its annual meeting at Cincinnati on January 8th. Secretary Shafer reported that the business of the Association had been highly satisfactory during the year. More new members were admitted during any previous year. Everything pointed to a large demand for Oxfords in the future. Since the publication of Vol. V, 1,731 pedigrees have been recorded. The special prizes of \$50 offered by this Association for home-bred lambs at the State and Provincial fairs, brought out exhibits at nine State and two Provincial fairs. The following were the Canadian winners: James Tolton, Walkerton; Smith Evans, Gourock; Peter A. Kelly, Teeswater; and Jas. Bray, Longburg, Man. The Treasurer's report showed \$2,433 on hand, and all debts paid. It was voted that special prizes shall be given to Oxford-Downs at State and Provincial fairs in 1895, and that in addition to prizes on lambs as given last year, the same amount will be offered for yearlings. The following classification was agreed upon: Best pair of four lambs of either sex, \$25; second, \$15; third, \$10. Best yearling ram, \$15; second, \$10; third, \$5. Best pair yearling ewes, \$15; second, \$10; third, \$5. All stock competing for these prizes to be first and owned by exhibitors in the State or Provincial and registered in the American Oxford-Down Record, with a pedigree of their own. Entries in these prizes to be made on or before the 1st day of October, at the time of exhibition. The prizes of 1894 were elected, and the following were the winners: Mr. McKee, Law, \$100; Mr. McKee, Law, \$100; Mr. McKee, Law, \$100.

NOW IS THE TIME!

WHEN DEALERS SHOULD MAKE THEIR SELECTIONS OF GOOD PAYING AND GOOD SELLING ARTICLES FOR 1895.

Advertisement for windmills and pumps. Includes an illustration of a windmill. Text: "If you want excellent returns write for particulars of our Gem Steel Windmills, Gem Steel Towers, Canadian (Steel) Air-motors, Halladay Standard Windmills, Haying Tools, Iron and Wood Pumps, Dust Collectors, Saw Tables, etc., etc. We manufacture a full line of pumping and geared Windmills, and the greatest variety of Pumps of any firm in Canada. Our Haymaker Car and Patent Steel Track is leading them all, and our prices are made to suit the times. O.N.T. WIND ENGINE & PUMP CO. 367 Spadina Ave., 9-y-om TORONTO, ONT."

METAL SPRAY PUMPS

Our Perfect Agitator, Strength and Durability, (Working Parts of Brass only) And Their Thorough Spraying Powers Are the three recommendations which sell so many of our Spray Pumps. Prices, \$7 to \$14, according to size and style. Write for circulars. HOLMES & HOLLADAY, Clarksburg, 3-f-o

Ideal SPRAY PUMP.

Advertisement for Ideal Spray Pump. Includes an illustration of the pump. Text: "Ideal Spray Pump SIMPLE, EFFECTIVE, RELIABLE. Reasonable Price. BRANTFORD CAN. Manufacturers of Steel Wind Mills, Iron Pumps, Tanks, Grain Grinders, Beekeepers' Supplies. 4-y-om Mention this paper."

CRADLE CHURN

Advertisement for Cradle Churn. Includes an illustration of the churn. Text: "It is a Labor Saver. Is Always in Order. The Easiest to Clean. The Easiest to Operate. Allows a Free Circulation of Air while Churning. CHURNS WITH HALF THE LABOR REQUIRED BY ANY REVOLVING CHURN. TO BE HAD FROM ALL LEADING DEALERS. A awarded first prize at Toronto Industrial Fair over all competitors. Address: CHAS. BOECKH & SONS, Toronto, or to the WATSON MANUFACTURING CO., 437, Ont. 13-y-om"

LEADER CHURN.

