

# FARMER'S ADVOCATE

AND HOME MAGAZINE.  
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## THE FARMER'S ADVOCATE & HOME MAGAZINE

WM. WELD, PROPRIETOR.

THE LEADING AGRICULTURAL JOURNAL PUBLISHED  
IN THE DOMINION.

The FARMER'S ADVOCATE is published on or about the first 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.

**Terms of Subscription**—\$1.00 per year in advance; \$1.25 if in arrears; single copies, 10c. each. New subscriptions can commence with any month.

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### Special Notice.

On January 6th last Mr. Wm. Weld, proprietor of the FARMER'S ADVOCATE, purchased the Job Printing and Lithographing Departments of the London Free Press Printing Company, and is now operating the same. This office is probably the largest in Canada, certainly the largest in Western Ontario. The work done is not excelled on this continent, and efforts will be made to push it more than ever to the front. In Lithographing, Engraving, or Printing, the facilities for all classes of work are unsurpassed, and rates reasonable. Breeders' catalogues completed and delivered six days after receipt of copy. Posters, Diplomas, Letter Paper, Envelopes, Cards, Circulars, etc., returned a few hours after copy reaches us. We have hundreds of stock cuts, covering different breeds, that patrons can select from; no extra charge will be made for the use of these engravings to parties placing their orders with us. Mail orders promptly attended to.

Address  
LONDON PRINTING & LITHOGRAPHING CO.,  
London Ont.

### Notice to Correspondents.

From lack of space we have been forced to leave over much important editorial and departmental matter. This includes editorials concerning one of the large Fair Boards, The Imperial Produce Company, Two rowed barley, Mr. J. C. Snell's reply to Mr. Dryden's "Quality vs. Quantity," and much besides. Our friends will accept the explanation in lieu of private letters. All these articles will appear in our April issue. In sending manuscript to us, post it so that it will reach our office by the 15th of the month. Write to the point, and briefly. No single article should occupy more than one column and a-half; if you require to write at greater length, arrange your article so that it can be continued. *Practical, seasonable articles condensed* are what we want and what the farmers will read.

## Editorial.

### Editorial Notes.

Many farmers in Canada to-day are deploring the low prices of farm produce, and for many a sober, industrious, hard-working toiler the outlook is anything but bright. The farmer with only grain to sell has, however, the darkest outlook. Prices are away down. It is true that in some sections the yield for the past year was larger than usual. In some rare cases the extra quantity was enough to make up for the lowness of price. With others the low prices mean actual loss, and there is no prospect of things becoming better in the immediate future. The causes for this are many and various. Increased transport facilities have very much lowered freight rates; new land is coming into cultivation, and competition is lowering prices. Wheat is now largely grown in British India, with very cheap labor; other grains have similar competition, and chemical substitutes are said to be largely used instead of barley. The stock farmer has a better prospect—cheap, coarse grains mean a better chance for him. It is true that many feeders complain of the low prices paid for fat cattle, but the shrinkage in value is not nearly as much as in the case of grains. Canadian farmers must keep more stock, and send the products of their farms to market in a better shape. Grain growing exhausts the soil, and to keep up its fertility manure is required.

The best manure for Canada is barn-yard manure. To get plenty of it and cheap, more animals must be kept. Different sections may be differently situated, and require different kinds of stock farming, but as a general rule mixed farming will be found the best, with one leading department pushed for all it is worth. There are now very many farmers who feed all the grain they raise, and there are others who buy feed in large quantities, and whose farms are yearly increasing in fertility and value. These men find it pays to feed well, no matter what class of good stock is handled, but the stock must be good of its kind. There is no profit in keeping scrubs. They will never pull off the mortgage, or swell the bank account.

Horses the past year have sold for fair prices. There is a good demand at paying prices for matched carriage teams. There is a sure and steady market for good, sound, heavy draught teams, which are always wanted. If medium sized, the prices are fair; if very heavy, prices are always high for good animals, with flat bone and good pasterns. Those who are breeding regis-

tered heavy draught animals have found a good steady demand at good prices. This is a line of stock-raising not likely to be overdone, and one that can be carried on to a moderate extent on almost every farm. Cattle have not been high in price, but have, when good and well fed, left a fair margin.

We regret that in many sections of Canada the feeding cattle are not so good as they were years ago. This is not as it should be. More and better animals are needed. In Britain a great many cross-bred animals are raised for the butcher. They feed well, mature early, and give greater weights than the pure-bred. Almost any good cross will do. Shorthorns on grades, Herefords, Angus or Galloways on Shorthorn grades. They feed well and make good beef. Much is lost every year by breeding scrubs. Let them go, good animals can be got at reasonable prices. Try them instead. Much money is lost by wintering young animals on straw—starvation rations. Grain is cheap; let them have some of it—they keep better, winter better, and they will pay better.

Much has been done to help on Canadian dairy interests. Let the dairymen feed some of the cheap grain. It makes good milk, good butter, good cheese, and keeps the cows in good heart. The coarse grains are needed to help on this most important industry, and the value of the manure from grain fed cows is not always rated as high as it deserves.

In Great Britain they have an industry not yet developed here, and that is raising the calves of the dairy farmer. Calves are contracted for and taken away when young. They are raised partly on milk and partly on specially prepared foods, are well cared for, well fed and well wintered, and the following fall are sold to the feeders as store stock. A special business is made of this. For this purpose the dairy cows are usually crossed with a bull of a good beef breed. Perhaps in this way a number of good stores could be raised for our Aberdeen friends, who have inaugurated the live cattle trade.

Many are crying out against shipping store cattle. They say we should feed our cattle here instead of sending them in one ship and the feed in another to enrich the shrewd Scotch feeder. If they can be raised and sent out at a profit, we may as well do it. There is plenty of room to raise far more cattle than we do; and the prices realized at late sales would seem to show that there is money in the trade. The Scotch farmer has his feed laid down in some cases

cheaper than the Canadian farmer can raise it. Corn as an example: It can be laid down in Dundee or Aberdeen from Chicago cheaper than in London, Ontario. The home feeder can send to London, England, the Canadian store steer of his feeding in better order than the Canadian animal fresh from the Atlantic trip. He has all the winter months to work on. The long rail route to Halifax and the rougher sea voyage practically bars us out of the market the whole winter. Canadian cattle forwarded then usually go by American ports and are slaughtered on landing.

The cattle that are going to pay are the well-bred ones, fed well from the day they are dropped right on till the day they leave the farm. If they are fit to go coming two years old so much the better. The money is in good, early maturing animals.

What about sheep and pigs? The latter have been paying well the past year, and probably more will be raised this year. Sheep are also doing fairly well. The price of wool has advanced somewhat, and lambs are in good demand. Good heavy sheep in good condition for shipping have been paying. Mutton is the very best flesh food, and is more largely used in England than here. Every farmer should have a few sheep. They will pick up food that would be otherwise wasted, and the droppings are most valuable as manure. Sheep love the dry hill tops and the herbage that grows there, and if they have that and plenty of pure running water they will do well.

The breeders and importers of pure-bred sheep have had a good demand the past year, especially the medium-wooled sorts; but all have done fairly. Some farmers make sheep the main stock and do well with them.

In looking over the stock list to replace grain growing, do not despise the sheep. Give them a place, and you will not regret it. And now what will your line be? What stock will you keep? Generally a farmer will do best with what he takes most interest in. That for his main line, but do not despise the others. Mixed farming—mixed stock-raising will often do best—but stop the all-grain trade and give the stock a show.

#### Dominion Associations.

##### HOG BREEDERS' ASSOCIATION.

The annual meeting of the Canadian Hog Breeders' Association will be held in Shaftesbury Hall, Toronto, corner Yonge and Queen streets, March 12th. The meeting will be opened at 10 o'clock and continue throughout the day. A full and interesting programme is prepared. Professor James Robertson and other leading gentlemen will address the meeting.

##### SHEEP BREEDERS' ASSOCIATION.

The annual meeting of the Dominion Sheep Breeders' Association will be held at the same place, commencing at the same hour, on the 14th of March. The programme is of more than usual interest to sheep breeders: "The Selection of Judges for the Various Breeds," "Our Relation to Fair Managers," "The Railroad Rates During Fall Fairs and Other Times," also other important matters, will be discussed.

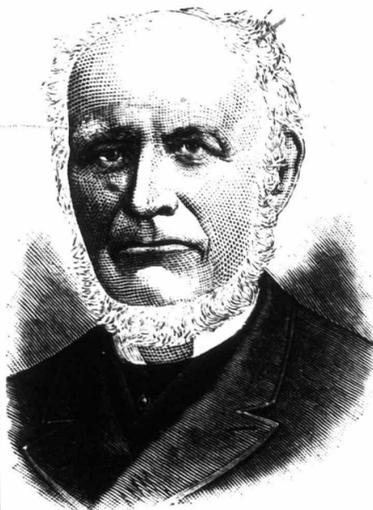
##### CLYDESDALE ASSOCIATION.

The annual show of the Canadian Clydesdale Association will be held at the Drill Shed, Toronto, on March 13th. Every breeder should attend these meetings. Write Mr. H. Wade, Toronto, for railroad certificates which will allow you to attend any of these meetings at reduced rates.

#### Hon. Robert Read.

We present on this page a portrait of the Senator, the Hon. Robert Read, of Belleville. He is one of the number who accompanied the delegation appointed to wait upon the Postmaster-General concerning the charge of postage on publications issued less frequently than every two weeks. Our readers will, no doubt, have retained fresh in their memories the report we gave on page 101 of the April number of 1889.

The Hon. Senator is an extensive farmer, and keeps a large number of dairy cows. He caused the first cheese factory to be erected in Canada, east of Oxford County. Although elevated to the Senate, he is not above his business, but devotes a considerable portion of his time and talent to the interests of agriculturists. We heard him opposing measures that would have caused the expenditure of millions, but could never have been of any benefit to our country, excepting the contractors and a few favorite individuals. Also on the occasion of our deputation, he frankly told the Postmaster-General that he came to advocate "fair play."



He has fought for the farmers' interests, and deserves their thanks. Would it have been right to pass the act that was introduced, compelling the publishers of monthly publications to pay postage, and at the same time allow all political papers to pass free of postage?

