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# THE FARMER'S ADVOCATE

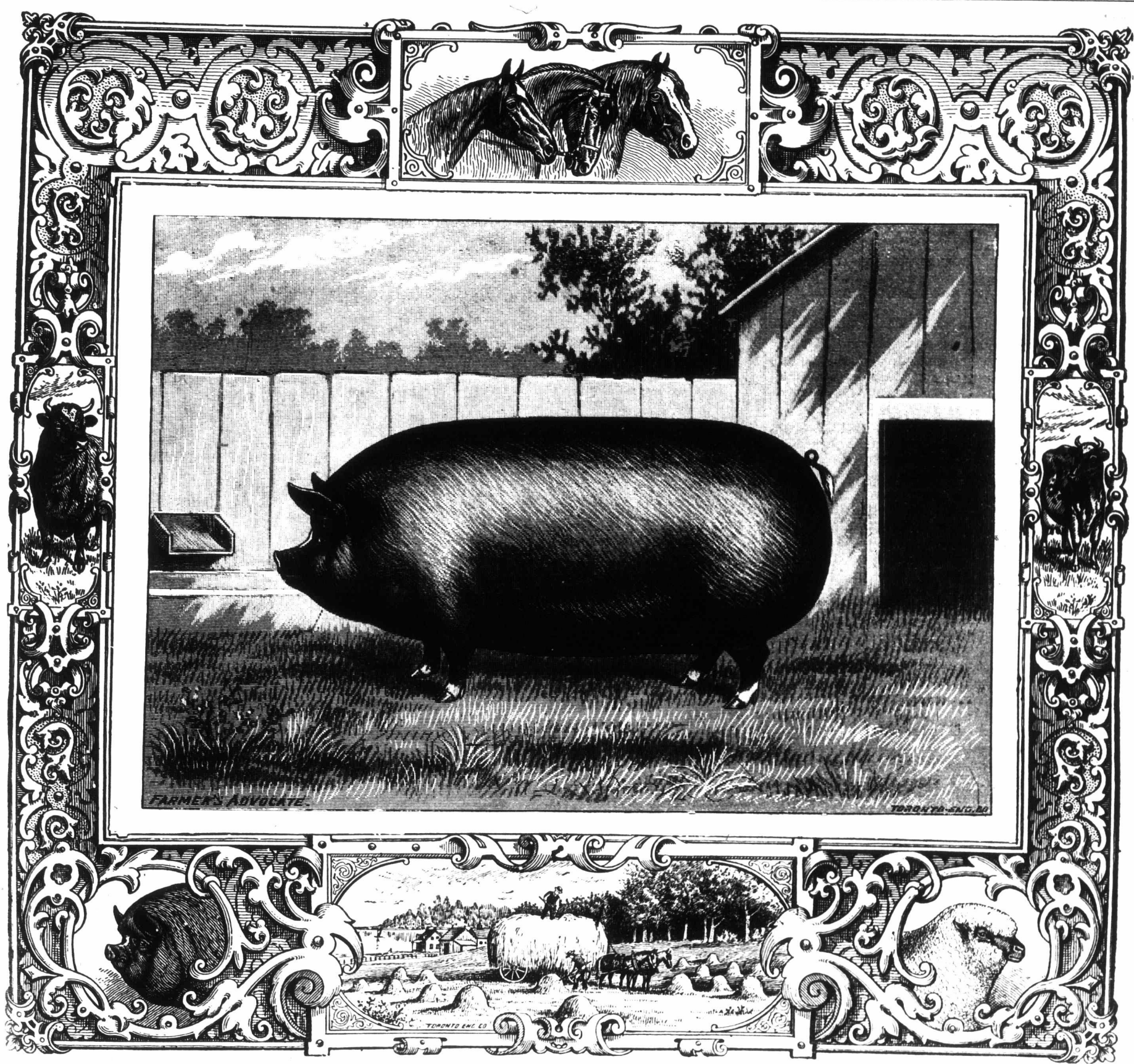
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VOL. XXX. LONDON, ONT., AND WINNIPEG, MAN., MARCH 1, 1895. No. 377.



GOLDEN LINK (2884), A FAMOUS PRIZE-WINNING BERKSHIRE, SOW,  
 BRED AND OWNED BY MR. GEO. GREEN, OF FAIRVIEW, ONT.

## EDITORIAL.

## Our First Page Portrait.

A few miles south of Stratford, Ont., is situated the farm of Mr. Geo. Green, the well-known breeder of Berkshires, and those desirous of knowing what constitutes an "Ideal Berkshire," would do well to visit the pens at Fairview, where splendid typical specimens of the breed are to be seen.

Golden Link (2884), the sow whose portrait adorns our first page (bred and owned by Mr. Green), is a very handsome animal, with all the typical points of the breed. She won first place at the Quebec Provincial Exhibition at Montreal in 1893, in the six months class; also first at the Industrial, Toronto, and the Western, London, in a very strong class the same season. She is a full sister to Black Prince 5th (2793), one of the stock boars in the herd. This boar won first in the yearling class and headed the sweepstakes herd at the Ottawa Exhibition in 1894, the only time he was exhibited last season. The ancestors of these two were winners as far back as Last Link 4th, an imported sow of great length and depth, bred by the late A. Stewart, Gloucester, Eng.

Royal Lad (3044) is another stock boar used very successfully on the herd; an animal of great length, with well-sprung ribs; broad, level back; thick hams, well-fleshed down; and standing squarely on strong, flinty legs. He was winner of first place at the Central Exhibition, Ottawa, and second at the Industrial, Toronto, in 1894.

A grand sow in the herd is Oxford Lady (2125). This sow won 2nd at Toronto, and 1st at London and Ottawa. She was sired by the imported boar Gladstone, dam Lady Oxford.

Blue Bell (3533), farrowed March 2nd, 1894, is a grand young sow, having won a first place for herself at London and Ottawa in 1894. Two boars of the same litter won 1st and 2nd at London; one of them also winning 1st at Toronto, and was sold at a good round figure to an American of York State. This litter was sired by Queen's Own (2613), dam Mountain Bell (1885), a grand breeding sow in the herd that has raised a large number of prize winners, and is due to farrow March 16th.

Charm (3579) is a sow of good length and depth and very smooth. This sow stood first at the Provincial Fat Stock Show held in Guelph, December, 1894.

Another fine imported sow is Shapely (1514), very large, with good level back, great length and very deep bodied; she has raised some grand pigs, and is in farrow again. She was bred by S. W. Andrews, Lodber, Blandford, Eng.

Fairview Berkshires are descended from the best English strains, and have had a remarkably good show-ring record, having won 171 prizes, seven diplomas, three medals, and the Prince of Wales' prize of \$50.00, at the leading exhibitions in the Dominion since 1883, their last year's winnings being 46 prizes, including two medals and two sweepstakes at the leading fairs; and judging from the general excellency of the herd, they should make their mark at the exhibitions of 1895.

In New Zealand, in 1892 the first two cheese factories were opened. Last fall there were fifty-five cheese factories, sixty-two butter factories, and sixty creameries, employing over 300 hands, and using the milk of 57,000 cows. The exports of butter rose from 8,809 cwt. in 1883 to 59,147 cwt. in 1893, and those of cheese from 2,519 cwt. to 46,198 cwt.

The directors of the Winnipeg Industrial have decided on a summer fair, and fixed the dates, as requested by the Manitoba Pure-bred Cattle Breeders' Association, from July 15th to 19th, inclusive. Nine hundred circulars were sent out asking opinions as to time of holding fair, and of the 508 replies received, 302 favored a summer fair. The directors' vote was 9 to 3 for a summer fair. We trust the directors will at once set about making the show of 1895 the best on record.

Prof. M. Nocard, one of the most eminent experts in the world, has examined pieces of the lung of the suspected Canadian animal landed at Antwerp, upon which the Belgian authorities based their embargo against Canadian cattle. He is unable to say that the disease is pleuro-pneumonia; indeed, he throws much doubt upon the assertion that it is. A cable dispatch says: "This report, in connection with the absence of the disease among the recent arrivals of Canadian cattle here, should strengthen the Scottish demand, which the farmers and shipmen are making for the removal of the British embargo."

## What Branch of Farming Gave Most Satisfactory Results in Your Locality in 1894?

The above was included in our list of special enquiries sent out some time ago to crop correspondents, and the replies elicited we give below. Out of about 60 reporting, it is worthy of note that 50 state that dairying gave the most satisfactory results in their respective localities last year, though a number of other successful specialties are also mentioned. In most cases hog-raising is cited an adjunct of successful dairying:

**Ontario Co., Ont.**—G. E. Mowbray, Oshawa—Dairying and hog-raising; but our farmers are slow in going into dairying, as they have been accustomed to feeding cattle and breeding heavy horses.

**M. Cliphsham, Sparrow Lake—Dairying.** I keep a dairy farm, and my neighbors are turning their attention in that direction. This section is well adapted to that branch.

**Elmer Lick, Oshawa—Dairying** is about the only thing that has paid the last season. Clover seed—Alsike and Red have done fairly well.

**S. L. Brown, Whitby—Dairying** or milk production gave most satisfactory returns in 1894.

**John Bartlett, Oshawa—Dairying**, and the growing of Alsike and Red clover for seed.

**J. R. Randall, Newmarket—Dairying** has been most satisfactory.

**Bruce.**—Jas. B. Muir, North Bruce—Dairying and hog-raising, when properly attended to.

**Jas. Tolton, Walkerton—Dairying;** but I think the co-operative cheese factory the best. Those who had their cattle ready and sold at the right time did pretty well. Summer grazing for British market.

**T. Chisholm, Dunkeld—Farmers** in this locality who have made production of milk their main line have been the most successful this season.

**Wellington.**—Jas. Bowman, Guelph—Oats and hay fairly paying crops. Those who have been dairying to some extent, I think, are satisfied with the results.

**York.**—John Bell, Amber—Fall wheat was a very good crop, but the price was nothing. There was no spring crop up to the average. If there was one thing better than another, in a financial view, it was hay. Dairying and hog-raising would certainly have been the best source of profit, but there was very little dairying done here. People are now arousing to the necessity of it, and we have just erected a creamery on an extensive scale at Unionville, and we hope that by another year we will be able to give you a flourishing account of that industry.

**Wentworth.**—Jas. McCormick, Rockton—Dairying is beginning to replace all other branches of farming, as it seems to give the best results. Pork was looked forward to for a time, but this winter prices have thrown a damper on it, and the pork-packer is always wanting a pig that does not exist.

**John Jackson, Abingdon—Dairying**, cheese and butter; and in connection with this, feeding of swine; also, rearing of well-bred sheep.

**Dundas.**—Miss Annie Kyle, North Winchester—Dairying is the most satisfactory.

**Oxford.**—Geo. Rice, Currie's—Dairying and feeding hogs have been the most profitable in 1894; in fact, the only thing that has yielded a profit. The dry season effected the dairyman's profit, but the wise man will provide against the drought next season by sowing more soiling crops.

**Samuel Hunter, Scotland—Farming** did not pay; but cheesemaking upon flat land, and hay, were best.

**H. Bollert, Cassel—Dairying.**

**Carleton.**—George R. Bradley, Manotick—The branch of farming which has been most remunerative for 1894 was dairying; the season was most favorable for pasture, and cheese commanded a good price. Almost all the milk in this vicinity was manufactured into cheese and shipped; \$8,000 was distributed among farmers in this district from the factories.

**Perth.**—John Burns, Kirkton—There is no question but that the most profitable branches of farm industry last year were dairying and pork production, both paying fairly well, while the production of cereals for market in most cases did not pay for labor invested.

**Glengarry.**—E. G. McCallum, Martintown—Dairying is the only branch of farming that pays here.

**Jas. H. Esdon, Curry Hill—Dairying** undoubtedly gave the best results of any system here in farming in 1894.

**Peterborough.**—J. Smithson, Graystock—I would say dairying was the most profitable branch of farming.

**Peel.**—Bobt. Cation, Brampton—I find that growing oats gives me the best returns; others think dairying pays better. Every one has his own notions about that.

**Northumberland.**—Wm. Stone, Cambellford—Dairying and pigs.

**John B. Stone, Norham—Cows** and hogs, and clover seed.

**Renfrew.**—A. W. Ross, Douglas—During the hard year of 1894 the farmers had to depend largely on their cheese money. Cheese market was good, while all other farm products were away down. Cheese industry is increasing. Some farmers realize \$37.00 on an average from their herd. It remains

to be seen whether the butter factories will take the place of the cheese factories or not.

**Jas. Martin, Renfrew—Dairying** was the best paying branch of farming last year around here; but milk in the factory season has been made into cheese up to this fall, but we are changing to butter. We had built last summer in our town and are now building separating stations along the lines of railway through the country, and have now in operation the largest and best equipped creamery in the Dominion.

**Brant.**—A. Telfer & Sons, Paris—In summing up all branches of farming, we think dairying has been as profitable as any.

**Lambton.**—Ellis F. Augustine, Auhrim—Hog-raising and small fruit growing.

**Huron.**—A. P. Ketchum, Brucefield—Although we have no cheese factories in this immediate neighborhood, yet there are several around here, and I believe their patrons have been the most successful. Not only last year, but for several years, cattle feeding has been the principal industry in this neighborhood; but the cattle men are wearing very long faces this winter.

**W. W. Fisher, Benmiller—The branch** of farming that gave the most satisfactory returns in this locality for 1894: I think I am safe in saying dairying, for one. Hogs sold well about the 1st of September.

**J. N. Kernighan, Benmiller—Feeding** and raising hogs in the beginning of the year. Private dairying towards the fall gave the most satisfactory returns.

**Thos. McMillan, Seaforth—Dairying** and beefing are the two main branches followed in this vicinity, and there is no question that if judicious care and attention is bestowed dairying is the most profitable. Sheep breeding has also been followed to a considerable degree and with good returns until the past two years, during which time prices have ranged rather low.

**Waterloo.**—E. B. Kolb, Berlin—Fall wheat gave most satisfactory returns in our neighborhood; owing to the drought spring crops were very light.

**Leeds.**—M. W. Steacy, Warburton—I might say that this section chiefly follows a general line of farming, makes a specialty of no particular branch, but, I think, gradually drifting into cheesemaking.

**Prince Edward Co.**—W. C. Huff, Mountain View—The most profitable branch of farming stands between grain vs. dairying and pig combination. In some places grain superseded, in others the dairy combine; but I favor the latter for two reasons: First, it supplies impoverished land and makes it fertile again; and second, it brings in ready money, and I do not think it is as profitable to send farm products of any raw material as in a finished article.

**Middlesex.**—A. B. Scott, Vanneck—I think the dairy and fruit gave the best returns last year; but it looks as if the butter business was being overdone.

**J. W. Johnston, Sylvan—The best results** have been obtained from raising pigs in connection with the dairy trade.

**R. Gibson, Delaware—Dairying.**

**C. M. Simmons, Ivan—With me** steer feeding on grass for the British market; my sixty head last year gave \$900 over cost.

**Bothwell.**—A. J. C. Shaw, Thamesville—Beans, hay and hogs.

**Essex.**—W. G. Baldwin, Colchester—Dairying and hogs have helped us out the best.

**Peterborough.**—F. Birdsall, Birdsall—Mixed farming. Where a good deal of attention was paid to dairying and hog-raising, they paid the best last year. A creamery is badly needed in this section. We have cheese factories, but they only make cheese from the 1st of May until the 1st of Nov. A great many dry off their cows or make the butter themselves in the winter, and they might just as well keep them milking much longer. There is money to be made by a practical buttermaker, who will start a factory to make butter in the winter and cheese in the summer.

**Frontenac.**—Richard Moore, Wolfe Island—We have turned our attention to dairying the past two years; also the feeding of cattle and hogs. We find it is paying us better, also putting something back on the farm instead of drawing everything out of it, which in a short time would ruin any farm in this or any other country.

**Halton.**—John Dickin, Milton—Mixed farming with a number of dairy cows so managed as to keep up a good supply of milk throughout the year and supply private customers with butter (Toronto is our market), or send milk to a cheese factory which makes butter in winter.

**York.**—John Miller, Markham—Dairying and stock-raising.

**H. Reeve, Toronto—Root growing** was the most remunerative. Those farmers who had a large acreage and a large, well-kept orchard had no reason to complain of their season.

**W. D. Monk, South Marsh—Dairying.**

**Elgin.**—Chas. C. Lord, Wallacetown—Mixed farming is the only kind carried on in our district. Hog-raising paid as well, if not better, than any other branch last year.

**Prescott.**—D. P. L. Campbell, Vankleek Hill—Dairying, particularly cheesemaking by factory system.

**Brant.**—R. S. Stevenson, Ancaster—I think on the whole that dairying has proved most satisfactory.

D. G. Hanmer, Mount Vernon—Mixed farming is pursued, but it is generally conceded that although the price of wheat has ruled low, the yield has been such as to have made it the best paying crop on the farm.

J. E. Richardson, Princeton—Farmers who keep a number of good cows and feed them well, I believe did the best last season.

Shefford, Que.—P. P. Fowler, Dalling—Dairy farming.

Sherbrooke.—W. A. Hale, Sherbrooke—Dairying was the most profitable branch of farming in 1894. Poultry in a small way paid well. Hay is a drug on the market. Market gardening was sadly overdone and depressed.

Manna McGinnis, Ierville—Dairying.

Prince Edward Island.—Walter Simpson, Bay View—Stock and dairy farming gave best returns for 1894.

Cumberland, N. S.—C. H. Black, Amherst—Dairy farming is growing in favor and perhaps is now the most profitable branch of farming, though some of us think we can do as well with beef; while those farmers who have a large acreage of marsh land should certainly make something by selling a large proportion of their hay.

Wisconsin, U. S.—Geo. McKerrow, Sussex—Dairying, where properly followed, showed the best returns in 1894.

STOCK.

Chatty Stock Letter from the States.

(FROM OUR CHICAGO CORRESPONDENT.)

Extreme top prices now, compared with one and two years ago:—

	1895.	1894.	1893.
<b>CATTLE.</b>			
1500 lbs. up	\$5 60	\$4 80	\$6 00
1350 @ 1500	5 40	4 80	5 95
1200 @ 1350	5 25	4 50	5 35
1050 @ 1200	5 00	4 00	4 90
900 @ 1050	4 70	3 60	4 60
Stockers	4 25	3 90	4 60
Fat cows	4 50	3 35	4 75
Canners	2 50	2 25	2 60
Bulls	5 00	4 00	4 25
Calves	5 75	6 25	7 50
Texas steers	4 55	4 00	4 75
Texas cows	3 45	2 35	3 25
<b>HOGS.</b>			
Mixed	\$4 35	\$5 30	\$8 50
Heavy	4 15	5 30	8 70
Light	4 20	5 30	8 30
Pigs	4 00	5 20	7 80
<b>SHEEP.</b>			
Natives	\$1 65	\$4 50	\$6 00
Western	5 50	4 00	5 25
Texas	4 50	3 50	5 00
Mexican	4 50	3 50	5 40
Lambs	5 65	4 55	6 50

Cattle and sheep are advancing and hogs declining. Good packing hogs only cost about \$4 on an average.

Reports from the range country are somewhat conflicting. The recent heavy storms undoubtedly did a great deal of damage to live stock interests, but in the main the losses so far have been very light.

High priced feed has caused cattle feeders to shirk and skimp a good deal. Buyers complain that the cattle do not net as much beef tallow and "butter-fat" as they should, nor as large a proportion of good beef.

Live cattle exporters have been fairly busy at Chicago, as the following record of a week's business indicates. Inspectors tagged cattle for export as follows:—J. M. Greenbaum, 350; A. J. Thompson, 769; Schwartzchild & S., 187; Morris, 461; Goldsmith, 66; Hathaway, 266; Shamberg, 557; Lehman, 235; Swift, 555; Epstein, 150; O'Donnell, 100; making a total of 3,696, against 4,177 the previous week, and 6,064 a year ago.

The present French tariff is nearly \$1 per 100 on States cattle. It costs about \$18 to \$20 per head to market American cattle in Paris after landing at Havre, the biggest item, of course, being the tariff. It is said that the American cattle shipped to Paris do not compare in quality with the French stall-fed steers, many of which weigh 2,000 lbs.

Some fancy fat bulls have lately been sent in. One extra fine 2,130-lb. Hereford sold at \$5.00, or \$106.50; and another, weighing 2,180 lbs., sold at \$4.50. Exporters paid \$3.57 to \$4.00 for many bulls. A. J. Thompson bought export steers at \$4.75 to \$5.25. J. M. Greenbaum bought 1,377-lb. to 1,500-lb. steers at \$5.00 to \$5.45. Hathaway bought 1,557-lb. bulls at \$3.95, and 1,416-lb. to 1,520-lb. steers at \$4.90 and \$5.15.

Cattle supplies are very short, and nothing but the late uneasiness about financial matters has prevented a sharp rise in values. Dealers are asking, if these small cattle runs keep up a while longer regardless of prices, how long will it take the trade to find out that there is a serious shortage of cattle?

France has already put very strong restrictions on American live cattle, demanding certificates that are difficult to supply. For instance, a federal inspector must certify that the particular cattle have been personally known and seen by him for ninety days. William Peace, who has been to France many times, says the action of the French farmers in demanding protection against the competition of American cattle is not surprising, and he believes the agitation will be kept up until some excuse is found or made to stop the growing trade.

While experienced butchers, in some cases, admit that choice heifers, and even good fat cows, will be worth as much in the beef as steers, there are few of them who will pay anything like the

same price for them. The highest price lately for heifers or cows was \$4.50, while steers, no more above the average excellence of beef steers than the former were above the average of their kind, sold up to \$5.60; sixteen 1,531-lb. Hereford cows, \$1.50. A lot of 19 Hereford heifers sold to Swift at \$4.00, averaging 1,053 lbs.

The Standard Cattle Company marketed 30 fed Western steers, 1,428 lbs., at \$1.95, and 50 heifers, 1,173 lbs., at \$1.20.

John Rohwedder, of Wyoming, Ia., was the feeder of 15 head of choice 1,591-lb. grade Shorthorn cattle, which sold to Eastman at \$5.60.

Chicago's receipts of live stock for the year so far, compared with last, show a decrease of 75,000 cattle, a gain of 250,000 hogs, and a decrease of about 5,000 sheep.

The Illinois State Board of Agriculture, after heated discussion, decided to continue the fat stock show in Chicago. It is given out that the prize list is to be enlarged as to car-load lots of fat cattle, hogs and sheep, and also horses, as well as a grand agricultural exhibit. The classification of driving and saddle horses is very much changed. Something is certainly needed to increase the usefulness of this once important annual institution.

How tired we grow of that "biggest steer in the world." He bobs up every once in a while and nobody knows what he is good for. His owner usually is anxious to sell him, but always, or nearly always, has to take less than the monstrosity cost to raise.

The South is beginning to raise its own hog and hominy, but Mr. Armour says that from the standpoint of pork packers "the South is still worth two Europes." There is sad need of improvement in the breeding and also the feeding of Southern hogs. An occasional lot of old-fashioned "razor backs" come to market, and they attract a great deal of attention.

In last issue I mentioned that the Chicago packers, in some cases, were reorganizing their forces of live stock buyers on a lower salary basis, only the word "lower" was printed "corner." They pay their oldest and best men very high salaries.

Salt for Stock.

We are surprised, when passing through the country, to find so few farmers who use rock salt for their stock. Whenever we find a man who uses it he always speaks of it in the highest terms. The writer can say from experience that there is no other way of salting stock nearly so satisfactory in every way as by the use of the rock.

It is a settled fact that stock salted once a week take too much when given to them, which has the effect of wasting much nutrition in the animal which the system requires, and before the next salting day comes round ill-effects are caused in the system by the lack of salt. This being the case, the farmer who depends upon weekly salting, be he ever so regular, cannot fail to lose milk from his cows, and flesh from his steers and other fattening stock. Some resort to the plan of putting a little salt into the food every day or two. Now, this is all chance work, and cannot give the best results, as the animal itself is the only proper judge of how much to take, and will never take too much or too little when given free access to it. Now, when stables have been fitted up with salt boxes in the stalls, the supply can be kept constantly before them by using either barrel or rock salt, the former having to be supplied every few days, while a four or five-pound lump will last for weeks. Another advantage in using rock salt is that it can be thrown into an ordinary manger and not interfere with the food. The animals can lick at it as desired, and no evil results or waste in food or salt can follow. Then, again, for field salting in the summer, a lump can be thrown on the ground, exposed to sun and rain, without loss or other objection, while when barrel salt is used the box will be half the time empty, and irregular salting results.

Canadian Horse Show.

We are pleased to announce that arrangements have been completed for holding what is now to be designated the "Canadian Horse Show," in the new Armory Building, Toronto, on Thursday, Friday and Saturday, April 18th, 19th and 20th next, under the auspices of the Provincial Agriculture and Arts Association, and the County and Hunt Club of Toronto. Large premiums will be offered for all the recognized breeds of stallions, and for all kinds of driving, saddle and jumping horses. Prize lists and other information may be obtained from Henry Wade, Secretary Agriculture and Arts Association, or Stewart F. Hewson, County and Hunt Club, Toronto.

M. Gaudaud, French Minister of Agriculture, has made an order-in-council forbidding the importation of American cattle into France on account of the fever and pleuro-pneumonia with which they are alleged to be infected.

One of the lessons of recent old-fashioned Canadian weather, with its frequent snow-drifts, has been that wire fences along the highways are one of the essentials to passable roads in winter. Snow shovelling constitutes a heavy bill of expense in many municipalities, and the results, as far as travelling is concerned, are not usually very satisfactory.

Are Shorthorns as Good as They Used to Be?

[Paper read by Mr. Robert Miller before the Dominion Shorthorn Breeders' Association annual meeting.]

The above question is so often asked that perhaps no paper that I might read here would be more interesting to a majority of the Shorthorn breeders in Canada than one attempting to answer it. New men in the breeders' ranks, and young men, are not the only ones who ask this question, but many who have had long years of experience ask it, and proceed to answer in the negative and defend their belief. While this may work no harm, as I believe it always better to speak out on matters of interest to the majority, yet I think it would be a source of satisfaction to all who have the interests of the breed at heart if they were convinced that Shorthorns are not only as good but better than they used to be, and we may learn a good lesson by looking back in comparing and figuring how to avoid mistakes and repeat success in the future.

When conversation turns to Shorthorn subjects and flows in a retrospective channel, Queen of Athelstane, Rosedale, Violet's Fourth, and Butterfly's Duchess are sure to be mentioned, together with an equal number of bulls that were prominent in the same days, and we hear the statement that no such cows and bulls are seen now. We are all free to admit the excellence of those animals; but is that the test that is to be applied? If so, we would merely have to compare the show-yard animals of the distant past with those of the present, and I am sure that even this test would not prove any cause for dissatisfaction with results attained. The great cows named above stood out preeminently above their competitors. Those that won before their day were not so good; those that won immediately after them were not such shining lights. We can only, in justice to the present time, compare the best with the best of that period. Havering, Nonpareil, Isabella, and Rose of Strathallen 2nd may fairly be called stars of the present decade; and while it is unnecessary to say that they were better, they were certainly in every way as good. In their show-yard career they were surrounded by large classes that were worthy competitors, and they show their superiority by being able to breed on, each having produced winners to perpetuate their names.

We do not hear the other classes discussed by those who had such a delightful impression made on their memories by the Queens of the past; not because they would willingly do an injustice, but because no other classes of those days charmed them as the matrons did, and it is from this lack of memory that the present suffers in comparison. Can any breeder remember seeing such classes as our yearlings and calves have made in the past five years at Toronto, even if a person were prejudiced? No, must be the answer; but the claim might be made that the classes were small then, because the breeders were few; so I will venture to say that the first prize winners of twenty years ago could not compare with the winners of the present.

The bull classes of the present decade have also furnished animals superior to those shown years ago, and this can be accounted for partly by the best being imported or purchased by those who exhibit to nearly as great an extent as years ago, which practice is not followed to so great an extent in females as formerly, and partly from the improvement made by our own breeders. There are not so many professional showmen now as in years past—men who searched the Shorthorn world for the best, regardless of cost; and many of the foremost breeders take no part in the show-yard contest; thus many of the choicest never appear in public, and those retained and shown by their breeders necessarily appear in a limited area.

While the show-yards cannot be ignored for the purposes of comparison, yet they do not supply the only means of judging between the present and the past.

A few good animals do not make a herd, and it is in the general excellence of the whole herd that the value lies, where all the animals are good. Scientific breeding and good judgment are bearing fruit, and this is where the Shorthorns of the present day so completely overshadow those of the past, in their uniformity of smoothness, growth, constitution and general character. Breeding Shorthorns, like the breeding of other classes of domestic animals, has been reduced to a science, founded on the principal that like begets like, if the form that is to be begotten is honestly inherited; two animals whose ancestors were not like each other, and not like the offspring when mated together, could not be relied on to produce of their own kind, and while the product might be an extraordinarily good animal, it would just as likely be extraordinarily bad; such mating would not be according to approved or scientific methods, but would be haphazard or chance breeding, and this is the kind of breeding to which can be attributed many of the phenomena of the olden times. They were produced by accident, and they towered so high over their brothers and sisters and mates in the herds that we were impressed by them to such a degree that their companions were overlooked or forgotten.

When two animals were mated, one being of a very good type, but perhaps small, the other being of great size and not so smooth, the progeny might embody the finish of the former and the extreme size of the latter,—an accident in breeding, but still a great show animal.

A male and female might be mated that were of the same size and form, but their ancestors of all imaginable shapes and sizes; the calf might take its form from a granddam on the one side, and its size and gayety or style from a grandsire on the other, and be a wonder; but, after all, only an accident. Such an animal cannot breed on, thus we can account for many of the best individuals being absolute failures in the herd.

A male or female of abnormal size, such as are often found in great winners, could not possibly be descended from a long line of ancestors such as themselves, so that they could not be expected to produce their own kind; they are accidents in breeding and their work will be haphazard and full of chance.

Breeding on the advanced methods of the present day has produced the uniform classes of our great exhibitions, and it has produced our uniform herds; not in a short time, but after many years of perseverance with our ideal clearly before us. The animals composing those classes and our herds, having been bred in a majority of cases from such as themselves, can be relied on to reproduce, and while we may not always produce a show animal, we can confidently depend on never producing a really bad one. While it is unnecessary to deny that many of the old-time animals were grand, it would be impossible to deny that a great proportion of the pure-bred cattle were no credit to the name, and if the latter were bred without intention, the former must to a great extent have been accidental as well.

Let us, then, take encouragement from the fact that the general excellence of our present day herds is far beyond that of those that were in existence during what is termed the palmy days of the cattle trade, and that if we have made such improvement in the past, it is within our power to go on improving.

Let each and every one here lend their assistance to that end; for, like the attempts to reach the North Pole, the nearer we come to our ideal the greater the difficulties to overcome; but unlike them in this: every step forward is a material benefit to mankind.

**Weight of Smithfield Club Prize Sheep.**

WM. WALLACE, NIVERVILLE, MAN.

An analysis of the weights of the prize-winning sheep of the different breeds at the recent Smithfield Club Show furnishes an interesting and instructive study to sheep-breeders and feeders, as well as to those proposing to embark in that industry. The show was an excellent one, both as to numbers and merit, considering that stock was excluded from several districts which were then scheduled on account of foot and mouth disease. The sheep were exhibited in pens of three, each breed being represented by three classes—Weddors, Ewes and Lambs. The weddors were shearlings, with the exception of the Cheviot and Mountain breeds, in which there was no restriction as to age. In the following abstract the average live weight of each sheep in each first prize pen is given in pounds, fractions of a pound being omitted:

BREED.	WEDDORS.	EWES.	LAMBS.	REMARKS.
Leicester	278	291	162	2nd prize lambs, 171 lbs.
Cotswold	315	318	198	" weddors, 348 lbs.
Lincoln	322	341	200	" weddors, 2 yrs., 7 mos.
Cheviots	233	221	none	2nd p. weddors, 209 lbs.
Mountain	185	173	166	2nd p. weddors, 221 lbs.; 2nd p. ewes, 236 lbs.
Southdown	211	212	166	2nd p. weddors, 252 lbs.; 3rd p. lambs, 176 lbs.
Shropshire	236	252	152	2nd p. weddors, 203 lbs.; 2nd p. lambs, 220 lbs.; 3rd p. lambs, 217 lbs.
Oxfordshire	294	303	191	2nd p. lambs, 203 lbs.
Hampshire	280	284	202	2nd p. lambs, 220 lbs.; 3rd p. lambs, 217 lbs.
Suffolks	293	266	217	
Dorsets	276	282	201	1st p. cross weddors, 2nd p.
Cross, Oxf.-Shrop.	304			1st p.
Cross, Hamp.-Cots.	298			Reserve
Cross, Bordr.-Lestr.-Chevt.	282			Reserve
Cross, Oxf.-Hamp.			219	1st p. cross lambs.