Advertisement for Leader Churn. Includes an illustration of the churn. Text: "Ask your dealer for the LEADER CHURN WITH PATENT WINDMILL AS VENT. Best Churn in the market, or write direct to manufacturers for Catalogue. DOWSWELL BROS., HAMILTON, MANUFACTURERS OF Washers & Mangles. 13-y-om"

Advertisement for Worn-Out Lands. Text: "Worn-Out Lands quickly restored to fertility by the use of fertilizers containing A High Per Cent. of Potash. Full description of how and why in our pamphlets. They are sent free. It will cost you nothing to read them, and they will save you dollars. GERMAN KALI WORKS, 93 Nassau Street, New York. 3-o"

Advertisement for Stoves. Text: "OUR STOVES MUST BE GOOD Or increasing sales for nearly fifty years could not have been accomplished. We back up every statement we make with the goods themselves. If your local dealer does not keep our stoves, write our nearest house. THE McCLARY MFG. CO. 7-y-om LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER."

EASTLAKE STEEL SHINGLES

Advertisement for Eastlake Steel Shingles. Includes an illustration of the shingles. Text: "BEWARE OF WORTHLESS IMITATIONS. BEWARE OF WORTHLESS IMITATIONS. GUARANTEED SUPERIOR AND TO LAST LONGER THAN ANY OTHERS. Our Guarantee is of Some Value. SOLE MANUFACTURERS. METALLIC ROOFING COMPANY, LIMITED, 84 to 90 YONGE ST., TORONTO. CUT OUT AND SEND US THIS ADVERTISEMENT FOR SPECIAL PRICE. 10-y-o"

Advertisement for Buchanan's Flexible Spring Steel Picket Wire Fence. Includes an illustration of the fence. Text: "BUCHANAN'S FLEXIBLE SPRING STEEL PICKET WIRE FENCE. This Fence, as shown in above cut, is very handsome, strong and durable, should last a life-time and will turn any kind of stock. It is so constructed that it will remain tight and straight in all kinds of weather, a feature which no other maker has successfully accomplished. It is perfectly flexible and cannot be bent or kinked out of shape, and will stand more abuse or rough usage than any other fence in the market. It is our aim to place this fence on the market at a less price than any first-class fence has ever been sold at. Send for circulars, giving full description and prices to M. T. BUCHANAN, Ingersoll, Ont., Manufacturer Wire Fence, Hay Carriers, Hay Forks, and a full line of Hay and Grain Unloading Tools. AGENTS WANTED. 3-om"



# THE GRANGE

LEADS THE VAN AS THE

## Big Tea House

OF THE DOMINION.

WE ship Teas west and east to British Columbia and Nova Scotia, and have hundreds of flattering reports from customers all over Canada.

For the months of January and February we are offering special values in Japan Teas. Our leader will be a Japan reduced to 25c., and good value at 35c.

If you are fond of a really delicious cup of Tea, try this line and order your year's supply.

We maintain the high quality of our Black @ 25c  
Our old Reliable Special Blend Black and Mixed @ 30c.  
Our High Grade Black @ 40c.

### SUGARS

ARE BUMPING ON ROCK BOTTOM:

Redpath's Extra Standard Granulated, \$4 00  
Montreal Granulated, No. 2, 3 75  
Light Refined, 3 25  
Delivered within our freight limits. Prompt delivery guaranteed.

## The Grange Wholesale Supply Co.

126 King St. East, TORONTO. G. W. HAMBLY, Mgr. 1-f-om

### ANDERSON'S DOUBLE ACTING Force PUMPS

For Wells, Cisterns, Spraying Trees, Hand-Power or Wind-Mill.

NEVER FREEZES! ALWAYS PRIMED!

Guaranteed the easiest working, most durable and best Pump made, or no sale.