It has ever been the policy of the FARMER'S ADVOCATE to elevate the thoughts of its readers more towards that which is right and just, than toward party or sect squables. The high, ennobling, enriching field of agriculture, untrammelled by party or sect, has been our field. We trust that you, as intelligent men, will inquire fully into these acts we have alluded to, and hope also that you will soon awake to your own interests by sending to Parliament more men like the honorable gentleman whose portrait adorns this page. The time has come when farmers can no longer afford to blindly follow a party. They must consult their best interests in all political matters. If they do this and act as a body, the national depression which now exists will soon pass away. With a prosperous agricultural class, the country must prosper generally; as the roots are to a tree, so are the agriculturists to the nation. For several years the farmers have suffered loss or have not

advanced; few indeed are making suitable interest on the money they have invested. It behoves every man in the land to enquire as to the cause, and help to remedy the evil. But not until the farmers agree to unite to fight for their cause will they receive the consideration they ought. If they would unite, every man and every cause would be compelled to bend to their will. Systematic organization and determination of purpose is the great need of agriculture to-day.

#### What Our Seedsmen Write Us.

Steel Bros. Co., Toronto, write:—We gladly comply with your request, and herewith hand you necessarily condensed reports of some new varieties of seeds we are offering this season.

**Oats.**—The American Banner oats have done remarkably well in Canada the last two years, in many cases producing ninety bushels per acre. The grain of this oat is large, white and plump, weighing from thirty-six to forty-five pounds to the measured bushel, and ripening early, the straw being stiff and strong. These, with Wide-Awake oats, are the leading varieties for the year. Farmers in Ontario, as well as the Northwest, will find in these two varieties something really reliable and worthy of trial. Our practice is never to recommend a thing more than it deserves, and we have no hesitation in placing these varieties at the head of the list.

**Barley.**—Of this we have nothing new, but carry some very fine samples of Chevalier and Six-rowed, raised by that noted farmer, Simpson Rennie, Esq., of the Prize Medal Farm, Scarborough.

**Mangels.**—This season we are fortunate in procuring from Europe a New Giant Intermediate Mangel, which comes to us very highly recommended, as producing enormous crops, and an excellent keeper. We find the average of mangels increasing yearly, and it will continue to do so, as our farmers turn their attention more to dairying.

**Carrots.**—Now, sir, you will pardon us if we take up considerable space here, for we, like the rest of mortals, have our hobby, and here it is. We have no wish to bore you, but when one has a really good thing and knows it, to keep it to yourself is a sin—a positive crime. Now listen to the praises of our New Short White Carrot, which please do not confound with common white Vosges. Mr. Alfred Brown, of Bethel, raised roots of this carrot weighing eight and one-half and nine and one-quarter pounds, and nine feet of drill produced a heaped bushel; consequently, having such magnificent roots he swept the board at all county fairs. Professor Saunders, Experimental Farm, Ottawa, says they produced "the finest crop we ever grew." This carrot took first prizes at Industrial, Provincial and numerous other fairs, and they are without doubt the largest and heaviest cropping carrot grown; thirty tons per acre have been raised. We have no hesitation in saying there is nothing to equal it, and we hope all your readers will give it a trial.

**Grasses and Clovers.**—We are informed, both by our travellers and numerous correspondents in the Northwest, that there is a growing demand there for grasses and clovers that will stand their climate, and with this in view we have given the subject considerable attention, and are now offering, illustrating and describing in our 1890 catalogue those varieties most likely to succeed there. Sainfoin and Lucerne are probably what will suit the requirements of this vast and growing country, the great tap root of

the latter penetrating in some cases as much as twenty feet.

We, sir, believe in the future of our country, and take pleasure in endeavoring to assist in its growth, remembering the saying, "That man is a benefactor to his country who has made two blades of grass grow where only one grew before." And you, sir, will know:—No grass, no cattle; no cattle, no manure; no manure, no crops. We shall be pleased to continue our remarks on corn, potatoes and turnips for next issue.

Mr. George Keith, Seed Merchant, Toronto, writes:—

**Spring Wheat.**—The Red Fife and White Russian varieties still head the list, both for large yields and good samples, in this district.

**Oats.**—The best sample received this year is the Black Tartarian, which has yielded an immense crop. I would recommend farmers to procure pure, imported seed.

**Mangels.**—Carter's Mammoth Long Red still holds its place at the head of the mangels. 1,960 bushels have been grown to the acre.

John A. Bruce & Co., seed merchants, Hamilton, Ont., write:—The past season in this section was very unfavorable for spring wheat. The long continued drought during July and the early part of August caused a premature ripening, and in consequence the grains are all more or less shrivelled. The leading varieties are:—White Russian, Manitoba, Red Fife, The Magyar, Lost Nation, Red Fern, White Fife and Mars.

**Oats.**—The favorite sorts in this section are:—Black Tartarian, Egyptian, Early Calder, Triumph or Cluster, White Russian, Welcome, Scotch Potato and Prince Edward Island. During the past season the following new varieties were tested in various sections, and, notwithstanding the unfavorable season, the reports were encouraging:—Giant Swedish, Early Archangel, Holstein Prolific. The coming season will no doubt thoroughly test their adaptability to our climate.

**Barley.**—The only kinds cultivated in this locality are the ordinary four or six-rowed, also Rennie's Improved Six-Rowed. The Chevalier or two rowed is being enquired after, and the prospects are that it will be thoroughly tested during the coming season in all the favorable barley sections in Ontario.

**Buckwheat.**—The Common Grey is the leading variety, but the New Japanese was grown to a considerable extent, and reports of its great productiveness and large grain will, no doubt, soon make it better known.

**Mangel Wurzel.**—This is a large and yearly increasing crop. The kinds most largely grown are:—The Gate Post, Long Red, Norbiton Giant, New Giant, Intermediate Yellow, Orange Globe, Golden Fleshed Tankard, Red Tankard and Red Globe.

**Carrots.**—The favorite varieties are:—White Belgian and Large White Vosges. The latter is a short growing variety, producing very thick roots of fine feeding quality. For shallow soils it is better adapted than any other.

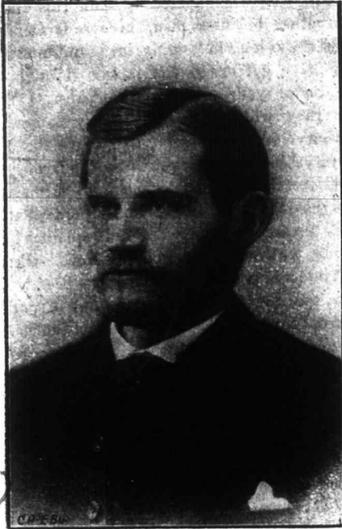
**Peas.**—Golden Vine, Crown, Blue Prussian, Black Eyed and White Marrowfat are the principal kinds.

Dear Sir,—You will find enclosed the sum of \$1, being my renewal for another year. I have taken your paper for four years, and like it better every year.—S. H. DEPEW, Paris, Ont.

To show how important a factor Great Britain is as a market for the agricultural produce of the world, the following figures will be of interest. Her imports of foreign produce during the eleven months ended Nov. 30, 1889, were as follows: Live animals for food were imported of the value of \$48,480,105; grain, \$232,586,155; dead meat, \$84,611,670; butter, \$46,551,530; cheese, \$20,777,725.

**Professor James W. Robertson.**

Prof. Robertson, the recently appointed Dairy Commissioner, was born in Dunlop, Ayrshire, Scotland, November 2nd, 1857; descended from the sturdy Scotch, who were among the "Scottish Worthies" of conventicle and persecution fame; brought up on a beautiful and productive farm, excelling as such in even that lovely part of Bonnie Scotland; educated, until 14, at the Dunlop Free Church School, the Ardeer Public School, and Cunningham Institute. He spent three years at book-keeping and business in the office of Bailie J. Burt, the well-known temperance advocate and workingmen's politician of Glasgow. He came to Canada in 1875, and assisted in the exportation of cheese to Scotland for one year while living on the farm in London Gore. Afterwards he learned the cheese-making business in the Salford factory of Mr. James Harris, in 1876. He was engaged by the North Branch Cheese Manufacturing Company of London Township, to run their factory in 1877. During the four years spent at North Branch, the output of the factory



grew from eighty odd tons to over one hundred and twenty tons of cheese in the season. He acquired a facility in public speaking by debating in the local gatherings in Venus Lodge Room, and by teaching a Bible class of young men and women.

In the spring of 1881 he moved to Cotswold, in Minto Township, Wellington County, and beginning with one small factory in four years had control of eight large and prosperous cheese factories, with a patronage of over 700 farmers. During these years he took the initiative, and helped in the organization of the Listowel Dairymen's Board of Trade, now the best known and most closely watched of all the cheese markets in Canada. He also moved first in calling the attention of the Government to the desirability of giving a grant to the Ontario Creameries' Association. In 1886 he was requested by the Ontario Government, at the invitation of Mr. Thos. Ballantyne, M. P. P., to assume charge of the Dairy Department of the Ontario Agricultural College. He was then sent to England in charge of the dairy exhibits of Ontario, at the Colonial and Indian Exhibition (report of which will be found in the Ontario Agricultural report, 1886, a special edition of 10,000 being distribu-

ted). One thing obtained that does not show there, was the free advertising of our country, its resources, its products, especially its butter and cheese, to the extent of 600 miles of single columns, in such papers as the Daily News, Telegraph, Standard, Morning Post, etc., by writing up butter, cheese, etc., in letters on Home Rule for Ireland, by the introduction of the Canadian creamery system, imperial federation, promoted by the production of fine food by the colonies, etc.

He also visited Denmark to investigate the means whereby the Danes developed their profitable butter export trade. In 1887 he began to agitate for winter dairying and the general growth of fodder corn for cows. In 1889, it is estimated that over 20,000 acres additional fodder corn were planted in Ontario as the result of this continued agitation.

In 1888 he was invited to speak at the Wisconsin Farmers' Institute. After a careful, thoughtful examination of the American methods of building silos and curing ensilage, he came back and began to work for the general introduction into Canada, and undertook to grow a crop of fodder corn, and to erect and fill a silo, in the correct way, on the Experimental Farm. Notwithstanding the unfortunate fire which consumed the farm buildings, the silo and ensilage were demonstrated successes. Reports from nearly 200 silos in Ontario filled in 1889, with only two exceptions, proclaim them a gratifying success. Over 2,500 will be put up during 1890.