For Mountain cross-bred weddors the first and second prizes were gained by Border-Leicester-Cheviots, the reserve being a pen of Border-Leicester-Black-faced crosses. Silver cups, value \$60, were given for the best pen of each breed—the wedder, ewe and lamb classes competing against each other. In every case these cups were awarded to the wedder class, except the Hampshires, in which the lambs carried the breed championship. These lambs at 10½ months weighed 202 lbs., being the heaviest first prize lambs among the pure-breds; and it is to be noted that the 2nd and 3rd prize pens were considerably heavier than the 1st, showing that the Hampshires, as represented at this show, take the premier place among the pure breeds for early maturity and weight combined. Great as these weights were, however, they were topped by the cross Oxford Hampshire 1st prize lambs, which attained the phenomenal weight of 219½ lbs. In addition to the breed and class prizes, a champion plate of \$100 was awarded to the best pen of Long-wooled sheep or lambs, embracing the first five breeds in the above list. This was gained by the Leicester weddors, twenty months old, the reserve being the Cotswold weddors, twenty-one months. A champion plate of \$150 to the best pen of Short-wools, comprising the remainder of the list, was, after an exciting contest, awarded to J. J. Colman, M. P., for the Southdown weddors, twenty-one months old, the reserve being the Shropshire weddors, twenty-four months, the property of Mr. A. S. Berry. The Southdowns, although the lightest of all the breeds, except Mountain sheep, seem to hold their ground and even to gain in favor. Their mutton in the London markets is generally about three cents per pound higher than the heavier breeds. The Lincolns, on the other hand, may claim

to attain the greatest weight. The second prize pen of Lincoln weddors were the heaviest sheep in the show, weighing 348 lbs. The prizes for the mountain breeds were gained by Scotch Black-faces—the three prize-winning pens of weddors scaling from 188 to 209 lbs., at nineteen to twenty months old: a very good showing for this picturesque mountain sheep, which is coming into fashion. We were glad to see an illustration of a fine specimen of this breed in the ADVOCATE (second issue) for January. It will be observed that mere weight was not the primary consideration in awarding the prizes, and that quality, early maturity, uniformity of type, and an exhibition of the true characteristics of the breed, had all their due weight with the judges.

**FARM.**

**Good Roads Convention.**

The second annual Convention of the Good Roads Association was held in Toronto, Feb. 7th and 8th. Although this Society is only one year old, it has awakened sufficient interest to draw from different parts of this Province about 150 delegates. The work of this Association has been, so far, to collect and distribute information. Speakers were sent out on almost every Farmers' Institute delegation in January. The need for much better roads than now exists in many parts is keenly felt, and all that seems necessary is to propose a reasonable scheme whereby the people can better the condition of the public highways without too great an outlay of money.

At the opening session, among those present were His Honor Lieut.-Governor Kirkpatrick and the Hon. John Dryden, the former of whom referred to the farmers as the most influential class in the Province. Anything that benefits the farmer benefits the nation. Farmers living in a country with the best roads have a great advantage over those where only poor roads are to be found, because the time, labor and injury to products taken to market or depot over improved highways are at a minimum. In referring to the statute labor system, His Honor stated that quite half the time spent on roadmaking is frequently wasted, and that if paid overseers were engaged the money now spent would reach the utmost capacity. The speaker also said that nearly every county had contributed large bonuses to railways, some of which reached from \$150,000 to \$200,000, and as much, or more, benefit would result from a similar amount spent on roads.

Hon. John Dryden stated that we have been running too long in the old rut, "working for the Queen," as it is called, which means, in too many cases, to spend as little muscle as possible. There is much need of better work than has formerly been done. In some sections cobblestones as large as a man's head are drawn onto the road and left rolling about, which preserve the road by making it impassable. Broad-tired waggons would help our roads wonderfully. In the speaker's opinion, the immediate need seems to be that of better direction of our present statute labor system, which will not be abolished for some time yet. It is all very well to talk of making a law, but the proper time is not until the people want it. What we want now is to have a permanent overseer who understands his business, and abandon this abominable system of passing the job around, so that Farmer Jones can fix the road opposite his place this year according to his notion, and Farmer Smith the next according to what he thinks proper.

Mr. A. W. Campbell, City Engineer, St. Thomas, read an interesting and exhaustive paper, bearing on all the phases of the road question.

**Delegation Speakers.**—A number of Good Roads delegates to Farmers' Institutes were called upon to give testimony of the feeling throughout the country. Almost every man stated, in substance, that the question of road improvement was discussed with great interest. Nearly every one is in favor of a change in the appointment of pathmasters, and statute labor as now carried out. A uniform method of roadmaking is asked for, and the present system cannot give that.

A number of practical, pointed five-minute addresses were given by delegates from various parts of the Province, who brought out the following: The first thing necessary in making a good road is to have proper drainage. Some favored a drain down the centre of the road; others on each side of track. Open side ditches were also thought necessary by some, while others advocated covered drains. The kind of soil in which the road is made must govern the draining question. Almost every man spoke in favor of road machines, as they put up a splendid grade quickly and uniformly.

Among the speakers was Mr. McEwing, ex-President of C. F. Institute, who does not favor borrowing money from Government to build roads, which was recommended in Mr. Campbell's paper. He said, "The good Lord helps those who help themselves." It is not well to shoulder a debt at all when it can be avoided. Although the statute labor system is not good, let us be sure we have something better before we give it up. "Our climate," continued Mr. McEwing, "will not permit the keeping of our roads in as high condition as those of many other countries. The first thing to do is to work up public sentiment."

**Road Commissioners** were advocated by most of the speakers, some of whom were in favor of electing them in the same manner as municipal officers. It was generally admitted, however, that a good man should retain the position year after

year. In E. Northumberland a road commissioner has been employed for the last four years, to the general satisfaction of the ratepayers, although the idea met considerable opposition when first introduced. The commissioner is paid by the day, and is employed about six months of the year. His duty is to oversee all road work other than statute labor, and also to be ready to consult with and advise the regularly appointed pathmasters, so that the work done in the entire riding is as uniform as possible.

Mr. A. H. Pettit, in speaking, advised going slowly, avoiding any scheme that will require a lot of money in the outset. Mr. Murray Pettit advocated beautifying roadsides, because of its refining influence and its tendency to enhance land value.

At the closing session, resolutions were passed favoring the continuation of the Association's work of gathering and circulating practical information, and also that they demand legislation to revise the laws relating to toll-gates, and that the members of the Association organize local associations in their respective districts.

It was also resolved that there be a Legislative Committee appointed to look after the improvement of our road laws. The changes recommended were: first, the reducing of the number of pathmasters; second, their selection through merit and knowledge of roadmaking and repairing; third, that they be given power to call out statute labor when needed, and that they be paid for all work over and above that which they are liable for; fourth, that a competent person be appointed as road overseer, who shall keep an eye on all work done and report same annually; fifth, that his remuneration be fixed by municipality. This Committee is expected to investigate the subject of legislation through which the use of broad tires can be encouraged and narrow ones discouraged. Among other changes asked is that municipalities be given power to ask a vote on the abolition of statute labor in their territory, and that plans be formulated to divide the roads into county or township roads.

It was also resolved that drainage laws be carried into effect in road building.

It was also resolved that circulars be sent out by this Association to Municipal Councils, Agricultural Associations of various kinds, Boards of Trade, etc., asking co-operation, and road reform data.

**Officers.**—President, A. Pattullo, Woodstock; First Vice-President, J. F. Bear, Black Creek; Second Vice-President, A. W. Campbell, St. Thomas; Sec.-Treas., K. W. McKay, St. Thomas. Executive Committee—A. Mahon, Aberfoyle; J. Sheppard, Queenston; Alan Macdougall, C. E., Toronto; J. C. Judd, Morton; M. Kennedy (Mayor), Owen Sound; W. F. Campbell, Brantford; J. H. Wooley, Simcoe; Robt. Jelly, Jellyby, and E. Kidd, N. Gower.

**The Constituents of Corn.**

In the account of the convention of the Ontario Creameries Association, at Chesley, given in the February 1st ADVOCATE, your correspondent, commenting on my short address on the "Constituents of Corn," attributed to me the remarks made by Mr. John Gould on that subject. Very briefly, the salient points that I made on that occasion were as follows:—Carefully conducted field and laboratory experiments at the Central Experimental Farm, Ottawa, with several varieties of fodder corn, had shown:

- (1.) That the corn plant increases in value by the storing up of digestible dry matter until the kernel begins to glaze. If left uncut after this period, the fibre is rendered less digestible, and the percentage of albuminoids somewhat lessened, and consequently the food value is lowered.
- (2.) The dry matter in different varieties of fodder corn, taken at the same stage of growth, is very similar in composition.
- (3.) That it is during the early part of the season that the corn plant takes from the soil the larger portion of the mineral constituents it requires, and also that the albuminoids, whose chief constituent is nitrogen, are also principally formed in the tissues while the plant is yet young.

The following table gives the data upon which I base these conclusions:—

STAGE OF GROWTH.	Water Per Cent.	Dry Matter Per Cent.	Yield per Acre.		Dry Matter.		
			Tons.	Lbs.	Tons.	Lbs.	
Tasseling	85.73	14.27	22	1329	285	3	468
Silking	83.83	16.17	24	52	323	3	1770
Early Milk	80.05	19.95	22	1806	399	4	1138
Late Milk	77.86	22.14	21	759	443	4	1467
Glazing	73.82	26.18	21	1154	524	5	1298

A consideration of these figures makes it quite clear that there is a gain in nutritive value to be obtained by allowing the corn plant to grow till the kernel glazes.

The above data make quite evident the tremendous increase in the food material that takes place in the corn between the tasseling and glazing conditions. The varieties used in these experiments were Longfellow, Pearce's Prolific, Thoroughbred White Flint, and Red Cob Ensilage. Of these, the two first named varieties only could be recommended for ensilage purposes in this district.

In ordinary seasons, the cob on the Longfellow, and the Pearce's Prolific, will glaze before there is much danger of frost. FRANK T. SHUTT, Chief Chemist, Ottawa

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**THE FARMER'S ADVOCATE & HOME MAGAZINE**

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED BY THE WILLIAM WELD COMPANY (LIMITED), LONDON, ONT., and WINNIPEG, MAN.

JOHN WELD, Manager.

1. The Farmer's Advocate is published on the first and fifteenth of each month.
- It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.
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**Seasonable Premiums.**

On page 99 of this issue appears an attractive list of premiums, which persons old or young can readily secure at this season by obtaining new subscribers to the FARMER'S ADVOCATE. What can so beautify the home surroundings or render the same satisfaction as a tasty flower garden? A little effort will obtain one or more collections of the choicest varieties. The vegetable seed premiums are equally good. The securing of three new subscribers will earn both the flower and vegetable collections, and a choice from the bulb and rose list.

Eggs for hatching, from the famous poultry yards of C. J. Daniels, Toronto, are also offered. The Siberian oats offered stand ahead of all White varieties sent out in connection with the Experimental Union for the last six years.

**Reforms Needed in Provincial Agricultural Organizations.**

In Feb. 15th issue of the ADVOCATE we presented some considerations indicating that the work of the Ontario Creamery Association might well be carried on by the Eastern and Western Dairying Associations, thus saving a very heavy item of expenditure to the Province.

During the time of the recent Central Farmers' Institute meeting in Toronto the suggestion was made in several quarters that in view of the fact that the Institute system is now under the special superintendence of an official appointed for the purpose, and that the subjects taken up on the programme are so thoroughly covered by local Institutes and meetings of other organizations, the question of disbanding might fairly be considered. As our readers are aware, it has been more than once urged that the Central Institute has never accomplished anything commensurate with the expenditure which it involved. However, the suggestion to vote themselves out of existence did not find general favor, or, at all events, did not take effect, but we do not see that any additional reasons for its continuance or proposals for making it more really efficient have been offered. Our Provincial Legislators would do well to take this matter into their serious consideration.

In our judgment, the Agriculture and Arts Department, and the Act and various amendments governing same, also stand in serious need of revision. We are glad to note that the Governor's speech in opening the Legislature makes mention of consolidating and amending Acts relating to agriculture. There was a time when the Agriculture and Arts Association had a great deal of work to do, but with the abandonment of the old Provincial Fair and the prize farm system, two of its important functions passed away. To our mind the annual ploughing matches might also be lopped off without serious loss to the farming interests of the Province. As we understand it, the relation of the Agriculture and Arts Association to the Veterinary College is merely nominal, so that point need not be considered. In the matter of keeping official records of pure-bred stock, we see no valid reason why this work should not be controlled and carried on directly by the breeders themselves, as is the case in the great Record Associations "across the lines." The breeders can be trusted to look after this work, because they are the men whose interests are really at stake, and they will certainly look carefully after their own finances. The Agriculture and Arts stamp has been of little avail to us in the effort that has been made during the past year to secure the recognition of Canadian records by the U. S. authorities.

A couple of years ago the Holstein-Friesian men organized an association in Canada; they directly manage their own affairs, pay their own secretary, issued their own herd book, and at the recent annual meeting reported over \$400 in the treasury, with no outstanding liabilities. We fail to see any good reason why the other Breeders' Associations cannot manage their own affairs in a similar way, and we do not see that it is reasonable to ask the Government to do for individuals, or organizations, what they can well do for themselves. Should the breeders absolutely need a grant, it might as well be made direct as filtered through the Agriculture and Arts Association. It will also be no difficult matter to make provision for sufficient inexpensive machinery to co-operate in the holding of the Winter Fat Stock Show and Spring Exhibition of horses, and for that matter the proposed exhibition of dairy stock in Eastern Ontario.

It is very apparent from these considerations, as well as others that might be offered, that the time is opportune for a thorough revision of the Agriculture and Arts Department, and we have no doubt that the Minister of Agriculture, and those members of the Legislature particularly conversant with the live stock and farming interests of the Province, will give this matter their prompt and earnest attention.

A very considerable saving might be effected, or, at all events, the grants which go in the directions referred to, or a portion of them, might be better employed otherwise in fostering the interests of agriculture. The Agricultural Department should be dealt with like any other department of the Government, according to its needs, which, as we have shown, vary greatly under altered conditions.

The patrons of the Elma cheese factory have decided to try Prof. Dean's plan of paying for milk next season; that is, adding two per cent. to the actual fat readings and then dividing in that proportion.

**Popular Geology—No. 9.**

(BY PROF. J. HOYES PANTON, M. A., F. G. S.)  
COAL—ITS ORIGIN AND FORMATION.

**Carboniferous System.**—This name has been given on account of the nature of the products in this system, there being much carbon present. This is a term likely to be misleading; for we may conclude that wherever much coal occurs, the rocks must belong to the Carboniferous. This is not the case, as is seen in the coal deposits of our Northwest, which belong to the Cretaceous system (No. 11). However, Carboniferous has been applied to the system by early geologists, and must in the meantime be accepted.

The rocks of this system include 15,000 feet of deposits containing immense quantities of coal, which is found in seams varying from a few inches to 30 feet in thickness; between these are layers of shell, sandstone and clay, and often deposits of iron ore. Limestone is also found in rocks of this system. As we learned in the last chapter, the geological records of Ontario closed, and we must therefore seek elsewhere for coal deposits. Such occur in Nova Scotia and New Brunswick. The plant life of this period was of a most luxuriant type, and very uniform; it is the same in all beds of the coal of this time, which leads us to infer that there was a uniform climate for that period in all parts where this system occurs, and we find it represented in the United States, Canada, Greenland, the Arctic regions, and Australia. The plants were large, and very numerous, but the species were limited and all were flowerless types like the ferns, mosses and club-mosses of to-day. They bore no flowers and matured no seeds, but produced spores, from which plants of low types grow. So abundant was this simple form of plant life that the period has been termed the "Age of Flowerless Plants." The typical plants of the time were ferns, calamites (allied to our horsetail plants), lepidodendron, sigillaria, and stigmaria; some of great size, though the types of our plants allied to them are seldom more than a foot high. The accumulated remains of these luxuriant forms of plant life are what contributed the material for the production of coal. Animal life was not so characteristic and striking as that of plants. Some frog-like creatures, spiders and some snails have been found imbedded in the deposits. The trilobites are nearly all extinct; consequently where we find trilobites on rocks near the surface, we need not expect to find coal below, as they disappeared before coal was formed.

**Economic Products.**—The great product of this system is coal, but iron ore is sometimes associated with it. Limestone and sandstone are also obtained from these rocks, and in some places Petroleum occurs. Regarding the origin of coal, two theories are set forward; both agree in considering that coal is derived from the accumulated remains of plants, but differ as to how the formation of the deposits took place.

1. **Raft Theory.**—This theory accounts for coal by an accumulation of vegetable matter which may have shifted from its original position, then became submerged and changed into coal. This might occur in large rivers, and is only applicable to comparatively limited areas of deposits.

2. **Swamp Theory.**—According to this view, the remains did not change position, but simply became submerged and gradually changed to coal, beneath whatever may have covered the beds, such as sand or silt. A forest located at the mouth of a river not much above the level of the sea would be in a good position to undergo the change. Every seam of coal represents an ancient land surface; consequently where several seams occur, we are led to believe that there were several periods of elevation and submergence. The luxuriant vegetation of the time seems to indicate warmth, humidity, uniformity and very little movement in the atmosphere.

Some argone from the rank vegetation an excess of carbonic acid in the air. The absence of mountains would, no doubt, cause less precipitation and more moisture. It was a time of forest and jungle, and the sea covered with numerous islands. At the close of the period the rocks were much disturbed and subjected to change by subterranean forces. All coal is not confined to this system. It is found in Jurassic (No. 10), Yorkshire; Triassic (No. 9), Virginia; Cretaceous (No. 11), Northwest; Miocene (No. 13), Oregon; Carboniferous (No. 7), England, Nova Scotia and Pennsylvania.

**Permian System.**—This represents a transition period. Some of the gigantic types of plant life have passed away and never appear in the rocks again. The system is represented in Nova Scotia and some parts of Virginia by red sandstones. It ends the second volume (Palaeozoic Age). At the close of this age the Appalachian Mountains appeared. During this age 70,000 feet of rock were formed, and throughout this vast period of time igneous ejections occasionally occurred, as is seen in some Cambrian deposits in the Rocky Mountains; Cambro-Silurian of Nova Scotia; Silurian of New Brunswick; Devonian of Quebec; and lower Carboniferous of New Brunswick.

Kindness will do more than brutality; therefore, do not use harsh language to your horse, or lash, beat or kick him. Bear in mind that he is very intelligent and sensitive, a willing servant, and deserving of your kindest treatment and thought.

FARMERS' INSTITUTES.

Suggestive Gleanings from Division No. 6.

Another winter series of Institute meetings have been held throughout Ontario. The work this year was under the supervision of Mr. F. W. Hodson, who sent out ten different deputations—three speakers, well versed in different lines of farming, on each deputation. A few speakers were sent out by the Good Roads Association to discuss the improvement of public roads, as it is thought by many that the old

Statute Labor System

has outlived its usefulness. It was very well when the country was new to compel the settlers to turn out and chop down the trees, and cut them into lengths of sixteen or eighteen feet, then lay these side by side to make a road-bed over some low, swampy piece of road; for in those days the settlers had plenty of energy and muscle, but very little money. Now it is advocated, especially in the old settled parts of Ontario, that statute labor be done away with, and that a number of superintendents, who are well versed in roadmaking, be appointed throughout the Province, whose duty it will be to see that the roads are kept in good repair at all times of the year, and that all money be raised by direct taxation.

Cheese Factories Pay Well.

It is noticeable at the meetings this year that there is a growing interest taken in dairying. The farmers are finding out that grain can no longer be grown and sold off the land at a profit. The cheese factories have been paying well where worked under the co-operative system and all take an interest in the factory. Some think it would be well to stamp on every cheese the date and where made, as it is found that the marking of the boxes is not sufficient, when the fact is known that these boxes are found containing inferior cheese of other nations. The creameries are not considered quite as profitable, partly for the want of a good market. Some suggest that the Government should subsidize a fast line of steamers to Britain, and fit them up with cold-storage compartments for butter. As it is now, there is no large market that an increased amount of factory butter could reach in good condition.

Ensilage.

Many speak well of corn and the silo, as the ensilage is a cheap food for nearly all kinds of stock. It is found by experiments that the silo can be built very much cheaper than at first supposed, as more depends upon the condition of the corn than upon the construction of the silo.

The Laws of Breeding

were discussed at many of the meetings, and with profit. It was shown very clearly the necessity of breeding along the one line, whatever the object may be, and by all means avoid the scrub sire; although appearing cheaper at the time, in the end there will be great loss.

Fattening Cattle

was discussed at several meetings by able speakers; but it was contended that unless the embargo on cattle going to England be removed, or some other change takes place to raise the price of beef cattle, there can not be much made in feeding cattle outside of getting a fair price for the grain and other food consumed.

There have been a great number of experiments conducted throughout Ontario with cereals, roots, and potatoes, the published results of which will be very valuable to farmers.

The Cultivation of Field Roots and Potatoes

had a very important place at the meeting on account of these crops taking the place of the old-time summer-fallow. They answer a two-fold purpose: First, to clean the land of weeds; and secondly, to produce roots for feeding purposes; but if neglected the result will be failure. Therefore, it is very important that the land should be well worked, not only to keep down the weeds, but constant working of the soil will retain moisture, which is very essential.

Drainage.

On account of last season being exceptionally wet, especially in the Lake Ontario district, the subject of underdraining occupied the attention at the meetings for some time; this is an important necessity where the land is low and wet, and should be attended to at once if satisfactory results are to be attained.

Apple Growing

is now a very important industry in Ontario, and those who are going to plant an orchard should be guided by those who have made the cultivation of fruit a success. Do not plant many early varieties,

but mostly standard winter varieties. Buy trees from some reliable nurseryman, and not from an agent about whom you know nothing.

Use plenty of wood ashes scattered around the roots of the trees. Spray the trees as soon as the blossoms have fallen, to prevent the codling moth and the scab on the apples.

Agricultural Education

was discussed at a number of meetings, and there was a feeling expressed that in rural schools, at least, agriculture should be taught, so as to keep the children in touch with their calling, for the great majority of the children attending school in rural districts are children whose parents are farming. The Institute meetings were very well attended where properly advertised, but in many cases the secretary neglects this important duty. We are sorry to say, even when meetings are well advertised, it is difficult to get the thrifless class to attend—in fact the very class that would be most benefited; but, on the other hand, we find the most successful and intelligent class always present. In these days of close competition, life is too short to find out all that is to be known in the line of farming by practical experience; therefore it is well that we should avail ourselves of the opportunity of learning from the experience of each other.

breed you believe best adapted to your conditions; get the best individuals you can afford; continue to breed from the best sires of that breed you can obtain, and success is almost assured.

Care of Cows and Breeding.

Cows should be kindly used; never harassed by dogs; milked regularly by the one person. For winter, warm stables, well ventilated, should be provided, also an abundant supply of pure water. Temperature of stables and water should be from fifty-five to sixty degrees. Exercise should be given when weather is good. For feeding in winter, clover hay, corn silage, cut straw and chaff furnish the cheapest foods. A meal ration is indispensable. Roots should be fed carefully; mangolds may be fed to the extent of thirty pounds per day without producing tainted milk, and are a very valuable addition to a milk ration.

For summer, good pasturage and pure water should be provided. When grass fails supplement by feeding soiling crops. Peas and oats, mixed, or tares and oats are the best for early use. By sowing at different periods a supply can be procured for a much longer period. Green clover, if it can be grown, is excellent for September feeding. For fall feeding corn must be depended upon. The addition of a grain ration has been found productive of good results. Bran and pea-meal, or bran and shorts, are commonly in use, and when fed judiciously give good returns for money expended.

Cleanliness.

To produce an article of prime quality of either cheese or butter, much depends on the care of milk. The most scrupulous cleanliness should be observed throughout. The cow's udder should be carefully brushed or washed before being milked, and milking should be done with dry hands, well washed. Milk after being drawn should be thoroughly aerated in a pure atmosphere, and if sent to the factory, both milkings should be thoroughly mixed together. Covered milkstands are a great advantage. No whey should be returned in the can in which milk is sent to the factory.

Too Many Factories.

The tendency in this division is to build too many factories. Cost of making could be reduced and better makers could be employed were there less factories. As to cheese factories versus creameries, it is the unanimous verdict that cheese should be manufactured from May till November; that cows should be kept in milk for ten months, and butter manufactured during cold weather. The

export market for butter is not satisfactory, and is an easy matter to glut the home market.

Paying for Milk According to Quality

is a very much discussed question. Nobody denies but that the Babcock Tester, in the care of a thoroughly competent person, will determine with exactness the amount of fat in milk, but its opponents claim that the amount of fat in milk is not a correct index as to the amount of cheese the milk will produce. Further and more conclusive experiments must be made before paying for milk according to amount of butter-fat will become universal.

Pig Rearing.

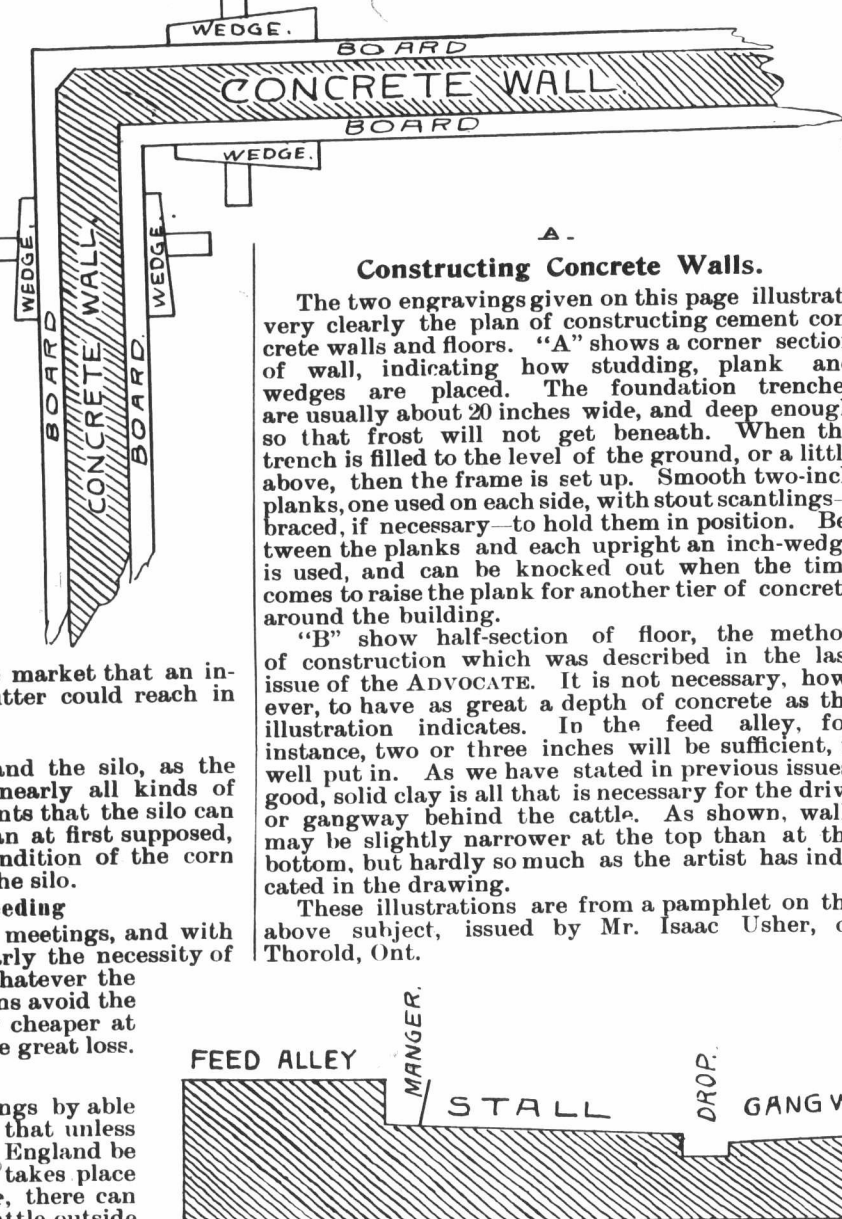
Pigs as an adjunct to dairying are not reared as numerous as they should be. For successful pig-growing the essentials are a good brood sow, a clean, dry, warm pen, liberal and judicious feeding upon a variety of foods, a certain amount of exercise when weather is favorable. Sweet whey and middlings make an excellent food for growing pigs. Taking the last two years as a guide, the best prices have been realized from May to September.

The Growing of Corn

as a fodder crop is pursued with much success in this division. The kinds preferred are Longfellow, Compton's Early, and Thoroughbred White Flint. Of the three, the Longfellow has the greatest number of admirers. The Mammoth Southern Sweet is grown by many and yields the greatest amount per acre, but does not reach sufficient maturity to make the best quality of ensilage. For successful corn-growing: a loamy soil, well-covered with manure of good quality, and thorough tillage previous to planting sound seed. Harrowing crop:—When corn is beginning to show, hand-hoeing and frequent horse-hoeing till corn is tasseling out are necessary. For silage purposes it should be cut when in the glazed stage of growth.

The Silo.

as a method of preserving corn in its green state, is attracting a great deal of attention. Many silos are in use, while some have not been filled, their owners claiming that they did not succeed well with them. A point raised against the wooden silo, which is well sustained, is that it will only last a few years, the dampness from the corn producing



Constructing Concrete Walls.

The two engravings given on this page illustrate very clearly the plan of constructing cement concrete walls and floors. "A" shows a corner section of wall, indicating how studding, plank and wedges are placed. The foundation trenches are usually about 20 inches wide, and deep enough so that frost will not get beneath. When the trench is filled to the level of the ground, or a little above, then the frame is set up. Smooth two-inch planks, one used on each side, with stout scantlings—braced, if necessary—to hold them in position. Between the planks and each upright an inch-wedge is used, and can be knocked out when the time comes to raise the plank for another tier of concrete around the building.

"B" show half-section of floor, the method of construction which was described in the last issue of the ADVOCATE. It is not necessary, however, to have as great a depth of concrete as the illustration indicates. In the feed alley, for instance, two or three inches will be sufficient, if well put in. As we have stated in previous issues, good, solid clay is all that is necessary for the drive or gangway behind the cattle. As shown, walls may be slightly narrower at the top than at the bottom, but hardly so much as the artist has indicated in the drawing.

These illustrations are from a pamphlet on the above subject, issued by Mr. Isaac Usher, of Thorold, Ont.

Small Fruits.

As the patches of native berries are getting cleared away, there is more attention paid to small fruits, which do well, especially near our great lakes. Currants and berries should be planted in rows, so that they can be worked with a horse; the red currants and gooseberries should be sprayed with a solution of hellebore as soon as the leaves begin to open, and again when the fruit begins to form.

SIMPSON RENNIE.

Practical Suggestions Gleaned in Division No. 9.

The leading industry in this division is dairying, and in that subject and its adjuncts, pork production and corn-growing, the greatest interest was taken.

Breeding Dairy Cows.

No cow should be kept that does not yield at least five thousand pounds of normal milk per year. This result is achieved by careful selection and breeding. Bulls from large producing ancestry should invariably be used to grade up with. As to breed: they should belong to one of the recognized dairy breeds. One mistake that has wrought untold evil to the dairy cows of this division is the tendency to use bulls of the different dairy breeds indiscriminately—the practice tending rather to multiply evils than to correct faults. Select the

decay in the timber. The circular shape has given the best results, and it should have depth rather than large diameter. One cubic foot is sufficient for an average cow per day, and other food should be fed along with ensilage. When a silo is once opened it is essential that a few inches should be fed off the whole surface each day. While filling, the preponderance of opinion is in favor of tramping solid around the sides and covering with about a foot of cut straw or marsh hay.

**Sheep Husbandry.**

Much of the land in this division is well adapted for sheep, and their proximity to the American market should make sheep-rearing very profitable, but owing to the present low price the tendency is to abandon sheep-breeding altogether. This does not appear to be a very wise course, as the small amount of capital required and labor necessary for successful management make the sheep industry one of the most profitable in which the farmer can engage.

**The Management of Manure**

is a live question, and is much neglected in many places. Covered sheds for holding manure are in use, but few are giving good satisfaction. Applying manure as made is much in favor, and is certainly a wise course, but the depth of snow makes it impossible to do so at all times. When not drawn out or put in covered shed, it should be drawn into one heap and thoroughly tramped to prevent fermentation. The manure from the horse-stable should invariably be mixed with that from the pig-pen and cow-stable.

Clover, as a feeding crop and for fertilizing purposes, is much neglected. The soil in many places is well adapted for its growth, but farmers are not fully alive to the benefits to be derived from its cultivation.

**Underdraining**

is not practiced to any extent. Owing to the stony character of much of the land in Eastern Ontario, draining will not become as universal as it is in the West, but the fact remains that there are many farms in this division that would be immensely benefited by thorough underdraining. Tile are not to be had at prices which the ordinary farmer can afford to pay. There are certainly many openings in this division for an experienced tile-maker, and with tile at reasonable prices, we can certainly look forward with confidence to a great advance in this important work in the near future.

MUNGO MCNABB.

**Central Farmers' Institute.**

The eighth annual meeting of the Central Farmers' Institute was held in Toronto, Feb. 5th to 7th. The delegation, numbering over 150, were from all parts of the Province.

President McEwing's address was a review of the farmer's conditions, together with suggestions as to improving the same. Farmers must conduct their business on more intelligent principles. They must understand as far as possible all the commercial, climatic and local circumstances with which they are surrounded. United action is necessary in these days of national competition. As many farmers as possible should be returned to Parliament. A more economical administration of public affairs is absolutely necessary. It is Mr. McEwing's opinion that the nearer we come to free trade the better for Canada. The speaker was not despondent over the scheduling of our cattle from the English market, as he considers the American plan of shipping dressed meat better in the end. In referring to the cheese trade, the importance of compulsory honest labeling of cheese was emphasized as a matter for the Dominion and Provincial Governments to enforce.