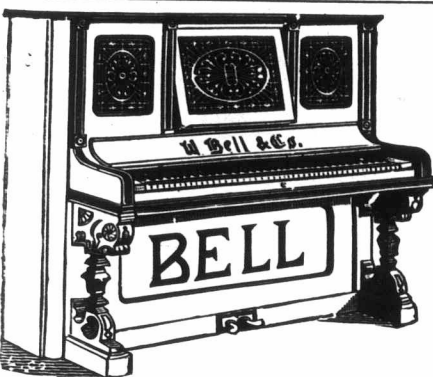
Live men, pushers, wanted in every township in Canada, to sell these Pumps. For particulars address—

J. W. ANDERSON, Patentee, 19-1-y-om Aylmer, Ont

### THE KEYSTONE DEHORNER

Cuts clean on all sides—does not crush. The most humane, rapid and durable knife made, fully warranted. Highest World's Fair Award. Descriptive Circulars Free.

A. C. BROSIUS, Cochranville, Pa. Duty prepaid. 21-l-om



PIANOS, REED ORGANS & CHURCH PIPE ORGANS

THE STANDARD INSTRUMENTS OF THE WORLD.

Send for Catalogue.

BELL ORGAN AND PIANO CO., Guelph, Ont. 17-1-f-0

### VIRGINIA FARM FOR SALE

500 Acres. Land lays well. Well watered. Large amount of hard wood timber; near railroad. Dwelling and outbuildings. Price only five thousand dollars, good title. Write for free Catalogue.

R. B. CHAFFIN & CO., Richmond, Va.

### \$3 A DAY SURE

Send us your address and we will show you how to make \$3 a day; absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work; absolutely sure; don't fail to write.

IMPERIAL SILVERWARE CO., Box A Windsor, Ont. 21-l-om

# HOME COMFORT

## ROLL OF HONOR.

THREE GOLD and ONE SILVER MEDAL THE WORLD'S INDUSTRIAL and COTTON CENTENNIAL EXPOSITION. NEW ORLEANS, 1884 and 1885.

HIGHEST AWARDS NEBRASKA STATE BOARD OF AGRICULTURE, 1887.

DIPLOMA ALABAMA STATE AGRICULTURAL SOCIETY, At Montgomery, 1888.

AWARD Chattanooga Valley Exposition, Columbus, Ga., 1888.

HIGHEST AWARDS 25th ANNUAL FAIR ST. LOUIS AGRICULTURAL & MECHANICAL ASSOCIATION, 1889.

SIX HIGHEST AWARDS WORLD'S COLUMBIAN EXPOSITION CHICAGO, 1893.

HIGHEST AWARDS WESTERN FAIR ASSOCIATION, LONDON, CAN. 1893.

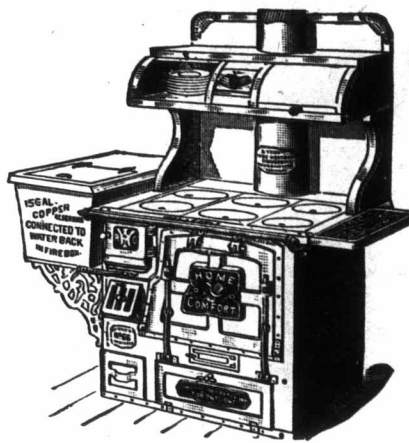
SIX GOLD MEDALS MIDWINTER FAIR, San Francisco, Cal., 1894.

### ABOVE HONORS WERE

RECEIVED BY WROUGHT IRON RANGE CO., MANUFACTURERS OF Hotel Steel Ranges, Kitchen Outfittings and "Home Comfort" Hot-Air Steel Furnaces.

OFFICES, SALESROOMS AND FACTORIES, 70 to 76 PEARL STREET, TORONTO, ONTARIO, and Washington Avenue, 19th to 20th Streets, ST. LOUIS MO., U. S. A. Founded 1864. Paid up Capital, \$1,000,000.

7-y-om



### STEEL HOTEL AND FAMILY RANGES.

CARVING AND STEAM TABLES, BROILERS, MALLEABLE WATERBACKS, ETC., ETC.

Above Style Family Range is sold only by our Traveling Salesmen from our own wagons at one uniform price throughout Canada and the United States.