Meanwhile, bulletins on the care of milk, and of instruction on the practical details of the manufacture of cheese and butter, have been issued frequently. Supervision has been had of the work of the ten dairy inspectors employed by the Dairymen's Association of Ontario. Between fifty and sixty farmers' institute meetings and conventions have been attended in Ontario annually. A course of college lectures have been delivered on dairy husbandry. His experimental work in the treatment of milk, the feeding and salting of cows, and the fattening of hogs, have brought to light some valuable information. A little writing for the ADVOCATE and other agricultural papers has filled up odd half hours. In 1887 he was appointed non-resident Professor of Dairy Husbandry, at Cornell University, N. Y.

The office recently created by Order-in-Council, is that of "Commissioner of Dairy Husbandry for the Dominion of Canada." To fill this position, Mr. Robertson was wisely chosen by the Dominion Government. The work to be undertaken may be classed under three heads:—

1 (a) Bulletins of information and instruction will be issued systematically for the guidance of butter-makers, cheese-makers and dairymen. (b) Encouragement will be given (through the holding of conventions, the organization of provincial dairymen's associations, and the dissemination of information) to the extension of dairying into districts which have not made any progress in its practice. (c) The needs and preferences of new and old markets will be considered, and information will be supplied to producers, with a view to stimulating the enterprise of commerce, to meet those needs in qualities, packages, etc. (d) Attention will be paid to the best means for preventing and suppressing fraud in the supply of milk to manufacturers, and in the articles of dairy produce.

2 (a) Charge will be taken of all the stock and stock experimental work on the Central Experimental Farm. (b) Dairy buildings will be erected, and the economical production of butter and cheese will be examined, both as regards the treatment of milk and the parts of the processes of manufacture.

3 (a) A series of Dominion Farmers' Institutes will be organized and superintended; their feature will be to stimulate and instruct the men who will attend smaller, local institutes. A report of their proceedings will be widely spread through the country. (b) Special conventions for the instruction of cheese-makers and creamery butter-makers, in the theory and best practice of their business, will be held in the several provinces.

The Ontario Agricultural College especially, and the Province of Ontario generally, will feel the loss of Prof. Robertson keenly. It will be very diffi-

cult for the Hon. Mr. Drury to fill the vacancy thus caused as acceptably, but we hope a man may be found who will continue the valuable work commenced and carried on by the subject of our sketch. The Dominion Government is singularly fortunate in securing his services. There is not another man in the Dominion as suitable, and not over one or two in America.

#### The Corn Question

As most of our readers are aware this question was brought up in the House of Commons early in the past month, and after a short debate in which a few members took part, and with a little over half the representatives present, the resolution proposing a rebate on the tariff on corn for feeders and farmers (which the distillers obtained last session), was voted down by a small majority. Those members that are supposed to represent our county constituencies, had they been so minded, might at least moved an adjournment of the debate until such time as a more general expression of the farmer's needs in this case could have been obtained, before allowing the question to be voted upon. The fact is, all the other bodies are able to obtain legislation to assist in removing any grievance that can be shown to exist, but farmers are merely of use as voting machines on election days, and serve very well in this capacity, and can be led as their different leaders choose, not for any benefit in their line of production, but as party followers, from which standpoint they more frequently draw their conclusions, than in looking to the interests of their business. The fact is the average representative seeks to serve his party leader far more than the wants of his constituents. We consider the question of Free Corn one of the most important to the farmer that is likely to come up during the present session, but it seems it was hardly worth a passing thought. We hear much in this present day of the debt that is lying against our farm lands in all directions, but we consider that in the depleted condition of these lands we have a much more serious outlook to restore these lands to their former fertility. The whole of our older counties will have to take up stock feeding in some of its branches, and to do this cheap feed is what is required, and for this reason the ADVOCATE deplors so deeply that this question of cheap feed for our stockmen, feeders and dairymen has once more got a set-back. The older provinces cannot compete in growing cheap feed with the West, and a large share of their lands require purchased feed to restore their lost fertility, before they will grow roots or grain profitably. Many farmers also require seed corn for soiling purposes, this must be imported, yet this is also taxed, and the pretended policy of admitting the raw material in the farmer's case is entirely lost sight of. If the Government desire to build up agriculture it must be fostered. With all our boasted immunity from disease and freedom of inland British markets, we last year increased our export of cattle one-fourth, while the United States, having to slaughter their cattle at the port of entry, have increased one-half.

It is not alone for the young that milk is healthful, though its nutritive characteristics especially adapt it to promote bodily growth. It is almost equally a specific for brain exhaustion, and the student or writer who is fagged out will find a glass of warmed milk to relieve him better than a stimulant. Ice-cold milk, as indeed all ice-cold drinks, should be avoided, as they are very injurious to digestion.

#### Free Corn.

In the January number of the ADVOCATE you asked for the opinion of farmers on "Duties on Corn." I am much surprised that there is duty on corn or on anything else that the farmer imports. In a purely agricultural country like Canada it should be the aim of our Government to stimulate and foster our greatest industry. It is a noted fact that when our farmers are making money everybody else is. Make the farmers prosperous, and the country is prosperous also. But it seems to me that farmers too often have to take second place, election times excepted.

A number of years ago our manufacturers were away down, and they called to our Legislators to lift them up. The Legislators answered:—"If you place us in power, we will raise you up and place your feet upon a rock (the N. P.), and establish your goings (by making the consumer pay dear, very dear, for what he buys)." In fact, everybody wanted protection, and the same answer was given. Well, we all got protection, more than we farmers wanted. It takes a much longer time for farmers to find out that they are imposed upon in this respect than other business men, because farmers' returns are so long in coming in. But now that they have got on to the racket through the medium of your most valuable paper, I trust that they will not rest till they compel, if necessary, our Government to remove the duty off everything that is required by the farmer. It would certainly be a great boon to farmers to have the duty taken off corn and other feed stuff.

Our future points toward first quality beef, mutton, pork and dairy goods. Now, we know that there is very little money in beef. We know, too, that an immense amount of pork is imported into Canada every year. Give us free corn and we can and will curtail, if not entirely stop, this importation of pork. I have not the figures at hand, but know there are millions of dollars in the swine industry. If we could lessen the cost of production, I believe free corn would go a long way towards enabling us to compete with our neighbors across the line.

Farmers must change their system of farming somewhat. We must stop so much grain growing. If we go in for beef, it must be first-class. Free corn will enable us to produce better and cheaper beef than we can produce at present; not only that, but while making beef we will be enriching our farms; we will be enabled to compete at least in part with other countries in wheat growing.

There is one thing in connection with this subject that I think is a disgrace to our Government, that is that corn should come in duty free for the manufacture of whiskey, and that farmers should be taxed for manufacturing it (corn) into good wholesome beef. I am not a temperance crank, neither am I a total abstainer, but I am a strong believer in fair play. If liquor was of any practical use to us as a people it would not be so bad, but as it is only a mere luxury, and a very poor one at that, bringing as it does so much misery in our homes when used to excess, I think free corn for distillery purposes is a shame and a disgrace. Why, in the name of common sense, don't our Government favor that industry which is the backbone and main-spring of the existence of our country rather than such deleterious things (so far as the prosperity of the country is concerned) as distilleries?

LOVAT.

Dear Sir,—I have taken the ADVOCATE for the last fifteen years and count it the best agricultural paper on this continent.

DAVID RIFE, Hespeler, Ont.

#### The Permanent Central Farmers' Institutes.

As usual the delegates from the County Institutes turned out in strong force in Toronto on the 4th, 5th and 6th of last month, and fully discussed many subjects that were of great importance to the farmers of this Province. The whole meeting was in favor of free corn, both political parties voting unanimously on this question. Those from the corn growing counties of Essex and Kent being quite in accord with this measure.

On the relative tariff on flour and wheat the meeting was not so well agreed. Here it was easy to see political partisans, the meeting suddenly forgetting that it is only unanimous expressions that can be of any use as a guide to legislation, that any amount of political oratory is not of the slightest avail. If these questions cannot be discussed from an agricultural standpoint, it would be far better that only such practical subjects that have no reference to political issues be brought out. The meeting dividing, 44 in favor of free flour and 23 against.

Noxious weeds and tax on dogs came in for a share of thought, but the necessity of making these acts compulsory on our municipalities seemed hard to be impressed upon the majority of the meeting. As these acts now stand they are in few cases carried out as they should be. When they fall into the hands of our municipalities they are too often a dead letter, for fear of the popular vote at the next election prevents the average councilman from doing his duty in appointing thistle inspectors, and has the same effect with reference to the act enforcing taxes on dog-owners. According to the delegates at the Central Institute, about half the municipalities have never levied a tax nor carried out this permissive act in any particular; that this also is the case with several other acts that are left to our local bodies, all that are familiar with the workings of such laws are aware.

#### Our Seed Grain Tests.

The following are the results of the seed grain tests of the season of 1889. Over 2,000 four-ounce packages, containing two varieties of spring wheat, viz., Manitou and Colorado, of oats, Cave and White Canada, were sent to those of our subscribers who sent for them. They were well distributed, going east to Prince Edward Island and New Brunswick, and as far west as Yorkton, N.-W. Territory; Ontario being represented in almost every locality.

Manitou wheat has done the best notwithstanding rust, and has proved hardy in the Northwest. The sample is reported good in the majority of cases, and the yield fair considering the season. Colorado has grown good and large yields from some parts, but does not appear to be as reliable in the majority of places where these two were sown side by side, but both have been more successful than some of the better known and older varieties. White Canada oats have given great satisfaction almost everywhere, being far in advance of the old sorts. In a great many instances reported the yield has been immense, with capital quality of grain and plenty of good straw which stands well. The Cave oat also has done very well, with abnormal yields reported in a great many instances, and was very free from rust and strong in the straw. On the whole, those who have tested these varieties are determined to try them again, as it is only by continually trying new varieties that we can obtain useful sorts for future years.

The ADVOCATE intends pushing these tests to a still greater extent, and has a large quantity of the best varieties of winter wheat now out among the farmers of different sections of Ontario, some sorts of which have proved extra good yielding wheat of extra milling qualities. In many of the letters reporting the tests are enquiries for these varieties for seed for this season. The Colorado wheat can be obtained of any of the leading seedsmen that are advertising with us. The Manitou wheat can be obtained from Mr. David Birrell, Greenwood, who has a limited quantity grown by himself for sale. The Cave oats are not to be had in any quantity this year; but on application to the ADVOCATE office the White Canada can be supplied.