**Municipal Economy.**—Mr. K. W. McKay, St. Thomas, read a paper on "Municipal Economy." He gave statistics showing the growth of township taxation in Ontario during the last fifteen years, and the increase in the chief items of expenditure in country municipalities. As a large number of those present were, or had been, municipal officers, an intelligent, animated but diversified discussion took place. Electing councils by the whole people instead of by wards was considered by a large number to be a desirable change. It was also recommended that all voters be compelled to cast their ballots for the whole council, instead of plunking for one candidate, as is often done. It was advocated that the old county council, now consisting of fifty-nine men in some counties, be reduced to three or five men, as that number could do all the work necessary at far less expense than is now required. The objections to this change given were that possibly the whole council would be from one district, or, may be, on one side of politics. Some felt that a council should be elected for a term of three years, as school trustees are, on the ground that better men would likely offer themselves to public service. This was objected to on the ground that if a poor man were elected his place would be badly filled for three years, and if a good one, he will be elected year after year any way. It was generally agreed that deputy-reeves were not necessary, as the reeve, if well chosen, is quite capable of doing his own work and that of his deputies. It was deemed wise by some to have expert accountants sent out to audit the public books, and that they be appointed the same as our school inspectors. The assessor should be appointed for three years, with instructions to go over the county in May and June, so that a full valuation may be put upon the land. The tax collector should also be treasurer, with an addition to his salary of not more than one-quarter of

what the treasurer now receives. It was also believed by some that the process of going about collecting the taxes was entirely unnecessary, because if it were made a rule that taxes must be paid in to the treasurer's office by a certain date, they would certainly be paid. This is the plan adopted in many of the United States, and it works well.

**Marketing Canadian Meat.**—Mr. J. T. Gould, American agent for a large London (England) firm, delivered a brief address on the meat trade. In referring to the "embargo," Mr. Gould stated that he did not believe the English people are in dread of pleuro-pneumonia from this country, and thought that the move was to hinder Canadian cattle coming into competition with English cattle in the interior markets. Mr. Gould is a little doubtful whether the proposed export of cattle to France would prove a success or not, owing to the present restrictions and high duty. Owing to the strength of the landlord interest in England, the embargo is not likely to be soon removed. The speaker also dealt with the various kinds of sheep imported into England, stating that Canadian mutton has not been of as high quality as that from other countries. Down mutton always meets the greatest demand. In some of the English markets a little patch of the skin is left on the carcass to show to what breed it belongs. He referred to a line of hay trade which may be made profitable: it is that of pressing cut hay into bundles of 60 or 70 lbs. each, to be shipped to English cities, where room for horse fodder is very scarce in many stables.

**What means can be adopted to bring the farmer into closer touch with the O. A. C. and Experimental Farm?**—Mr. John I. Hobson, Mosborough, read a thoughtful paper on the above subject. He stated that all who know the College will agree that splendid work is being executed at that institution. Farmers who do not know what is being done there should visit the Farm during the summer months. Its experimental work was summed up in referring to the 1,700 plots, 26 breeds of stock, to say nothing of the poultry, the dairy school, etc. Until a person knows of these things he should not criticize the Ontario Experimental Farm. The speaker recommended among other things that ex-students do all they can to show the benefits of the College, by allowing themselves to be heard at Farmers' Institutes and other meetings of farmers. The luke-warmness of influential farmers to the College, Mr. Hobson considers a great injury to its reputation. It is correct, and now believed pretty generally, that successful farming must be scientific farming, and that is what the College endeavors to fit its students for. The annual sale was referred to as a means of advertising the College. It was recommended that the sale be conducted in different parts of the country in different years, or, to induce buyers to come long distances to Guelph, to pay the railroad expenses of all who purchased stock, and also prepay the transportation rates on the stock. This would not only draw men to see the institution, but would be the means of introducing good stock into many sections where most needed. It would also help the sale. An annual exhibit of College Farm products could profitably be made at all the principal Ontario exhibitions, these to be in charge of persons sufficiently informed to be able to impart any information regarding the institution.

This paper provoked much interesting discussion from men whose sons had attended the College and from graduates themselves. All spoke in the highest terms of the course. The old idea that book-learning unfits a man to be a farmer comes only from the inefficiency of our school system in that direction. Our High Schools tend to educate boys off the farm, while the O. A. C. course has the opposite effect, as over ninety-five per cent. of ex-students return to the farm for a livelihood. Mr. C. A. Zavitz closed the discussion by referring to the origin, growth and popularity of the Experimental Union. We may say just here that the newly-elected President of the Central Farmers' Institute is a graduate of the O. A. C.

**Fifth Form in Common Schools** was the subject of a paper by the Rev. Dr. Jackson, Galt, in which was recommended more manual education. Men should be educated to use their hands as well as their minds. Mr. Jackson recommended that Fifth Form work be made compulsory, owing to the fact that a very large per cent. of farmers' sons and daughters drop out of school entirely at the end of their Public School course, most of whom would take up Fifth Form work if it were placed at their command. This would raise the educational standard of the masses very materially. It would also demand more qualified teachers, who could command larger salaries than they now receive. The present system tends to separate masses from classes. The proposed change would do much to remove this. The High School Form corresponding to the Fifth Public School Form costs its pupils five times as much yearly as it would in Public Schools. This is an important consideration. This subject is to receive the attention of the Minister of Education. A resolution was adopted in favor of doing away with the High School entrance examination, and to substitute for it the Public School leaving examination, on a Fifth Form basis, or a basis equal to it on ordinary Public School lines.

**Agriculture in Public Schools.** Mr. John Dearness, I. P. S., London, took up the above subject in a masterly manner. A review was made of the attempts to teach agriculture since 1871, when Dr. Ryerson's First Lessons in Agriculture was published, when the teaching of agriculture was made compulsory in the schools. Since then the

rigidity of the course was relaxed, which, together with the insuitability of the text book, retarded the study of agriculture in the schools in a large degree. The experience of France was referred to, and also a review of the course Manitoba has been taking in this matter. A strong argument was made for the teaching of elementary science, not by the use of books alone, but by observation and experiment, and by tracing the relation of cause to effect in many natural phenomena. Mr. Dearness is of the opinion that much could be done by Farmers' Institutes in this direction.

**"Dairy Farming in Ontario,"** by Prof. Robertson, Dominion Dairy Commissioner, varied little from his dealing with that subject at the Ontario Creamery and Dairy Associations, which have already been reported in our columns. The Professor stated that in a short time the Dominion Government would be prepared to pay twenty cents per pound for choice creamery butter to ship to the Old Country for the purpose of developing a trade in that direction. By resolution his project was approved.

**Clover Growing.**—Mr. David McCrae's paper on this subject, which is attracting so much attention at the present day, was full of practical suggestions. Discussion went on throughout the reading of the paper, which brought out some good points. Clover may be sown in the autumn with fall wheat where a constant covering of snow can be depended upon. The fertility furnished the land by growing clover is of more value than the seed costs. Alsike seed comes from first crop. It does best in a dry soil. Lucerne is good to sow in a mixture, as it keeps green when others are dry. When grown alone it must have good subsoil, and should be sown in the early spring, on clean land, in drills.

**Clovers and Legumes.**—Mr. C. A. Zavitz, Experimentalist, Guelph, dealt with this subject from a scientific standpoint, showing the value of growing the crops that answer the feeder's purpose and at the same time enrich the soil. Legumes are nitrogen gatherers, while all other farm crops are nitrogen users. The essential elements of plant foods were dealt with in a masterly manner. Peas, beans, vetches, cow-peas, soy beans, lupines, lucerne, and other clovers, including the new and much-talked-of Crimson clover, were each taken up and discussed at considerable length.

**"Meat Production."**—The contributor of a paper on meat production was Mr. John McMillan, M. P., who is well known to be one of the most successful beef raisers in Canada. Mr. McMillan said our meat has to compete with that which can be cheaply produced in other countries. Cattle are annually increasing in the United States, while their sheep flocks are becoming less. South America has become a great cattle-shipping country, and are conducting their business with intelligence. To be successful in feeding cattle a good stable is essential, frost proof, and supplied with water inside. Proper ventilation is very important. The cattle should belong to one of the early-maturing, beefing breeds, and of superior quality. In breeding, nothing but a pure-bred male should be used. He should be from a beefing family. Shorthorns are best because good milkers, so that a revenue may be received in butter as well as plenty of milk to raise the calves upon. Mr. McMillan has Shorthorn cows that give 50 lbs. of milk each day, or 14 lbs. of butter per week. He allows the calves new milk for a couple of weeks, which is gradually changed to skim by adding flax-meal porridge. Feed dry meal as soon as the calves will eat. Keep them fairly fat all the time, as it is in youth they acquire the habit of putting on flesh. Wean gradually so that they will not miss the milk, and fail. All cattle should be housed as cold weather approaches. Changes of food should be made gradually. A good feeding ration consists of ensilage, straw, and meal. Keep salt before them all the time. Feeding cattle do best loose, which saves a great deal of labor and manure. The horns should be taken off in the fall when first housed. Never buy poorly-kept cattle to feed, or disappointment will result. Young heaves fatten much more profitably than older ones, as then the demand upon food for support is at the minimum. Never feed a scrub, as he eats as much as a good beast and returns much less. As a daily feeding ration, Mr. McMillan has found 17 lbs. of straw, 14 of ensilage, and 2½ of mixed meal, costing five and five-eighths cents, very satisfactory. In handling cattle, be kind, wise and quiet.

**Mutton.**—Mr. McMillan considers the United States our best market if "Free Trade" could be obtained. Breeding ewes should be roomy, round, and on short legs. The ram should be equally good, and thoroughbred. Lambs should be castrated and docked when about three weeks old. They should be fed grain and clover hay in creep pens as soon as they are able to eat. Rape was recommended as a fall feed.

**Hogs.**—Repeated experiments have proved that young pigs put on flesh much more profitably than older ones. A 300-lb. hog requires six pounds of food daily to sustain the animal. The gain must come from what is eaten over that amount. In the summer season grass should form a considerable portion of the growing pig's diet. Raw food gives better results than cooked. Winter quarters should be dry and warm. Profitable results may be obtained from feeding mixed food; mangolds, clover hay and meal is highly relished. Wood or coal ashes should be thrown to them occasionally. To get best results we must have good pigs, well-balanced ration and a judicious feeder. Breed from mature stock to get best results.

**Grass Forage Plants.**—Prof. Fletcher's address on forage plants varied little from that given at the Stratford dairy meeting, already reported in the *ADVOCATE*.

**Cheaper Transportation.**—Ex-Mayor Howland, President of the International Deep Waterways Association, placed before the Institute the needs of better transporting facilities. That Association is endeavoring to institute negotiation between the United States and Canada for the purpose of constructing a continuous watercourse from Chicago to the sea, having a minimum depth of twenty-five feet, so that it would be navigable by ocean vessels throughout the entire distance. Mr. John Brown, who also spoke on this subject, stated that \$3,174,285 could be saved annually on six products of Ontario farms by shipping by water direct, instead of using our railroads as at present. It would also open up trade with the Maritime Provinces, and enable Toronto people to get Nova Scotia coal at \$3.00 per ton.

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**DAIRY.**

**Feeding Turnips in Buttermaking.**

We have always fed turnips in the fall and winter when making butter, and have sent our butter to Toronto, Peterboro and other markets, and have always obtained first prices for it, with the statement: "butter, first-class." Since your inquiry was made I have had the opinion of an expert on our butter, and he says if I want a certificate he will give me one stating that he could detect no turnip taint, that it was very fine in make and of first-class quality.

The manner of making is this: We are very careful to have the milking attended to so that the milk shall be clean and free from anything which could in any way taint the milk, as this would be retained in the cream. As soon as possible after milking, we pour boiling hot water into the milk until it attains about 125 degrees Fahr., then we set in the common creamers or pans. The creamers we run off every 36 hours and the pans every 48 hours, and as soon as the cream is ripe or turned a little sour, we temper it to 60 degrees, and about ten minutes before churning we dissolve a teaspoonful of prepared saltpetre in warm water and stir into the cream and then churn. We use the Dairy Maid churn, and as soon as the glass is clear the butter is all right and in granules. We let it stand a few minutes and then run off the buttermilk and wash the butter in the churn until the water is clear, and then salt with fine salt, one ounce to the pound of butter.

JOHN B. STONE & SON.

As you request me to furnish your readers information as to the quantity of turnips fed, would say that I gave each cow about half a bushel twice a day, fed after milking. I have an underground, stone milk-house with stone floor. The milk keeps sweet for three days in the hottest time in summer. We use mostly shallow pans; skim every twenty-four hours; pans kept well scalded and clean; churn in the fall from 60 to 64 degrees. If I were giving each cow two bushels a day I would dissolve some saltpetre and put in the cream. I knew of hundreds of tubs of butter made in the Old Country from turnips and straw, which brought the first price at that time in the English market.

ROBERT WARK.

"Beautiful butter" can be made if the cows are allowed only a very small ration of turnips after they are milked, at first, gradually increasing the quantity. The milk was set in pans, and two or three quarts of ice cold, pure water put in the pan and the milk strained into it. The butter was beautiful; not the least unpleasant smell or taste of turnips was noticeable.

S. M., Blackwood, Assa.

**The New President of the Dominion Shorthorn Breeders' Association.**

Mr. Arthur Johnston, Greenwood, lately elected President of the Dominion Shorthorn Breeders' Association, began breeding Shorthorns in 1867. Importations from Great Britain were commenced in 1874. Up till the present about 100 head have been brought across the waters by Mr. Johnston; also about forty head of Clydesdales, and many Cotswold sheep and Berkshire pigs. Mr. Johnston has held the office of Vice-President of the Association, of which he is now the honored President, during the years 1893 and 1894. He has also been a member of the British-American Shorthorn Association and Dominion Shorthorn Association since their inception. During the years 1883 and 1894 Mr. Johnston was Vice-President of the Clydesdale Association, all of which indicate the esteem in which he is held among his fellow-breeders. He has done a great deal for the breeding interests of Canada, and we look for an era of continued activity in the Shorthorn Association during his regime.

**Paying for Cheese-factory Milk.**

[From an address by Prof. Robertson, before the Western Ontario Dairymen's Association.]

Professor Robertson said Professor Dean's blunder in the official publication of conclusions before they were established by facts was, in his opinion, to be regretted, but it did not prevent a hearty appreciation of the good work Professor Dean had done and the better work he is yet capable of doing. He (Prof. Robertson) had found the Babcock tester and the percentage of fat in the milk as determined by it to furnish an equitable basis for the valuation of milk of different qualities at cheese factories as well as creameries. Milk of average quality might be put as containing:

Water	87.7 per cent.
Fat	3.5 "
Casein	2.4 "
Albumen	.7 "
Sugar	.5 "
Ash	.7 "

Of these constituents the cheesemaker tried to retain in cheese the fat, the casein, and a portion of the water. Out of 100 lbs. of milk of such average quality, the cheesemaker might retain in cheese:

Water	3.4 lbs.
Fat	3.3 "
Casein	2.2 "
Extractives and ash	.2 "
Added salts	.2 "

9.3 lbs.

The remainder of the milk became whey. A less percentage of fat and casein of rich milk was lost in the whey than of poorer milk. The Babcock tester had made a change practicable to the paying for milk by weight and quality instead of by weight only. Weight multiplied by quality gave true value, for both milk and cheese. Two years ago he had continued experiments to determine the relation which the fat of milk bears to its real value for cheesemaking. His experiments, in the course of which 200 cheese were made, resulted in showing that the percentage of fat in milk was a correct measure of its value for cheesemaking. In these experiments it appeared that a larger quantity of cheese per pound of fat in the milk was made from milk containing a low percentage of fat than from milk containing a high percentage of fat. If the weight of the cheese only were to be considered, then the percentage of fat in milk was not a correct measure, but when weight and quality of cheese were considered, then the butter-fat was a correct means of deciding its value. His experiments and examination of cheese showed him that, other conditions being equal, the market value of cheese made from the richer milk was higher than that made from poorer milk. The conclusions from tests of over 200 cheese made experimentally were that for every two-tenths of a per cent. of fat in milk, the quality of the cheese made therefrom was increased in value by one-eighth of a cent per pound. This applied to cheese made from milk containing three to four per cent. of fat. Taking two patrons, A and B, for illustration, the following table shows how close the distribution of money at a cheese factory, according to a percentage of fat, agrees with the real value of the cheese made from different milks. After deducting the expense of drawing milk and manufacturing cheese, eight cents per pound has been taken as the value of cheese, to be divided among patrons. The cheese made from milk containing four per cent. of fat is worth five-eighths of a cent per pound more than the cheese made from milk containing three per cent. of fat. The distribution of proceeds from 5,000 lbs. of milk to two different patrons, A and B, are in the two columns:

	Patron A.	Patron B.
Percentage of fat in milk	4	3
Lbs. of cured cheese per lb. of fat	2.5	2.8
Lbs. of fat in 5,000 lbs. of milk	200	150
Lbs. of cheese in 5,000 lbs. of milk	500	420
Total amount of money to be divided	\$73.60	\$36.80
Share to each patron, when divided by weight alone	\$36.80	\$36.80
Do., when divided by weight and value of cheese actually yielded	41.50	32.10
Do., when divided by percentage of fat in milk	42.06	31.54

By the division of proceeds according to the percentage of fat, the patron who supplied the rich milk receives 56 cents only on 5,000 lbs. of milk more than the exact share, as an encouragement on the production of fine, rich milk. It is necessary to bear in mind that the value of milk and cheese is determined by both weight and quality. The mistake in Prof. Dean's bulletin was in shifting the measure of value from weight of milk only, which all recognize as faulty, to weight of cheese only, which is also faulty. Weight multiplied by quality gives the real value of cheese, and when both of the factors are taken account of, the percentage of fat in milk is a fair and practicable measure of its value for the making of cheese.

A dispatch from Brighton, Mass., says: "There was a practical demonstration of the unreliability of tuberculin at the abattoir here. Ten of the animals of the lot condemned by the cattle commissioners as tuberculous were slaughtered, and of the ten, two were undoubtedly tuberculous. Four are in doubt, and suspected parts of their internal organs go to the chemist for the final decision. Four more were perfectly sound, and were released by the commissioners conducting the post mortems. They will be sold as beef, and full value will be paid to their owners. Consequently it is no surprise that the commissioners returned to Boston in a sober and thoughtful frame of mind, it being felt that tuberculin had "got a black eye."

**Farm Buttermaking.**

F. J. S.

*Where deep cans are used.*—Strain and set the milk immediately after milking. To those who would make this work a success, this opening statement is not optional, since it covers to a greater or less degree the question of the quality and quantity of the resultant cream and butter. Do not put the cover on the deep can (also called a creamer can or creamer) as soon as the milk is put in it, but allow the animal odor to evaporate, and the milk to cool to about the temperature of the surrounding atmosphere before covering. Experience teaches us that about eighteen to twenty inches in depth and eight inches in width, inside measure, is about the right size of can, but of the bottom of the can we would speak more particularly. The majority of deep cans have a flat bottom, and are frequently without a faucet, being skimmed from the top; others have a faucet at the bottom, the bottom sloping slightly to this side, while still others have a flat bottom with a small groove across its centre, which slopes slightly to the faucet. We are not in favor of any of these, because, first, if nice clean cream is desired, they must be skimmed by the use of a conical cream skimmer, which means an extra and unnecessary utensil, and, secondly, because of the extra labor due to the removal of the cans from the water and their return—no little work if many cows are kept. The best can we have used or seen has a conical bottom with the point of the cone in the centre of the can, and the faucet (a straight one, and thus easily cleaned) at the bottom of the cone. This can is screwed into the bottom of the creamer tank, enough space being left under the tank to set a pail to catch the milk and cream. In such a can the sediment, if any, in the milk will settle to the centre of the cone and draw off with the first skim-milk. A glass in the side at the bottom shows when the skim-milk is all, or nearly all, drawn off. The can is never removed from the tank, except for possible repairs, thus saving an immense amount of labor. It is on these latter points that we have objection to the Cooler system of creaming milk. With such a can and tank as we have described, a pint of milk may be drawn from the can without disturbing the remaining contents, or the contents of one can may be removed without disturbing the remaining cans.

The basis of success in deep can creaming is the temperature of the water in which the cans are placed: 35° to 42° F. is perhaps best, but in no case higher than 45°. Four times as much loss in butter-fat has frequently been known when set at 52° as against that set at 42°. It is thus readily seen that ice-water is absolutely necessary, except in some few cases, as where a cold spring is available, which may be made to run in and out of the tank continuously. Lowering the cans into a well is very rarely satisfactory, neither is drawing the water and changing two or three times to be recommended; in fact, we never knew good skimming in such cases. To set in the open air in winter, or in snow, is not good; set in water always. The skim-milk should not show more than two-tenths of one per cent. of butter-fat in summer, nor more than three-tenths in winter. Eleven or twelve hours in summer and twenty-four hours in winter will raise all the cream if temperature is right; whereas, if the temperature is too high, greater length of time will not ensure good skimming. Draw off a portion of the skim-milk with the cream, as this saves a little more butter-fat (skim-milk nearest the cream contains more butter-fat than that lower in the can) and the cream works better in the churn.

The room where the cans are placed should be under the same roof as the ice, and if the churning is done here too, so much the better; such a room, by a little skill, may be made almost perfect in its arrangements. An excellent storehouse may be made for the butter by building a small room in the ice-house, the door of which opens into the dairy; five or six feet in height and four or five feet square would be sufficient. A small coal or wood stove, at a cost not exceeding five dollars, will supply the needed heat during the winter months.

The cream should be kept below 50° F. from time of skimming until time for ripening.

Less exposure of milk and cream to the atmosphere; no sour milk nor cream in summer, with their attendant evils; more butter per hundred pounds of milk, and lessened labor, are advantages possessed by this system over the shallow pans. Be it remembered, however, that unless a temperature of 45°, or lower, be preserved during all the time of setting, the shallow pan will give better results than the deep can. The churning of deep can cream, making of the butter, etc., will be discussed in a later article.

Occasionally we meet very fine hedges of various evergreens, thorn, locust, Russian mulberry, etc., but alder and fancy hedges are comparatively scarce. We must bear in mind that this is a new country. People have been intent here mostly to get a home before they could ornament it. The hedges we find, such as Osage orange, locust, etc., have usually been planted with an eye to practical usefulness, as line fences, stock fences, etc., rather than for their ornamental feature. As the country grows older, more attention is being paid and will be paid to hedges for ornament.—[T. Greiner.]



GARDEN AND ORCHARD.

Nova Scotia Fruit Growers' Annual Meeting.

(SPECIAL CORRESPONDENCE.)  
The thirty-first annual meeting of the Nova Scotia Fruit Growers' Association, held in Wolfville, Jan. 29th to Feb. 1st, was the largest-attended in its history; represented by members from all parts of the Province, showing the great interest the Association has awakened during the past year. The Association, by its thrift and careful management, has established and equipped the Nova Scotia School of Horticulture, now the only school of its kind in Canada free to all, having over fifty students in present attendance in the regular and short winter courses, principally farmers' sons. This has marked an important era in the work of the Association. The establishing of an Experimental Station is to be a thing of the future, and is receiving the strong support of all the members, now numbering nearly a thousand.

The Fruit Display was of high merit, including preserved fruits, showing varieties of peaches, plums, cherries, strawberries, etc. The apples were the popular sorts, from the vicinity of the Annapolis Valley. Among the novelties exhibited were five Nonpareils, which had been top-worked on the Emperor of Alexandria, giving a large increase in size of fruit; form similar to Emperor, flesh of yellowish-white, keeping well at this time of year. This change was thought to be due chiefly to influence of stock and scion, possibly fertilization. A collection of apples, from Ottawa, was exhibited by Prof. Craig, of such varieties as Winesap, Gideon, Canada, Baldwin, Wagner, etc., some of which it was thought would be of value to certain districts. Prof. Faville exhibited a collection of insects with which the farmer has to combat. Numerous specimens of fungous growths, insect-infested limbs, etc., were shown.

"Peach Culture in Nova Scotia," by C. A. Patrequen, of Wolfville, was the first paper. Peaches had been produced in Annapolis Valley for over seventy years, but only in recent years had they been grown properly. The industry was rapidly increasing. Peaches had been sold for one dollar per basket. Experience shows that peaches grow best in light, sandy loam; trees twelve feet apart, sheltered if possible; advised planting shelter belts. In spraying for insects and fungus, attention should be given to strength of solutions, as peach was tender. Yellows could be controlled best by cutting out trees. In his experience but little trouble had come by buds being killed when early, hardy-bud varieties were planted. Early Alexander had proven best in peach districts; next came Early Crawford, Hynie's, Surprise, Hill's Chili, Early Rivers. Budding met with success whenever tried.

"My Lecture Tour."—An address by Prof. E. E. Faville, of the Horticultural School, covered a review of his lecture tour of the Province in June last. He spoke of the peculiar adaptability of different localities for certain fruits, being controlled by soil and climate, local in its nature; this necessitated the growing of different varieties. In districts adjacent to coast, English varieties of apples did best. In northern portions tender sorts should be top-worked on hardy stocks. Russian varieties thrived best here. The same was true of plums, as to hardiness. Grapes, under glass, matured perfectly and with profit; Black Hamburg and Black Prince had proved the best. Cranberries grow abundantly in the western counties. Hundreds of acres of bog land was ready to be opened up, comparing favorably with the cranberry lands of New England States. The Professor spoke of the needs of improvement in the industry, in spraying, marketing, and handling of fruits; mentioning the importance of pruning, thinning, fertilizing, and cultivation of orchards, placing upon the markets more No. 1 fruit.

"How to Make Fruit-growing a Greater Industry."—A paper by Geo. Thompson. He said that capital was seeking investment in paying results. Prove that fruit-growing did pay, then the industry would increase. This could be done in several ways: by establishing canneries and cold-storage for preserving fruits so as to reach distant markets in first-class shape. Produce first-class apples, thus securing prices that will be profitable to fruit-growers. Much of this advance depended upon careful study of soil and climate, mingled with scientific skill and industry. Haphazard work would not do in these days of keen competition in the markets of the world. Best methods of sorting and packing should be understood. Fruit-growers must become students. Journals, books, and Experimental Station work, together with practice, would cause the Nova Scotia fruit industry to become greater.

"Close Planting of Trees."—A talk given by Ralph S. Eaton, of Kentville, who advocated the setting of apple trees in rows, twenty feet apart and sixteen feet in the row, having standard varieties every thirty-two feet, alternate with early-bearing kinds, as Wealthy, Duchess, etc., coming into bearing earlier; removing them when they crowded the standards, having taken crops from trees sufficient to pay for them many times over. This would also aid in fertilizing blossoms. The same could be done with plums, cherries and peaches. Soil must be fertilized highly. He had already planted some eight thousand trees in this manner. He cited examples in New Brunswick and Arkansas, where this plan had met with remarkable success; though orchards were yet young, they had borne double crops to other orchards of same age in their vicinity.

(TO BE CONTINUED.)

The Cauliflower.

BY FRANK GARDINER.

This vegetable is generally considered a very uncertain and unprofitable sort, so that most gardeners leave it entirely out of their pecuniary consideration. Yet, where it can be grown, it usually returns a large profit, though the growing of a crop is attended with all the uncertainty incident upon investment in a lottery ticket. The culture is, however, increasing, as gardeners are making a study of the plant's requirements, and giving it the soil and handling it demands.

The cabbage, cauliflower, kale, broccoli and Brussels sprouts, dissimilar as they are, are derived from the wild cabbage (*Brassica oleracea*), which is indigenous to the sea-coast of Europe and Great Britain, from Norway to the Mediterranean Sea. In its wild state this plant is entirely destitute of a head, but the edible nature of its stems and leaves has been known for ages. Pliny knew it, but probably only in a semi-improved state; while Rullius, in 1536, refers to a cabbage with heads eighteen inches in diameter.

Of the development of the cauliflower, Vilmorin, an eminent French authority, says: "The sprouting or asparagus broccoli represents the first form exhibited by the new vegetable when it ceased to be the earliest cabbage and was grown with an especial view to its shoots; after this, by continued selection and successive improvements, varieties were obtained which produced a compact, white head, and some of these varieties were still further improved into kinds which are sufficiently early to commence and complete their entire growth in the course of the same year; these last named kinds are now known by the name of cauliflowers." But authors disagree as to which, broccoli or cauliflower, first originated from the wild plant. Vilmorin predicates his views on the coarser nature and longer season of the broccoli. That the cauliflower is an ancient vegetable is proven by the writings of Heuze, who says it was cultivated in Spain in the twelfth century. It was known in Egypt, Cyprus, Greece, and Turkey, in the early part of the sixteenth century, and the close of that century saw it cultivated in England.

The cauliflower is much more extensively grown in Europe than in this country, and with much greater success there; in fact, owing to soil and climatic conditions, a crop of cauliflower is raised with as much ease, almost, and with quite as much certainty as one of cabbage. Erfurt, Germany, is famous for the excellence of its cauliflower seed; the swampy land about the city is specially adapted to its cultivation, and great care is taken to produce fine heads. Water from the irrigating ditches is applied to the plants every day, and pains taken which would be impossible where labor is less cheap. Angiers, in France, sends forty car-loads to Paris every day during the season, and gardeners, in a good year, often net \$300 per acre from the crop. In the United States the consumption of this vegetable keeps so close to the supply that whoever can raise a good crop is sure of a good price. Suffolk county supplies the New York market, chiefly, and in 1889 the crop was worth \$200,000 to her growers, and the acreage has since been widely increased. The Chicago market seldom is adequately supplied, and the same is true of Philadelphia, Washington, Buffalo, Cincinnati and other cities; while the pickle factories may always be relied upon to take a possible surplus, or discolored or malformed heads. But probably the reason of the good market is simply that growers do not yet quite understand the details of cultivation, and as soon as these are known the supply will force prices to a lower level.

The intending cauliflower-farmer should look for a spot of strong, sandy loam. The chief requisites are fertility and moisture. Heavy clay and light sand are unsuitable. Muck is often planted with good results. A virgin soil is especially desirable, as the growth is better than on any old land, no matter how well cultivated. The usual precaution, not to follow a crop of cabbage with another, is to be observed with cauliflower also.

The land can hardly be made too rich, and barn-yard manure, well rotted or composted, is best, though commercial fertilizers are useful to aid the formation of heads. As the original plant is a native of the sea-shores, common salt is usually regarded as a help. One precaution is to be observed,—apply all fertilizers to the soil several weeks before transplanting.

The easiest way of starting the plants is to sow the seed in the open ground, in drills, first preparing the bed by giving a dressing of commercial fertilizer, and raking in a light coat of lime or ashes. Set the drill to sow thinly, for seed is expensive. Sow half an inch deep and firm the soil after sowing. A very important thing is to get the seed in while the ground is fresh, and cover before it dries out. It is usually recommended to cover the bed with cloth to prevent drying out, removing as soon as the seed germinates, and also at night. Transplanting makes the plants strong and stalky, and is essential to success with early varieties; but for a late crop, by sowing thinly and thinning out, may be omitted.

(TO BE CONTINUED.)

New Fruits at Ottawa.

[Paper read by Prof. Jno. Craig, Ottawa, before the Ontario Fruit Growers' Association.]

APPLES.

*McMahan White*.—From A. L. Hatch, Ithaca, Wisconsin. This variety has already been noted in the report of the Central Experimental Farm, and I would again draw attention to some of its merits as an apple of value for regions where Northern Spy, Ribston and Greening cannot be grown profitably on account of their inability to withstand the winter cold. It has proved, so far, a remarkably vigorous and healthy grower, free from many of the defects characteristic of varieties unadapted to this climate. It has borne moderate crops for the past two years. The fruit is large, smooth and attractive. Quality medium; season, October to January.

*Scott's Winter*.—From Doctor T. H. Hoskins, Newport, Vermont, U. S. This is an apple belonging to essentially the same class as the last, in regard to the locality in which it should be cultivated. The fruit is medium to small, handsomely colored; quality medium, its acidity being very pronounced. As a keeping variety it excels. Season, February to May; for culinary purposes.

*McIntosh Red*.—I mention this to emphasize some of its strong as well as weak points. Tree fairly hardy; quality first-class; appearance handsome; season, that of the Fameuse, or a trifle later, but, like the Fameuse, it falls an easy prey to the apple spot fungus (*Fusicladium*), and no grower should plant it without first making up his mind to deal vigorously with the enemy.

*Haas or Fall Queen*.—Is mentioned, not for its value as a fruit—which is very slight—but for the use that can be made of it as a top-working stock. For this purpose it possesses many desirable qualifications, and I believe it safe to say that Ribstons, Blenheims and Kings could be profitably grown on this, with possibly increased fruitfulness, in districts where they cannot be grown upon their own stocks.

*Winter Duchess* has proven to be a handsome fall apple of fair quality, but will hardly compete with Wealthy, which comes in at the same season.

*Salome* is a much advertised variety from Illinois. The tree is a round-topped, fairly vigorous grower; hardy at Ottawa. Fruit medium to large, round, green, with rarely a blush. Mild, sub-acid in flavor. An apple without striking characteristics, but evidently a keeper.

*Gideon*.—From Peter M. Gideon, Excelsior, Minn., U. S. Of the same parentage as Wealthy; but more vigorous in growth, with larger leaves. The fruit is of the size of Wealthy, but much less highly colored. It holds to the tree better and may be considered nearly equal in quality. Where McMahan is grown this variety need not be included.

To attempt a descriptive list of all the Russian varieties which have fruited during the year would make an exceedingly lengthy catalogue, and, with our present knowledge, would not be of much value. A large percentage of the varieties in the test orchard have been seriously injured by blight during the past two years. Among the members of the Hibernal family, *Cross*, from Voronezh, Russia, and *Romna* are handsome fall apples. The fruit is large, coarse in quality, but valuable for cooking. They bear heavily and annually.