Made of MALLEABLE IRON and WROUGHT STEEL and will LAST A LIFETIME if properly used.

SALES TO JANUARY 1st, 1894, 277,188.

### GREENER'S RENOWNED CLOSE SHOOTING GUNS FOR GAME AND PIGEONS

May be obtained through MESSRS. HINGSTON SMITH ARMS CO., WINNIPEG, or any gun dealer or store-keeper in Canada. PRICES RANGING FROM \$60. These guns are specially noted for their fine shooting qualities and strong breech action, and have won more valuable prizes and made higher scores than any guns in the world.

Before ordering a new gun, read Greener's latest book; 3rd edition now ready; price, 5sh.; 270 pages; copiously illustrated. It may be obtained from Messrs. B. & S. H. Thompson, Merchants, Montreal, or from the author,

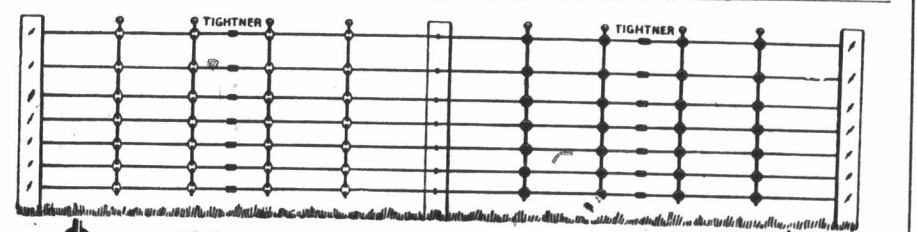
W. W. GREENER, ST. MARY'S SQUARE, BIRMINGHAM, and 68 HAYMARKET, LONDON.

### Use:- Queenston:- Cement

FOR BUILDING CONCRETE OR OTHER WALLS, Cisterns, Stable Floors, Hog Troughs, &c.

Write for Prices and Particulars. When parties use our goods, when necessary we will send a skilled man, at our own cost, to give instructions how to build. FARMERS can thus build their walls and save half the cost.

### ISAAC USHER & SON, THOROLD, ONT.



No better wire fence built than the Casey Diamond Grip. Just the thing for farmers—neat, strong and durable. Will last a lifetime, barring accidents. Uses only straight wires with so little depression as not to cause the galvanize to crack or peel. If there is a dealer who wants something better to handle than he's had, try it. We also supply the Double Lock

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. No better or cheaper place in the city to get plain or fancy turning done. Call on, when in the city, or address,

CANADA FENCE COMPANY, Corner Bathurst and Clarence Sts., London, Ontario. 17-y-om

### ADVERTISE in the ADVOCATE.

### STOCK GOSSIP.

CANADIAN BREEDERS' ANNUAL MEETINGS. Shire Horse Breeders' and Holstein Friesian Cattle Breeders' Associations, Toronto, Tuesday, February 5th. Clydesdale Horse Breeders' Association, Toronto, Wednesday, February 6th. Ayrshire Breeders' Association, Toronto, Thursday, February 7th. Shorthorn Breeders' Association, Toronto, Friday, February 8th.

### AMERICAN AYRSHIRE BREEDERS.

The twentieth annual meeting of the Ayrshire Breeders' Association was held at the Narragansett Hotel, in Providence, R. I., on the 9th of January, 1895. There were about fifty breeders of Ayrshires present. The officers elected for the year ensuing were: Obadiah Brown, Providence, President; H. R. C. Watson, Brandon, Vt., L. S. Drew, Burlington, Vt., H. Betts, Wellington, Ohio, John Stewart, Elburn, Ill., Vice-Presidents; C. M. Winslow, Brandon, Vt., Secretary; Henry E. Smith, Enfield, R. I., Treasurer; S. M. Wells, Wethersfield, Conn., J. O. Magie, Elizabeth, N. J., Executive Committee; C. M. Winslow, Brandon, Vt., J. D. W. French, N. Andover, Mass., Editing Committee.