#### Farmers and Fairs.

In my last letter I endeavored to point out to what a very great extent the farmers of Ontario are themselves to blame for the very humiliating (I should call it) position which they occupy in regard to the management of the agricultural exhibitions held throughout the Province. As, however, they have placed themselves in such a position, the only thing I can see for them to do is to take a bold stand in defence of their rights as exhibitors and consequently patrons of these fairs, and to claim at least some measure of deference to their wishes.

I have been very much struck with the almost unanimous opinion expressed by your correspondents with regard to "The keeping of live stock at Toronto Industrial Fair for two weeks." You have published letters, I think, from breeders of almost every class of live stock, and with only two exceptions, as far as I have seen, they have united in denouncing the scheme. One of these exceptions was, if I am not mistaken, the Secretary of a fair that is making a brave attempt to take a leading position among the shows of the Province, while on the other side we have such well known exhibitors of stock as Richard Gibson, Peter Arkell, and scores of others, denouncing the whole thing as an imposition. The other exception to which I have referred, Messrs. R. & S. Nicholson, of Sylvan, can hardly be classed as supporters of the project, as they do not seem to have expressed an opinion one way or the other, and while referring to their letter, I would like to notice a statement they make in it, the letter referred to being in the January number of the ADVOCATE, in it they say as follows:—"Of course it will keep the best stock from one of the other large shows, but they are powerless to prevent it; they must bow in submission with the best grace they can." Mark the words, "Powerless to prevent it." Can this be so? Have we, I say we, for I am now speaking of myself and my fellow stock breeders, reached such a state of humble and patient submission that we, the stock breeders of Ontario, on whom the success of the live stock department of this very exhibition depends, feel compelled to accept as our fate all and any arbitrary rules that the Board of Directors of the Industrial Fair choose to impose upon us. I trow not, and I would urge on the stock breeders of Ontario to rise up in their might, and what a might they can be in this country, if they will only unite in their common interests, and in the words of the ancient Israelitish leader, "Quit themselves like men," by declaring to all the Fair Associations of Canada their determination to have at least some voice in the arrangement of the live stock

departments of the different shows and the rules that govern them.

The question now is, How can this best be done? My answer is, without a doubt, By means of the various live stock associations. We have now in Ontario associations representing almost all the various breeds of live stock, and each of these associations has been formed apparently to further the interests of those engaged in breeding that particular line of live stock, and I ask my readers can they do better than unite in protecting their common interests in a matter such as this: one that affects every live stock exhibitor in Ontario, be he a fancier of Ayrshires or Shorthorns, Shropshires or Cotswolds, Berkshires or Yorkshires. I would suggest, therefore, that each of the various associations, meeting in Toronto this (March) month, should pass resolutions condemning the action of the Toronto Industrial Fair Association, in endeavoring to carry out a measure that is evidently repugnant to the best wishes and interests of the exhibitors at their fair, and, furthermore, that the members present at each of these association meetings should bind themselves not to exhibit their stock at the Toronto Industrial Exhibition as long as any such measure is in force; and that the Secretary of each and every association be instructed to forward a copy of this resolution to the Secretary of the Industrial Exhibition.

Should such a course as I suggest be carried out, I can not but think that the united voices of all the leading stock breeders of Ontario must carry some weight with the directors of the Industrial Fair Association, and at any rate, should these resolutions not have the desired effect, there is no doubt but that if the programme suggested be carried out in full, and the Industrial Fair of 1890 find itself minus most of the leading herds and flocks of Ontario, such a practical demonstration of the determination of Canadian stock breeders to look after their own interests will not be without the desired effect, and we will in the future find ourselves treated with a good deal more respect by not only the Industrial but by every other Fair Association in Canada.

Before closing let me offer my readers two mottoes, both of which might well be adopted by the various live stock associations. The one is the grand old Cornish motto, "One and all." And let me say that unless we follow out its teaching we shall most assuredly find ourselves again left in the cold; it will be very little good for one, or two, associations to pass such a resolution as I suggest, as the weight it would carry then would be comparatively small. This course is one that can only be effective if followed up by one and all. My other motto is a very different one, but it also hails from the home of the hardy Cornish miner and fisherman, a race of men who have made themselves famous all the world over for their sturdy determination and perseverance, it is, "Let every herring hang by its own tail." Words quaintly put, perhaps, but brimful of meaning, for although to ensure success it is necessary that all our live stock associations pull together, still very little will be done unless we each of us work for the desired end ourselves, without depending on our next neighbor to do this, or that, for us unless, to use again the old Cornish fisherman's illustration, so familiar in bygone years to the writer, "Every herring hangs by its own tail."

BLUE BLOOD.

#### Stock.

##### Better Cattle.

The Breeder's Gazette says, "Fewer and better cattle will yet prove the salvation of the industry." Here is a whole sermon in a dozen words. It is a favorite saying of the breeder of poor stock, "The feed makes the breed." This, however, is a great fallacy. Where is the scrub that would make 36 lbs. 12½ oz. of butter in a week, as did Mary Anne of St Lambert, or the 46 lbs. given by Princess 2nd, or that would weigh at two years of age 1950 lbs. as did Brant Chief, or 2415 lbs. Munro's weight at three years, or 1510 the weight of Britisher as a yearling. Free access to all the feed grown in Manitoba would not do it. A visit to the Union Stock Yards of Chicago is an excellent education. There may be seen the lank, thin-fleshed one and a-half cent per pound Texan being slaughtered by thousands to supply the home trade of the United States, and here and there a bunch of fine grade Shorthorns, Herefords or Polled Angus worth from four to five and a-half cents per pound, too good for the Americans, and are shipped to England, where good beef is recognized and appreciated. This winter has fully demonstrated that Manitoba has reached and even passed the self-supporting point, and must at once seek an outlet for her beef cattle. Where is this outlet to be found? If cattle of the right stamp are produced, England will take them at a fair price; if poor ones are produced, they will go begging buyers, as no farmer in the Dominion of Canada ever saw them beg before. And why? Simply because this class of cattle will not yield a profit to shippers under existing conditions if furnished at half a cent per pound. And as we have no great manufacturing towns at home to supply, this fact will be brought home with force to our farmers in the very near future. As more pounds of the better class of beef can be produced for less money by using a pure-bred sire of any of the beef breeds even on the common cow, it is surely wisdom to breed along this line. It not unfrequently occurs that the heifer bred in this way, true to her breeding grows well, attaining fine condition for beef, and is sold for that purpose instead of being kept to reproduce her kind. This is selling the goose that will almost to a certainty lay a golden egg. It is not wisdom for every farmer to launch out as breeder and importer of pure-bred cattle, but it is simply suicidal to his best interests to use a scrub sire. If a pure-bred sire is not available otherwise, a number of farmers should unite and procure one. They are to be had in our own Province of excellent quality and at rates within the reach of all. While this article has referred to the beefy properties only of cattle, the same principle is applicable to the dairy breeds. At all events and in every instance use a pure-bred sire of the breed that most nearly fills the requirements according to location or individual choice, and above all do not interbreed the different grades. The long line of breeding necessary to establish the pure-bred cattle gives them great prepotency in crossing on common or grade stock, but that these qualities will be transmitted by their grade progeny is not at all probable, hence crossing grade cattle is attended with very uncertain results.

Importers of draft breeds of horses are bringing across the big pond more mares than usual. This is indicative of advanced thinking. Too much attention has been given to the sire, and too little to the dam, in the past.





**Messrs. Graham Bros.' Clydesdales.**

For a number of years Cairnbrogie has been one of the most noted Clydesdale establishments in America, and the owners among the most noted horsemen—from their earliest childhood they have been associated with the leading live stock breeders of this continent. They long ago learned the good qualities of the Clydesdale, and very early in life distinguished themselves by importing a considerable number of very superior horses. From year to year the firm have become better known and deservedly grown more popular. Although they have each year imported many good horses, those now in their stables are by far the best lot they ever owned. The first we will notice is Macneilage (2992), foaled June, 1882; sire Macgregor (1487), dam Jess (1295). This is a splendidly bred horse, of great substance, fine quality and finish. Some excellent judges say he is the best son of the noted Macgregor. He is thus described by Mr. McNeilage, the Secretary of the Clydesdale Association of Great Britain and Ireland: "Macneilage (2992), is a short-legged, strong boned, powerfully-built horse, with first-rate feet and pasterns, and faultless action. He has been a distinguished prize-winner. When a yearling he was first at Dumfries Union Show and second at Kirkcudbright. When a two-year-old he was third at Kilmarnock and first at the Royal at Shrewsbury; and when a three-year-old he was first at the Royal at Preston, and third at the H. & A. S. Show at Aberdeen. He has proved himself to be a sure foal-getter, and his stock have taken prizes at Kilmarnock and Paisley, and other shows in the west of Scotland. Since he was imported he has won whenever shown."

Royal Lawrence (6243) is now four years old; sire St. Lawrence (3220), first dam Bill of Carco Vol. X. This is a rather rangy fellow, his legs are good and he stands well on them. MacNicol (6055), MacMath (6050), MacIndoe, Vol. X., and Southern Cross (7273), are all a year younger than the last mentioned, and may all be described as good in color, in bone, style and action—just such horses as our farmers ought to patronize.

MacClaskie (6996), a photo-engraving of which appears in this issue, was bred by Lords A. & L. Cecil; his sire was Macgregor (1487), first dam Kelpie (2034). To-day we consider him a better horse than Macneilage; he is undoubtedly the best Macgregor alive—always a good colt—he has improved wonderfully during the last six months, and is of massive proportions, yet of splendid quality throughout; he will be one of the chief attractions at the coming stallion show to be held in Toronto.

Kincraig (6879), the same age, was bred by Andrew Montgomery, Castle Douglas, Scotland; sire Prince of Airs (4641), first dam Manfreida (6618). This is a large, growthy, smooth colt, with a very good middle, back, quarters, neck and head; he is strong in the bone, and his muscles are well developed.