*Longfield* is making itself appreciated wherever planted, on account of its early and remarkably heavy bearing habits. *English Pippin* is of the same type and is often confounded with this variety. *Longfield* is undoubtedly one of the best in quality of all the Russians. The fruit is medium or below in size; round, smooth and regular; yellow, with a bright blush on one side. The flesh is white, crisp, sub-acid and good. Under favorable circumstances, as grown in the eastern part of the Province of Quebec, it keeps till March. As a home-use and near-market apple, it has great value. Like the Fameuse, it lacks the points which constitute the essential requisites for an export fruit. To obtain the best results the fruit should be thinned, as the tree is likely to over-bear.

Of the Russian apples imported as scions by the Fruit Growers' Association, in 1890, I shall hope to make a report upon the fruit of many of these next year. *Sara synap*, one of the most noted winter varieties, fruited as a top graft the past season. The specimens secured were disappointingly small; of the shape and appearance of Ben Davis; quality poor; season, mid-winter.

PLUMS.

Of these, I wish to draw attention to a few varieties which seem worthy of special reference.

*Hawkeye*—(*P. Americana*).—This has already been mentioned in a previous report to the Society, but no apology is needed for this repetition, as it is proving quite equal to the task of making itself appreciated. The tree is a strong grower, which is characteristic of the type, and a remarkably heavy bearer. The fruit is large, round, handsome, purplish red; quality fair. The skin is thick enough to allow of its being marketed in good condition. Season, the middle of September. It should be planted where DeSoto is thought desirable.

*Stoddard*—(*P. Americana*).—From C. G. Patten, Charles City, Ia., U. S. Answers to same general description as the last, but is somewhat later in ripening. Among the Russian plums which have fruited, two varieties so far are worthy of trial:

(1) *Moldarka*.—This was obtained from Prof. Budd, of Iowa, in 1888. The tree is a round-topped,

fairly vigorous grower; shoots large, of a purplish color. It has not been injured by winter so far, as have many of the other varieties of *P. domestica* in the test orchard. Fruit large, one and three-quarters by one and five-eighths inches, oval and somewhat pointed; color dull, brownish-purple, covered with thick, blue bloom. Stem short, stout, set in a deep, round cavity; suture terminates in a protuberance on one side. Flesh greenish-yellow, moderately firm, juicy; mildly sub-acid; not highly flavored, but of fair quality. Pit medium size, oval, firmly attached to flesh. Ripe September 5th, 1891. Thus far it has not proved a heavy bearer.

**Early Red**—(*P. domestica*)—From Prof. Budd. Tree of slow growth, twig slender, leaves small; hardy. Fruit medium size, oval, dark red, with blue bloom. Flesh greenish, firm, juicy; quality fair to good. Pit firmly attached. This variety has borne light annual crops for three years, and appears promising for the North.

#### CHERRIES.

I have to report in this connection that the trees of Koslov Bush Morello, imported by the Association, a portion of which were placed in charge of the Horticulturist at Ottawa, have proved hardy, but exhibit considerable variation in habit of growth and character of leaf and bud. A few blossomed last year, but set no fruit. A large number blossomed the past season, and some fruit matured. An examination of the blossom disclosed the fact that many of them possessed abortive stamens, which may account for the fruit setting very lightly. Samples secured were of small size, bright red, heart shaped; flesh soft and rather astringent; pit large; altogether, not promising so far. But it is not fair to base an opinion on first fruits. I may say that Dr. Charles Saunders succeeded in crossing this with other forms of the Morello, and interesting results may be looked for from this union.

eating fruit of Niagara or of the Rogers varieties, a bunch of Peabody is positively refreshing.

**Secretary**.—Produced by J. H. Ricketts, Newburg, N. Y., by crossing Clinton with Muscat-Hamburg. This variety yielded remarkably fine bunches the past season. Vine a weak grower. Bunch and berry medium size, the latter oval; skin moderately thick; pulp very meaty and of an exceedingly pleasant acid; seeds small, two or three in each berry. On account of its meaty character of flesh, it keeps well. This variety combines in a remarkable manner, in both vine and fruit, the good qualities of the European and American grapes. It is not likely to become commercial.

**Mills**.—Might be classed with the last.

#### RASPBERRIES.

As a market berry, nothing better among reds than Cuthbert has yet appeared. Gladstone, Superlative and Beaconsfield, of the *Rubus Idaeus* or European class, have fruited, but do not appear promising, and will no doubt remain in the amateur list, on account of lack of productiveness.

Of black-caps, Older, mentioned last year, easily retained first place, both for productiveness and quality. The plant is also more easily kept in form than other members of this division.

#### STRAWBERRIES.

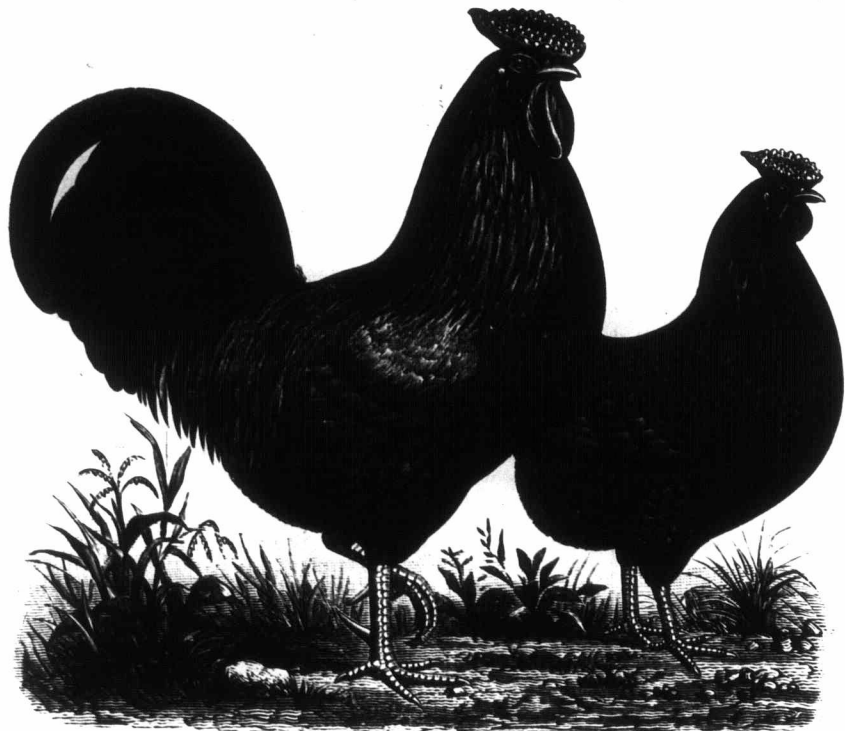
One hundred and ten varieties were tested this year. The following varieties gave the largest yields, and are named in order of productiveness: Crescent, Beverly, J. S. Vick, Warfield, Stayman's No. 1, Van Deman, Williams, New Dominion, Beder Wood, Haverland, Parker Earle, Bubach. Each variety consisted of a row sixty feet long. The highest yield was forty boxes and the lowest twenty-four, of the varieties mentioned.

**Timbrell** gave promise of productiveness. It is early, of fair quality and moderately firm, but its

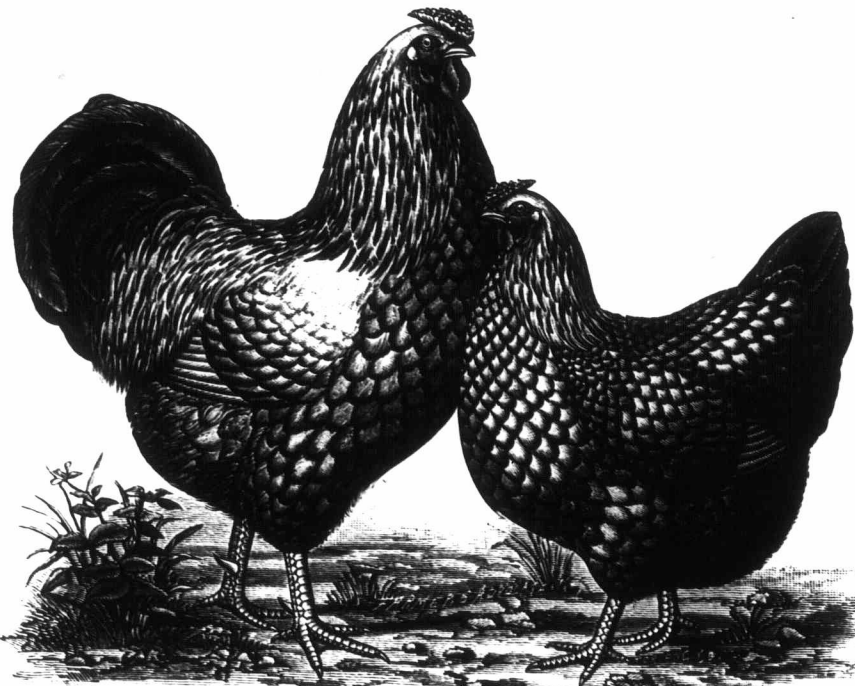
from a pen of five Red Cap hens, three and four eggs per day. It will be hard to find their equal in that respect, he thinks. They are one of the oldest English breeds, and in some parts of England are known by the name of Golden Pheasant. The male bird's standard weight is 7½ lbs., the hen's, 6½ lbs. In color they are nut-brown, with a black sparkle, and are very handsome in appearance. Mr. Daniels was very successful at the World's Fair, Chicago, winning on five entries as follows: 1st on pen, 1st on cock, 1st on hen, 1st on pullet, 3rd on cockerel. He has always been a great lover of poultry, and keeps ten or twelve varieties, including the following: Black and White Javas, White Rocks, Derbyshire Red Caps, Laced and White Indian Games, Silver-Gray Dorkings, Buff Leghorns, Black Leghorns, Golden Wyandottes, and three or four varieties of bantams. Mr. Daniels has been Superintendent of the Poultry Department at the Industrial Fair, Toronto, for the past ten years; he was also appointed Assistant Superintendent for the Ontario Government, for Poultry Department, World's Fair, Chicago.

#### Golden Wyandottes.

The accompanying illustration of Golden Wyandottes, the property of C. J. Daniels, Toronto, Ont., is from life. These birds are winners of many first prizes in Canada, and were also second cockerel and first pullet at Cleveland, Ohio, U. S. A., Dec., 1894. "I have been breeding this variety," writes Mr. Daniels, "for five years, and get more in love with them every year; in my judgment they are not only the beauty breed, but also have more of the good qualities that go to make up the general purpose fowl than any other breed. As layers, the Golden Wyandotte excel all other sitting varieties



DERBYSHIRE RED CAPS.



GOLDEN WYANDOTTES.

Prize-Winning Fowls, the Property of Mr. C. J. Daniels, Toronto, Ont.

Most of the Russian and German cherries described in Bulletin No. 17 of the Experimental Farm, have realized our expectation in regard to hardiness and productiveness. The varieties specially recommended are being planted to a considerable extent, but would be more generally cultivated if the trees were easily obtainable.

#### SMALL FRUITS. GRAPES.

The past season was one of the most favorable for the thorough ripening of this fruit which has occurred within a decade. Fungus diseases were not severe, and were easily controlled with Bordeaux mixture. At the Central Canada Exhibition, held during the last week of September, 112 varieties were shown, of which number 75 were well ripened.

#### VARIETIES.

**Farrell**. A white grape, mentioned in the report of the Association last year, produced, in abundance, enormous bunches of fruit upon vines planted three years ago. The berries, which I said were small last year, were much larger this season; and while the fruit did not reach perfect maturity, yet it gave assurance of good quality. It should be tested in our best grape-growing districts.

**Brilliant**. Of T. V. Munson, a cross between Delaware and Lindley, is a promising red variety for home use. It does not seem sufficiently vigorous or productive for market; but our vines are yet young.

**Peabody**. A seedling of Clinton, raised by J. H. Ricketts, is by no means a new variety, but is mentioned here with a view of dilating on its good points: 1. It has borne heavily, and has not been affected by mildew, though to a slight extent by Anthracnose. 2. The fruit ripens every year, at Ottawa, and the berry holds well to the bunch. 3. Bunch large, well shouldered; berries medium size, black, oval; quality first-class, combining a sprightly acid with a rich, vinous flavor. After

very dark color is against it as a market berry. The plant seems quite vigorous.

#### ENGLISH GOOSEBERRIES.

In closing this hasty review of the newer fruits, I would like to call attention to a class of small fruits not new, but unfortunately overlooked. I refer to the English gooseberry. This has been a neglected fruit, partly on account of unadaptability to all soils, and partly owing to its susceptibility to gooseberry mildew. Now that this disease can be cheaply prevented by spraying, and given a patch of clay or heavy loam, there is no reason and no excuse for slighting this luscious fruit. Gooseberries stewed, gooseberries in jelly and gooseberry tarts are all very nice in their way, but are not to be compared with well-ripened berries in their natural state. Plant them on clay soil, where the snow lies deeply; spray, and reap your reward, which will surely come.

## POULTRY.

### Derbyshire Red Caps.

The accompanying cut shows a pair of Derbyshire Red Caps, taken from life. The cockerel took first at Madison Square Gardens, N. Y., Feb., 1895; the pullet also took third, same time and place. They were bred by Mr. C. J. Daniels, Toronto, who was one of the first to import this breed from England, some ten years ago, and they are still his favorites; he says their one object in life seems to be to lay "eggs for breakfast" in the morning. During the cold, cold spell, he found his house four below zero, and from one pen of seven Red Cap pullets was getting four and five eggs per day, and

and equal some of the non-sitting, laying most of their eggs in early fall, winter and early spring, when eggs are scarce and high in price, and the single-comb varieties are suffering with their poor frosted combs. The pullets will commence to lay at five months old; they lay a medium size egg, brown in color. As mothers, the hens are very quiet and easily managed, they sit well and take care of their chicks, and in most cases start to lay again when chicks are from six to eight weeks old. The Golden Wyandottes are of good size; the standard weights are: Cockerel, 8½ lbs.; hens, 6½ lbs.; but I find they grow much heavier than that; the young cockerel in cut weighs 9½ lbs., and will still grow. The Golden Wyandottes are very tame and easily kept in range; a four-foot fence is all that is needed; but if given full range, will pick up most of their living by hunting and scratching for insects, etc. When dressed they show a fine, plump body with clean, yellow skin, with very few pin-feathers; their flesh is tender and juicy. A well-fed bird of this variety is fit for table any time after eight or ten weeks of age, filling out and dressing a finer and better carcass than their great rivals—the Plymouth Rocks. For the farmer they bring good profits, in furnishing a large supply of eggs, and as market fowls they also yield a good price, weighing very heavy for their size. A Golden Wyandotte will surprise every one with its weight, and mating early as they do, there is more profit in them as early market chicks. For the fanciers, no variety can furnish a more beautiful plumage, for who can conceive of a more pleasing combination than a pure, clear nut-brown, laced with a greenish black."

Dressed Fowls at Poultry Shows.

BY J. J. LENTON.

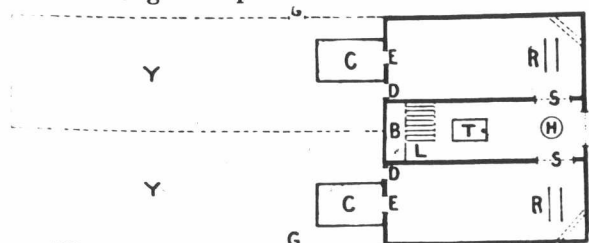
Seldom, if ever, do we see fanciers raising their fowls with the intention of making their market qualities of high degree. All that they seem to think necessary is to have their birds correspond as nearly as is possible with the American Standard of Perfection. How often do we see a large, robust-looking specimen sacrificed for a much weaker one, simply because the latter conforms more closely to the standard in some minor points? True, some fanciers are beginning to advertise the laying properties or the great size of the fowls they keep; but how is it we so seldom see these specimens exhibited at our shows as "dressed poultry?" There are hundreds who visit poultry shows who do not know a good bird from a bad one in the show pen, but they "reckon" they know a good fowl when it is dressed. Many of these same people would willingly re-stock their yards with some good breed if they knew how they looked when dressed, or what kind and how many eggs they would lay per year. Now, if there were dressed specimens of the larger varieties on exhibition, these people could easily see for themselves; or if a dozen or two of eggs from the great laying varieties were shown with a placard on them testifying how many of this quality of eggs were laid by a certain number of hens during the year, it would be plainly evident to spectators what variety would suit them. The "real thing" can make a far greater impression than any amount of talking.

The late Port Hope poultry show had a great display of dressed fowls; in fact, ahead of anything seen along that line in Canada before. It was a credit to the exhibitors, the show, and the whole Province. The specimens of chickens, turkeys, ducks, geese, etc., were large, well fattened and grandly dressed. It is not always the largest birds that attract the most attention. It is the most enticing to the epicure. It is almost useless trying to describe any of these specimens, but special mention might be made of some chicks of the Indian game—B. P. Rock cross—that weighed 13½ pounds per pair. The manner in which they were dressed would make any one feel hungry. Now, fanciers, do you suppose farmers, who want something with market qualities, would care any more for your 94-point birds than these cross-breeds, if they don't weigh as much or dress as well? We know that every one likes a thing as near perfection as possible, and, therefore, will not the farmer feel more interested in the 94-point "pointer" if he will dress as nice or nicer than any cross-bred. Fanciers could find good customers in farmers for their surplus stock if they would take pains to cultivate and breed more for useful properties.

A Convenient Poultry-house for the Farm.

BY MRS. IDA E. TILSON.

W. H. Hudson, the naturalist, says (what we all will admit) that young birds have no instinctive dread of enemies, and, at first, take food readily from man; but fear is gradually taught them by their experienced parents, or, alas! too often, by man's own harshness. My fowls being familiar pets, lightens the work of marketing, feeding, or doctoring. Many are known by name, and have their individual traits, which draw out no little study and interest on our part. Indeed, we get much entertainment, as well as profit, from our untaxed property vested in hens. Though with the Institutes six weeks, last summer, my older fowls evidently knew me on my return, because they clustered round me as they were said not to have done by any one while I was gone. I have heard of a hen so tame that she made her nest under a loom used daily; and of another which laid in an open bureau-drawer. Still another laid on a bed; and one aspiring biddy chose the top of a bookcase. As there are birds of various ages, appetites and dispositions in nearly every flock, the poulterer can best become acquainted with and regulate small groups. Just imagine the un-governed, unkempt mobs of 200 or 300 fowls, all running together, I have seen on some farms. Being often asked about the proper size of a flock, I say not over 50 fowls; and feel that is almost giving license instead of liberty, because a smaller number is really better. Often, the next request is for an apartment-house which will be cheaper than separate buildings for the division of a flock. The most convenient double house I have seen has its ground plan below:



In this diagram, O is the owner's entrance from outside, and H, his oil heater; SS are two large, slatted doors which, in winter, let warmth into both rooms, and particularly upon the roosts, marked RR; this central hall has space for some barrels or bins of grain, at B, and a trap-door, T, which admits to the cellar beneath, where their vegetables are kept; a ladder, L, leads to the attic floor, on which sawdust is now scattered, to make the ceiling still warmer, and where the owner thinks it will be convenient to put things from time to

time; EE are small entrances to CC—low, covered runs, designed for severe weather; DD are small doors leading to YY—yards where the fowls can be confined during garden-making. Although we give our flock free range, with little loss or trouble, I admit that a garden, at its early stages, before seeds are rooted, would be benefited by having the hens retired to a respectful distance. By means of doors, SS and O, or gates, GG, the owner can let either one or both flocks have freedom of his entire premises, as he often does at suitable times. The one window in each room is above and higher than covered run and entrance to latter. The window is hung on hinges, which fit it for summer or winter use, at pleasure. On my visit, there was no wire netting over windows in rooms nor runs, but I advised it, as without, fowls are sure, sooner or later, to fly against and break the glass, and through unprotected open windows, owls and dogs may enter; but lath slats, often used instead of open-work wire, are too darkening. If the house were mine, I should try placing the movable roosts across corners, on dotted lines, thus nearly facing both window and door, in either room. A front draft is generally safest, striking where the great organs are specially centered for resistance; one on the back is next, and poorest of all is a side current of air, which cools or heats one-half of body faster than the other half, and thus destroys equilibrium of the system. God's creation is so joined together, so evinces one mighty hand, that this, like many other things, is equally true for man. In some parts of Minn., tamarack poles are at hand for roosts, but I tried not to talk about them on the prairies, where only battens, with sharpness of edges taken off, are available. A former dealer in trees and shrubs, told me if tamaracks are cut in winter, when there is little flow of sap, the poles will not check. A sort of blue beech, growing along streams here, is hard and durable. In house above described, the roosts, shaped like frame of a table, are bolted and hinged together, so they can be taken apart or swung up out of way. I have in one house, sharpened 2 x 4 pieces driven into the earthen bottom. With auger and chisel, a groove was made on top of each, and within these grooves rest fitted battens, which lift up and out when we wish to clean. Though the posts are stationary, we can thus go all round among them. Cross-pieces, slipped under leather loops, afford fowls a passage-way from one perch to another, which reminds me that a punster, talking about the ground space per fowl, said each biddy certainly required a perch at night. Saw-horses make very complete roosts, if the braces are put on inside, and serve as cleats for dropping boards. Or saw-horses may themselves be grooved, and serve as supports to receive other roosts. At one place where I found immense numbers of fowls, the carpenter made them so; but a carpenter is not a poultryman. Most of us have learned by sad experience that without some knowledge and directions on our part, things do not get properly done of themselves. An aunt used to say outside show and inside shabbiness often went together. All the biddies would gladly join her in asking for inside comfort rather than outside ornament, but outside neatness is not without effect on sales. More than once, people have told me they liked the looks of my houses and liked to eat eggs out of them.

The owner of the diagrammed house is a druggist, who uses, to crack wheat for his chicks and grind their charcoal in, a discarded mill from his store. My father has broken wheat for chicks by running it through our family coffee-mill. When parched, as a lady suggested to me, it would go through still easier, and make a wholesome change. Could one get hold of a second-hand, large coffee-mill, such as used in grocery stores, he would have a fine thing.

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.

DAMAGES.

"TENANT."—1. "A rented from B a farm on shares for two years. B was to have the use of one-half of the pasture land; and he did turn in on the pasture a number of cattle; but when the pasturing was done B was dissatisfied and claimed he did not get his half. He was not, however, prevented from putting the number of animals on the pasture to use his half. Is he now entitled to make A pay him for the proportion of his share which he may not have got?"

[No.]  
2. "B was also to have the right to turn in seven head of cattle during each of the two winters, to use up his share of the straw, and A was to feed and take care of the cattle. The first winter B sold to A his share of the straw, and in the second winter B, instead of turning in his cattle to be fed as provided by the agreement, came on the first of

January and took away all the straw that was there at the time. Can A recover any damages from B for this?"

[If B took more than his half of the straw, of course A is entitled to recover the reasonable cost of replacing upon the premises the straw wrongfully taken. If, however, B took only his half of the straw, then, as it was the last winter of the tenancy, and A, we suppose, lost no value of the manure, we do not see that A suffered damage, and if he lost nothing, he, of course, can recover nothing. If however, A's term did not expire till the following season's crop was taken off, and he so lost the benefit of the manure, he would be entitled to damages.]

3. "There was no agreement that B should have the right to do fall ploughing in the last fall of the term, but B did send a man immediately after harvest who ploughed up some pasture and who used a part of the stable and buildings on the farm, notwithstanding that A did object at the time. What are the legal rights of the parties as to this?"

[B was a trespasser and should not have been allowed to do the work at that time, and he is liable for all damages A sustained by reason of it; and he should be compelled also to pay a reasonable amount for the use by him of the buildings, etc., during the time.]

SOLICITORS' COSTS.

SUBSCRIBER.—"A appealed from the rating charged against his farm as fixed by the Township Engineer for the construction of a drain across several farms, and on the appeal the Judge advised a settlement, and the Judge's advice was acted on without him giving a judgment. Who will have to pay the costs of the solicitors for each of the parties?"

[In the absence of any direction by the Judge, each party must pay his own solicitor's costs.]

FIXTURES.

READER.—1. "A having sold his farm to B, has A, after the sale, the right to remove hay-slings, car and track,—the track being hung on hooks and not bolted to the building?"

[Yes.]  
2. "Can A, in such a case, legally remove a pump out of the well and take it away?"

[No.]

REMOVING CORNSTALKS.

SUBSCRIBER.—"A tenant by his lease, which is in writing, agreed not to remove from the farm any straw or manure. In the absence of anything further, would cornstalks be considered as straw?"

[No.]

Veterinary.

RESULT OF GARGET OF THE UDDER.

W. W. EVERETT, Chatham:—"I have a young cow three years old; calved five weeks ago, but one front quarter of udder seems to be shrinking away and gives very little milk. There does not seem to be any hardness or soreness, and what milk she gives comes easy. After her first calf she became very much fevered, and we had some difficulty with her udder, but it came round all right."

[In heavy milkers it is the rule that the udder becomes enlarged, hot, and tender to the touch, and is known as one form of healthy inflammation; this passes off in a few days. Should it become bruised or subject to cold, it may pass on to another stage and become truly inflamed; this condition is known as garget or mammitis, and if properly attended, recovery ensues. When this process terminates in suppuration, then an abscess forms; in this case the parts were not so much destroyed, and in consequence absorption of the material took place, and we have what is known as atrophy—shrinking or drying up of the substance of the udder, and known as a blind quarter. In these cases very little can be done to restore the parts; constant hand-rubbing with some mild, stimulating ointment is the only remedy. DR. MOLE, M. R. C. V. S., Toronto.]

ABSCESS IN SHOULDER.

JNO. PAGET, Sundridge:—"I have a valuable horse which has bruised the centre of his off shoulder with the collar; it is now very sore. I have tried everything that I know of—to no avail. What would be best to do in this case?"

[Well foment the parts bruised, with hot flannels, for three days, then have mixed by the chemist the following ointment: Biniodide of mercury, one drachm; lard, one ounce; oil of origan, 20 drops; apply the whole of it around the parts after clipping off the hair, and in two or three days you will have an abscess ready to lance; make an opening into the softest part, and keep open until thoroughly healed by a pledget of cotton wool. DR. MOLE, M. R. C. V. S.]

INFLUENZA.

2. "There is a disease among the horses of this vicinity which commences like a cold, with cough and discharge from the nostrils. Horses affected with it become poor, and are easily played out. What would you advise as a remedy for the above?"

[This disease presents itself in a variety of forms, and in many cases requires special treatment. Keep the animal warm, and in a comfortable, loose box; give light, nourishing food: warm bran and flaxseed mash, a few carrots, etc. Give the following draught: Solution of acetate of ammonium, two ounces; spirits of nitrous ether, one ounce; whiskey, four ounces; twice a day in half a pint of water. On the first symptoms of this disease stop the animal from work, or it frequently happens that the animal does not recover. DR. MOLE, M. R. C. V. S.]

## DEHORNING YOUNG STOCK.

J. P., Glencross:—"During the last summer I tried killing or stopping the growth of the horns on about twenty-four calves, with stick caustic potash. It was not a success; only about half of them are without horns. The potash does not take effect unless applied two or three times, which is very hard to do in a herd of wild cattle. A neighbor of mine sent and got a bottle of dehorning fluid, with no better success. I find the horns on the bulls harder to kill than on the heifers. I have a lot of last year's calves, some with two horns, some with one and some without any. 1. Can anything be got that will kill the horns every time with one application? 2. Will the horns grow out if cut close to the head on one-year-olds, and will they bleed much? 3. How is the best way to hold a beast while cutting off the horns? My cattle hook one another a good deal about the buildings and yards, and have lost a great many."

1. "J. P." has not been thorough enough in his application of the caustic potash. We herewith give directions which, when followed, have made perfect mulleys: The hair should be closely clipped from the skin before the calf is eight days old, and the little horn moistened with water to which soap or a few drops of ammonia has been added, to dissolve the oily secretion of the skin so that the potash will more readily adhere to the surface of the horn. Care must be taken not to moisten the skin except on the horns, where the potash is to be applied. One end of a stick of caustic potash is dipped in water, until it is slightly softened. It is then rubbed on the moistened surface of the little button. This operation is repeated from five to eight times, until the surface of the horn becomes slightly sensitive, showing a disposition to bleed. The whole operation need take only a few minutes, and the calf is apparently insensible to it. A slight scab forms over the surface of the budding horn and drops off in the course of a month or six weeks, leaving a perfectly smooth poll.

2. From evidence at hand, it would appear preferable to defer dehorning till animal is older. What say readers who have dehorned young stock?

3. To hold a beast while cutting off the horns, place the head through a stanchion fitting the neck closely, draw the head forward by a rope attached to a halter, held by two men, after passing it through a pulley several feet in front of the animal. The head should rest on a box and be held steady. The stanchion should have two cross-pieces of iron bar, wood or rope, one to hold the neck down, the other up. Then proceed to work with the saw. If clippers are to be used, less secure holding is necessary. It may be done by tying the animal firmly to a post by means of a halter, with one man to hold the head steady by the nose and halter.]

## Miscellaneous

## OUT OF PLACE IN CLOVER SEED.

LOCAL SEED DEALER:—"I enclose you a few small seeds I have taken out of a sample of clover sent me. Will you tell me what they are, and if harmless or otherwise? I am acting for a seed house in \_\_\_\_\_, and am particularly anxious to know the names and character of all foul seeds."

[The seeds are of rib grass or English plantain (*Plantago lanceolata*), a plant imported from Europe, but now very common; and though not looked upon by some seedsmen as "very bad," yet must be considered as a weed.]

## PERMANENT PASTURE.

W. C. W.:—"Will you please give me a mixture of grass seed for a permanent pasture; how will a mixture of meadow fescue, timothy, orchard grass, red clover, white clover and lucerne do? Would this mixture do to cut for hay the first crop? Please to answer in the ADVOCATE."

[As reported in the ADVOCATE of Feb. 15th, Prof. Fletcher, Central Experimental Farm, Ottawa, recommends for permanent pasture the following: Timothy, six pounds; meadow fescue, four pounds; orchard grass, two pounds; June grass, or Kentucky Blue grass, one pound; with two pounds each of white, alsike and red clovers. Where the soil is deep, with a well-drained subsoil, he also recommends two pounds of lucerne. This mixture would make a good cut the first year, and provide a succulent pasture right through the summer season.]

## TANNING HIDES.

DUNCAN ANDERSON, Arva:—"Would you kindly, through the columns of the ADVOCATE, let me know how skins are tanned (coon)?"

[All fatty and fleshy matter should first be removed from the skin. For each skin take two ounces of salt, two ounces of alum and one-fourth of an ounce of borax; dissolve these in a pint of hot water, and when cool enough for the hand to bear, stir in sufficient rye meal to make a thick paste. This is spread thoroughly over every part of the fleshy side of the skin, which is then to be folded together lengthwise, and left for two weeks in an airy place. Then remove the paste, wash and dry the skin. When nearly dry it must be worked and pulled and scraped with a blunt knife made for the purpose, shaped like a chopping knife; or with a piece of hardwood worked to a sharp edge. The more the skin is worked and scraped as it dries, the more pliable it will be.]

## SPRAYING AND CREAM HEATING.

J. J. L.:—"I have secured a spray pump for the coming season. I should like to find out the best mixture for apple-blossoms, and so the amount of mixture required?"

2. "I see in one of your papers where one of the writers states that in heating cream for churning it should not be heated by hot air, but by warm water. What makes the difference?"

[1. Before the spraying season opens we will publish full directions for spraying fruit trees and bushes.

2. When the cream pail is set in a vessel of hot water, which should be from 105° to 120° Fahr, the cream will heat up much more quickly and more uniformly than if set on or near a stove, when perhaps the bottom of the vessel, or one side, will become too hot before other parts of the pail are warm.]

## GAS LIME.

FRANKLIN HORNER, Mimico:—"Please inform me through your paper as to using gas lime as a fertilizer, or other qualities that it may possess; when and how to apply it?"

[Gas lime when quite fresh contains a large proportion of sulphide of lime, which is poisonous to plants, but on exposure to the air this takes up oxygen and changes into the sulphate and then into the sulphate, the latter being a valuable manurial substance. It may be put on the land fresh in the autumn, so that it will be oxidized before the crop is sown in the spring. As much as four tons to the acre may be thus used, though smaller quantities at short intervals are desirable. Besides its manurial properties, it is an insecticide, and has some slight reputation as a weed killer. It is also, of course, liable to kill the nitrifying organisms in the soil. Mixed with earth or waste vegetable matter, it forms good compost. It gives best results on stiff clay soils, while as much as three tons per acre may be spread directly on rough pasture land with benefit.]

## CRANBERRIES.

Y. Z., Brookfield, N. S.:—"Can you give the required culture for cranberries on swampy land now growing young alders, grass, etc? Is flooding required in winter or summer? Why? Is sanding three or four inches deep quite essential? Where can good sets or seeds be obtained? Give time and method of planting. Will orchard grass stand the winters of Nova Scotia?"

[The best soil and situation consist of peat and muck bottoms coated with pure sand obtained from adjacent banks, and the ground thus prepared to be capable of being flooded with clear running water at pleasure during winter, and thoroughly drained at other times. Muddy water running over the plants injures them. In preparing the soil all wood and rubbish must be cleared off, and the surface of turf covered with a hoe or other implement. It should then be provided with drains by clearing out the main watercourse and making parallel, open side-ditches at regular distances of about two rods. The whole surface is then covered, from four to six inches, with fine sand. An embankment or small dike should surround the whole to allow the plantation to be flooded at will. After sanding, the plants are set in rows from two to two and one-half feet apart, and 10 or 12 inches in the row. Flooding should be continued from December to May, which furnishes, among other advantages, protection from mice, etc., and early frosts. The plantation should be carefully kept clear of weeds for the first two or three years, after which, if well managed, the cranberry plants will cover the surface and render the labor comparatively light.