Mr. Henry E. Smith, Treasurer, reported \$2,142.12 in the treasury. The Secretary reported five new members the past year; also that Ayrshires were reported in unusually good demand, and at higher prices in New England and Canada, with a fair demand in the Middle States.

The Committee on Home Dairy Tests reported the herd of E. B. Sherman, Harrisville, R. I., as winning the Association prize, on an average of 13.11 per cent. total solids. The Association has authorized the committee to continue the Home Dairy Tests for the year 1895.

Prof. J. L. Hills, Director of the Vermont Experiment Station, gave a very instructive lecture on "Variation of Milk and Milk Testing." It was in direct line with the Home Dairy Tests, and the general opinion of all the breeders was to take such a stand and offer such prizes as would place the average Ayrshire cow on a basis of four per cent. butter-fat and thirteen per cent. total solids.

### C. M. WINSLOW, Sec'y, Brandon, Vt.

Mr. Arthur Johnston, of Greenwood, writes to say that he has recently sold one of his white Shorthorn bull calves at a higher figure than the price asked for good red ones from first-class herds, to one of Canada's foremost importers and breeders, as well as one of Ontario's most advanced farmers—a man who makes few mistakes and who seldom fails to read aright the signs of the times—Mr. John Campbell, of Woodville, Ont. It will be remembered by most of your readers that Mr. Campbell, with his excellent flock of Shropshires, did as much to uphold Canada's reputation at the World's Columbian Exhibition, in Chicago, as any other breeder in the Dominion, winning more prizes than any other exhibitor of Shropshire sheep from Canada or the United States. If straws show how the wind blows, when men of this class are willing to invest their money in a white bull because he is a right good one, it is surely a pretty big straw showing that the wind of common sense is happily blowing away the color craze—a craze that has done almost, if not quite, as much mischief as the craze for line breeding. Ontario needs hundreds of white bulls, such as the one Mr. Campbell has just purchased, to give size, substance and sappiness to the cattle of this country. The calf was sired by Indian Chief, and out of the big, Wealthy, imported Bruce cow, Sunray.

A. & G. Rice, Brook Bank Dairy Farm, Currie, Ont., writes:—"Since the fall fairs we have had some heifers calve that are doing good work. Clothilde 5th, now three years old, but with her first calf, has given us 51 lbs. milk in one day and 200 lbs. milk in four consecutive days. We have a fine bull calf from her, sired by Alpha's Sir Aaggie Clothilde, whose dam, Alpha, has a milk record of over 90 lbs. milk in one day, and over 20 lbs. butter in seven days. Jewel Mercedes' Artis Queen, our prize-winning yearling, now two years old, has given us 40 lbs. milk in one day and 81 lbs. in two days, and she is a beauty, with a true Flanders ecutecheon. We have sold that fine heifer, Orrice 3rd, to Mr. W. W. Brown, Lyn, Ont. She is of the Clothilde strain, having for sire Clothilde Lincoln; he by Clothilde 4th Imperial, by Prince Imperial, by Netherland Prince, while Orrice 3rd's dam, Orrice, is sired by Wanda's Mercedes Prince; he by Mercedes Prince, by Jaap (imp.). Her other grandsire is the noted bull, Prince of Twisk. Orrice 3rd's male ancestors are all noted bulls, and the best of the breed; while in the female ancestors she is equally well backed; her dam, Orrice, is a true model for a dairy cow. With herd care, she has given 54 lbs. milk in one day, and made 13 lbs. butter in seven days. Orrice 3rd's granddams: Marget Lincoln, record 72 lbs. milk in one day; Sappie 2nd, record 62 lbs. in one day. Great-granddams: Clothilde 4th, 23 lbs. milk in one day; Wanda, 71 lbs. in one day; Sappie, 80 lbs. milk in one day. Great-grand-granddams: Carlotta, 22 lbs. butter in seven days; Clothilde, 28 lbs. butter in seven days; Marie, 81 lbs. milk in one day; Oudie Tigger, 75 lbs. milk in one day; Mercedes, 24 lbs. 6 ozs. butter in seven days; Pride of Twisk, 33 lbs. of butter in thirteen days and 85 lbs. of milk in one day. It will thus be seen that Orrice 3rd is bred in the purple, and she has given as a heifer 47 lbs. milk in one day. Her milk is rich, and her skin a golden color. We have a handsomely-marked bull calf from Orrice 3rd, sired by Nellie Grant 4th's Paul DeKol, whose nineteen nearest female relatives average 21 lbs. 14 ozs. butter in seven days, and fourteen average 16,283 lbs. 5 ozs. milk in one year. His dam, Nellie Grant 4th, has given 62 lbs. milk in one day at two years old; granddam Pauline Paul, the champion butter cow of the World, and DeKol 2nd, with a record of 73 lbs. milk in one day and 33 lbs. 6 ozs. butter in seven days at four years old. We propose to call this calf Sir Paul DeKol Clothilde, and it will be seen that he has the blood of the most noted strains of the breed. No less than twenty-six of his nearest female relatives average over 21 lbs. butter in seven days, and eleven of his maternal ancestors average 80 lbs. 1 ozs. milk in one day (including his dam), and fourteen of his nearest paternal female relatives average 16,283 lbs. 5 ozs. milk in one year.