Chairman (6593) and Prince of Lothian Vol. XII., the former bred by Lords A. & L. Cecil, and the latter by J. A. Belfour, M. P., Prestonskirk, Scotland; both foaled in 1887. They are of a somewhat different type, very upstanding and flashy; in color a beautiful rich brown. Their feet and pasterns are good; muscular development, bone and hair all that can be desired; their symmetry and form first-class. They are destined to be very popular with the farmers, and are sure to do big seasons, and produce a popular kind of horse.

Gilroy (6789), foaled May, 1887; bred by R. Gilroy, Uppertown, Scotland; sire Master of Blantyre (2283), first dam Maggie of Barnflat (3524). This is one of the most promising horses at Cairnbrogie. Although very large and growthy, and destined to be larger, he is smooth and good; his feet, pasterns, joints, bone and hair, are first-class; he has splendid neck and shoulders; short, strong back, and good quarters.

Dunglass (6702), Honest John Vol. XII., and Main Top, all three years old this spring, are strong massive horses of great merit throughout; their feet, pasterns and legs are all that

can be desired. They are of the same type, and of much the same quality as Macneilage.

Hornbean, foaled March, 1888; bred by the Marquis of Londonderry; sire Castlereagh, Vol. IX., first dam Holly (7482). Messrs. Graham think this their best yearling. He is large and growthy, yet finely finished; his bone is strong, hard and flat; clothed with hair of the best quality, his feet and pasterns are splendid. Like MacClaskie and several of the others, he has been a successful prize winner on both sides of the water. Arbitrator Vol. VII., three months younger and somewhat smaller, is thought by some to be even better than Hornbean. He is of a different type, yet finely finished. All about him denotes good breeding and quality. He is destined to be a noted horse.

Othello Vol. VII., foaled May, 1888; bred by R. Neil, Bambour, Scotland; sire Bold Magee (4269), first dam Polly of Bambour (6562), is a beautifully turned colt of splendid quality and breeding. Like the last two, he is of unusual merit throughout.

Besides the above mentioned, there are other good horses and mares, but space forbids to make mention of them. Specimens of this stud will be exhibited at the stallion show, which will take place on the 13th of March in Toronto. Those who cannot attend should write to Messrs. Graham Bros., Claremont, Ont., for their annual catalogue, which will be sent on application. This work contains much valuable matter that every farmer should know.

**Messrs. Robert Beith & Co.'s Clydesdale Stud.**

This establishment, like Messrs. Graham's and Sorby's, is not only one of the largest and best in Canada, but contains more very good horses than any stable in the U. S. A. These establishments are a national benefit of which every Canadian farmer should feel proud and show his pride in a tangible way by patronizing the very good horses they import. We herewith give a short description of some of Messrs. Beith's horses. Those wishing fuller information should obtain their catalogue which may be had by writing them. All their horses are very finely bred, of large size and of unusual merit. Just such animals as will produce large, valuable cart horses. In the large American markets to-day large cart horses are the only ones selling at paying prices. (See the Chatty Letter from the States in this issue.) In October, 1889, page 305, we gave an illustration of Sir Maurice (4721), Eastfield Style (6724) and Eastfield Chief (6715). These are three magnificent horses of great size and grand quality. Sir Maurice gained second prize at Inverurie when a foal; second at Dalbeattie, and fourth at the H. & A. S. when a yearling; second at Glasgow when a two-year-old; was in the short leet of five at the Glasgow Stallion Show when a three-year-old; and in 1889 was fourth at the same show. Since being imported Sir Maurice won the following prizes:—At the Provincial Exhibition, held in London, first prize for the best aged stallion; the silver medal for the best Clydesdale stallion of any age; and the Prince of Wales prize for the best heavy draft horse of any age or breed. At the Industrial Exhibition, held in Toronto, he won the first prize in his class and the silver medal for the best Clydesdale stallion of any age. At South Ontario Agricultural Society's show he was awarded first prize for the best aged stallion; and also won first prize at the West Durham Agricultural Society's show. Although his bone is very large it is of splendid quality and heavily clothed with muscle, the skin is smooth as that of a blood horse, and the hair abundant and of splendid quality; he is a splendid mover, none better.

Eastfield Style, now three years old, won second prize at the Provincial Exhibition held at London in September, 1889; third prize at the Toronto Industrial Exhibition in September, 1889; second prize at the Ontario and Durham Exhibition at Whitby; and first prize at the West Durham Agricultural Society's show. This is also a large smooth horse, of massive proportions, full of quality and has great knee and hock action.

Eastfield Chief, coming three years old. This choice colt is one of the best two-year-olds ever exhibited in Scotland. He was first at Edinburgh, second at Ayr, and third at Glasgow this season in very strong classes. Since being imported, won first prize at the Provincial Exhibition held at London; first prize at the Toronto Industrial Exhibition; first prize and diploma at the Ontario and Durham Exhibition held at Whitby; and first prize at the West Durham Agricultural Society's Show, Bowmanville. He has wonderful bone and substance and is one of the strongest and best cart horses in America. He has very few equals. All three of these horses have improved in appearance very much since the fall shows.

Sir Walter, now rising four years, is a well-balanced, short-legged, strong-boned colt, has first-rate feet and legs, deep ribs, good quarters and thighs, and a very good back. He gained fourth prize at Dalbeattie when a yearling, and a fourth at Dumfries Union Show as a two-year-old last year, and last spring he was in the short leet of the Glasgow Stallion Show, where he was awarded the Buchan District Premium. Sir Walter won first prize at the Provincial Exhibition, held in London, September, 1889; first prize at the Industrial Exhibition, held in Toronto, in September, 1889; and first prize at the Ontario and Durham Exhibition, held in Whitby. He also is improving fast.

Ardlethan Boy (5493), foaled June, 1886, is a showy, rangy, fleshy horse of good quality, and one destined to be very popular with the farmers. He has abundance of bone, muscle and of the right quality; his feet and pasterns are good. Lord Gray (6965), nearly three years old, is a bay of low, blocky type, with flat, hard bone of extra good quality. He is a nice, useful horse, with plenty of move and ambition.

MacCalman (6995), a brown, also rising three; is a very large, strong colt, with extra good feet and pasterns and good mover; a trifle upstanding and short in rib, but with lots of outcome, and only requires a little time to develop him.

Earl of Lennox (6710), bay, rising four; a thick, massive horse, strongly knit and close to the ground, yet very smooth. He is a likely sire of heavy cart horses.

Candlemas (5614) is much the same type with plenty of bone; a useful all round horse.

Renfrew Gallant (Vol. XII.) is a very sweet, neat cut horse, with beautiful head and neck, nicely placed shoulder, neat turned barrel, with a general make-up very pleasing to the eye, and will turn out a very good sire.

Clyde Admiral (Vol. XII.) is a very growthy, smooth turned colt, with good, clean, hard bone and strong joints; altogether a very promising colt.

Paragon (7097) is a large, massive horse of great size and symmetry, with legs of capital Clydesdale type; a good mover and a very imposing looking horse; is calculated to sire extra heavy dray horses. He is one of the largest ever imported by this firm.

Eastfield Gem, a nicely turned horse, of the medium size rib, extra quality, good feet and pasterns; just such a horse as is required in some sections of the country.

Eastfield Laddie, foaled May, 1887, is a large finely proportioned and truly beautiful horse, of fine breeding; he is a half brother to the noted horse St. Gacien (3958), which he closely resembles, but is more muscular and massive. His legs are short; bone and hair abundant, and of faultless quality; joints all that could be wished; his body is thick, deep, smooth, and very muscular; his arms and thighs are very strong. He has a strong quarter and short back, superb neck and shoulders; a beautiful head, well set on; in all a most promising horse.

Maria (Vol. XII), foaled 1888, is a magnificent filly; has made wonderful growth since the fall fairs, when she was the admired of all Clydesdale men; and though she then promised fair, she is surpassing even her owners' expectations. She has everything to be desired; her great size, wonderful feet and legs, and splendid all-around quality, and, to top all, her good breeding, should make one of the best brood mares ever imported. She was believed to be the best filly in Scotland. Space forbids us to mention others.

**Horse Breeding in Canada.**

Before deciding in which line, whether heavy or light, it must be remembered that more judgment is required in the lighter lines of breeding, for without quality in carriage, saddle and light harness horses the prices will not be remunerative. A breeder may succeed, and will, where the useful sorts are bred, but with high class horses for amusement and pleasure the case is far different, every point for display as well as utility must be kept in view, and a more practiced eye and better judgment in deciding, the sort of crosses to be made use of, is where the whole secret of breeding is brought out. The most careful watchfulness over all will be required, and a thorough determination to excel in this work must over balance any scruples on the score of economy in-feed, care, or breeding. The different breeds are all alike in many respects, and the same laws govern each line of breeding. For instance, the foot is the first important point, without which, it has been truly said, there is no horse; then the set of the pasterns, here again the same rule is carried along. In fact, whatever sphere of life the horse has to fill, the useful must always be kept in full view. A certain amount of the right quality of bone below the knee, with strong, clean joints, thighs and forearms muscled as if they meant business, must be looked to in each class alike, and the breeders of any class that ignore these points are certain, sooner or later, to find their mistake.

Vital force, by having plenty of heart and lung power, is just as necessary as any of the foregoing, after which due regard must be paid to strength of loin with proper coupling, properly sloped shoulders, well sprung rib and rounded barrel, after which it is an undoubted necessity to have neck and head properly formed and placed, with head and eye expressing good temper is strongly manifested. All must have quality sufficient for each particular line of breeding, and in every case action, without which no breed or sort are really valuable either for breeding, pleasure or work, and when we find this quality properly developed the whole construction is sure to be properly balanced, and if we add ambition enough, inbred in horse life as it is in the nobler animal man, we come pretty close to having a perfect horse.