[We would recommend that "Y. Z." communicate with nurserymen in his own locality regarding seeds and sets. Orchard grass is a very hardy sort, and will stand much colder climate than that of Nova Scotia.]

## SEED OATS.

ANDREW HALL, Ayr:—"Could you inform me where I could get about 45 bushels of good heavy white oats? I have about 20 acres of clay loam which was single ploughed three times after the wheat has harvested. Please let me know which is the best kind to sow."

[Consult our advertising columns.]

## DEHORNING.—JUNE GRASS.

JOHN TAYLOR, JR., Galt:—"1. We would like to try dehorning in spring. What advantages have the dehorning clippers over the saw? Will not the clippers shatter and injure the root of the horn more than the saw?"

"2. We have a field covered with "June grass" or wild grass; the land is in an excellent state of fertility. How can we best get rid of the grass? What rotation of crops would be best? Do not want to grow a hoe crop on it; it is too far from home. Don't believe in a bare summer-fallow. How would it do to sow peas rather late in spring, working up ground thoroughly first, then plough them down before they ripen, and work land for wheat? Or if a heavy crop of peas were taken off would the "grass" be injured any?"

[1. The dehorning clipper, if kept sharp and properly used, does its work more quickly and fast as well as the saw, on all but very old cattle, with which there might possibly be a risk of splintering the bone.

2. It is new to hear of June grass giving so much to eradicate where reasonably good cultivation is given. Where a hoe crop could be raised, and then grown, a good rotation would be clover, peas, wheat, barley or oats, and then a fallow, and then ploughed down in the fall, and the land ploughed under late in the fall, and the land worked in the spring. It is also possible to enrich the land very much with a heavy crop of buckwheat in same manner with a fallow, and then smothering effect on the grass.

so much fertility as the peas. To take off a crop of peas would not have the same effect, as that crop usually goes down early, allowing all grass and weeds a splendid chance to flourish.]

## SILO BUILDING.

INQUIRER:—"I would like to ask readers of the ADVOCATE, who have had experience with silos, their opinion of the following wall: Silo 13x15 feet, foundation concrete, studs rock elm, 2x8 inches, 18 inches apart, covered outside with inch pine lumber and battened, lined with inch lumber, then a coat of tar paper, then a veneering of bricks plastered. Around the outside of the silo, half way up, is placed a timber 6x8 to stiffen walls inside. Also, if a silo were filled with cornstalks cut in 15-inch lengths, would it keep properly and would the stock eat it as cleanly as if cut shorter? It is my idea to haul the corn to the top of the silo by slings, and cut up with hay or straw knife, thus saving the expense of engine, cutting-box, and men necessary to run them."

## LICE ON STOCK.

F. HUGHSON writes us:—"For lice on cattle I use sweet oil, and it is a sure cure. The cheapest oil does its work well. One pint is sufficient for a cattle beast; applied around the head, spine, root of tail, and anywhere the lice are found. It is a sure cure and perfectly safe. It not only kills the lice, but also removes the scurf and leaves the hair nice and clean."

## EFFECTS OF RAIN ON HAY.

JAMES MCCARTHY, Eastman's Springs:—"Please let me know in your next issue, to what extent timothy, or timothy and clover, suffers in food value by being rain-soaked two or three times before being stacked? Also the percentage of loss between hay stacked out all winter and that stored in barn?"

[The extent to which grass or clover loses value by becoming soaked will depend upon the extent it has been cured when the rain comes. If freshly cut, soaking will harm it very little; but if fairly dry, very much of the most easily dissolved substances will be washed out and lost, but just how much cannot be stated. It will also suffer loss by becoming brittle, thus losing many of its leaves and heads. Its palatability will also suffer materially by being soaked—a very serious desideratum. If a stack is properly built, none except the outside will have received any more loss than if stored in a mow.]

## APIARY.

## Bee Culture in the West.

BY J. GATLEY, AUSTIN, MAN.

In the FARMER'S ADVOCATE of Dec. 20th, Mr. Robinson, of Broadview, enquires if bees have been tried between Brandon and Regina. That I cannot answer; but as bees are successfully kept in different parts of Manitoba, near Winnipeg, Portage la Prairie, Westbourne and Austin, I see no reason for supposing they would not do well near Broadview.

Any one examining the wild flowers of this country, by the sense of smelling, would very likely say they did not contain much honey. I have kept bees for five years in this part, and know that there is a large amount of honey in most of our wild flowers. In each of the last two years I have extracted between two and three hundred pounds of honey, besides sections of comb. In 1893, one warm filled 53 sections, and in 1894 another swarm gave me 40 full sections. I kept bees for 20 years in England, during which time there were only two seasons as good as every one here;—no need of feeding bees in this country. I think there should be 20 bee-keepers here where there is only one now. The kind I have are Ligurians, and are hardy enough for this climate. The bees I got to start with were in a "Jones" hive, which I found was not suitably for Manitoba winters, so I adopted the "Langstroth," in which they winter better and also give more section honey.

I should like to hear the experience of others with bees, and their opinions of the honey-yielding plants. For my part, I consider golden-rod the queen of honey plants, almost equalling the purple heather of the Old Land. As farmers come to realize how they are exhausting the land by continually growing grain, I have no doubt they will grow white clover, which will give honey for bees, fodder for cattle and a good sod to plough under to enrich the soil.

Wintering bees in this climate will furnish matter for a future letter, if no one more competent than myself supplies it before October.

An interesting report on the counties of Ayr, Wigtown, Kirkcubright, and Dumfries, by Mr. John Speir, Assistant Commissioner, has been issued by the Royal Commission on Agriculture. A general idea of the condition of agriculture in those counties may be formed from this statement:—"In the districts visited by me depression certainly exists to a greater or less extent, and both landlords and tenants have felt the pinch of hard times. In the counties of Ayr and Dumfries the value of the land has fallen more or less in value; the total collapse of farming can be seen in the fact that many farms would lead the uninitiated to believe that they were no farms on landlords' hands, and that the land was lying idle, nor is there the least prospect of a farm of almost any kind. In the counties of Wigtown and Kirkcubright there are usually from ten to twenty farms, and although sharp reductions in the value of the land have been met with, more especially in the counties of Ayr and Dumfries, there is always more hope for the farmers."



**A Priceless Gift**

"Woman's love is priceless;  
The brightest gem I ween  
That earth has ever seen.  
One in its own completeness,  
In its own identity, one;  
Sweeter than essence of sweetness,  
Greater than earth, star or sun,  
Stronger, aye, stronger than death,  
High as the Heaven above—  
Such is a woman's love.

"Man's love is but a shadow  
Of that which she will bring  
To him she deems her king.  
His love is but an ephemeral dream—  
Hers an eternity.  
Woman's love, the rippling stream,  
Woman's, the endless sea,  
Watching incessantly, guarding so tenderly,  
Strong, pure and brave, lasting beyond the grave;  
Then with a loving hand,  
Into that better land,  
Sharing our load, it leads us to God."

—Claver'sc.

**IN THE ARENA.**

BY HENRYK SIENKIEWICZ.

Whose is in a circus for the first time will be filled with admiration at the stately, almost middle-age ceremonial, by the apparel and dignity of the horsemen. The alguazils seem like two noble heralds, giving homage to a monarch before the beginning of a tournament. It is, in fact, a prayer for permission to open the spectacle, and at the same time a request for the key of the stables in which the bulls are confined. After a while the key is let down from the box on a gold string; the alguazils incline once again and ride away. Evidently this is a mere ceremonial, for the spectacle was authorized previously, and the bulls are confined by simple iron bolts. But the ceremony is beautiful, and they never omit it.

In a few minutes after the alguazils have vanished the widest gate is thrown open and a whole company enters. At the head of it ride the same two alguazils whom we saw before the royal box; after them advance a rank of capeadors; after the capeadors come "banderilleros," and the procession is concluded by picadors. This entire party is shining with all the colors of the rainbow, gleaming from tinsel, gold, silver, and satins of various colors. They come out from the dark side to the sunlighted arena, dive into the glittering light, and bloom like flowers. The eye cannot delight itself sufficiently with the many colors of those spots on the golden sand. Having reached the centre, they scatter on a sudden, like a flock of butterflies. The picadors dispose themselves around at the piling, and each one drawing his lance from its rest, grasps it firmly in his right hand; the men on foot form picturesque groups; they stand in postures full of indifference, waiting for the bull. This is, perhaps, the most beautiful moment of the spectacle, full of originality, so thoroughly Spanish that regret at not being a painter comes on a man in spite of himself.

Suddenly the shrill, and at the same time the mournful, sound of a trumpet is heard in the orchestra, the door of the stable opens with a crash, and the bull bursts into the arena like a thunderbolt. He stalks his pace toward the centre, at the right, to the left, to the right, to the left—but this lasts barely two seconds; he sees a group of capeadors; he lowers his head to the ground, and hurls himself on them at random. The capeadors scatter; holding behind them red capes, they circle now in the arena with a swiftness that makes the head dizzy; they are everywhere; they glitter to the right, to the left, they are in the middle of the arena, at the piling, before the eyes of the bull, in front, behind. The bull pursues more and more stubbornly these unattainable enemies, who vanish before his very horns; at last he knows where they are hidden. He collects all his strength; anger gives him speed, and he springs like a hunting-horse over the piling, certain that he will crush his foes like worms. But at that very moment they hurl themselves back to the arena with the agility of chimpanzees, and the bull runs along the empty passage, seeing no one. The public are growing excited. A bull that springs over the piling recommends himself favorably. When people in the first row applaud him with all their might, those in the upper rows clap their hands, crying, "Bravo el toro! muy buen!"

Mean while he comes to an open door and runs out again to the arena. On the opposite side of it two capeadors are sitting on a step extending around the foot of the piling, and are conversing without the slightest anxiety. The bull rushes on them at once; he is in the middle of the arena—and they continue sitting as if they had not seen him; he is five steps away—they are still talking. Cries of alarm are heard here and there in the circus; before his very horns the two daring fellows spring, one to the right, the other to the left. The bull's horns strike the piling with a heavy blow. A storm of handclapping breaks out in the circus, and at that very moment these and other capeadors surround the bull again and provoke him with red capes. His madness passes now into fury; he hurls himself forward, rushes, turns on his tracks; every moment his horns give a thrust, every moment it seems that no human power can wrest this, or that man from death, but on a sudden a new sight strikes his eye—it is a picador on horseback.

The picadors had stood hitherto on their lean horses, like statues, their lances pointing upward. The bull, occupied solely with the hated capes, had not seen them, or if he had seen them, he passed them. But now he has had capes enough; his fury seeks eagerly some body on which to sate his vengeance. The bull lowers his head and withdraws a number of paces, as if to gather impetus; the picador turns the horse a little, with his right side to the attacker, so the horse, having his right eye bound with a cloth, shall not push back at the moment of attack. The lance with a sharp point is lowered in the direction of the bull; he withdraws still more. It seems to you that he will retreat altogether, and your oppressed bosom begins to breathe with more ease. Suddenly the bull rushes forward like a rock rolling down from the mountain. In the twinkling of an eye you see the lance bent like a bow; the sharp end of it is stuck in the shoulder of the bull and then is enacted a thing simply dreadful; the powerful head and neck of the furious beast are lost under the belly of the horse; his horns sink their whole length in the horse's intestines; sometimes the bull lifts horse and rider, sometimes you see only the upraised hand of the horse struggling convulsively in the air. Then the rider falls to the ground, the horse stumbles upon him, and you hear the creaking of the saddle; horse, rider, and saddle form one shapeless mass, which the raging bull tramples and bodes with his horns.

Those picadors whose horses have survived the defeat, retreat, it is true, from the arena; but in place of them run in jumps, and amid shouts, nimble banderilleros. Every one of them in his upraised hand has two arrows, each an ell long, ornamented, in accordance with the coat of the man, with a blue, a green, or a red ribbon, and ending with a barbed point, which once it is under the skin will not come out of it. These men begin to circle about the bull, shaking the arrows, stretching toward him the points, threatening and springing up toward him. The bull rolls his bloodshot eyes, turns his head to the right, to the left, looking to see what new kind of enemies these are. "Ah," says he, evidently, to himself, "you have had little blood; you want more—you shall have it!" and selecting the man, he rushes at him. But what happens? The first man, instead of fleeing, runs toward the bull—runs past his head, as if he wished to avoid him; but in that same second something seems hanging in the air like a rainbow; the man is running away empty-handed, with all the strength of his legs, toward the piling, and in the neck of the bull are two colored arrows. After a moment another pair are sticking in him, and then a third pair—six altogether, with three colors. The neck of the beast seems now as if ornamented with a bunch of flowers. At every movement of the bull, at every turn of his head, the arrows move, shake, fly from one side of his neck to the other, and with that every point is boring into the wound.

If the bull refuses to attack the horses and has killed none, the enraged public rise, and in the circus something in the nature of a revolution sets in. Men with their canes and women with their parasols and fans turn to the royal box; wild, hoarse voices of cruel cavaliers, and the shrill ones of señoritas shout only one word: "Fuego! fuego! fuego!" (Fire, fire, fire!)

The representatives of the government withhold their consent for a long time. Hence "Fuego!" is heard even more threateningly, and drowns all other voices; the threat rises to such an intensity as to make us think that the public may pass at any instant from words to a mad deed of some kind. Half an hour passes: "Fuego! fuego!" There is no help for it. The signal is given, and the unfortunate bull gets a banderilla, which when thrust into his neck blazes up. The points wound in their own way, and in their own way rolls of smoke surround the head of the beast, the rattle of fireworks stuns him. In truth, cruelty can go no farther; but the delight of the public rises now to its zenith. The eyes of women are covered with mist from excitement; every breast is heaving with pleasure, their heads fall backward, and between their open, moist lips are gleaming white teeth. You would say that the torment of the beast is reflected in the nerves of those women with an answering degree of delight. Only in Spain can such things be seen.

**"St. Kilda's Lonely Isle."**

SIR,—In your issue of the 15th of December last I saw a long paragraph from London Truth, subject: the above "Lonely Isle," an island in the Atlantic, to the west of Barra. This island is sixty miles north of Barra, and about forty miles west of North Uist and the Island of Lewis. The writer visited that "Lonely Isle" in May, 1860; the population was then about forty-five souls. They had a Gaelic schoolmaster, and lived happy and contented. It is true enough that they have no horses on the island, but I deny the statement that "women do the horses' work." They give a helping hand to the men occasionally; they now work the ground with what they call *Cas-chrom*. It says "they are fairly well off, with tolerable houses and good food and clothes." I will say nothing about the food and clothes, but the houses in 1860 were most miserable hovels, thatched with turf, clay or sandy floors, and a hole in the middle of the roof for ventilation. I am glad to hear that they have improved since then. There were about 500 sheep on the island, then all common property. The houses were built in a group—all the people working together in unison like one large family. Moreover, they are God-fearing people and good-living people in their way. Some of the sheep are of indigo color, some crocodile color, and some gray. It is the greatest place for sea-birds in the known world. Natives sell the eggs and feathers to summer traders and use the birds for food. I saw hand-locks in almost every house, and on making enquiries, found that the women did the weaving. They had what they used to term the "thickening frolics," which were of a very simple nature, one girl singing the verses of a Gaelic song and others singing the chorus. I saw their winter mail carriers, a letter-box, shaped like a weaver's shuttle, and sea-worthy; this they cast into the sea when the wind is to the mainland. Sometimes it is found on the shores of Long Island, but generally on North Uist. The people are very fond of their own "native isle" and would not like to leave it. I have heard that they pay rent to Lady Matheson, proprietress of the Island of Lewis.

Tradition has it that this "Lonely Isle" was first inhabited by a young couple who, in the month of May, 1700, went out cod-fishing from some place remote from the Island of Lewis. A southerly storm came on about noon, with high winds and rain, and they got ashore on the rocky isle barely with their lives, the rocks smashing their tiny craft a few minutes after they landed. The prevailing names I have seen were McCrimmons and McDonalds. There is a man named McDonald from St. Kilda, in Dundas, P. E. I.—the boys call him "Malcolm Kilda." He was taken from "St. Kilda's Lonely Isle" by a gentleman from the "Isle of Skye" as a herd-boy, and from thence emigrated to Prince Edward Island. I was speaking to him about his native isle some time ago, but he could not recollect anything about it, being too young when he left it. I have some more interesting details about this "Lonely Isle" which I shall be glad to communicate at a future date.

Dunstaffnage, P. E. I., Jan. 22, 1895. J. A. C.

Men who are everything by turns and nothing long may possess even more than average ability, but they never make life a success. As "rolling stones gather no moss," neither do these shifty creatures add any power to their character or wealth to their store. They are respectable tramps, always on the move from one vocation to another, often waiting, like Micawber, for "something to turn up."

**THE QUIET HOUR.**

**Making the Most of Life.**

WORDS TO YOUNG MEN.

Now, being such as we are, we can make things. We can shape things. We can do things. We are not forged links in a chain of irresistible destiny. The mysterious "I," with its will, and its somewhat of imparted divine nature, is a power that must be taken into account. And the appeal to the "I" of each one of us is a proper one, to make the most of life. We are not alone to be acted on by things, and be made; but we are to act on things, and make. In a good and true sense, therefore, we may make the most of life when we make the most of ourselves. Not, of course, when we make the most of ourselves for self's narrow sake, but for the nobler self's sake, that its power may avail the more to the glory of God and the good of men.

Life is more than our own existence; and more than our present experience. No plan for making the most of life should leave out of view other people, or the life to come after death. Other people, indeed, evoke and build up to its best our own life. It is easy for any one to note how mean and barren is that spiritual life which is busied only with its own deliverance in safety, and its own exaltation unto ecstasy. This world, as things go, may be accounted old and bad, but it is neither so old nor so bad as not to greet with warmth self-sacrifice for the good of others. Build yourself up into splendid condition, young men,—physically, mentally, morally, spiritually. You have a right to do so. You ought to do so. Then pay yourselves out for the good of others,—wisely, patiently, steadily, sturdily. Consider how one can amplify and perpetuate one's life through the lives of others. Spiritual forces go forth from one to shape the lives of others for good or bad. And so one man's life is projected into and multiplied by a multitude of other lives. If the influence of your own life be for good, this mode of multiplying it is a sure way of making the most of life. You need not consciously be setting yourself up for an example. You need not say, "See how good I am;" or, "Come, now, I beg you, be like me." You need not pose yourself conceitedly for the central figure and tell the radii to run out, the messengers of your greatness, to the listening circumference. You would spoil it all were you to do so. Only be kind and true yourself; and then, without your ever knowing it to the full, and long after death has hidden you in the grave, others shall in blessed fashion be making the most of life for you and from you. The mighty power of unconscious personal influence! It is like the never-ceasing force of gravity. Make it at the centre good, and it shall go forth in ever widening circles to bless the world. Young men of America! Our country calls on you to be such central forces of truth and kindness. Bells calling to union ring false, or jangle out of time. Interests clash. Selfishness waxes hard. The constitutional remedy is truth and kindness believed in, held to, acted out. Your country asks you each one to be a centre of truth and kindness. So you may do much for her. So you may find one way of "making the most of life." Furthermore, "life" is not limited to this earthly existence. The grave is not the end of it. When one counts the "most" to life then the stretch of the count must be far off into the life eternal. We are in training for another world. Success here may mean failure there. The child with plenty of candy and rattling toys may seem successful and happy. He may be really unfitting himself for the robust duties of later life. Failure here may win, by God's grace, success there. Often dying martyrs "make the most of life" rather than hard-fighting, living leaders. To make noble character is to "make the most of life," for character shares in the indelibility of the eternal. Often failure strengthens character. Quite as often success weakens it. Bishop Smythies, opened-eyed and stout-hearted, went in his Master's service to face the deadly malaria of Central Africa. He failed and died, you say. Died, yes. Failed, no. A *Te Deum* and not a *Miserere* the great sea chanteurs over him while holding safe his body unto the resurrection morn.

Loyalty to God means unworldliness, I have no doubt, but not unmanliness and laziness. "When you put off the old man," says Spurgeon, "you need not put on the old woman." To be a Christian is to be a soldier and servant. A soldier is ready for duty, a servant goes off cheerily to serve. If God makes you a hammer, strike hard; if an anvil, stand steady. If he appoints nettles in your path, grasp them strongly, for so they do not sting. Play the man. The Holy Ghost is within you to guide. Heed His voice. The Lord Jesus Christ is on high to help in the sympathy of His full humanity. Lift heart and eye to Him once and again. Then on to do what any man may dare and do that is right and true for Him and for fellow-men. Life is a mystery. Quite as much so as is death. It is a tangled yarn of good and ill together. You can make much of it by cultivating self, but not for self's sake. You can make more of it by losing your life in the saved lives of others. You can make most of it by faith. Faith in God. Faith which is not lazy, but works. In the swift sweep of your life into the past, you can make most of it by giving the reins to God the Holy Ghost, who is near you and beside you, and if you will, within you abiding. [From St. Andrew's Cross.

"Holiness depends less upon what we do than on how we do it."

## 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.—Through the medium of your columns I would like to say a few words to those whose homes have been shadowed by the Angel of Death during the year that is gone. Parents frequently mourn too long for the child that has been taken from them, and thus cast a gloom over those that remain. This is not right. To those who are gone we owe but one duty—a tender remembrance; but to those whom we have still with us we owe much more. The President of the Order of King's Daughters speaks thus on the subject: "We have no more right to be selfish in our grief, in our bereavement, than in anything else. We show our true love for those who are not in our sight by being more tender, more considerate, more thoughtful for those who remain. . . . Should we not try to bear our loss, and turning to this sad, suffering world, say to ourselves,—

"There are lonely hearts to cherish  
As the days are going by,  
There are weary souls who perish  
As the days are going by."

"And then, taking our sorrow as a sacred trust to be used for Him, go forth—weeping, if it may be, but sowing. . . . I think we are in danger, at times, of forgetting that others have their sorrows, and their sorrows may be much deeper than ours." When death has stilled the heart of a loved one, it is foolish to extol that one more than all others, and speak as if life were no longer worth living, or, as Will Carleton says, "as if the others were of no 'count at all." Shakespeare has said: "That which we have we prize not to the worth the whiles we have it, but being lack'd and lost, why then we rack the value." Of course, we naturally feel deeply grieved at the loss of a friend, but let us "prize to the worth" those who are left, so that should we survive them also we shall have nothing with which to reproach ourselves.

"SERIOSO."

DEAR MINNIE MAY.—Is the Social Corner intended only for the thrifty housekeepers, or may the younger folks drop in for an occasional chat? I want to ask your opinion on the propriety of a remark I recently heard a young lady make. In speaking of a certain young man, she said: "He wanted to marry me, but I would not have him." Was it lady-like to make such a remark? Did not the speaker violate confidence in not keeping secret what was supposed to be for her ears only? Are we at liberty to discuss such subjects in the Social Corner?

BECKY SHARP.

[The Social Corner, Miss Becky, as its name implies, is open to all, and "the more the merrier." It was certainly very rude of any woman to make such a remark, and no lady deserving the name would have done such a thing. To reveal the gentleman's identity was a gross breach of confidence. Be the young man who asks a woman to marry him rich or poor, acceptable or otherwise, the honor is just as great; and if she were not lacking in true womanliness, she would respect his feelings enough to keep such a matter private.]

"A COUNTRY GIRL."—There is not the slightest occasion for you to present an untidy appearance, even if your drive to town is such a long one. If you object so strongly to veils, you should wear a fine net over your fringe; they are now sold large enough to cover the whole top of the head, and are so fine that if you are careful to get one the same shade as your hair, it will be quite invisible.

DEAR MINNIE MAY. As stained floors seem to be fashionable, I will give simple directions by which a pine floor may be stained cherry or black walnut color. If the floor be new it will require only dampening; if old, it needs a thorough scrubbing and rinsing. For cherry stain, which is the prettier, dissolve one package of terra-cotta dye in one and a half pints of water, and apply boiling hot, by means of a swab of soft cloth or a sponge. When dry, varnish with equal parts of boiled linseed oil and turpentine, applied warm and well rubbed in. For walnut stain, use one package each of cardinal, blue and green dyes, dissolved in three pints of water and apply as the other.

## An Unequal Struggle.

FROM THE ORIGINAL PAINTING BY G. GUZZARDI.

Unequal, but, happily, not angry or sanguinary—unless, indeed, undesignedly, in the accidents of the scuffle, a little of the blood of the cock, which the buxom lass is seeking to protect, should be made to flow. Evidently the young man has no serious designs on the life of this feathered pet, though it is not at all unlikely that he may fancy the situation on the damsel's heart. We may fancy the situation. The girl is feeding her pet, when the young man, partly in the spirit of mischief, and partly moved by an undefined purpose to make himself an object of interest, suggests abruptly: "Suppose I should kill your chicken, what then?" "But you won't," is the quick rejoinder: "You wouldn't dare to; I wouldn't allow you to do it." "Ah!" says the young man, "you wouldn't allow me, eh? I wonder how you could help it, if I chose to carve it with my sword. I have a mind to do it; yes, I will,—so here goes!" And with that he whips out his sword. Instantly the girl seizes the fowl and throws herself into an attitude of defiance and of defence. The young man advances with glaring eye, but not a very alarming aspect. He makes a pass at the



AN UNEQUAL STRUGGLE.

chicken, which the girl thereupon swings behind her with one hand, simultaneously throwing out the other to push the assailant back. The said assailant, of course, grasps that arm firmly, and proceeds vigorously with his avowed purpose of slaughter. The girl is game and will make a resolute resistance. The combatants may have to come into yet closer contact ere the struggle ends, from which necessity, should fate decree it, the young man surely will not shrink. Thus far the girl is not much alarmed; but the armed foe will probably maintain the assault till her apprehensions are excited, till she pleads, and, it may be, angrily threatens. Then he will relent, and protest that not for the world would he hurt either her feelings or her chicken; nor will he leave her till she forgives him. And the only way the girl can get rid of him will be to give him the required assurance. So, after all, this "Unequal Struggle" may be but a little episode in the "old, old story,"—in which case it isn't so "unequal" after all.

The artist has given us a spirited picture, truthful and piquant in expression, and pleasing by its simple, harmonious accessories and its beautiful treatment of light and shade.

## THE CHILDREN'S CORNER.

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

A prize will be given in July for the best short story or letter. The writer must be under age. All communications should be accompanied by the name, age and address of the writer, and addressed to "Cousin Dorothy," FARMER'S ADVOCATE, London, Ont.

## The Jewel Princess.

(Continued from page 77.)

One day, when she was sitting in her gorgeous palace bower, whose beautiful luxuries she could gaze on no longer, she sighed deeply, when a voice close by her ear exclaimed:

"Princess, why are you so unhappy?"

"Who is it that speaks to me?" answered the Princess, turning her brilliant but sightless eyes in the direction of the sound.

"I am only one of your Highness's poor parrots," replied the voice, "but I grieve over your affliction, and would remedy it if I could.

"What can you do, pretty parrot?" inquired the Princess languidly.

"I can advise your Highness to take your god-mother's sage admonition more to heart," replied the bird.

"Foolish parrot!" cried the offended Princess, "do you take the side of my enemies? Here, Scabia, Primula, chase him from the room, and pluck out his tail for his insolence!"

The parrot fled, screaming, from the attendants, while the Princess once more sank back in her downy cushions, and meditated on the idea of a new perfume. When she endeavored, however, to direct her waiting-women how to prepare it, to her great horror she found she could not speak distinctly, for her lips and tongue seemed to refuse their office. The maids of honor, thinking she was really ill, once more summoned the snuffy old doctor, in whom, from their previous experience of his skill, they had great faith. He looked at the unhappy Princess, examined her mouth, and then shrugged his shoulders and took a large handful of snuff.

"My good ladies," he said, "I dare say your admirers have often compared your lips to coral, and you have listened to them with pleasure. I have the honor to tell you that her Highness's lips and tongue are as real, veritable coral as ever came up from the bottom of the sea!"

The unfortunate Princess could not utter her rage at this opinion; so, to vent her passion, she took up the golden footstool and flew after all her attendants, guided by the sound of their voices, aiming a violent blow where she heard the old doctor's puffy grunts as he ran away. Her state was now sad indeed—dumb and blind, although lovelier than ever. Her poor old father had, at first, lamented over her with tender, pitying caresses, but this made the Princess so angry that he now never dared to come near her. So he had a golden gallery erected at the end of the long audience hall, from whence he could behold his fair child without being too near her. But the proud heart of the Princess remained undaunted by all these terrible warnings; indeed her spirit rose more stormily after each punishment. One morning, on awakening, her maids found that she was deaf to all their inquiries, and on looking at her ears, being now somewhat used to these strange changes, they

found that they had become delicate shells lined with mother-of-pearl. It was a sad sight to see this fair woman lying on her grand couch,—sightless, speechless, deaf—and yet her eyes sparkling and her red lips parting as if with the very words she would utter. As they were all weeping around her, and the aged king, tearing his gray hair, was trying to make her hear his loving words,—with a loud clap of thunder the fairy appeared.

"O King!" said she, "I warned your daughter long ago of her folly and its punishment; but, although she slighted all my warnings, I will give her one more chance."

So saying, the fairy laid her hand on the heart of the Princess, and touched her eyes, lips and ears with the wand she bore in her hand.

"Princess!" cried she, "will you repent of your purposeless, vain life, and return with me to learn a higher, nobler course, that will fit you to rule your country in your lifetime, and embalm your memory in your people's hearts when you die?"

"Godmother," replied the foolish Princess, with difficulty, "I told you I could not bear the idea of your solemn court. Only give me back the use of my tongue and eyes—I don't care for the rest, and I shall be quite satisfied. I should like to have one

look in the glass to see what my diamond eyes look like—and if they are really as bright as every one says,—and whether my teeth are indeed real pearls.

"Vain and foolish creature!" cried the fairy, sternly, "take your long-earned and well-merited punishment, of which you have been so terribly and repeatedly warned, and warned in vain! And do you, oh weak-minded King, with your frivolous court, behold to what end your idle folly and vain pursuits have led one who should have been your brightest ornament."

So saying, she touched the Princess once more with her wand, and she became still and motionless. The brilliant eyes gleamed with all the lustre of life, the parted, coral lips showed the pearls within, and the heavy tresses of real golden hair fell round her almost to her feet. But the breath of life had left her, and the fair body, changed to a statue of spotless alabaster, remained a perpetual memory of the vain Princess.

In the silver hall of a thousand mirrors, on a pedestal of bronze, adorned with golden scrolls, still stands that beautiful image of snowy alabaster, enriched with precious jewels, and with the golden hair flowing round it like a fountain. And as the citizens of the Island of Perpetual Pleasures sit at evening under the palm trees and cedars, they tell their children the terrible story of the Jewel Princess, her foolish and unconquerable vanity, and her dreadful fate!

F. F. BRODERIP.

Well, children, you see  
It is better to be  
Contented with what you have got;  
For you must confess  
That the Jewel Princess  
A valuable jewel is not.

Her eyes may be bright—  
Yet useless for sight;  
What good are such eyes, do you think?  
Red coral her lips,  
Rich dainties she sips,  
Yet tasteless her food and her drink.  
Her beautiful ear  
Must feel rather queer—  
I don't think you'd like to exchange.  
The features are best,  
Which, put to the test,  
Are useful, and not quite so strange.

Cousin DOROTHY.

You Can Never Tell.

You never can tell when you send a word—  
Like an arrow shot from a bow  
By an archer blind—be it cruel or kind,  
Just where it will chance to go.  
It may pierce the breast of your dearest friend,  
Tipped with its poison or balm;  
To a stranger's heart in life's great mart  
It may carry its pain or its calm.  
You never can tell when you do an act,  
Just what the result will be;  
But with every deed you are sowing a seed,  
Though its harvest you may not see.  
Each kindly act is an acorn dropped  
In God's productive soil;  
Though you may not know, yet the tree shall grow  
And shelter the brows that toil.  
You never can tell what your thoughts will do  
In bringing you hate or love;  
For thoughts are things, and their airy wings  
More swift than a carrier dove.  
They follow the law of the universe—  
Each thing must create its kind;  
And they speed o'er the track to bring you back  
Whatever went out from your mind.

—Ella Wheeler Wilcox, in Munsey's Magazine, Feb., 1895.

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES:—

Did you think Uncle Tom was playing Rip Van Winkle last month, and had fallen asleep and forgotten you? Or did any of you miss his letter from its accustomed place? Well, at any rate, I had my chat with you before the month was over, and to make amends for that omission I am writing again in this issue. Quite a long time ago—more than a year, I think—I had a talk with you about hygienic matters, and promised to continue the subject, but I have always so many things I wish to say to you that I have totally ignored it. It was brought to my memory again by a query I saw in a recent paper about Sandow, the strong man. How one admires physical strength such as this wonderful man possesses! And he tells us we may all possess it, and by very simple means. To quote his words: "My plan is so simple that a child may easily understand it. About the only exercises I advocate are practice with dumb-bells and walking. I do not believe in gymnasiums as generally conducted. I walk a great deal myself; and I also recommend cold baths, of which I take two every day." He has lifted 5,800 pounds in harness and 3,800 pounds without any artificial aid whatever, and says he has never fully tested his strength. He says the average man may not only become an athlete, but even acquire strength as great as his own, and that many diseases, particularly those of the heart and lungs, may be much relieved by a course of such treatment as he recommends. The late Emperor of Russia and the Prince of Wales were both pupils of Mr. Sandow.