## WHAT ABOUT THE MORTGAGE

The Manufacturers' Life Insurance Company has a plan of insurance by which, at a cost of about 2 per cent. of the amount per annum, any man may pay off his mortgage and leave his property free and clear to his family, either during his lifetime or at his death.

GET PARTICULARS FROM ANY  
AGENT OF THE COMPANY,

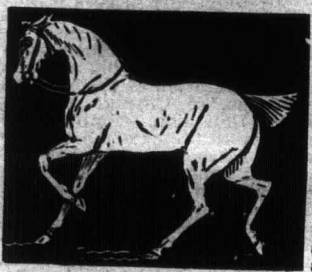
OR FROM HEAD OFFICE.

COR. YONGE AND COLBORNE STS.,

Toronto.

13-1-y-om

## WHEN THE SNOW COMES



and Horses and Cattle are taken off grass they should have a tonic until they get accustomed to the change of feed, or they will lose flesh and condition very quickly. To neglect this may keep an animal poor all winter, and it may die in the spring.

DICK'S BLOOD PURIFIER will be found the very best condition Powder to use. Its action is quick and sure, and satisfactory results are guaranteed.

This tonic for Horses and Cattle, if properly used, will add fifty per cent. to the selling price of any animal, and it costs only 50c.

Dick's Blood Purifier, 50c.; Dick's Blister, 50c.

Dick's Liniment, 25c.; Dick's Ointment, 25c.

DICK & CO., P. O. Box 482, Montreal.

## USE

# RAMSAY'S . . . VARNISHES.

## IN

## HANDY CANS.

## W. & F. P. CURRIE & Co.

Wholesale General Merchants,  
100 GREY NUN ST., MONTREAL

### IMPORTERS OF

Scotch Glazed Drain Pipes, Chimney Tops,  
Vent Linings, Flue Covers, Fire Bricks,  
Fire Clay, Portland Cement, Roman  
Cement, Canada Cement, Water  
Lime, Whiting, Plaster of Paris,  
Borax, China Clay, etc., etc.

### MANUFACTURERS OF BESSEMER STEEL

**SOFA, - CHAIR - AND - BED - SPRINGS**  
A LARGE STOCK ALWAYS ON HAND.

WM. CURRIE. 7-y-o F. P. CURRIE.

EVERY PRACTICAL FARMER should read the Planet  
Jr. book for 1894. We  
send it free. S. L. ALLEN & Co., 1107 Market St.,  
Philadelphia. 10-r-o

## THE Very Best

### EDUCATION FOR FARMERS' SONS

Is a practical business training, such as may be obtained at the CENTRAL BUSINESS COLLEGE, Toronto, or CENTRAL BUSINESS COLLEGE, Stratford.