Each and every breed has its different characteristics, but the same law of construction must be carried out in different degrees. Whatever line of breeding is to be engaged in, as in every other pursuit, it is only in the front ranks that there will be large profits obtained, therefore, at the outset, it is necessary to first study up the requirements of the market we are seeking to supply. Should we decide on breeding saddle horses, the demand will be found in our Canadian cities, for the United States trade and for exportation to England. For this line thoroughbred sires must be used to cross on what mares we can find that will be suitable for this cross, and a great number can be found that are just what are required. The great difficulty will be in finding the sort of stallion that is fitted for this purpose, for the breeder must now bear in mind in which direction his next crosses are likely to be made. The fillies and mares should be held for breeding, selling the geldings for saddle horses, for a brood mare, sired by a thoroughbred, can be

advantageously bred to the Coach stallion for large carriage horses, to a Roadster stallion for the best of drivers, and to the thoroughbred to continue in the saddle line of breeding; therefore, the proper thoroughbred stallion should be of large size, good color, good disposition, with plenty of bone below the knee, not necessarily fast, but of all things sound, which is too often not the case with the turf winners. Horses of this sound, useful class are to be found wherever the breeding of thoroughbred horses is made a business of, and it is strange they are not more sought after for breeding purposes, but in this class, as well as trotters, speed is the goal aimed at, and often spoils more desirable points.

**Dominion Breeders' Associations.**

THE CLYDESDALE STUD BOOK.

In a letter under date Feb. 1st, 1890, from Mr. Arch. McNeilage, 46 Gordon street, Glasgow, the secretary of the Clydesdale Horse Society of Great Britain and Ireland, he wishes to inform the breeders and importers of Clydesdale horses, through the columns of the ADVOCATE, that they have issued a new form of certificate for horses exported from that country, which is of interest to breeders in Canada. The change dates from 17th January of this year. The blank copy form, for entry, is as simple as it is possible to have it drawn, and also has the vendor's certificate of sale for exportation, as well as the Society's certificate of registration, attached to the pedigree form, with the required conditions printed on the back; making in all a form that is a model of conciseness and simplicity, showing at a glance whether all the rules have been complied with.

Mr. McNeilage is well known by reputation among our Canadian Clydesdale breeders, as a most painstaking and obliging secretary, and has done much through his energy and writings to popularize on this continent this widespread and well-known breed of draught horses.

CANADIAN COACHEES.

The first annual meeting of the Canada Coach Horse Breeders' Society was held in London, Feb. 2nd, when the following board of directors were chosen:—President, Arch. Wilson, Paris, Ont.; Vice-President, John Gillson, London; Treasurer, D. Fisher, Goderich; Secretary, Jas. Mitchell, Goderich. Directors—George Charlton, Dunrieff; Thomas Taylor, Harwich; J. C. Smith, New Hamburg; John Aikinhead, V. S.; Goderich; J. W. Robinson, St. Marys; Andrew A. Young, Carlow; John Essery, Exeter; S. W. Teeple, Kingsmill; W. C. Brown, Meadowvale; A. Marsh, Richmond Hill. Executive Committee—Messrs. Fisher, Essery and Aikinhead. The following standard for registrations was adopted:—That such stallions as have two crosses of registered imported Cleveland Bay or English Coach, or one cross, registered imported Cleveland Bay or English Coach on one cross of thoroughbred blood. It was also resolved to accept as one cross horses of undoubted pedigree that were imported previous to 1880, and also to allow a dam of one cross a record number but no certificate, so that their breeding might be readily traced in the future volumes.

The object of the society is a good one, as it will encourage farmers who have mares of this breeding to keep up the right crosses, and to be careful that after this only imported registered stallions of the best quality be selected for this purpose. This class of Canadian horses more than any other have given good satisfaction when exported to England, the demand, being far beyond the supply; and as they are in requisition by wealthy men the prices to be obtained will sure to be remunerative.

AYRSHIRE BREEDERS.

At the annual meeting of the Ayrshire breeders, held in Toronto, Feb. 4th, the following statements were made:—That a larger number

and better quality of Ayrshire cattle had been exhibited at the various exhibitions than usual; it was also stated there was recorded for the first volume of the new series, in class one, 772 bulls and 1,455 cows, or a total of 2,227; in the appendix 180 bulls and 313 cows, making in all a total of 2,720. This showed an increase of \$50 since last year, and there was a sufficient number for a good sized volume. The number of members of the Association was 40, or an increase of nine over last year. There was \$106.50 on hand to pay for a volume of pedigrees when completed.

A question as to the length of time cattle should be kept at exhibitions gave rise to a debate, and it was unanimously resolved, "That the Association objects to the principle of having live stock on exhibition for two weeks."

DRAUGHT HORSE ASSOCIATION.

The annual meeting of the Draught Horse Association was held in Agricultural Hall. Mr. H. Wade, Secretary-Treasurer, read the annual report, which was adopted. The report stated that since the last annual meeting the first volume of the Canadian Draught Horse Stud Book had been published. It contains the pedigree of 243 horses and 310 mares, a free copy has been given to each of the 50 members of the association. The membership last year was but 26, and the report showed an increase of 24. Since the volume was closed last June the pedigrees of 34 horses and 40 mares have been recorded for a second volume. It was considered that four crosses were requisite for mares and five for horses to warrant their being placed on the rolls of registration. The statement of the finances showed a balance on hand to the credit of the association of \$870.

The election of officers resulted as follows:—President, Mr. F. E. Coleman, Arthur; Vice-President, Mr. J. Gardhouse, Highfield; Executive Committee—Messrs W. Kersey, Coleraine; D. S. McFarlane, Claremont; W. Owens, M.P.P., Lachute; Dugald McLean, York Mills; J. Vipond, Brooklin; J. A. Boag, Ravenshoe.

SHORTHORN BREEDERS.

The fourth annual report of the Executive Committee was presented and adopted. On the subject of registrations the report states: In 1889 we were paid for 2,776 registrations, 2,595 certificates, and 378 changes of ownership; from these we have rejected 47 registrations, 43 certificates, and 11 changes of ownership, returning the fees, leaving 2,729 registrations, 2,552 certificates, and 367 transfers, against in 1888, 2,703 registrations, 2,688 certificates, and 381 transfers, and against in 1887, 2,621 registrations, 3,078 certificates, and 625 transfers, showing a very slight variation in the three years as to numbers, 79 more in 1888 than in 1887, and 26 more in 1889 than in 1888, thus showing that Shorthorns during these years have not increased in numbers in this country.

On motion of Mr. James Russell, of Richmond Hill, seconded by Mr. J. C. Snell, of Edmonton, it was unanimously carried that:—"This Shorthorn Breeders' Association protests against extending the time for having live stock at any exhibition in Ontario beyond the period of one week." Mr. H. J. Hill, secretary of the Toronto Industrial Exhibition, in speaking on this motion, said that it was not his intention to do anything without the opinion of the breeders. Judging of their opinion as reported in the FARMER'S ADVOCATE, he was sure that the management would not ask that stock should be kept on exhibition for over a week. He had authority in stating this. They would never make a new innovation without consulting the exhibitors, for without them they could not hold a show or have visitors.

In answer to Mr. Hill, Mr. F. W. Hodson, of the FARMER'S ADVOCATE, replied that the breeders and stockmen as well as the agricultural papers had been given to understand that the Industrial management had fully determined to hold the stock over for two weeks at the show of 1890, which was the reason for the ADVOCATE taking up the case and having the expressions of all the stockmen on the question.

On the suggestion of the President a motion was put and carried to the effect that the judging of the stock at the Industrial should begin

on Tuesday morning, so that the exhibitors would not be harassed by being always on the alert to find out when the judging would begin.

The following officers were elected for the present year:

John Dryden, M. P. P., Brooklin, president.  
Vice-Presidents—Richard Gibson, Delaware, Ontario; Hon. D. Ferguson, M. P. P., Charlottetown, P. E. I.; J. H. Ladner, Ladner's Landing, B. C.; J. S. Williams, Knowdon, Quebec; J. E. Fairweather, New Brunswick; James Geddes, Calgary, N. W. T.; Prof. Geo. Lawson, Halifax, N. S.; G. L. Smellie, Binscarth, Man.

Executive Committee—A. list—Edward Jeffs, Bondhead; Francis Green, sr., Innerkip; Jas. Hunter, Alma; T. Russell, Exeter; John I. Hobson, Mosborough. B. list—David Rea, Fergus; A. R. Gordon, Cooksville; J. L. Cowan, Galt; James Tolton, Walkerton; Wm. Linton, Aurora. C. list—Arthur Johnston, Greenwood; James Russell, Richmond Hill; James I. Davidson, Balsam; Thos. Shaw, Guelph; C. M. Simmons, Ivan.

At the afternoon session a paper was read by Prof. Shaw on "Adaptability of the Short-horns." Mr. John Dryden read a paper, prepared by Mr. Richard Gibson, of Delaware, on "Fancies and Fallacies v. Experience in Cattle." Papers were handed in for publication by Mr. C. M. Simmons, of Ivan, and Mr. Wm. Linton, of Aurora.

It was moved by Mr. John Morgan, and unanimously resolved, that the thanks of the Shorthorn breeders is due to the FARMER'S ADVOCATE for taking up the matter of the proposed two weeks exhibition of stock.

#### CLYDESDALE ASSOCIATION.

The Secretary, in reading his report, states that they had not recorded quite so many animals as the year previous. There had been entered for the fourth volume of the stud book, 209 stallions, 107 of which were imported, and 280 mares, of which 42 were imported. The Spring Show, as heretofore, would be held on March 12th and 13th, and it is fully expected it will eclipse anything of the kind yet held in this country. The trade of horses had been satisfactory this year. A great many Canadian-bred, as well as imported colts and fillies, had passed across the line at good prices, according to the transfers on their books. Seventy-six males and fifty-two females have gone to the United States, and nine horses and eight mares to the Northwest. No doubt a great many more had gone. This merely gave the transfers in the fourth volume. The importation of Clydesdales into Canada, according to the returns of Great Britain, had been larger than in any previous year, and larger than to the United States.

The election of officers resulted as follows:—  
President—Wm. Smith, M. P., Columbus (re-elected).

Vice-Presidents—Ontario—Geo. Moore, Waterloo (re-elected); Quebec—Robt. Ness, Howick (re-elected); Nova Scotia—J. McKay, Stellarton, N. S.; Prince Edward Island—Hon. J. Clow, Charlottetown, P. E. I.; New Brunswick—Hon. D. McLellan, St. John, N. B.; Manitoba—J. E. Smith, Brandon, Man. (re-elected); British Columbia—H. D. Benson, Ladner's Landing, B. C. (re-elected).

Directors—Robert Miller, Brougham; Robert Graham, Claremont; Robert Beith, Bowmanville; Arthur Johnston, Greenwood; G. Davidson, Cherrywood; D. McCrae, Guelph; A. Russell, Unionville.