Now my girls are saying: "Dear me! what do we care about the strong man and his methods?" But wait, my dear girls! Where is the member of the fair sex who does not wish (and excusably, too) to be beautiful? Health and physical beauty are more nearly synonymous than we are accustomed to think. The Greeks were intense admirers of physical beauty, and appreciated the fact that health is one of its prime conditions. To attain a good development of the muscles, physical exercise must be taken. The athletic trainer tells his pupils that temperance in all things is necessary for even a fair degree of physical development; he insists upon regularity in exercising, eating and sleeping. This is especially important in youth, when not only are habits forming, but the foundations of future good or ill-health are being laid. And let it be remembered (girls, attention here!) that the means by which health is attained are the same means by which one's personal appearance is best improved.

So now, my dear boys and girls, who have the bright, invigorating country atmosphere in which to exercise, there is no reason why you may not be physically strong and beautiful. As to mental beauty, we have often discussed the matter, and in this respect I think the boys and girls of Canada, and my nephews and nieces in particular, would not suffer by comparison with any of their neighbors. The "strong man" did not mention anything about skating or coasting, but I'll prescribe a fair share of that on my own responsibility, as I consider it quite safe to indulge in them in connection with other exercise. And you must make the most of

your time now, for old Sol is beginning to assert his rights quite forcibly, and the opportunity of doing so will soon be past, as Whitecomb Riley says, "Ef you don't watch out." And keep wide awake, too, or some fine day soon you'll hear the exulting cry, "April fool." But by that time I hope you'll have another visit from your loving—  
UNCLE TOM.

Puzzles.

1—A GAME-BAG'S CONTENTS.

A hunter returned home, after a day's sport, with the following collection of animals: 1, a weight; 2, part of a chain; 3, habitual indolence; 4, a greedy person; 5, a cross woman; 6, a dark color; 7, to endure; 8, a greater quantity; 9, a mound. What were they?

2—SQUARE WORD.

1, land belonging to a nobleman; 2, before; 3, observes; 4, public; 5, relays.

3—ENIGMA.

Without me man is altogether vile,  
And mean, and spiritless, you'll own;  
Yet that which makes him worthy to be loved,  
The very moment that he loves, is gone.

4—DECAPITATIONS.

I am a robber on the sea—  
Behold me, I shall furious be—  
Again, behold me, and a price  
You fix upon me in a trice.  
Now, of my head once more bereft,  
I'm swallowed up—there's nothing left.

5—EASY REBUS.

STAND TAKE 2 TAKING  
I C THE

Our Library Table.

Our thanks are due to our N. Y. contemporary for a copy of "L'Art de la Mode," which we were much pleased to receive. With such a guide to fashion, our American cousins have only themselves to blame if they do not present an effective and stylish appearance.

According to the student, the nine longest words in the English language are as follows:—Subconstitutionalist, incomprehensibility, philoprogenitiveness, honorificabilitudinitary, anthropophagenerian, disproportionableness, velocipedestrianistical, transsubstantiationableness, proantitranssubstantiationist.

SIMPLE REMEDY FOR EARACHE.—"I am afraid I have greatly interfered with my own practice" said a celebrated aurist, "by giving the following advice to many of my friends. At the first symptoms of earache let the patient lie on the bed with the painful ear uppermost. Fold a thick towel and tuck it round the neck; then with a teaspoon fill the ear with warm water. Continue doing this for fifteen or twenty minutes; the water will fill the ear orifice and flow over the towel. Afterwards turn over the head, let the water out and plug the ear with warm glycerine and cotton. This may be done every hour until relief is obtained. It is an almost invariable cure and has saved many cases of acute inflammation. The water should be quite warm, but not too hot." A better remedy is to drop a warm drop of molasses in the ear. It will stop the pain immediately.

Farmer's Advocate Spring Premiums 1895

FLOWER and VEGETABLE SEEDS, ROSES and BULBS:

No. 1—FLOWERS

- Aster. Balsam. Candytuft. Convolvulus. Marigold. Mignonette. Nasturtiums (tall). Pansy. Petunia. Phlox. Portulaca. Sweet Peas. Verbena. Zinnia.

No. 2—VEGETABLES

- Beet (blood turnip). Cabbage, Sure Head. Cabbage, Early Scarlet Horn. Cucumber, Impr. Long Green. Cucumber, Cool and Crisp. Lettuce, Prize Head. Melon (Muski), Surprise. Melon (Water), Phiney's Early. Onion, Globe Danvers. Parsnip, Hollow Crown. Pumpkin, Large Cheese. Radish, Scarlet, Olive-shaped, White-tipped. Squash, Hubbard. Sage. Tomato, Beauty.

No. 3—ROSES and BULBS

- ROSES. Anna de Diesbach. American Beauty. Coquette des Blancches. Gen. Jacqueminot. Mrs. DeGraw. Marchioness of Lorne.

- BULBS. 3 White Callas. 2 Spotted Callas. 12 Gladiolus. 3 Cannas, Crozy's. 2 Cannas (1 Mad'me Crozy and 1 Childs Crozy). 3 Begonias, single, tuberous-rooted. 3 Caladium Esculentum. 6 Cinnamon Vine.

A grand chance to obtain EGGS FOR HATCHING from prize-winning fowls. A sitting of eggs from either of the following breeds, from the famous pens of Mr. C. J. Daniels, Toronto: Black and White Javas, White Rocks, Derbyshire Red Caps, Silver-Gray Dorkings, Buff Leghorns, Black Leghorns, Golden Wyandottes, will be given for sending five new subscribers, accompanied by \$5. For description of Mr. Daniels' fowls, see Poultry Dept., this issue.

EITHER collection No. 1 or No. 2 will be given for sending the name of one new subscriber, accompanied by \$1. Any one of the roses, or any one collection of bulbs in list No. 3, will be given for sending one new subscriber, accompanied by \$1.

SIBERIAN OATS—The variety of WHITE OATS that has done best in connection with the Experimental Union throughout Ontario, for the last six years, is the Siberian. For the name of one new subscriber, accompanied by \$1, we will give 15 lbs.; or for two new yearly subscriptions and \$2, one bushel, by freight or express, as desired by receiver. Shipped at London F.O.B.

USE ROCK SALT

to salt your stock with. Rock Salt does it for half the money, and is better for them than loose salt. Price—50c. per 100, for 400 lbs. or over. Cash with order. TORONTO SALT WORKS, 128 ADELAIDE ST. EAST, 5-10 TORONTO.

6¢ A BAR REDUCED SUNLIGHT SOAP REDUCED A BAR 6¢

**FIRST ANNUAL  
CANADIAN  
HORSE SHOW**

TO BE HELD IN THE  
**NEW ARMORY, CITY OF  
TORONTO.**  
ON  
**APRIL 18, 19, 20, 1895.**

UNDER the Auspices of the Agriculture and Arts Association of Ontario, and the County and Hunt Club of Toronto. Large premiums will be given for all the recognized breeds of Stallions, and for all kinds of Driving, Saddle and Jumping Horses.

**REDUCED RATES ON RAILWAYS  
ARE APPLIED FOR.**  
For Prize Lists and information, apply to either of the Toronto Secretaries,—

**HENRY WADE,**  
Agric. & Arts Asso., Toronto.  
**STEWART F. HEWSON,**  
5 om Hunt Club, Toronto.

**IMPORTANT AUCTION SALE**  
—OF—  
**60 IMPORTED SHEEP**  
—ON—  
**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. Terms 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

**EXECUTOR'S SALE**  
OF  
**REAL and PERSONAL ESTATE.**

THE executor of the late John Fothergill will sell by public auction, at Balsam Lodge, in the Township of Nelson, in the County of Halton, on Thursday, the fourth day of April, 1895, at eleven o'clock in the forenoon, Balsam Farm and certain chattels belonging to the estate of the late John Fothergill, and also certain chattels, the property of the executor. Balsam Lodge consists of parts of lots 17 and 18, in the 3rd concession, south of Dundas Station, in the Township of Nelson, and contains 205 acres and upwards. The farm is beautifully situated within a few minutes' walk of Burlington Station on the main line of the G. T. R. The soil varies from sandy loam to clay loam; the subsoil is nearly all clay, and 100 acres and upwards are under-drained. It is all cleared except about 20 acres, and there are about five acres of orchard. The buildings consist of a large two-story brick house, a frame one and a half story cottage, a large bank-barn, and other suitable buildings. Possession will be given on the 15th of April, 1895, if the sale be then completed, but the purchaser may plough and sow a portion of the land immediately after the sale. The chattels consist of farm implements and stock. Terms of Payment.—Real Estate—10% of the purchase money to be paid at the time of sale, and a further sum, sufficient with the 10% to make up one-third of the purchase money, to be paid within 30 days thereafter, and the purchaser shall, within said 30 days, either pay the balance in cash or secure the same by mortgage on the property, payable in three or five years (with the privilege of paying off \$100 in any year), with interest at 6% half yearly on the 1st days of June and December. Chattels—Purchasers of \$10 and under, cash, over that amount eight months' credit on approved joint notes, or a discount of 6% for cash. For further particulars and conditions of sale, apply to

**MARTIN & MARTIN,**  
47 James St., South Hamilton,  
Or to **CHRISTOPHER FOTHERGILL, Executor,** or  
**W. G. PETTIT, both Freeman P. O., Ont.**

**Auction Sale of  
A. J. C. C. JERSEY CATTLE**  
and Unregistered Jersey Cattle, also  
Registered Ayrshire Cattle, near  
Norval, Ont.

1 Aged Jersey Bull, A. J. C. C.; 1 Jersey Bull, four months' old, promising young show bull, A. J. C. C.; a number of young Jersey Cows; 30 good terms Cows, some with calves by side, including one such as 2 fine "Enterprise" Berkshire Sows, in pig to King Lee IV., to pig about time of sale, also a number of young Sows, all eligible for registration.

**SALE MARCH 15th, 1895.** Sale will commence at 10 o'clock. Conveyances will meet all trains at Burlington Station. Terms: Eight months' credit on approved joint notes.  
**JOHN SMITH, S. J. LYONS,**  
5 om Auctioneers, Pickering.

**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 Scotch-bred sires, such as Mademoiselle; Prince Royal (imp.) = 6418 =, Royal Baron = 3242 =, by Baron Lenton (imp.); Indian Prince = 13014 = by Indian Chief (imp.), and Scotsman = 18557 =, 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

**SPRINGBROOK STOCK FARM.**  
**Holstein-Friesians,  
and  
Imp. York & Tamworth Swine.**

Having dissolved partnership, I am now controlling the whole business with more zeal than ever. My motto, "Quality." Only the choicest and best bred handled in every department. Two rich-bred Bulls left, ready for service; dam's record over 20 lbs. butter in a week. Good choice in females and calves. Tamworth boars ready for service in spring. Ready to book orders for spring litters from imp. stock. Prices with the times. Write for particulars.

**A. C. HALLMAN,**  
5-om New Dundee, Waterloo Co., Ont.

**Auction Sale**

I will sell by public auction, on the  
27th of MARCH, 1895,

ON MY PREMISES,  
**LOGAN'S FARM, Montreal**

My surplus stock, and Farm Implements, as I am retiring from farming. One Clydesdale Stallion, Clydesdale Mares, and other work horses. Ayrshire Cattle. Some very fine bulls fit for service—all pedigreed. Berkshire Pigs, registered. Poultry, dairy utensils, and household furniture.

**THOS. IRVING, Sr.,**  
5-b-om Logan's Farm, MONTREAL.

**CLOSING OUT SALE**  
of the Property of the late

**F. W. STONE, Guelph, Ont.,**  
BY PUBLIC AUCTION, at 1 p.m., sharp, on  
Thursday, March 21st, 1895.

**PURE-BRED HEREFORD & SHORTHORN  
CATTLE, COTSWOLD & SOUTHDOWN  
SHEEP & BERKSHIRE PIGS,** at the  
Moreton Lodge Farm,  
next the Ontario Agricultural College, one  
mile from Guelph. This breeding establish-  
ment is one of the oldest, most prominent and  
successful, in the raising of the breeds offered,  
in America.

**FARMS.**—At the same time there will  
be offered the Moreton Lodge Farms, most of which have been used  
for breeding improved stock, from 45 to 64  
years, by the late owner, consuming all crops  
raised, and large quantities of fodder pro-  
duced on the farms; consequently they are  
in a high state of fertility. The location for  
a breeding establishment cannot be surpassed,  
being in the centre of the best district for  
that purpose in Ontario, the Home Farm im-  
mediately adjoining the Ontario Agricultural  
College. The proposed Guelph Electric Street  
Railway will run past the farm, and within a  
few yards of the buildings.

Catalogue on application to  
**HARRY MURTON,**  
5-om Executor F. W. Stone Estate, GUELPH.

**German Coach and Royal Belgian  
STALLIONS**

Just landed and for SALE at  
**ROYAL HOTEL,**  
Woolstock, Ont.

Six German Coach Horses that were exhibited at the Columbian Exhibition, and won two first prizes, three seconds and one fourth. Each of these horses won honors at the great Exposition, 1893. These are the greatest, truest, and most propent carriage horses in the world. Graceful, sweet disposition, high action, fast stepping. Two Royal Belgians, weigh 2,000 pounds each. High nethers and necks, great hearts, deep, well-sprung ribs, always good feet. The soundest draft horses in the world. One of these horses won first prize at the World's Fair, 1893. Come and see eight of the best Stallions that ever landed in Canada.

Address **A. B. HOLBERT, Prop.,**  
**WOODSTOCK, ONT.,**  
8-om or **GREELEY, DEL. CO., IOWA.**

**MONTHILL POULTRY YARDS.**—Head-  
quarters for Pure-bred Poultry. Breeder  
of Single-comb White and Brown Leghorns,  
B. P. Rocks, Colored Dorkings, S. L. Wyandottes, W. F. B. Spanish, S. S. Hamburgs,  
Houdans, and B. Minorcas. Hard times prices,  
B. P. Rock and B. Minorca eggs, from prize  
matings, \$1.50; choice selected stock, \$1.00 per  
15; all others, \$1.00. My stock will ensure  
success. Orders filled in rotation. Order early.  
Draw P. O. order on Farmers' or register-  
ed to J. E. MCCOMBS, Ridgeville, Ont. Send  
for free circular. 5-0

**AGENTS WANTED**  
To sell  
**GOLD MEDAL NURSERY STOCK**  
our  
**Geo. Leslie & Son,**  
57 years established. 5-0 TORONTO NURSERIES.

**JOHN RACEY, JR.,**  
Breeder of Shorthorn Cattle and Berk-  
shire Pigs. Stock for sale.  
**Lennoxville, Que.**  
17-1-y-om

**FOR SALE.**—Two choice Short-  
horn Bull Calves,  
also Berkshire Boars fit for service, and younger  
pigs of both sexes. Prices very moderate.  
R. RIVERS & SON,  
13-1-y-om Springhill Farm, Walkerton, Ont.

**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

**FOR SALE, PURE SCOTCH SHORTHORNS**

Four young Bulls; one is 22 months old, by  
Mina Lad, and is a first-class show bull.  
Also a fine lot of Heifers. Some of the  
above are from imported sires and dams,  
and are of good milk and butter strains.  
Also a fine lot of Registered Berkshires.  
Fairs mated that are not akin. Prices to  
suit the times. Farm one mile from  
Meadowdale Station, C. P. R., and six  
miles from Brampton, G. T. R. Visitors  
welcomed. Address,

**S. J. PEARSON & SON,**  
Telegraph & P. O. 4-c-om MEADOWVALE, ONT.

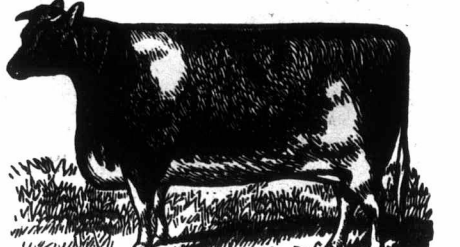
**FOR SALE SHORTHORN BULLS,  
AND SEED OATS**

Seven Shorthorn Bulls of extra quality and  
breeding, at prices to suit the times. Texas  
Rust-proof Oat, grown four years in Canada,  
averaging seventy-five bushels per acre, is  
reddish in color, large in grain, and generally  
contains three grains in one chaff. Straw is  
medium length, and stands well. It is a great  
stooler, very early, and one of the coming oats  
for Canada. Price, one to five bushels, \$1.00  
per bushel; five to ten, 90 cents; ten and over,  
75 cents. Bags free. Siberian yielded highest  
at Experimental Stations. Price, 60 cents per  
bushel. Bags free. Crown Peas, 75 cents per  
bushel. Samples free. For particulars write  
to  
**G. A. BRODIE, Bethesda, York Co., Ont.**  
5-c-om

**Shorthorns for Sale.**

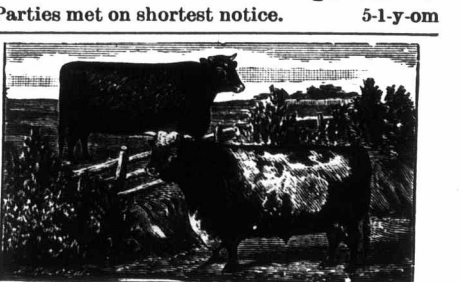
**EIGHT SHORTHORN BULLS,** including Canada  
second prize yearling at Toronto, the best  
show bull in Canada of his age, and a sure  
getter. Also a lot of young cows and heifers.  
**J. & W. B. WATT,**  
3-a-om Salem P. O., Elora Station,

**ARTHUR JOHNSTON**



Offers at moderate prices an exceedingly good lot of young Shorthorn Bulls (16), including two imported two-year-old bulls fit to show anywhere. Also a choice lot of young Cows and Heifers. 1895 Catalogues now ready. Send for one. He is also breeding.

**REGISTERED BERKSHIRES**  
Of the purest breeding and finest quality.  
**GREENWOOD P. O. AND TELEGRAPH OFFICE,**  
Claremont Stn. C. P. R. or Pickering Stn. G. T. R.  
Parties met on shortest notice. 5-1-y-om



I HAVE **Eight Bulls** FROM 10  
FOR SALE TO 15 MOS.  
old, from my best dams, and got by PREMIER  
EARL and INDIAN CHIEF, which I will sell very  
reasonable.  
Claremont 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 Short-  
horn 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.

**FOR SALE.**

A choice lot of  
Shorthorns—bulls &  
heifers—of good qual-  
ity and of the most ap-  
proved breeding.  
Show animals a spe-  
cially. The accompany-  
ing cut represents Fair  
Queen 2nd, the found-  
ation of my herd. Her produce offered for sale  
at low prices. Come and see us, or write for particulars.  
**JOHN MORGAN & SONS,**  
21-y-om KERWOOD, ONT.

**SIMMONS & QUIRIE.**

Shorthorn Cattle, Berkshire Swine—Money-  
making Sorts.  
The matchless bull, ROYAL SAXON = 10537 =  
(by Imp. Excelsior), 1st at Toronto, 1894, heads  
the herd, with BARMPTON M. = 18940 =, by  
Barmpton Hero = 324 =, in reserve. Female  
representatives of the celebrated Mina, Strath-  
allan, Golden Drop and Mysie families.  
The Berkshires are choice, prize-winning  
stock. Easy to feed, quick to sell.  
Stock for Sale. **C. M. SIMMONS, Ivan P. O., Ont.**  
1-1-y-om **JAMES QUIRIE, Delaware, Ont.**

**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—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, 42 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**

**DEEP MILKING SHORTHORNS**

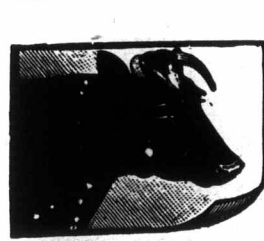
For sale, 4 young bulls, 2 reds and 2 roans  
also yearling heifers and heifer calves. The  
Golden Drop bull, Golden Nugget = 17548 =, by  
Imp. General Booth = 6365 = (64355), at head of  
herd. Address **WM. GRAINGER & SON, Lon-  
desboro, Ont.** 13-y-om

**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  
cut prices. Also one or  
two cows.  
**D. ALEXANDER, BRIG-  
DEN, Lambton  
Co., Ont.**  
5-y-0

**FOR SALE—HOLSTEIN BULL  
CALF.** Eleven months old; good, thrifty  
animal; well marked; first-class pedigree.  
Inspection invited. Will sell cheap.  
**J. R. SUDDABY, Box 6, HARRISTON, ONT.**  
5-b-om





# W. C. EDWARDS AND COY

IMPORTERS AND BREEDERS.



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

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

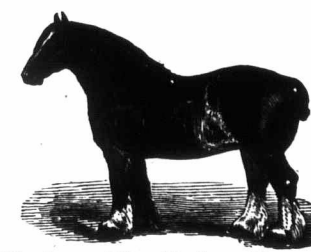
## ELMHURST STOCK AND DAIRY FARM CLARENCE, ONT. Shorthorns, Shropshires and Berkshires

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

Laurentian Stock AND Dairy Farm NORTH NATION MILLS, P. Q. Ayrshires, Jerseys and Berkshires.

Imported Emperor at the head of a grand lot of Imported and Canadian-bred Ayrshires; also St. Lambert Jerseys and Imported Berkshires. 7-1-y

# THORNCLIFFE STOCK FARM!



Montrose, The Ruler, Carruchan 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. Terms reasonable. 19-1-y-om

I have on hand the best young Clydesdale Horses and Mares on this continent. Imported 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



## THE GREAT MILK AND BUTTER HERD OF HOLSTEIN-FRIESIAN CATTLE.



(CORNELIA TENSEN.) Best quality and strains. Seventy-five head. Young bulls and heifers at reduced prices. Send for catalogue to SMITH BROS., Credit Valley Stock Farm, Churchville, Ont. 5-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



## 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.

## SUNNYSIDE HOLSTEIN-FRIESIANS

Choice animals, either sex, all ages, for sale at any time. Correspondence solicited. Address MeDUFFEE & BUTTERS, Stanstead, P. Q. 16-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



\$312.00 and SILVER MEDAL won by BROOK BANK HOLSTEINS, at TORONTO, 1894. Including 1st & 2nd in Milk Test, and 1st Calf. We keep the best to be procured. 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., Oxford Co., Ont. 10-y-om

ADVERTISE IN THE ADVOCATE

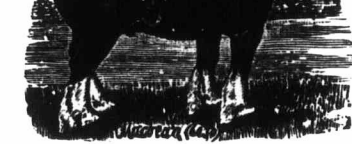
## SHROPSHIRE RAM LAMBS.

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. IN YORKSHIRES we are booking orders for choice pigs for spring delivery from 30 breeding sows. We have a few Boar Pigs fit for service, 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. 9-y-om T. D. McCALLUM, Manager Isaleigh Grange Farm, Danville, Que.

# CLYDESDALES AND HACKNEYS

A FEW FIRST-CLASS CLYDESDALE Stallions, Mares & Fillies for sale. Prices to suit the times. Come and see them, or write for prices. GRAHAM BROS., Claremont, Ontario. 25 miles east of Toronto, on C. P. R. 4-1f-om



## SPECIAL OFFERINGS AT REDUCED RATES

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

6 Jersey bull calves, 2 to 4 months old, bred entirely for GREAT BUTTER YIELD. Sired by bulls whose dams make 17 1-2 to 26 3-4 lbs. Butter a Week.

As my fall cows gave an unusual number of bull calves, I have decided to place them within reach of all who want an extra bull for next summer, viz.: \$60 to \$80 each, registered, and express prepaid by me to their destination. MRS. E. M. JONES, Box 324, Brockville, Ont., Can. Mrs. Jones' great book, Dairying for Profit, 30c. by mail. Address, ROBT. Y. BROWN, Agent, Box 324, Brockville, Ontario, Canada. 8-y-om

## MAPLE HILL HOLSTEIN-FRIESIANS.

FOR SALE—Bull calf from Sept. 1st, 1894; sire Artis Aaggie Prince, whose full sister gave 50 lbs. 1 oz. milk in a day at two years; dam Netherland Blanche, first-prize yearling heifer at the last Toronto Industrial, and a fine milker. Calf is three-fourths black, very straight, square and blocky. Prices very reasonable. G. W. OLEMONS, ST. GEORGE, ONT. 11-y-om

## WILL SELL HOLSTEIN BULL CALVES

—AT— \$15.00 Each During months of March and April, if taken before three weeks of age.

Write Early if Wanted. Could not supply the demand last year. F. A. FOLGER, 5-4-om Rideau Farm, Kingston, Ont.

## JERSEYS, STANDARD BRED HORSES.

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

## GLEN ROUGE JERSEYS

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



JERSEY 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.

## JERSEYS FOR SALE

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

# Pure St. Lamberts

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

## The Famous St. Lambert Cows,

Jolie of St. L., Pet of St. L. and Lady Fawn of St. A. Farmers! If you wish to double the butter yield of your herd, buy a pure St. Lambert Jersey bull. The St. Lamberts, for size, constitution, and wonderful production of milk and butter, lead all other strains known. PRICES VERY LOW.

Apply to W. A. REBUEN, 20-y-om St. Anne de Bellevue, P. Q.

## 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. 2-y-om

## J. YULL & SONS, Meadowside Farm, Ontario.

Carlton Place, Ontario.

Our herd is composed of seventy-five head. Leonard Meadowside—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 Berkshires pigs. Young stock of both sexes for sale. Visitors welcome; met at train. Give us a call. 7-y-om

## 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 homered Shropshire Ewes and Ewe Lambs for sale at very low prices. 7-y-om

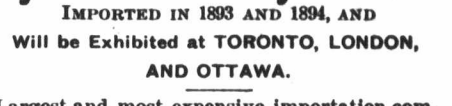
## WHITESIDE BROS., Innerkip, Ont.

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-om Importer & Breeder



## 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

## C. C. & G. F. CLEVELAND

(J. L. Goodhue & Co., Mfgs. 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

## INGLESIDE HERFORDS!

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, Ont. 17-1-y-om

NOTICES.

Among the new advertisements in this issue is a full announcement of executor's sale of estate of the late John Fothergill. We will give fuller notice in our next issue.

The Creamery Supply Co., Guelph, are again to the front with their full supply of dairy utensils, milk testers, and cream separators.

J. W. Provan, Oshawa, Ont., deserves the attention of all haymakers and harvesters. He advertises in this issue his widely-known and successful horse fork and sling. See his advertisement.

The Bow Park Co. (Ltd.), Brantford, Ont., have announced for sale in the advertising columns of this issue, a variety of seed oats which has won a distinguished place in many reliable tests.

T. T. Coleman, Seaford, manufactures a land-roller that sells at sight. The frame is of steel, as well as the drums, which turn on pivots, thus adapting itself to all conditions of surface, rolling the ground evenly and all alike. Read their advertisement.

Cheese-factory men are invited to observe W. W. Chown & Co.'s advertisement in this issue. All the appliances put out by this firm are strictly modern and first-class. Remember that first-class cheese can be made only by using the best utensils.

Dr. Mole, M. R. C. V. S., Toronto, is a name that has become, we are sure, very familiar to our thousands of readers. We take pleasure in drawing attention to Dr. Mole's new advertisement in this issue, and assure our subscribers that they will find him to be a thoroughly practical and honorable man.

We are pleased to see that the Toronto Salt Works, whose advertisement appears in this issue, are giving the farmers of Canada an opportunity to secure rock salt at such a reasonable price. When rock salt sold at from \$1.00 to \$2.00 per 100 lbs., its use was very limited, but at the price they offer it, it should be used on every farm.

Geo. Leslie & Son's fruit, ornamental and shade trees and other nursery stock are placed before the public in this issue. This nursery was established fifty-seven years ago, and has been growing in popularity during its whole existence. All orders are guaranteed true to label. Every year put off in planting trees delays the production of fruit just that length of time. So order now from Leslie & Son, Toronto.

B. Bell & Son's turnip-sower and cultivator have won for themselves a reputation wherever introduced. It is high time many of the old-fashioned sowers were discarded for new ones, that sow all the time just the depth and quantity required. A proper cultivator used at the right time often insures a crop of roots or corn where no crop at all would follow a bungling old sower that cuts away below the surface, or in any way fails to stir the surface evenly and shallowly. See Bell & Son's advertisement.

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

A TOBACCO COMPANY'S GENEROSITY.

The George E. Tuckett & Sons Tobacco Co. (Ltd.), of Hamilton, nine years ago instituted the commendable idea of presenting a deed of a building lot each Christmas to their oldest active employee. This year it was the good fortune of Mr. Thomas Milligan to succeed to the firm's generosity, he having been with them for 21 years. In addition to the lot, he received a substantial check from the same source. The whole staff of the concern also came in for a gift, the day hands receiving an extra week's salary and the piece hands a good sized turkey. Some time ago the Messrs. Tuckett turned their factory into a joint stock company, admitting many of the more important employees into partnership, and this additional evidence of a desire to share with their men the prosperity of the house cannot help but bear fruit in increased energy and good-will among all who are fortunate enough to be connected with this enterprising concern.

STOCK GOSSIP.

Dairy cattle are in demand, and a special opportunity is now offering at a good price. See S. J. Lyons' advertisement in this issue.

G. W. Clemons, St. George: "I beg to report the sale of the young bull, Margaret 4th's Mercedes of Helderleigh, advertised in the ADVOCATE, to Messrs. John & D. McNaughton, Puslinch, Ont. This bull was sired by Siepkie 3rd's Mink's Mercedes Baron, winner of second prize at the great Columbian Exposition, and that also headed the second prize herd there. He has for dam Margaret Ph, also a member of the above herd, and a great producer as well. She gave in seven days 129 lbs. milk and 2 1/2 lbs. butter as a three year old. This bull is a good one, and goes into good hands, so he may be relied on to give a good account of himself. Have also lately sold my four year old stock bull, Artis Auggie Prince, to Mr. W. C. Quickfall, Glenallan, Ont. Mr. Quickfall is a well-known mill-owner and farmer, and is starting a nice little herd of pure bred Holsteins. Artis Auggie Prince has done good service in my herd; among others of his get were the second and fourth prize heifer calves, in a ring of seventeen, at the last Industrial, and he is as active as a yearling. Have no bull for sale now that are fit for service, so I send advertisement of a bull calf, to take the place of that now running in your paper. I find the ADVOCATE by far the best advertising medium I can use. Inquiries are just double the number received from advertising in other papers."

GUERNSEYS

This is the purest breed of dairy cows, large, vigorous and hardy, giving plenty of rich milk. Imported from the island of Guernsey. For particulars, apply to the advertiser.

SYDNEY FISHER, 171-173 Ave. Park, Knowlton, Ont.

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, 20-y-om LYN, ONT.

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 Heifers good enough for anybody. Satisfaction guaranteed. Full information cheerfully given.

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

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

MAPLETON FARM. OXFORD DOWN SHEEP FOR SALE.

Good yearling ewes and rams, sired by imp. rams; also a few good imported ewes. Write for particulars, or come and see my stock. 3-1-y-om HERBERT WRIGHT, Box 47, Guelph, Ont.

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, Telephone, Guelph; 7-1-y-om

SMITH EVANS, Gourrock, Ont.

Breeder and importer of registered Oxford-Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited. 3-1-y-om

To Stockmen & Breeders.

LITTLE'S PATENT: FLUID 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 effective 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

MARCEL CRESSMAN, New Dundee, Importer of English - Berkshires 4-y-om



TO FARMERS, STOCK DEALERS & WOOL CROWERS

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-y-0

LARGE IMPROVED WHITE YORKSHIRE AND ENGLISH BERKSHIRES

Now ready, boars fit for service; young sows ready to mate. Pairs supplied not akin. Apply to WILLIAM COODGER & SON, 11-y-0 Box 160, Woodstock, Ont.

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

YORKSHIRE PIGS

Of the best type and breeding. Pairs not akin for sale at all seasons. J. M. HURLEY & SON, Belleville, Ont. Box 448. 17-1-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 Louist Hill, Station. 17-y-om JNO. PIKE & SONS.

Specialty of Improved Large Yorkshire Hogs



The largest and most successful prize-winning herd in Canada. In the management of my herd I have endeavored to produce what the market demands, combining the most profitable type for the feeder. Extra lot of in-pig sows for sale cheap. Am booking orders for spring pigs suitable for exhibition or breeding purposes. All stock guaranteed as described. J. E. BRETHOUR, Burford, Brant Co., Ont. 3-y-om

MODEL BERKSHIRE HERD D. A. GRAHAM

PARKHILL, ONT. I am prepared to book orders for spring pigs from prize winners of imp. stock. Pairs supplied not akin. Prices moderate. Can also book orders for W. & B. P. Turkey Eggs. 31 miles from Parkhill Station, G. T. R. 17-1-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.

THE HOME OF THE BERKSHIRES. J. G. SNELL & BRO., Edmonton, - Ontario.

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

BERKSHIRES AND YORKSHIRES.

Choice stock for sale at reasonable prices. Orders filled in rotation. Inspection invited. Write for prices. THOMAS WATSON, Springvale, Ont. 3-1-y-om

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

I am now booking orders for spring delivery. Pairs supplied not akin; all stock guaranteed as described. Inspection of herd solicited. All correspondence promptly attended to. 8-y-om

H. J. DAVIS, Woodstock, Ont., Breeder of Short-horn Cattle, Imp. Large White Yorkshire and Berkshire Swine.

Some very fine young bulls of good color and breeding, from 12 to 18 months old, for sale. Also a number of Yorkshire Boars of splendid quality, fit for service, and a good lot of Yorkshire Sows ready to breed. Berkshire boars of the right stamp fit for service; also sucking pigs of both breeds for sale at moderate prices. Inspection invited, or write for description and prices. 8-y-om

O. J. GILROY & SON

Glen Buell, - Ont., BREEDERS OF HOLSTEIN-FRIESIAN CATTLE

Large English Berkshires & Imp. Yorkshire Swine Bred from imported stock. Personal inspection solicited. 7-y-0

IMPROVED SUFFOLK SWINE, THOROUGH-IMPROVED HORSES, DURHAM CATTLE AND SOUTHDOWN SHEEP.