### Canada's Greatest Business Schools.

Hundreds of young men from the farm have attended our schools, and many of them are out in the great world of business, earning large salaries. Our Colleges are the only commercial schools in Canada that guarantee to satisfy the patrons or refund the money. Write for new catalogue and mention "Advocate."

17-o SHAW & ELLIOTT, Principals.

### LOOK AT THIS!

See Hives, Bee Books, Smokers, Sections, Bee Veils, Extractors, Bee Journals, Comb Foundations, Honey Tins, Honey Jars, Honey Labels; Potato Boxes, Books on Rural Subjects; and anything required by Beekeepers. Send for Price List, free.

ADDRESS:

John Myers,

3-1-y-om Stratford, Ont.

### THE NEW

## Chatham and Chautauqua Giant Wagon

With Unbreakable Axles and  
Unbreakable Arms.

THE BEST MADE ON EARTH. So said the  
Judges on Vehicles at the

## WORLD'S FAIR,

Who awarded us a

## GOLD MEDAL AND DIPLOMA

Over the heads of numerous old and extensive  
builders in the United States and Canada.

The axles are unbreakable, because

## Van Allen's Patent Giant Arms

Throw all the load directly on the arms, and  
the arms are also unbreakable, because  
they are the best refined

## MALLEABLE IRON.

Warranted as strong, more durable and lighter  
running than Steel Skains. These Giant Arms  
completely revolutionize the building of  
wagons. Our 3-inch Malleable Giant Arm  
Wagon is

## WARRANTED STRONGER,

Though less in price, than any ordinary 3 1/2  
to 4-inch cast-iron arm wagon, and our 2 1/2-inch  
Malleable Giant Arm Wagon is warranted  
stronger than any ordinary 3-inch cast iron  
arm wagon, and less in price.

THE DEMAND for these wagons is  
so great that though  
we are turning out 12 per day, we are taxed to  
the utmost to supply it. Send in your orders  
early.

TERMS AND PRICES LIBERAL.

## CHATHAM MANFG. CO. (LTD.)

CHATHAM, Feb. 9th, 1894.

## Brilliant Sign Letters

o FOR STORE WINDOWS. o

The Most Attractive,

“ “ Popular,

“ “ Durable

Letter used to-day. This is the VERDICT of  
everyone. Write for prices before ordering  
your signs.

THE BRILLIANT SIGN LETTER CO.,

23-f-om 28 Front St. West, Toronto, Ont.

## UN-NERVED, TIRED

People and invalids will find in

## CAMPBELL'S QUININE WINE

A pleasant restorative and appetizer. Pure  
and wholesome, it has stood the test of years.

Prepared only by K. CAMPBELL & Co.,  
Beware of Imitations. MONTREAL.

20 2-y-om

## 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 dur-  
ing the coming season. All the young immi-  
grants 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 ob-  
tained on application to MR. ALFRED B. OWEN,  
Agent, Dr. Barnardo's Homes, 214 Farley Ave.,  
Toronto. 4-v-o

## The People's Wholesale Supply Co.

35 COLBORNE Toronto,  
STREET,

ARE always ahead in prices. The like of our Patron Singer Sewing  
Machine, and guaranteed like it is, for \$16.00, was never heard  
of before.

Who ever saw Granulated Sugar quoted at \$3.65 per cwt., freight paid as  
usual, only by the People's Supply Co.

## ALL WOOLEN UNDERWEAR AND STAPLE DRY GOODS

We will send you, 5 per cent. less than we ever quoted you before;  
some lines 10 per cent. less.

## OUR BOOTS and SHOES

Are made on the newest  
lasts, and of the best  
quality of leather to be had for the money. Send us the size you  
want, the kind, and the price you wish to give, and if they do not suit  
you, return them at our expense.