Dear Sir,—Yours of the 16th came duly to hand, for which please accept my thanks. I consider your valuable paper worth \$10 per year to anyone interested in farming or stock-raising.

JOHN PARKER, Stamford, Ont.

The fact stands out plainly that more wool and mutton are absolutely necessary to supply the demand, and there is every prospect that prices for both will be remunerative to farmers for some time to come. Soil and climate, together with the extensive ranges of high hills, have fitted few other places as well as this country to be natural wool and mutton producing sections. Many farms might profitably support ten times the number of sheep that they now do.

#### The Flock Prize at the Late Provincial Exhibition.

Not being very well posted in regard to the merits of the different breeds of sheep, I would like a little information in regard to what constitutes a good general purpose sheep for the Canadian farmer to raise. I find that for the special prize offered by J. S. Pearce & Co., at the last Provincial Fair, held in London, for the best general purpose flock of sheep, wool and mutton combined, there were four competitors, and only one of those flocks was a Canadian-bred one, the other three being imported from Great Britain. The prize was awarded to the Cotswolds by the judges appointed for that purpose. Now, I would like to know very much why! Was it on account of the superior quality of wool and mutton of the Cotswolds? or had quantity everything to do with it and quality nothing? or did the judges consider that the Cotswolds were superior to any of the other three breeds for crossing upon the common sheep of the country? I suppose they must have thought so, or they could not have awarded them the prize as being the best general purpose flock of sheep. We find that at present there is a very large and good paying trade carried on by the farmers of Ontario in breeding and feeding lambs for the American market. Now, there is not, I am bound to say, more than one farmer out of every two or three hundred who import and breed pure bred sheep of any kind: therefore, the great bulk of the farmers must breed solely for wool and mutton to sell in the best market offered them. Now, it seems to me that if the decision given by the judges at London was a right decision, then the farmers of Ontario who breed lambs for the American market should use Cotswold rams upon the common ewes of the country. Certainly they should if the Cotswold sheep are the best general purpose sheep, and if they are, why is it that the great majority of the farmers are so long about finding it out? and why do not our extensive buyers and shippers of lambs to the American markets advise the farmers with whom they deal to use more extensively Cotswold rams? I am aware that some years ago the Cotswold sheep were very popular owing to the great demand for them in the United States, but of late years that demand has ceased to a very great extent. A great many of those who formerly bred Cotswolds are now raising other breeds instead. There is one thing that has struck me as being rather remarkable and that is, most of the Cotswolds shown at our large fairs every year are imported from England; seldom do we see a flock of Canadian-bred Cotswolds exhibited. Now, if they are the best general purpose sheep for Canada, why is it necessary to cross the Atlantic every summer to obtain a respectable flock of them to show at our large fairs? Does that very successful breeder of Leicester sheep (Mr. John Kelly) find it necessary to cross the Atlantic every season to get a respectable looking flock of Leicesters to exhibit? I am told he doesn't find it necessary. But even in England I am informed the Cotswolds are not very popular outside of their native hills (The Cotswold Hills), and in Scotland I believe they are not bred at all. So as I find they are not so very popular after all in England, not raised at all in Scotland, and have lost their popularity to a very great extent both in Canada and the United States, I must say that I am a little dubious about the decision given by the judges at London being a right one. Yours respectfully,  
ONE INTERESTED IN SHEEP RAISING.

[The judges will please reply.]—ED.

#### Chatty Letter from the States.

[From our Chicago Correspondent.]

Best beeves, \$5.25; best porkers, \$4.15; best muttons, \$5.75; best draught horses, \$240. Such are the prices for the very best kinds of stock in Chicago. It will be seen that sheep are the highest on the list, and that horses are next. Considering all grades of stock, however, producers just now are making more money out of mutton raising than anything else, and more out of hog raising than out of either cattle or horses. The top price for hogs is not high, but the bottom price is not low, which cannot be said of any other kind of stock. In other words, the hogs have been selling with very few exceptions lately at \$3.90 to \$4.00, a very narrow range, while the bulk of the cattle have been selling at about \$3.50 to \$3.75, while the bulk of the horses have sold at about \$125 per head.

Prices for the leading grades of live stock and for nearly all kinds of farm produce are the lowest they have been in years.

The weather during the winter has been so uncommonly mild that the farmers have not used more than half of the ordinary amount of feed, while taking the whole country over they had twice as much as usual to start with.

At the same time there has been a shameful waste of material by marketing half fat cattle and some that were not fattened at all. One would naturally think, that with a mild winter, when every pound of feed would count and the value of all kinds of grain and "roughness" so low, that farmers would at least have put their cattle in good condition, but the fact is, that with an average of about 60,000 cattle per week, Chicago has not had an average of 1,000 ripe cattle per week since the first of the year.

One feeder remarked to the writer that last year he and his neighbors had made ripe cattle on dear corn and lost money heavily by keeping them until thoroughly ripe in May and June, and they did not intend to get caught that way this year. They were turning off the cattle earlier and in comparatively lean condition. In the writer's judgment they aimed well last year and missed it, and this year they are making as great a mistake in the other direction, with their eyes wide open.

"Horses are low," said a dealer. "When you can buy a good sound 1,400-lb. six-year-old horse at \$125 to \$150, it looks very low." Some good blocky mares recently sold here to go to breeders in the extreme north of North Dakota, bordering on the Canadian line; they cost about \$125 to \$150. Dealers report an uncommonly large supply of streeters and inferior horses, which are selling at lower prices by \$20 to \$30 than one year ago. A pair of handsome sixteen hands 2,600-lb. carriage bays sold at \$1,000 to a Denver buyer.

Following are the Chicago horse quotations:—

Description	Poor to Fair	Good to Choice
Draught horses...	\$140 @ 170	\$190 @ 225
Streeters.....	85 @ 90	100 @ 120
Drivers.....	85 @ 100	120 @ 150
General use.....	105 @ 130	145 @ 155
Carriage teams...	325 @ 350	400 @ 450
Saddlers.....	120 @ 170	180 @ 200
Plugs and rangers..	25 @ 40	60 @ 70

The export demand for live cattle is very good. Prices for such cattle are now about the same as a year ago on this side, while in England they are one and a-half cent per pound higher.

Mr. Robert Bickerdick, of Montreal, and Mr. Frederick Pritchard, of London, were here recently. Mr. Pritchard anticipates a better average of cattle prices in British markets this year than last.

**Fancies and Fallacies versus Experience in Cattle.**

Prepared by R. Gibson for the Dominion Short-horn Breeders' Association.

We all have our fancies as to color in cattle. Some admire a roan, others a red. With Hereford breeders, red with white face is orthodox, and with Angus men, black and all black is their creed. Color may be called a fancy: so it is. Experience says you may follow your fancy so long as it is not prejudicial to the animal.

That the Angus and the Devon breed true to color is certainly not an objection. That the Herefords are better, except for the sake of uniformity, by being so uniformly marked we doubt, as in our boyhood days, in the early forties, we well remember the greys shown by Knight & Heath and Lord Hatherton.

That the Shorthorn has suffered much from the red craze cannot be denied. Experience says nothing has done the breed more harm in these latter days than this foolish desire for all red. Fortunately we have escaped this mania in a great measure in Canada, but where it has been carried to the extreme, as in Kentucky and the West, there the cattle have deteriorated. Their hair is harsh and wiry, having lost that mossy and beaver-like undercoat, such as is indicative of feeding propensities. It is admitted on all sides that roans are superior as feeders. Then why does fancy run riot? Lack of uniformity in color? What a fallacy! Experience says it is better to be uniformly good, though of various colors, than uniformly bad and all of one color. If Shorthorn men must have but one color, why not choose roan? The Shorthorn race being the only pure breed, so far as we know, that are of that color, whilst there are lots of red sorts.

The Jersey men tell us the craze or fancy for solid colors, black tongue and black switch, nearly destroyed the useful qualities which first brought the breed into prominence.

In horns there is another fancy; some say let us have a good strong horn, it is an indication of constitution. The Angus men retort you don't want any, whilst the Hereford and the Ayrshire breeders like a certain shape. Experience says though the horn may meet the necessity for defence, still it is of great value to the breeder in making selections for stock purposes. A heavy, coarse horn may not be desirable, but it is much to be preferred to a light delicate one, which, especially in bulls, should be avoided.

Many a good animal have we seen discarded at fairs, thrown out for having a heavy horn, perhaps placed behind a light fleshed one with a delicate steer's horn, the other carrying many pounds more beef and in the most valuable parts. Such is surely a fallacy. The head is worth but a few cents on the block, but on the living animal what an index to the value for breeding purposes. It is said Mr. Bates fell in love with Belvedere on seeing his head thrust through an open window, and determined to buy him at any cost. What are the fancies? In females the most common is the objection to a thick or meaty pouch near the jaws, or what in horses would be called the throat latch. Fancy asks that they shall be well cut up, or in other words, the setting on of the head must be slight and slim. Yet experience says that it is an indication of a good feeder rather than a defect, and will never be found on a thin-fleshed, ill-thriving beast.

(TO BE CONTINUED.)

**Veterinary.**

**"His Water."**

BY W. A. DUNBAR, V. S., WINNIPEG, MAN.