A grand lot of Suffolk Pigs, all ages, for sale at prices to suit the times. A. FRANK & SONS, The Grange, four miles from Cheltenham Stn., C. P. R. & G. T. R. 2-2-y-om

E. D. GEORGE PUTNAM, ONT.

Importer and Breeder of Ohio Improved Chester White Swine. The largest and oldest established registered 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

IMPROVED Chester White and Tamworth Swine

Our Improved Chesters have won more Sweepstakes at large exhibitions than all herds of Chesters combined in the Dominion, including Sweepstakes Sow over all breeds at Fat Stock Show, Guelph, '94. Tamworths are selected from best breeds in England, and winners of Sweepstakes at Fat Stock Show, Guelph and Ottawa, 1894. 50 Choice Sows bred for spring trade. Orders booked for spring pig in pairs not akin. Reduced rates by express. Send for price list. 7-y-om H. GEORGE & SONS., Crampton, Ont.

R. H. HARDING, Thorndale, Ont.,

Is offering special bargains for the next thirty days in Chester Sows in farrow, and Boars fit for service, in order to make room for spring litters. 20-y-om

TAMWORTHS AND POLAND-CHINAS

Young boars fit for service. Sows bred to farrow in February and March. Pairs of weanling pigs of each breed not akin for sale. 21-1-f-om Avon, Ont.

FRANK ROW, Avon, Ont.

DUROC-JERSEY SWINE

For first class Duroc-Jersey pigs of either sex and all ages, young sows bred for first litters, and boars fit for service, address, TAPE BROS., Ridgeway, Ont. 20-2-y-om

Summit Farm Herd of Duroc-Jersey Swine.

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

ADVERTISE IN THE ADVOCATE

# Better Crops

result from use of fertilizers rich in potash. Most fertilizers sold do not contain

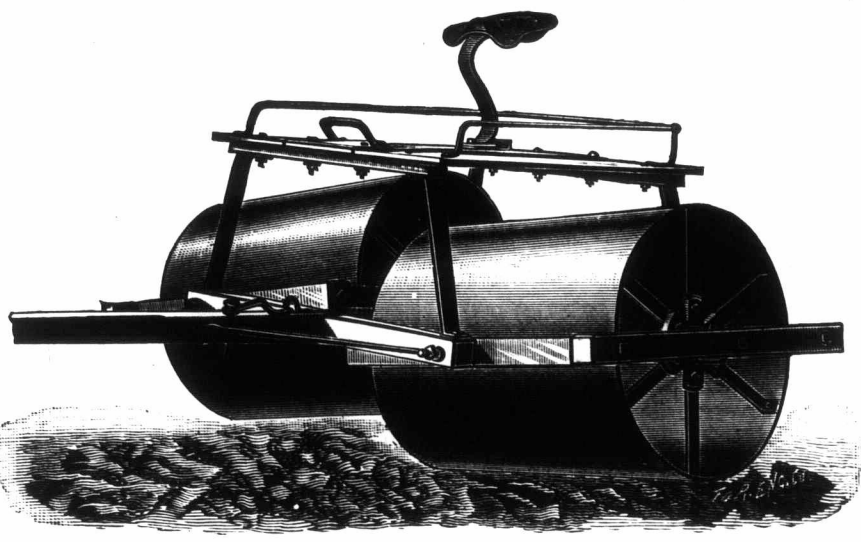
# Sufficient Potash

to insure the best results. The results of the latest investigations of the use and abuse of potash are told in our books.

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.

## The DALE PIVOTED LAND ROLLER (Patented)



It is unanimously recommended by those farmers who have used it. Orders are now being booked for the spring trade. Description and price furnished on application to  
5-om **T. T. COLEMAN**, SOLE MANUFACTURER, SEAFORTH, ONTARIO.

## Man Isn't In It.

You can tire out a man but you can't tire a Planet Jr. machine. A man gets careless, loses energy, has his dull days, a Planet Jr. machine is ever ready for business. A man often leaves when worst wanted, a Planet Jr. machine never goes back on you. One man can do but one man's work, a Planet Jr. Double Wheel Hoe will do the work of five or six men. The proof of this can be found in the Planet Jr. book for 1895 which describes and pictures 20 different Planet Jr. machines. The reading of this book is the first step toward doing better. It's Free.  
**S. L. ALLEN & CO.,** 1107 Market Street, PHILADELPHIA.

## RENNIE'S SEEDS.

Do you grow Flowers, Vegetables, Field Roots or Grain? If so, see "RENNIE'S GUIDE," offering—  
**\$190.00** IN CASH MAILED FREE. SEND FOR IT TO-DAY.  
**WM. RENNIE, - TORONTO, CAN.**

## 1,000,000 TREES

Over 1,000 varieties. Fruit and Ornamental Shrubs, Vines and Roses. All standard and special varieties. Send for illus. Catalogue.  
**W. S. LITTLE & CO.,** Rochester, N.Y., or 52 Exchange Place, N.Y. City.

**PIONEER HERD.**—DUROC-JERSEY Swine. Oldest herd in Canada. Careful breeding. Only good pigs shipped. Write, **PETER LAMARSH**, Wheatley, Ont. 3-1-y-om

**REGISTERED POLAND-CHINA SWINE**  
A choice lot of young Pigs, Boars and Sows, fit for service. My herd is composed of the most popular prize-winning strains; also sows fit to breed. Prices very moderate. Write, **WESLEY W. FISHER**, Benmiller, Ontario.

**The Oxford Herd of Registered Poland Chinas**  
Our herd won all the sweepstakes, diplomas and herd prizes, and 22 out of 26 first prizes, at the three largest fairs in Canada, in 1894. Our herds headed by Darkness Quality the winner of the first prize in his class over 11 entries, at the World's Fair in Chicago, in 1893. Our stock is large in size, and fine in quality, and well adapted for the Canadian trade. Young stock for sale at all times. Prices reasonable. Address  
**W. & H. JONES**, Mount Elgin, Ont.

**W. & H. JONES**, Mount Elgin, Ont.

## SEED OATS

We have a quantity of the celebrated French Joannette Black Oats for sale. This variety has headed the list for four years at the Provincial and last year at the Dominion Experimental Farms; also for two years in tests made by the Experimental Union.

**The BOW PARK CO. (Ltd.)**, BRANTFORD, 5-4-om ONTARIO.

**EVERGREENS!!**  
Headquarters for all varieties and sizes of Hardly Nursery grown evergreens and ornamental trees. Prices the lowest. \$14 \$5.00 and \$10.00 per pairs. Illustrated catalogue free. Want good Local Agent **D. HILL**, Evergreen Specialist, DUNDEE, I.L. 1-4-om

## CANADA WILKES.

Young Stock of all Ages For Sale. Silver Gray Dorkings, W. F. H. Spanish, Brown and W. Leghorns, L. Brahmas, Partridge Cochins and Silver Hamburgs; a few cockerles yet for sale of B. Leghorns and B. Spanish. Eggs for setting after April 1st, 13 for \$1. 20 for \$2. Send for illustrated catalogue of Polands and poultry. Correspondence solicited. **CAPT. A. W. YOUNG**, Tupperville, Ont. 17-y-om

## Gold Medal Nursery Stock

AT HARD TIMES PRICES— to direct purchasers, and satisfaction guaranteed.

Full lines of Trees for fruit, Trees for shelter, Trees for shade, Trees for street, Trees for decoration, Berry-bushes, Hardy Grape Vines, Flowering Shrubs, Roses, &c. The largest stock of Ornamental Trees in the Dominion. Price Lists free. Enquiries requested. Filling letter orders a specialty. Get your orders placed early. **CEO. LESLIE & SON**, 27 YEARS ESTABLISHED, TORONTO NURSERIES 5-0

**FRUIT TREES** (NEW KINDS AND OLD) ORNAMENTAL TREES, - ROSES, ETC., ETC.  
Clean and handsome. None better. They will please you. Be your own agent and save nearly one-half cost. Compare our prices and stock before placing your order; you will come again. New Catalogue Free.  
**A. G. HULL & SON**, 27-0 Central Nurseries, St. Catharines, Ont.

## GEO. KEITH'S 1895 CATALOGUE OF SEEDS

WILL BE MAILED Free on Application.

ADDRESS: **GEO. KEITH**, 124 King Street, TORONTO. 3-4-0

Do you Want **Living Seeds?** See our Catalogue or write us. All enquiries answered.  
**The Steele, Briggs, Marcon Seed Co.** (Mention this paper) TORONTO, Ont. Note—All enterprising merchants in every town in Canada sell our seeds. Get them sure or send direct to us. 1-4-om

**400—Helderleigh Fruit Farms Nurseries—400** (Four Hundred Acres in Extent.) Established 1882.

There is no place in Canada where the season is longer than here. Hence we get trees brought to the fullest maturity, capable of withstanding the severest cold. Having one hundred acres in fruit, from which cuttings, buds, scions, etc., are taken, I can safely guarantee the purity of my stock to be equal, if not superior, to any other nursery. The soil is specially adapted to produce vigorous, hardy trees, a grand lot of which are now growing and for sale. All the leading sorts of both old and new varieties deemed worthy of propagation. Catalogues free on application. Agents wanted in every township. 13-11-om **E. D. SMITH**, Winona, Ontario.

## TREES AND BERRY PLANTS

First class, choice varieties at prices that must sell them. Breeder of Pure Golden Wyandottes and White Leghorns. Write for catalogue and price list. **A. W. GRAHAM**, ELGIN NURSERIES, ST. THOMAS, ONT. 3-1-om

**EVERGREENS.** Largest stock in America, including Colorado Blue Spruce and Douglas Spruce of Colorado. Also Ornamental, Shade and Forest Trees. The Scotch Elm, etc. **R. DOT CLASONS**, Waukegan, Ill. 3-1-c-0

**FRUIT AND ORNAMENTAL TREES** Shrubs, Roses, Grape Vines, Small Fruits, etc. First-class stock. Leading Varieties; true to name. Also 100 bushels Joannette Seed Oats. 1-y-om **CROW & PAGE**, Ridgeville, Ont.

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

## STOCK GOSSIP.

Smith Bros., Credit Valley Stock Farm, Churchville, Ont., place with us an advertisement interesting to persons desiring Holsteins of either sex of splendid quality. We would recommend persons whom it may interest to send to this firm for catalogues.

The former firm of A. C. Hallman & Co., New Dundee, now known as A. C. Hallman, change their advertisement in this issue, over the new name. We believe the members of Mr. Hallman's herd have been selected and developed along the line of butter production, as well as that of milk.

Thos. Ballantyne & Son's catalogue of their entire Shorthorn herd, to be sold on Wednesday, March 13th, 1895, has been received. It gives extended pedigrees and descriptions of the twenty-eight head of Scotch Shorthorns to be disposed of without reserve. This sale offers an opportunity to secure splendid material for show purposes, which means that they are splendid animals to go into any Shorthorn herd in any country. Eleven of the cows have calves at foot, two are due to calve in March, one boar and sow, which will be sold with dams, all with one exception, got by Scotchman, a noble son of Barmpton Hero. Catalogues will be cheerfully sent on application to Thos. Ballantyne & Son, Stratford, Ont.

Messrs. H. George & Sons, Crampton, Ont., write:—"Our herd of Improved Chester Whites and Tamworth swine are coming through winter in fine condition, having five sow farrow in strong pigs, and doing well; two of the litters are from full sisters to Chester Queen, the sweepstake sow over all breeds at Fat Stock Show, Guelph, of 1894; having also added to our herd a choice imported boar, U. S. King (from the noted herd of Messrs. S. H. Todd & Sons, of Wakeman, Ohio), who won the lion's share of prizes given at the World's Fair, Chicago, in 1893. Sales have been remarkably good for such hard times, having several orders already booked for spring pigs. Our sales for the last few weeks are as follows: G. W. Glover, Nottawa, Ont., one boar and sow; David Rudy, Tavistock, Ont., one boar; F. A. Folger, Kingston, Ont., one boar; Thos. Beckton, Glenora, Ont., one sow; W. Y. Bell, Angus, Ont., one sow; Alex. McLean, Carleton Place, Ont., one boar and two sows; G. W. Calbrech, Augustine Cove, P. E. Island, one boar; W. E. O'Brien, Dunham, Que., one boar; William A. Ross, Brucefield, Ont., one boar; J. H. Shaw, Simcoe, Ont., one sow; J. H. Chalk, Calton, Ont., one boar and sow; T. R. Lyons, Waterville, Nova Scotia, three sows; John Elliott, Derwent, Ont., one sow; H. A. Channel, Stanstead, Que., two boars and two sows; H. I. Gibson, Bowmanville, Ont., one sow; John McDiarmid, Lucknow, Ont., one sow; John Warrior, Owen Sound, Ont., one boar; D. B. Scott, Fergus, Ont., one sow; L. Burnett, Greenbank, Ont., one boar; John A. Hardy, Kent Bridge, Ont., two sows; George Paterson, Ingersoll, Ont., one boar; Adolphe Bellemare, St. Leon, Que., two boars; F. Foster, Ingersoll, one boar. We also have a grand lot of young fall boars and sows, that would make grand animals for exhibition at the fall fairs, yet for sale."

## GERMAN COACH AND BELGIAN STALLIONS.

On a recent visit to Woodstock, the writer had the pleasure of inspecting six beautiful German Coach and two Belgian stallions, the property of Mr. A. B. Holbert, of Greely, Delaware County, Iowa, whose advertisement will be noticed in this issue. Mr. Holbert is one of the largest importers of high-class stallions in America, having imported as many as one hundred horses, of English, French, German, and Belgian breeds, in one season. At the home stables, in Iowa, there is always to be seen a fine assortment of Shire, Belgian, Clyde, Percheron, Cleveland Bay, German, French, and York-horse coach horses. To those interested in the horse breeding industry of this country, a visit to Mr. Holbert's stables, in Woodstock, would be a treat which would amply repay them for the trouble. The German Coach stallion, Kaiser Frederick, a beautiful blood bay, foaled 1889 (imported by Mr. Holbert), a horse with a grand, sweeping gait and thoroughbred appearance, which won for his owner two firsts at the Columbian Exposition; he possesses the three qualities so very essential in the marketable horse of to-day—size, quality and action. Mikado is a raven black in color, stands 16 hands high, and weighs 1,600 pounds; bred by Henning Dibern, a noted German breeder; foaled 1889. He is one of those sweet, even level, strong horses, with a pleasant disposition, that is universally loved and admired by all horse fanciers. He has the high, genteel step, of which the bloods of our cities are so fond. The Morgau type of his conformation gives one the impression that he should show strong-constituted general purpose and road horses. This horse was winner of a 2nd and 3rd at the Columbian. Adam is a bright blood bay, standing 16 1/2 hands, weighs 1,450 pounds; bred by Marcus Franen, Germany; foaled 1888. This horse has been used in the German Government stud, and is a horse of much quality and style. In appearance he resembles an Arab, but has all the size of a Coacher. Muskant is another grand horse, a dark blood or mahogany bay, stands 16 1/2 hands, and will weigh 1,500 pounds; bred by Herm Dahme, Germany; foaled 1888. Muskant is a stallion of perfect coaching type, possessing grand style and action, grand conformation throughout, a beautiful head, and long, finely-arched neck; heavy-boned, very hard and finely, with good feet and joints. This horse was a winner of a sixth place in his class, at Chicago. Affect is a grandly bred stallion; he was foaled in 1890; he stands 16 hands high, weighs 1,600 pounds; in color, a bright blood bay. This horse won 1st honor at Chicago. Amandus is a wonderfully good Coach horse, a dark brown, standing 16 hands high; foaled 1887; bred by G. Schorf, Holstein, Germany. This horse was sent out by the German Government to the Columbian Exposition, and was good enough to win second money in his class. Mr. Holbert also owns the sweepstake mare at the Columbian Exposition. The two Belgian stallions are grand individuals, heavy, deep bodied horses, weighing some 2,000 pounds, good style and action, and should make a grand cross on heavy mares of the country. One of these horses won 1st at Columbian Exposition. These stallions are well worth attention, and should be the means of producing the type so much in demand in this country.

**STOCK GOSSIP.**

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

G. A. Brodie, Bethesda, Ont., inserts a new advertisement in this issue. His Shorthorns and seed grain are alike meritorious.

Mr. R. H. Harding, Thorndale, Ont., is becoming a leading breeder of Chester White swine. See his change of advertisement.

Mr. Geo. Garbutt, of Thistle-down, advertises in this issue three imported Shire stallions—fine, upstanding animals, very stylish, and in good trim for the coming spring service.

We refer our readers to H. J. Davis' changes of advertisement in this issue. We learn that young bulls are being rapidly picked up, so that it behooves every one needing a good Shorthorn stock animal to look after their own interest by calling upon Mr. Davis and securing what they need. Note the Yorkshire and Berkshire offerings also.

Mr. Arthur Johnston, Greenwood, reports the demand for superior young Shorthorn bulls as good, though buyers are offering low prices. The two-year-old imported bulls referred to in his advertisement are Royal Don, a very handsome bull in the very finest form at present, and Grand Sweep, little, if any, behind him. Readers would do well to drop a card at once for Mr. Johnston's 1895 catalogue, now out, which contains a lot of desirable offerings.

Thos. Irving, Sr., Logan's Farm, Montreal, on account of retiring from farming, places with us for this issue an advertisement of sale, to be conducted on March 27th. He offers some good horses, including a Clydesdale stallion and a number of mares. His cattle are all pure Ayrshires, among which are bulls fit for service. The pigs to be sold are registered Berkshires. There will also be a number of pure-bred fowls disposed of, as well as dairy utensils and household furniture.

**MR. HENRY ARKELL'S OXFORD-DOWNS AND SHORTHORNS.**

A short drive south of the Royal City (Guelph) brought us to the home of Mr. Henry Arkell, of Arkell, a splendid three-hundred-acre farm, well fenced, and with extensive pen and stabling accommodation, where Mr. Arkell carries on extensive breeding operations, being one of the largest breeders and heaviest dealers in Oxfords in Ontario. The flock at present consists of 160 head—a uniform lot of good quality—fifty being breeding ewes, forty five ewe lambs, sixty rams and five imp. rams. The breeding ewes and imp. rams are from the noted flocks of Brassey, Adams, Hobbs, Rothchild, and Fox, and give evidence of careful selection. One of the stock rams, The Knob, bred by Brassey, is a stylish, compact, deep-bodied sheep—a splendid handler—with a solid fleece of good quality, a nicely covered head, and standing very wide on strong, stocky legs. This ram carried first at Toronto in 1883, and stood third at the Columbian Exposition. Bath & West is another extra good imported ram used on the flock—a two-year-old, bred by Mr. Brassey. This ram was one of the first prize pen at the Royal in 1893, and carried first over Canada the same season. Mr. Arkell has been a very successful exhibitor at all the leading exhibitions for many years. He was not a competitor in the show-rings last season, on account of having sold all his show pens to Canadian and American exhibitors, realizing on the same good paying figures. He will probably not be a competitor in the Canadian show-rings in the future, as he has established a ready market on the other side for his surplus stock and exhibition pens. He is now fitting three fine pens, already sold, to be shown at American exhibitions this year.

Among the Shorthorns we noticed three fine heifer calves, from three to nine months old, from Ottawa Chief—a bull bred by Mr. James Russell, Richmond Hill, a brother of the champion heifer at the World's Fair. We are also very much pleased with a thirteen-months-old bull, a beautiful dark red in color, bred by John Miller, Markham. Among the cows there were also some specially meritorious.

**BOOK TABLE.**

We have received from Chas. F. Mills, Springfield, Ills., a copy of the 1894 year book of the American Berkshire Association. It is packed with information of special value to breeders, contains illustrations of notable swine, and is embellished with the portraits of some two dozen prominent breeders.

The Dundee Nursery Catalogue of evergreens, European larches, etc., has been received. It contains cuts and descriptions of the various species of pines, hemlocks, spruces, firs, etc., with instructions in decorating lawns, how and when to plant hedges, shade and ornamental trees, flowering shrubs, fruit trees, etc. It is issued by D. Hill, Evergreen Specialist, Dundee, Kane Co., Ills.

Vol. X. of the Dominion Shorthorn Herd Book, which has been received, contains the pedigrees of bulls from 1711 to 1896, and cows from 2308 to 2182, in all, 3669 animals. A valuable addition to the book is the list of transfers of the premiums awarded the past year, a list of the animals exhibited, and that splendid illustration of the prize winners owned by J. & W. Russell, Richmond Hill, Ont., which graced a page of the FARMER'S ADVOCATE, Sept. 1st, 1894.

A valuable and well-bound little work has been received. It is an Agricultural Calendar for 1895, written by Prof. F. W. Wolf, Wisconsin University, and published by John Wiley & Sons, 33 East Tenth street, N. Y. It includes such general information and tabular matter as will be likely to prove useful to the farmer in his daily work. Special articles, have been contributed by Prof. John A. Craig, on characteristics of the breeds of live stock, by Prof. E. S. Goff, on treatment of injurious insects and fungous diseases, and by Mr. H. B. Gurler, Dr. Kall, Ill., on fattening pigs. It also contains other desirable information, including a directory of agricultural colleges, experiment stations, horticultural colleges, live stock, and other associations; interest tables; stationery; and lists for 1895, blank pages for memoranda; addresses; bills; and a valuable cash account for the year.

**Nursery Stock Cheap!**

DIRECT TRADE. NO AGENTS.  
J. K. LESLIE, for many years connected with the Toronto Nurseries, has control of some of the best NURSERY STOCK on earth. Varieties absolutely true to label; no substitution. Price List free; special lists priced on application. All enquiries for Fruit and Ornamental trees promptly answered. Enclose stamp. Address  
J. K. LESLIE, TORONTO P.O., ONT.

**Leave**  
Doubtful Seeds alone. The best are easy to get, and cost no more. Ask your dealer for  
**FERRY'S SEEDS**  
Always the best. Known everywhere. Ferry's Seed Annual for 1895 tells you what to buy, and when to plant. Sent Free. Get it. Address  
D. M. FERRY & CO., Windsor, Ont.

**CALIFORNIA HOMES**

**HOW TO GET A CHOICE FRUIT RANCH ON EASY PAYMENTS.**

Improved to your order and cared for until productive. Income sure and permanent. Investment safe and profitable. Illustrated pamphlet free. Send for one. It will pay you.

**CHARLES E. DAY,** LOS ANGELES, CAL.

**CEO. BENNETT,** Charing Cross, Ont., breeder of Chester White Swine, Partridge Cochins, Plymouth Rocks, Light Brahmas, Golden, Silver and White Wyandottes, White, Brown and Black Leghorns, Piled and Indian and B. B. Game Fowl, Toulouse Geese, Bronze Turkeys and Pekin Ducks. Pea-fowls for sale at price of eggs, \$1.00 per 11.

**EGGS FOR HATCHING,** from prize-winning White, Silver and Golden Wyandottes, White and Banded Plymouth Rocks, at only \$1 per nine, or \$1.50 per fifteen. Eggs from Mammoth Bronze Turkeys, 25c. each, or \$3 per 13. Canadian Agent for the celebrated Webster & Hannum Bone Cutter. Send for catalogue to JOHN J. LENTON, Park Farm, Oshawa, Ont.

**ATTENTION, FARMERS!**  
Black Minorca Cockerels for sale to bona fide farmers at \$2 each; best laying variety known. Eggs also for sale.

**THOMAS A. DUFF,** TORONTO.

**W. A. Pettit,** Breeder of S. C. W. Leghorns (Knaps 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, BOYD AVE., WINNIPEG.

**200 BRONZE TURKEYS.**  
Bred from 42 to 46 lb. Toms and 18 to 21 lb. Hens. 500 SELECTED BREEDING COCKERELS. B. and W. P. Rocks W. and S. Wyandottes, W. and B. Leghorns, Jersey Cattle. 25 years' experience in mating and breeding, sale of circular with prices, free. F. H. MACKIE, De Kalb, Ill.

**PORT 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,** WINNIPEG, MAN.

**Bronze Turkeys**

Toms and Hens; from 23 lb. Hens and 10-lb. Gobblers; Large Pekin Ducks.

**Plymouth Rocks**

Cockerels and Pullets from "Hero Pen," scoring 90 to 93 points, and fully developed. These birds are Manitoba raised, and will stand the climate. Write and send stamp for reply.

**M. MAW,** Winnipeg.

**HATCH CHICKENS BY STEAM. IMPROVED MODEL INCUBATOR**

Will do it. Thousands in successful operation. Simple, Powerful and safe. Lowest priced first-class Hatchery for made for Illinois Catalogue Geo. H. Stahl, 111-123 S. 4th St. Quincy, Ill.

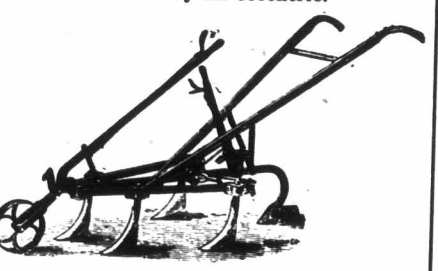
**INCUBATORS AND BROODERS.** Best in every respect. Lowest in price. Poultry, Game and poultry supplies. Send for catalogue to PRESS INCUBATOR & BROODER CO., OMAHA, ILL.

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**Turnip Sower?**



It is Superior to anything yet produced. Sure Steel Chain Feed. Large CONCAVE Front Rollers. Large CONVEX Rear Rollers. Perfect Adjustable Seed Cannister, making any sized hole from pinhead to 1/2 inch. Worked by an eccentric.



**AN UP-TO-DATE CULTIVATOR**

FINEST TOOTH CLAMP MADE. Persist in having your dealer show you these implements early, or write us direct.

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**FARMER'S!**

**THE "VERA" CARBONATE OF COPPER FUNGICIDE**

It is ready for use by adding water, and will destroy

Apple Scab, Grape Mildew, Etc.

MANUFACTURED BY

**TORONTO LEAD & COLOR CO., LTD.** TORONTO.

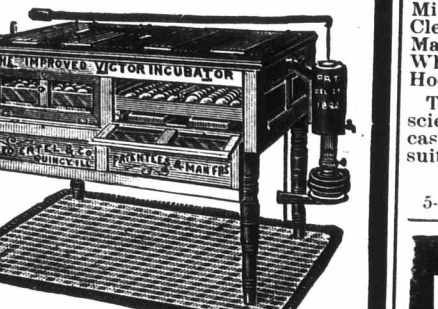
**GANG CHEESE PRESSES.**



Either Wood or Steel Frame. Churn Hoops, Vats, Curd Mills, Curd Knives, Empire State and other Milk Cans, and all Cheese-factory Requisites. Write for prices.

**W. W. CHOWN & CO.,** Belleville

**THE ERTEL IMPROVED Victor Incubator**

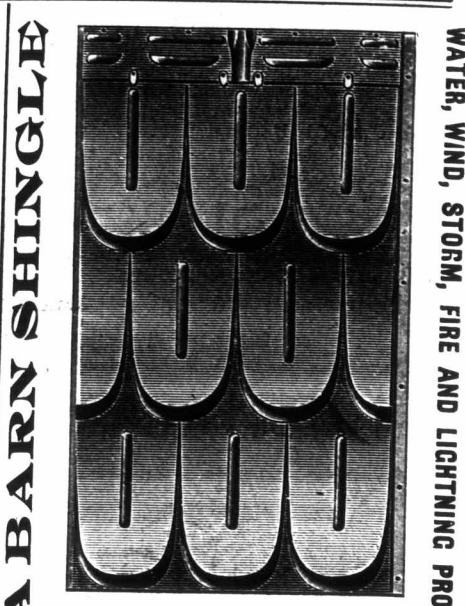


Absolutely SELF-REGULATING Indorsed by all as the most reasonable in price, finest finished, and perfect Artificial Hatching and Rearing outfit ever made or sold.

**THOUSANDS IN USE.**

Guaranteed as represented or money refunded. Circulars free. Catalogue 4c. Address Manufacturers,

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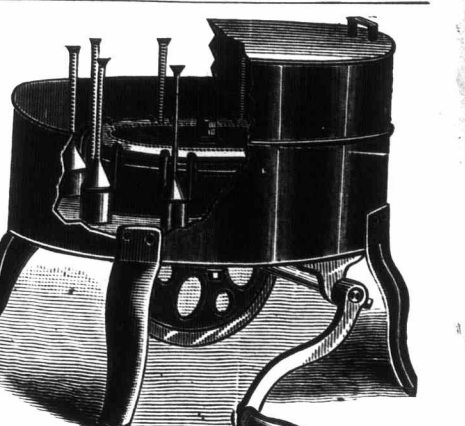


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The only steel shingle made in Canada that is designed especially for barn roofs. It embraces all the desirable features of other metal shingles, as well as many new features never shown before. Sold under a guarantee. Send for our new Catalogue before you place your order.

**THE PEDLAR METAL ROOFING CO.** Office and Works: OSHAWA, ONTARIO.



**HAWKEYE GRUB STUMP MACHINE.**  
Works on either STANDING TIMBER OR STUMPS. Will pull an ordinary Grub in 1/2 MINUTES.  
Makes a clean sweep of Two Acres at a sitting. A man, a boy and a horse can operate it. No Heavy Chains or rods to handle. The crop on a few acres the first year will pay for the machine. Send postal card for Illustrated Catalogue, giving price, terms, testimonials, also full information concerning our Iron Giant Grub and Stump Machine, Two Horse Hawkeye and other appliances for clearing timber land. Address MILNE MANUFACTURING CO., 67 & 68 St. Bonmouth, Ill. Sunnydale Shetland Pony Farm. For catalogue address Milne Bros. at above office and number. Breeders of Pure Shetland Ponies.



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**FARMERS' VETERINARY MEDICINES**

FOR HORSES.  
Colic Draughts, 50c.; \$5.00 per dozen bottles.  
Fever Draughts, 50c.; 5.00 " "  
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Wound Liniment, 50c.; 5.00 " "  
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FOR CATTLE.  
Purgative Drenches, 25c.; \$3 per dozen packets.  
Milk Fever " 25c.; 3 " "  
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Mammitis Lotion, 50c.; 5 " bottles.  
White Oils (strong), 50c.; 5 " "  
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These veterinary medicines are guaranteed scientific remedies for horses and cattle. A case containing one dozen remedies, assorted to suit the purchaser; price, \$5.00. Prepared by

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

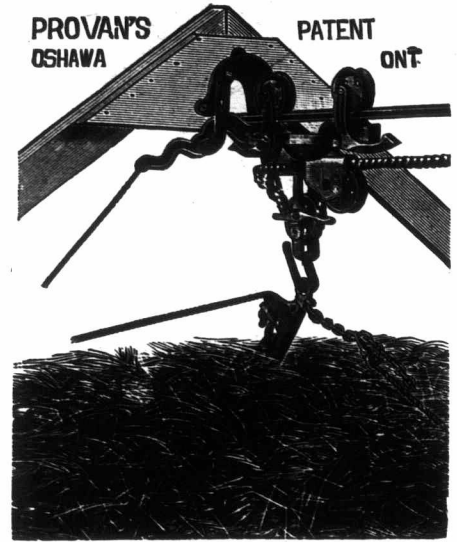
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**USE MYERS' ROYAL SPICE FOR YOUR HORSES & CATTLE**

1-y-om MYERS & CO., Toronto, C. nada.

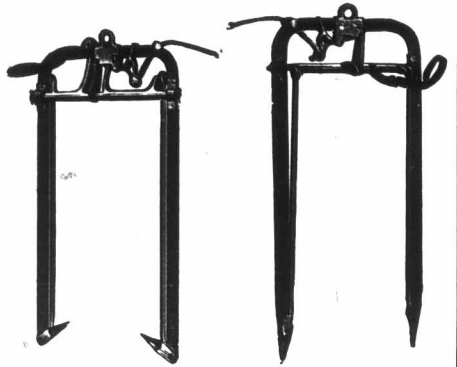
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**HORSE FORK AND SLING**  
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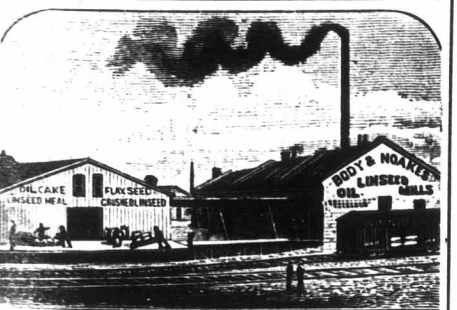


**SIMPLE, STRONG, DURABLE**  
Many farmers who had other kinds have taken them down and bought mine after seeing it work.  
My Machine Handles Sheaves as well as Hay and Peas—it is the Simplest and Best Stacker Manufactured.  
Our machine has been in successful competition for seven seasons, and its superiority to all others is now placed beyond a doubt. It is the only Double-Acting and Self-Reversing Machine on the continent that has the following advantages: A loaded fork or sling can pass the stop block. Our Pulley Hoister instantly raises or lowers the pulleys from or to the peak, thus avoiding climbing or unteasing the rope from the whiffletree. The track used with this car is the best for the following reasons: It acts as a strengthening brace to the barn; never warps or is affected by a side draw. The car runs easily, and can be readily moved from one barn to another. For unloading at the gable we have much the strongest end-lift, take up less room, and do not disfigure or weaken the building with posts or projecting beams.