## When You Want Really Good Teas

Order our Japan at 25 cents, our Special Blend at 30 cents, or Kaona Tea  
at 35 cents per pound; they are unsurpassed.

## ALL KINDS OF GROCERIES AT LOWEST PRICES.

For Harness, Clothes Wringers, etc., see our spring catalogue.

R. Y. MANNING, Manager.

(Manager of the Grange Supply Company  
from 1889 to 1894.)

The People's Wholesale Supply Co.,

35 Colborne St., TORONTO.

## Horse Owners! Try

GOMBAULT'S



## Caustic Balsam

A Safe Speedy and Positive Cure

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 blemish.  
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 circular.  
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

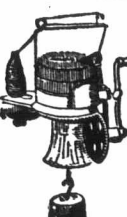
## HARNESS

We have just got out our new Cata-  
logue of harness and everything re-  
quired by a farmer in this line. It  
will pay you to send for one and ex-  
amine it closely. We will guarantee  
to save you money and give you a  
No. 1 article, or no sale. ALL HAND  
SEWED. Deal with us and save  
middleman's profit. Send for Cata-  
logue.

## Farmers' Harness Supply Co.,

104 Front St. East,

TORONTO, 7-y-o ONT.



## The Improved

Family KNITTER

Will knit 15 pairs of sock a  
day. Will do all Knitting re-  
quired in a family, homespun  
or factory yarn. SIMPLEST  
KNITTER on the Market.

This is the one to use. A  
child can operate it. We guar-  
antee every machine to do  
good work. We can furnish  
ribbing attachments. Agents  
Price, \$8.00. wanted. Write for particulars.

Dundas Knitting Machine Co.,  
17-y-om Dundas, Ont.

## THE BEST FENCE MADE

FOR

FARMS AND

RAILROADS.



Agents Wanted in Every Township.

Send for Circulars and particulars.

## THE LOCKED-WIRE FENCE COMPANY

Ingersoll, Ont.

## LIVE STOCK AUCTION SALES

Conducted in all parts of the country.  
Pedigree stock a specialty. Write for  
terms. References: J. C. Snell, Edmonton;  
Hon. M. H. Cochrane, Compton, P. Q., or this  
office. JOHN SMITH, Brampton. 9-1-y-o

## ESTABLISHED 1889. FREEMAN'S Bone Fertilizers

Make better crops at less cost than any  
other Fertilizer. Will drill perfectly.

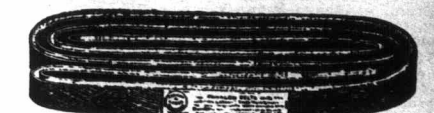
Freeman's Grass & Grain Manure, per ton - \$25  
Freeman's Victoria Bone Meal, per ton - 30

Muriate of Potash, Sulphate of Potash, Kainite,  
Nitrate of Soda, Sulphate of Ammonia  
and all Fertilizing Materials.

Write for prices. W. A. FREEMAN CO.,  
15-y-o HAMILTON, ONT.

## THE BEST BELT ON EARTH

Endless and does not stretch.



NOTE THE TRADE MARK.

## Capital and Labor

INSIST ON GETTING IT.

## ANTHON CHRISTENSEN & Co.,

NIAGARA FALLS, ONT., CAN.

10-y-om

## SASKATCHEWAN BUFFALO ROBES

MANUFACTURED BY

## NEWLANDS & CO.,

Galt, Ont.,



Are the warmest and most durable robe in the  
market, and are equal in every respect to the  
original Buffalo skin. Are handsomely lined  
with a superior quality of lining, also have an  
inter-lining of rubber, making them absolutely  
wind and water proof. Have stood hard usage  
for five years by Farmers, Livermen, Doctors  
and others, and have given entire satisfaction.  
Patented in Canada and United States. Agents  
in every town in Canada. 21-h-o



13-y-om