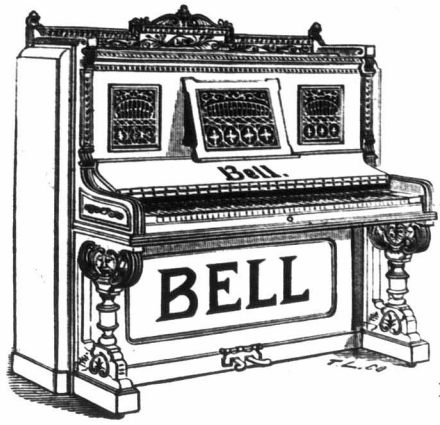
**GUARANTEE.**  
We guarantee every machine sold by us to do first-class work, and to unload one ton of hay in from three to five minutes, when properly handled and put up, and if it fails to do so, will be taken back and money refunded.



**SENDING TO FARMERS ON TRIAL**  
It has been for years a part of our business to send our machine on trial to fair-minded responsible farmers living at remote distances, such machine to be put up by them and used until their harvesting be half done, when they are required to decide whether they will keep the apparatus or return it; if the latter, we will pay return freight charges.  
**J. W. PROVAN,**  
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White, nutted or meal. Car lots delivered at any point. Write for prices. **BOY & NOAKES,**  
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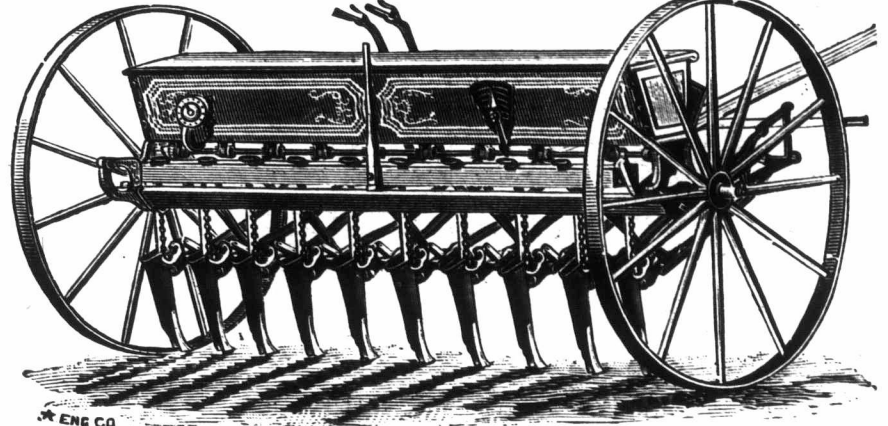


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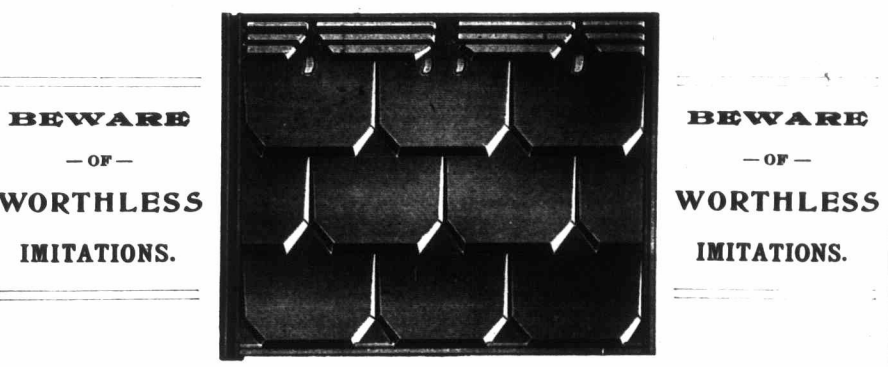
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There are Drills and Drills! But there is only One Hoosier!  
All Others are Back Numbers!  
The proof is, there are more Hoosier Drills in use in Canada to-day than all other Drills combined.  
No Purchaser Dissatisfied Yet? Why should they be, when they have got THE BEST DRILL EVER MADE? WE GUARANTEE THIS.  
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**EASTLAKE**  
**STEEL SHINGLES**



**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.  
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**"PLANET JR." ALL STEEL HORSE HOE AND CULTIVATOR**  
are sure to make things grow.  
Light, strong and easily controlled by convenient levers. Has attachments for all kinds of hoeing, cultivating and furring. Guaranteed superior to any. Our free catalogue tells all about it and 28 other tools.  
**S. L. ALLEN & CO., Philadelphia, Pa.**

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

Mr. J. C. Snell, Edmonton, Ont., writes: "The demand for Jerseys steadily increases, and enquiries are coming in from all the Provinces where the Advocate circulates, from Prince Edward Island to British Columbia. The people are realizing more than ever that to meet the exigencies of hard times and low prices the watchword of the progressive breeder and feeder must be to produce the greatest quantity of the best quality. The Jersey cow has proved herself the greatest dairy cow in all essentials that the world has ever produced. Now that nearly all cheese factories and creameries pay for milk on the basis of quality or butter-fat, the Jerseys are more than ever looked for to tone up the quality of herds that are lacking in that respect. We are offering some fine young cows, and heifers, coming due to calve in March, April and May, richly bred, good color and promising for usefulness."  
"Our sales of Berkshires in the last month have extended over a wide range of territory, from Maine, in the East, and Tennessee, in the South, to Nebraska, Manitoba and British Columbia. The trade has kept up well in spite of a temporary fall in the prices of pork, and the prospect is that it will continue to improve. We have still some very fine young boars and sows of October and November litters, and are booking orders for spring pigs, which will be due in March and April. All stock is wintering well and in perfect health."

**OXFORD-DOWNS AND SHORTHORNS AT MAPLETON.**  
Some five miles west of Guelph is Mapleton Farm, the property of Mr. Herbert Wright, whose advertisement appears in this issue. Mr. Wright is extensively engaged in breeding Oxford-Down Sheep, and Shorthorn cattle of the Cruickshank strain. The farm comprises some 200 acres, well adapted to either grazing or grain growing, on which is erected a handsome brick dwelling and substantial basement barns, including a large sheep barn, erected last autumn, a building which Mr. Wright had in contemplation for some time. The breeding of Oxfords has been a specialty on this farm for some years. The flock is composed of selections from the flocks of such noted English breeders as Jeffreys, Worley, R. Hobbs, Arkell, Iles, and W. Reading, and now comprises some eighty breeding ewes, in lamb to imported Hobbs and Reading rams. Thirty-seven shearing rams, a strong stock lot, and forty-two ram and ewe lambs, a good even lot, and the two imp. stock rams of Hobbs and Reading breeding. The ewes were just beginning to drop their lambs at the time of our visit, and were keeping the shepherd busy, having dropped thirty exceptionally smart, strong lambs inside of three days. With such a large flock to choose from, those desiring Oxfords would do well to pay Mr. Wright a visit before purchasing elsewhere. Mr. Wright also has a few good Dorsets that he will dispose of at a low figure, as he wishes to devote his time wholly to the breeding of Oxfords. Among the Shorthorns we noticed a fine young yearling bull, dropped at the World's Fair, whose dam has a record of two and a-half pounds of butter per day; also a few promising bull calves from Monarch of Mapleton, the present stock bull, bred by Mr. Arthur Johnson, of Claremont—an even, deep-bodied animal, rich red in color, with a head showing plenty of character, and standing on strong, short legs. The cows give evidence of being heavy milkers, a quality very desirable at the present time.

**AMERICAN CLYDESDALE ASSOCIATION.**  
At the last annual meeting of the American Clydesdale Association, the following officers were elected for the ensuing two years: President, R. B. Ogilvie, Madison, Wisconsin; Vice-President, Robert Miller, Brougham, Ont.; Secretary, Alex. Galbraith, Janesville, Wisconsin; Treasurer, David McKay, Fort Wayne, Indiana. Additional members of the Executive Board: Col. Robert Holloway, Alexis, Ill.; N. P. Clarke, St. Cloud, Minn.; L. B. Goodrich, State Centre, Iowa.  
The present Board have adopted a policy which will popularize their Association by lessening fees, etc. In view of the general depression now being felt throughout the world, Clydesdale interests have suffered along with the rest, but owing to the lively demand which is sure to come for first-class draught horses, the Association has decided to prepare for making a grand exhibit of their horses at the next Chicago horse show. It is felt by that Association that Canada can produce an exhibit which will surprise the American people. For the purpose of encouraging the largest and best exhibition possible on the occasion above referred to, this Association will offer the following liberal premiums: Teams in harness—First premium, \$200; second premium, \$150; third premium, \$100; fourth premium, \$75; fifth premium, \$50. Single mares or geldings shown to halter—First premium, \$100; second premium, \$75; third premium, \$50; fourth premium, \$30; fifth premium, \$20. It is confidently believed and predicted by large dealers and consumers that within three years at farthest there will be an absolute famine for choice and desirable draft horses. It becomes breeders to renew interest in this branch of operations, and retain the best mares for breeding purposes, and use only the best stallions. In making selections, the value of size, with substance and quality combined, should not be overlooked. If parties residing in either Canada or the United States, who are intending to make an exhibit of single animals or teams at the Chicago Horse Show, in November next, will give due notice to the Secretary, he can, by judiciously advertising the contemplated exhibits, doubtless secure ready market for them at the close of the show, at outstanding prices; and the larger and more imposing the exhibition, the more speedily can sales be effected and larger the prices realized, to say nothing of the great and lasting benefits that will accrue to the breed by the many converts that such a collection of the best grades would surely bring. In the Chicago market, exhibitors can safely rely on receiving from \$150 to \$200 for such pairs as the proposed exhibition should call out. These prices, added to the very liberal prizes offered, should be ample inducement to those who care to begin active preparations at once.

WATER, WIND, STORM, FIRE AND LIGHTNING PROOF  
Canada that...  
No Heavy...  
Iron Giant...  
Address...  
BROCK Alpha De...  
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STOCK GOSSIP.

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

The executors of the estate of the late F. W. Stone, Guelph, advise us that on Thursday, March 21st, at Moreton Lodge, near the O. A. C. Guelph, the entire herds of Hereford and Shorthorn cattle, Southdown sheep, together with horses and the farms (five parcels), 600 acres in all, will be disposed of at public auction.

MR. SMITH EVANS' OXFORD-DOWNS.

Our next visit was to the farm of Mr. Smith Evans, of Gourock, some six miles south-west of Guelph, who has succeeded in establishing a first-class flock of Oxford-Down sheep, numbering some fifty head, which we found in excellent shape. The breeding ewes, some thirty in number, from such flocks as Jeffreys, Adams, Treadwell, Brassey, and Fox, are large, even lot, of very uniform type, and in fine breeding shape, in lamb to an imported Adams ram, purchased by Mr. Evans last fall, — a blocky, well-made shearing ram, with a beautiful pink skin, a well-covered head, and short, well-wooled legs. The coming crop of lambs from this ram should be something good. An imported Jeffreys ram was also used on some of the flock, so that Mr. Evans will be able to supply lambs not akin the coming season. The ewe lambs, some twelve in number, are a handsome lot, remarkably large, of good quality, well covered, and in splendid condition. The ram lambs, also, were in fine trim, — large, stocky fellows, which should make good stock rams. Selections from this flock have been shown successfully at Toronto, London and other leading fairs for a number of years past, and no doubt will be heard from the coming season. The flock give evidence of careful breeding and close attention.

WILLOW GROVE HERD OF JERSEYS.

Nine miles west of Toronto, and one mile north of Highfield, is the farm of Mr. J. H. Smith & Son, breeders of high-class Jerseys of the St. Lambert, St. Helier and Signal strains. At the head of the herd is Hugo Alpha, of Oaklawn (23499); sire Hugo Pogis of Elmarch (16318); dam Maid Alpha (27983). He was bred by D. A. Givins, Cynthiana, Kentucky, and is a wonderfully good animal, being placed first in his class and heading the herd at all the leading fairs of 1894. King of Highfield is an extra good yearling bull, of which more will probably be heard in the near future. He won first place at Toronto, 94. Signal Rosa May (50022) is a cow that has done herself and owners much credit, as she has never been beaten in her show-yard career. She held the proud position of being the sweepstake female at the Industrial and Western Fairs last fall; in color she is a nice fawn; her milk veins are well defined, giving evidence of a correct dairy type; she has a record of 22 lbs. 10 oz. in 7 days; her sire was Signal's Laddie (11100), her dam, Rose (43893). Cantata of Oakdale (78951) is another beautiful cow in this herd, and a heavy milker. Her dam, Dolly of St. George, was sold by Mr. Valancey Fuller for the handsome sum of \$4,000. Elena of Oakdale (84102), sire St. John (18876), dam Monies the 3rd (29 lbs. 1 oz record). She was bred by John Lee, of Oakdale, Pickering, and has a record of 15 lbs. 6 oz. at two years old. Fame of Oakdale (83335), sire Dean of Oakdale, dam Beulah, bred at Oakdale, is another fine cow, rich fawn in color and of grand milking qualities. These four cows, headed by Hugo Alpha, were the sweepstake herd of 1894 at Toronto, London, and all other places shown, and winners of first money in their respective classes. We were particularly well pleased with the heifer Queen of Highfield, shown so successfully last fall as a calf, carrying first at Toronto. She has a most promising udder, and is of the right type throughout. She was sired by Hugo Alpha of Oaklawn, dam Fame of Oakdale. We also noticed a promising young bull, 7 months old, sired by Hugo Alpha, and his dam an excellent milker. A number of promising young bull and heifer calves, and heifers to calve shortly, were seen, also a few good grade heifers to calve soon.

MR. DANIEL DECOURCEY'S CHESTER WHITES.

A drive of some seven miles through badly-drifted roads, and facing a biting north wind, brought us to the farm of Mr. DeCoursey, Bornholme, Ont.; but on the inspection of the herd the writer felt well repaid for his trouble, and was impressed at once with the thought that the breeder must be a thorough judge, judicious in mating, and a careful feeder, in order to obtain such results as we saw before us. Mr. DeCoursey believes in keeping nothing but first-class stock for breeding purposes; and in adding fresh blood to his herd, he purchases nothing but the best he can obtain. This herd has been successful winners at all the leading fairs for a number of years, and are a credit to the owner. Illinois King (381), an imported hog, bred by N. G. Alexander, Delavin, Ill., headed the herd; he was sired by Mack A (5801), dam Duchess 2nd (5084). He is a very smooth hog, with good length of body, and extra broad on hams, standing on short, stocky legs, his feet being of the right type. Glanworth King (228) is another stock hog being used on this herd; a very lengthy, strong hog of good bone and substance—bred by R. H. Harding, Thorndale. Among the breeding sows we particularly noticed Anastacia (226), a model Chester White sow, admired by all who see her for her size, straightness of body, smooth head and shoulders, long body, with well-sprung ribs, well-ched hams, and standing on good, fine, flinty legs; bred by Mr. DeCoursey, and sired by Ed Morris (50), a noted stock hog and American prize winner; dam White Rose (13). In the same pen with Anastacia was Topsy (28), a very fine young sow, sired by Baker (5), dam White Rose (13). Another fine sow is Dew Drop (503), suckling a litter of ten fine pigs at the time of our visit. She gives every promise of turning out an extra good sow. We also noticed Lucy (18), Lady D (389), and Curly Leg (302), sired by Archie Silver 2nd, dam Bessie 2nd, a number of other young sows well worthy of mention. Persons wanting first-class stock would do well to visit Bornholme herd of Chester Whites, or write their wants to the proprietor who will quote prices on choice stock, to suit the times. Although not an exhibitor in 1894 stock bred by Mr. DeCoursey, and that descended from his herd, were the most successful winners at Toronto and London last season.

SUDDEN CHILLS & COLDS. AT THE COMMENCEMENT OF AN ATTACK TAKE A TEASPOONFUL OF PERRY DAVIS' PAIN-KILLER AND THE CURE IS MORE SUDDEN THAN THE CHILL

ASTHMA, Distressing Cough, SORE JOINTS —AND— MUSCLES. Despaired OF RELIEF. CURED BY Ayer's Cherry Pectoral

"Some time since, I had a severe attack of asthma, accompanied with a distressing cough and a general soreness of the joints and muscles. I consulted physicians and tried various remedies, but without getting any relief, until I despaired of ever being well again. Finally, I took Ayer's Cherry Pectoral, and in a very short time, was entirely cured. I can, therefore, cordially and confidently commend this medicine to all."—J. ROSELLS, Victoria, Texas.

"My wife had a very troublesome cough. She used Ayer's Cherry Pectoral and procured immediate relief."—G. H. PODRICK, Humphreys, Ga.

Ayer's Cherry Pectoral Received Highest Awards AT THE WORLD'S FAIR

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

To Smokers

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

A Combination Plug of

"T & B" SMOKING TOBACCO.

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

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

INCUBATORS We Warrant The Reliable

Farmers!

A WORD about Horse Forks. Now is the time to be preparing for summer work; send in your order at once for one of our Improved Horse Fork outfits, price \$18.00, complete, as follows:—

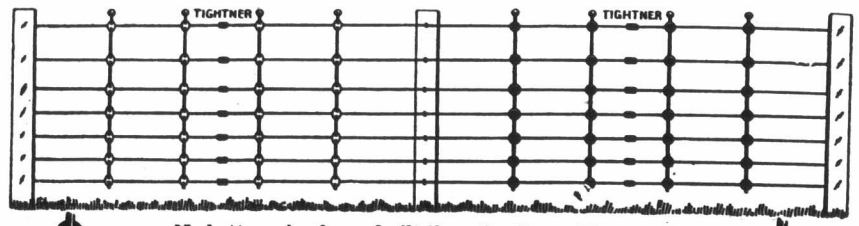
- One improved combination swivel and reversible carrier. One Columbian improved double harpoon fork. Twelve rafter brackets. Twelve rafter hook bolts. Three horse-fork pulleys. Three strong iron screw pulley hooks. Sixty feet of trip rope. One hundred and thirty feet of pure manilla rope.

The above constitutes a complete horse-fork outfit. Full directions for hanging accompany each fork. Write for full particulars to

STANLEY MILLS & CO., HAMILTON, ONTARIO.

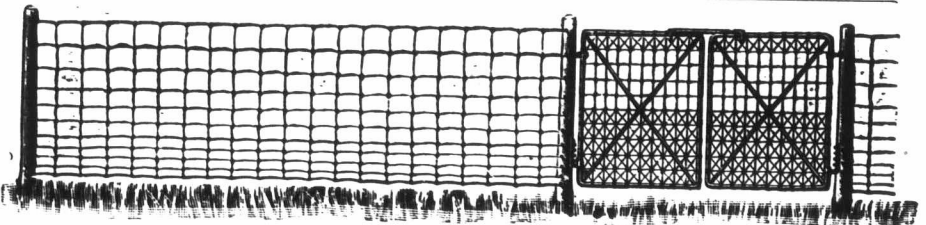
Mention this paper.

Our new spring catalogue is now ready for distribution. Many of our goods are cheaper than ever. 2-y-om



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



NEVER SAW A GOOD WIRE FENCE!!!

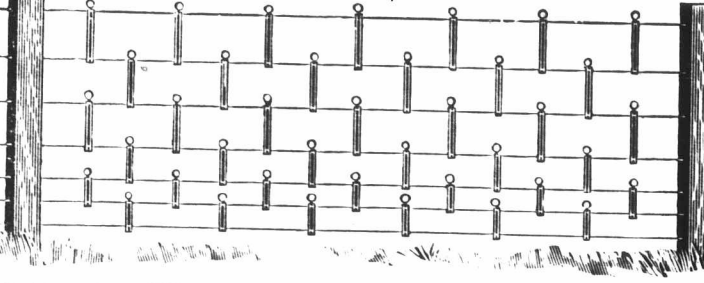
AN Ontario County farmer writes that any wire fence that he has seen will sag if anything comes against it, or snow drifts on it, and when once stretched will always remain loose. He has never seen the PAGE, and asks where the nearest stretch in use is.

Perhaps your experience is the same, and you have about given up the search for a good wire fence. If so, or if you haven't before thought of using a wire fence, we wish you would send for particulars of the PAGE. You can send on a post-card, and we will forward our descriptive circular and illustrated monthly paper. It will pay you to investigate, even if you never buy.

We have not space here to fully explain the merits of the PAGE, but its especial feature is the coil. In making the fence each foot of the steel wire used is coiled once around an inch rod, thus each wire of the fence becomes an elongated spring. This spring allows the fence to give when under a strain, and come back to place as soon as the strain is removed. It makes no difference whether the strain is an instantaneous one, as of a horse running into it, or a steady strain such as being under a snow bank for a month; in either case the fence will surely come back to place and never remain loose. Our monthly paper will tell you more about it.

THE PAGE WIRE FENCE CO. OF ONTARIO (Ltd.), WALKERVILLE, ONT.

BUCHANAN'S FLEXIBLE SPRING STEEL PICKET and WIRE FENCE.



M. T. BUCHANAN, Ingersoll, Ont., Manufacturer Wire Fence, Hay Carriers, Hay Forks, and a full line of Hay and Grain Choaders. Agents wanted.

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 & SONS, THOROLD, ONT. 13-y-om

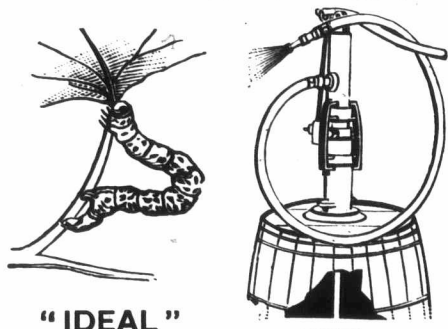
NOW IS THE TIME!

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

If you want excellent returns write for particulars of our Com Steel Windmills, Com 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 gear-ed 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.

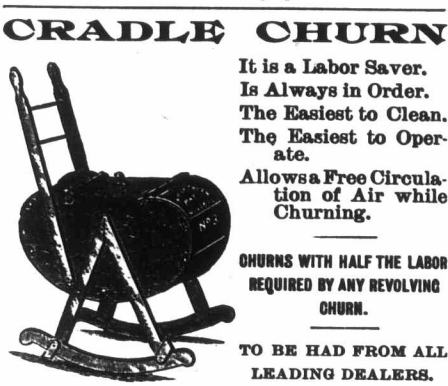
ONTARIO WIND ENGINE & PUMP CO. 367 Spadina Ave., TORONTO, ONT.

Ideal SPRAY PUMP.



"IDEAL" SPRAY PUMP SIMPLE, EFFECTIVE, RELIABLE. Reasonable Price. BRANTFORD CAN. Manufacturers of Steel Wind Mills, Iron Pumps, Tanks, Grain Grinders, Beekeepers' Supplies. Mention this paper.

CRADLE CHURN



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. "Awarded first prize at Toronto Industrial Fair over all competitors." Address: CHAS. BOECKH & SONS, Toronto, or to the WATSON MANUFACTURING CO., Ayr, Ont.

LEADER CHURN.



Ask your dealer for the LEADER CHURN WITH PATENT GAS VENT. Best Churn in the market, or write direct to manufacturers for Catalogue. DOWSWELL BROS., HAMILTON, MANUFACTURERS OF Churns, Wringers, Washers & Mangles. 13-1-y-o

THE KEYSTONE CHORNER

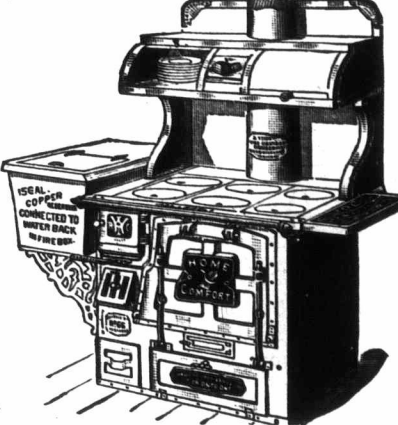
Clean on all sides—does not crush. The humane, rapid and durable knife fully warranted. Highest World's Award. Descriptive Circulars Free. BROSIUS, Cochranville, Pa. 21-L-om

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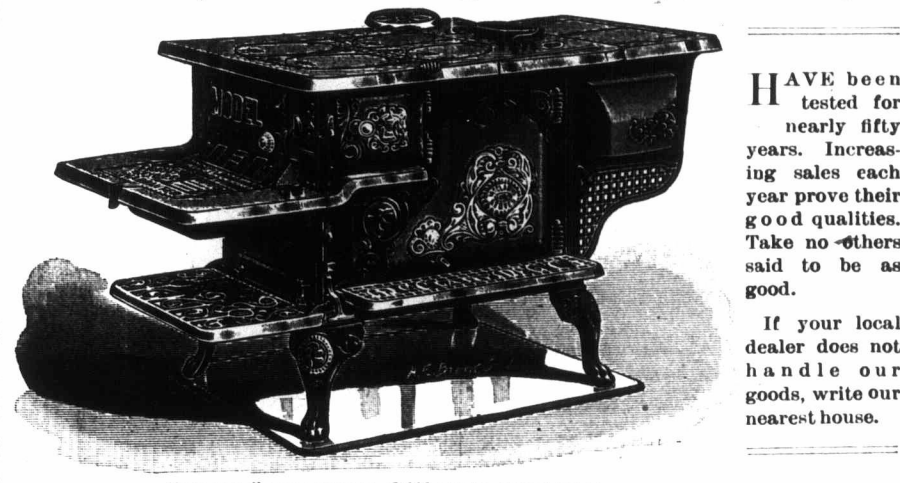
THREE GOLD and ONE SILVER MEDAL THE WORLD'S INDUSTRIAL and COTTON CENTENNIAL EXPOSITION. NEW ORLEANS, 1884 and 1885. HIGHEST AWARDS NEBRASKA STATE BOARD OF AGRICULTURE, 1887. DIPLOMA ALABAMA STATE AGRICULTURAL SOCIETY, At Montgomery, 1888. AWARD Chattahoochee Valley Exposition, Columbus, Ga., 1888. HIGHEST 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, SALESBROOMS 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.

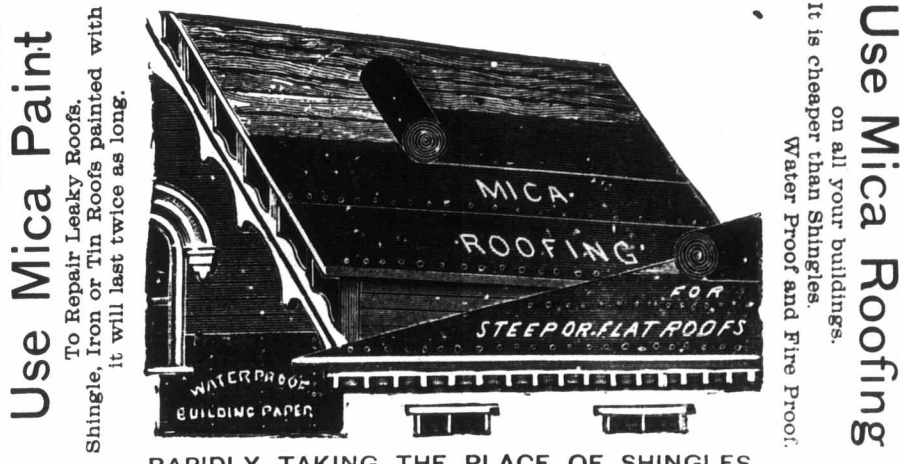
Above Style Family Range is sold only by our Traveling Salesmen from our own wagons at one uniform price throughout Canada and the United States. Made of MALLEABLE IRON and WROUGHT STEEL and will LAST A LIFETIME if properly used. SALES TO JANUARY 1st, 1895, 299,327.

McClary's FAMOUS STOVES.



"MODEL" FOR WOOD—2,000 SOLD ANNUALLY. THE McCLARY MFG. CO. 7-y-om LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER.

MICA ROOFING



Use Mica Paint To Repair Leaky Roofs. Shingle, Iron or Tin Roofs painted with it will last twice as long. Use Mica Roofing on all your buildings. It is cheaper than Shingles. Water Proof and Fire Proof. RAPIDLY TAKING THE PLACE OF SHINGLES. I put up in rolls of 108 square feet each, 36 feet long by 3 feet wide, and cost 2 1/2c. per square foot, thus affording a light, durable and inexpensive roofing suitable for buildings of every description, and can be laid by ordinary workmen. One man will lay ten square in a day, which brings the cost of Mica Roofing about 75c. per square cheaper than shingles. Special terms to dealers who buy our Mica Roofing to sell again. Orders and correspondence answered promptly. HAMILTON MICA ROOFING CO., Office—101 Rebecca Street, HAMILTON, ONTARIO. 12-y-o

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate. F. A. Folger, "Rideau Farm," Kingston, Holstein breeder, announces a special offering in bull calves, in this issue, to which attention is directed.

Wesley W. Fisher, Ben Miller, writes us that his spring litters of Poland-Chinas are commencing to put in an appearance in good form. Many of his sows yet to farrow are in pig to his stock bear, Kent Duke 466. We visited this herd a short time ago, and found them a good lot, well looked after. See his advertisement in this issue.

Jas. Smith, Crescent Stock Farm, Paris, Ont.:—"My sale of stock was a very satisfactory one, the Shropshire sheep especially making good prices, considering the depressed state of the sheep business. Sixteen shearing ewes made an average of \$13.55; four three-shear ewes averaged \$17.50, and sixteen four-shear ewes, \$16.25; imp. four-shear ram, \$25; ewe lambs from \$5 to \$12 each; three-year-old Durham bull, \$76; brood Yorkshire sows from \$14 to \$20.

W. C. Edwards & Co., Rockland, report:—"The stock is all doing well, especially the young things. We have some young bulls that are sure to give satisfaction to whoever shall get them. We have decided to dispose of the red two-year-old imported bull, Knight of Lancaster. He was bred by Mr. Duthie, and sired by his noted stock bull, Scottish Archer. He is full brother to Scottish Sportsman, one of the bulls we are now using. He is very smooth and stylish and fit to head any herd."

J. E. Brethour, Burford, writes that the demand for good breeding Yorkshire swine continues active, and the attention of our readers is directed to special offerings he is now making, notably in reference to foundation herds. "I am now booking orders," he adds, "for spring pigs, and I am in a better position than ever before to supply stock suitable for exhibition or breeding purposes. The low price of grain ought to encourage every farmer who has any accommodation for keeping pigs to feed all his grain to them, and he will increase the fertility of his farm, and add to his profits."

Messrs. Tape Bros., Ridgeway, Ont., write:—"The demand for Duroc-Jersey pigs continues to increase with unlesened activity. During the last few months we sent pigs as far west as Assinabola, and east to P. E. I., and have never failed to please our customer. They are all bred from imported and prize-winning stock. Our lot of brood sows are in good condition, and we expect a large crop of pigs in the spring. We have very recently added to our herd a young boar from the herd of E. H. Small, of Illinois; we purchased him regardless of cost, and have secured a perfect specimen of the Duroc-Jersey breed. He is sired by Norwood King, No. 3897, dam First at St. Louis, 8338. We are breeding our young sows to him and have no doubt about the result. The following is a list of recent sales:—Wm. K. Smille, Kippen, a pair; Francis Gifford, Dawn Mills, a sow; Warren Graham, Dutton, a boar; B. S. Russell, Charing Cross, a boar; J. Leslie Pool, Lower Montague, a boar; a pair; Charles McKenzie, Auburn, a boar; S. M. Howard, Bondhead, a boar; Alex. Grey, Brucefield, a sow; John Balmer, Thamesville, a boar; John V. Mills, Cedar Springs, a boar."

Mr. Arthur Johnston, of Greenwood, Ont., writes to this office as follows:—"The herds of pure-bred Shorthorns in these parts were never in finer form, notwithstanding the hard times and general depression in all lines of business. Indeed there seems to be a hopefulness prevailing among the breeders of Shorthorn cattle that is wanting in almost all other branches of the farmer's business. This, I believe, arises from the fact that it becomes more and more apparent every year that they are and that they are destined to be pre-eminently the farmer's cattle, as distinguished from the professional dairyman's cow. While they are unquestionably vastly the best milkers of the beef breeds, they are at least the equals of any living breed as makers of the greatest quantity of the best quality of beef. If, as has been proven by careful tests on both sides of the Atlantic, the Shorthorn cow is at present the equal as a milker and buttermaker of any of the so-called milking breeds, after very many years' neglect of that important property, what may she not be brought to by careful breeding with this quality kept constantly in view, as many of us are now doing? I firmly believe that the time is not far distant when the Shorthorn cow will have no rivals as a dairy cow, though this same training in breeding may, to some extent, lose to her her place in the very foremost rank as a cheap producer of the best quality of beef."

AMERICAN SHORTHORN BREEDERS' ASSOCIATION

Secretary J. H. Pickrell, Springfield, Ill., of the American Shorthorn Breeders' Association, writes:—"In view of a resolution adopted a year ago, requesting the board of directors to take into consideration the matter of reducing rent and office expenditures, the general office shall now be located at the Grand Pacific Hotel, Chicago, where the annual meetings of the stockholders and directors will, as heretofore, be held, and that Springfield, Ill., be selected for the business office. In accordance with the spirit of the above movement, all office clerks were discharged after Dec. 31st, 1893, and the salaries of the secretary and assistant reduced \$1,320 per year from Dec. 1st, 1893. With such sweeping reduction of clerks, much work that would have gone on had to be over. Entries for Volume 39 closed Aug. 20th, 1891, and it is expected to be ready for distribution by the latter part of winter or early spring. Among the rules for entry are the following:—For recording pedigree of each animal under six years, \$1; for each animal over that age, \$5. For transferring each bull from S. H. Record; Ohio, S. H. Record, England H. Book or Dominion H. Book, 25 cents. For certifying to duplicate and returning same with seal of the Association, 25 cents. For copying pedigree, 25 cents; when to be returned with seal, 25 cents extra. Blank Short form free; long form, \$1 per hundred. All pedigrees for Volume 40 to be sent at once to J. H. Pickrell, Secretary, Springfield, Ill."