Among the many vague and imaginary diseases from which the horse is supposed to suffer, the one known among horsemen as "his water" is believed to be the most common. Any veterinary surgeon, although of limited practical experience, is capable of giving ample testimony as to the general belief among the knowing class of horse owners and jockeys that the urinary organs of the horse are very liable to become deranged. The professional man can easily recall to mind the vast number of cases, for which he has been called upon to prescribe, where the owner of the patient, or some other person, equally as wise and as well qualified, has informed him, in a knowing and mysterious manner, that the animal was troubled with "his water." The writer, now at the close of fifteen years' practice, can aver that three out of every five cases of sickness and disease in the equine race, which he has treated, were previously diagnosed by some knowing individual to be something wrong with "her" or "his water"; this is, especially, true in connection with acute diseases of the digestive organs. The reason why the belief so extensively prevails, among the classes mentioned, that the "waterworks" of the horse are liable to become obstructed and otherwise deranged is, to a certain extent, involved in obscurity. It may, however, be partially accounted for from the symptoms exhibited by a horse suffering from intestinal indigestion or constipation, when a great mass of feces has accumulated in the pelvic flexure of the large colon. The bowel in this case being abnormally distended by solid contents, and in consequence a great deal of undue pressure is brought to bear on the bladder and surrounding structures, which causes frequent stretching and apparent attempts at staling. In such cases the inexperienced and unscientific observer may have some grounds for supposing that the trouble is of a urinary nature; but in a large majority of the cases which are termed "his water," none of the above symptoms are present, nor any other symptom that would indicate the correctness of such a diagnosis. The veterinary surgeon meets with this opinion regarding the troubles the horse has had with "his water" at almost every turn, and in many cases he has to manifest his acquiescence, or run the risk, at some future time, of hearing the opinion expressed that his knowledge is much inferior to that of "the old man Knowall," the local quack. In some instances the belief that the urinary apparatus of the horse is often defective, leads to bad results; for acting on this supposition some owners, grooms and drivers of horses are continually dosing the animals under their charge with diuretic medicines, or, in horsemen's language, "Givin' them som'at for their water," which, in quite a few cases, actually inflames or debilitates some of the principal organs connected with the urinary system, and thus, in their supreme ignorance, they bring about the very condition which they are endeavoring to avoid. Diseases of the urinary organs of the horse are not by any means unknown, but in my experience they are not nearly of so frequent occurrence as they are generally supposed to be. Compared with diseases of the digestive organs they stand

about one to twenty-five, and in relation to diseases of the respiratory system about one to twenty. The symptoms of the principal diseases of the urinary organs of the horse are, by the practical observer, quite easily distinguished. I would, therefore, humbly suggest to those who employ a veterinary surgeon that they in every instance, not only in supposed urinary trouble, but in every other case, permit him to make a diagnosis without interrupting him with a gratuitous opinion; only answering, if you can intelligently, such questions as he may deem necessary to ask. I am quite sure that by the observance of this suggestion, there will be laid on the veterinary profession a heavy debt of gratitude.

**The Dairy.**

**Testing Cows.**

Testing cows has been a feature of many of the best Canadian fairs for some years past. The object has been to demonstrate which is the most profitable dairy cow, but owing to the methods adopted have in very few instances thrown much light on the subject, in fact, on the contrary, the results have been decidedly misleading. As these tests have usually been conducted, the amount of milk and butter produced has been shown, but the cost of producing has not been taken into consideration. Better to produce one pound of butter at a profit of ten cents than two pounds at a loss. Therefore, the point should be how cheaply can the cow produce butter, not how much can she produce; or, in other words, the test should be which will make the most butter from a given amount of food. The farmer who keeps his cows in the stables and feeds all alike can reach a fairly satisfactory conclusion by weighing the milk and testing it with a lactoscope, or even a pioscope, costing but seventy-five cents, will lead to a fairly accurate conclusion as to the comparative values of the different animals. In the summer season it is much harder to arrive at a fair conclusion, as the cow that produces fifty per cent. more milk may do so at seventy-five per cent. greater cost. While in some sections the summer feed does not count for much in this country as yet, the time is fast approaching when it will, and it is wisdom to breed with that end in view. Professor Robertson estimates one-half of the cows in Ontario to be paying for their own keep and helping to pay the board of the other half. If this be correct, and many practical dairymen claim that it is quite within the mark, surely we should learn a lesson from it. It does not cost \$2 per year more to milk and care for a cow producing a profit of \$25 than one that does not pay her board, so that the actual difference in a small herd of cows might pay the interest on the mortgage. It is to be hoped that tests of cows may prove in the near future a profitable and attractive feature at our best exhibitions. If such is to be the case, however, they must be conducted on proper principles, and not by simply awarding the prize to the cow that makes the most butter regardless of what it costs to produce it.

Thomas B. Wales, a Holstein breeder of Iowa, says:—"I believe public tests are of value to the public, though the cow hardly stands a fair chance. They are as fair for one breed, however, as another. I believe private tests are of greater value, and the hints as to dishonesty in making them by writers are ridiculous and unmanly. The same kind of testimony is given regarding them as is taken by our juries, and that sends men to jail and the gallows. The more tests published the better. If it had not been for tests and printer's ink we would still be contented with seven pounds of butter a week."

### Our Butter Interests.

The great reputation which our Canadian cheese has won in foreign markets must be a satisfaction to all interested in the welfare of our country, while every lover of Canada must regret that although our position and facilities for the production of butter are so great, this important industry has been so sadly neglected. As we contemplate our capabilities and possibilities in this respect, it might be well for us to consider what has made us so successful in the manufacturing of cheese, and see how far we may apply with certainty the same causes to the successful manufacture of butter. In the first place that any manufacturing business may be carried on with the greatest success, it is most essential that a good market exist in which the goods produced may be disposed of at profitable prices. In this respect butter, as compared with cheese, is most certainly not found wanting. Next we may look at the co-operative feature as one that has aided very materially in pushing our cheese to the front. From the butter standpoint this must, if possible, have a still greater importance. To secure a good market at home and abroad, we must have uniformity of product and first class quality, suited to the tastes of those to whom we hope to sell. By co-operative dairying we can most certainly secure these ends with greater ease and at less expense than in any other way. Intelligence, energy and perseverance are most important factors, and here may be mentioned the unceasing efforts and determination to succeed of at first a few, whose numbers gradually increased, until to-day we have good men and true scattered far and wide who are determined that Canadian cheese shall keep the first place. Men who do not feel above making some sacrifice when necessary to secure any needed help in this direction. Have we not others who are willing to take the butter interests of our country to hand and to heart, of whom in a few years Canada shall have just as great reasons to be proud, as of those who have fostered our cheese interests and brought them to so successful an issue. Some have considered the butter and cheese interests of this country as antagonistic, but this is most certainly not the case, but quite the reverse, and the more thought we give to this matter the more we behold not only the harmony which exists, but the many links that bind the two industries together. To secure the place in butter manufacture and exportation which is possible, there are many matters to be taken into consideration. First, we need to possess ourselves by careful breeding of first class butter cows. Next in order and no less in importance comes an intelligent and economical system of feeding and watering, for which purpose stables should be arranged conveniently for the caretaker and comfortably for the animal, having special regard to cleanliness in every department. As the best results are attainable during the winter months, we should aim to have our cows calve in the fall, then we can supply during the season when we can devote most time to the care of our cows, the milk or cream, as the case may be for butter manufacture. I see no reason why factories could not be fitted up for the making of cheese from June to November inclusive, and for butter making the balance of the year, and no reason why cheese makers should not learn the art of butter-making, and thus have profitable employment the whole year. These are matters requiring the careful thought of those interested.

### Butter-Making.

In my last paper I finished the churning of the butter. Now the best way of getting it out of the churn. A good deal depends on what kind of a churn is used. If a square box is used perhaps the readiest way is to draw off the butter-milk and run it through a cotton cloth so that no butter escapes in the milk, and when the milk is mostly drawn off put in the churn a little cold brine, not very salt, give the churn a few turns, draw off the water and repeat this operation two or three times until the water comes off clear, then take out the butter into the butter-worker, whatever that may be. A large wooden plate is often used, but a good smooth hardwood board will serve the purpose.

If the one used be a common plunge churn, pass the staff head quickly down through the mass a few times, taking as little butter down with it as possible, that will raise the most of the butter to the top of the milk; have a small strainer or creamer and take all the butter out you can get and put it into the butter-worker or plate, as the case may be, then use the churn staff, and dash as you would when churning for a little, and that will gather together any granules of butter that may be in the milk, adding a little clean water if the milk is thick, it will gather and separate better.

Too much working spoils the grain of the butter and makes it greasy; too little does not take out all the butter-milk, and it won't keep; so that a little judgment and skill is required here to do it just right.

Whether the butter be in a plate or on a board don't spread it, bruise it, or squeeze it. If in a wooden plate press it with the wooden ladle, and turn it over and cut it up into long, narrow strips, and press the milk out of it, gently pressing each strip by itself. If it is on a board, take a common bread-roller and roll the butter out thin, turn, and fold it a few times; but don't squeeze or spread it, roll it out. When all the milk has been pressed out of it wash it with clean water with a little salt in it. Experience will soon tell a careful observer when the butter is purged of all the milk and ready for salting. Don't do any guess-work; weigh the butter now and allow one-half oz. of fine dairy salt to the pound of butter. Some prefer more salt. If the butter is for your own family use salt to please your own taste, but if for the market don't use more for present use than one-half ounce.

The best way to salt.—Cut the butter into thin slices and spread it over the plate and shake over it about one-third of the salt, put them together, double and press them together, turn it edgewise and do the same, and press it down flat and repeat the same, adding a little more salt till finished. When finished, fill the plate with water, or put the butter into some other vessel where it can be covered with water or a wet cloth to keep it from the air; let it stand an hour or two.

If a board and roller is used, the same process can be carried out on the board by rolling the butter out thin and adding a little salt every time it is rolled, and put it aside for a time as before directed, but don't leave it uncovered.

Preparing for market.—See that the scales are properly adjusted and weigh the butter into one pound pieces, giving good weight; weigh it all before doing anything else. When the butter is all weighed set to work and put it up as

desired, either in prints or into rolls. If rolls are neatly done up and tidily finished they sell as well as any way. Now put the butter into pans or a nice clean tub and float it in brine, keep it cool and it will keep as nice as when it came from the churn till you are ready to take it to market; when you get there with a fine article seek for the best customers and give them a taste of your nice, clean, gilt-edged butter; two, or perhaps four, cents a pound more will be your reward. Don't trade it off for groceries; you can get cash for it. DAIRYMAN.

### The Dairy Cow Competition Again.

Kindly allow us space in your valuable paper to answer Stockman's last letter. He began in his first to find fault with Holstein breeders for not competing in the ADVOCATE test. Since that has been answered, he tries to find fault with the breed. We may next expect him to find fault with their native country—Holland.

Objection No. 1.—He says this breed has "loose, open frames," hence "unprofitable."—On account of their great milking powers most of them remain thin while giving a large flow of milk. During this time they have not that plump, rounded appearance of the beef breeds, hence Stockman thinks them loose and open. This simply goes to show their strong dairy qualities.

Objection No. 2.—"Public records never come within hailing distance of private," etc., etc.—At twelve of the leading fairs in the United States in 1889 Holsteins took first prizes every time (open to all breeds), and every time the prize-taking Holstein made two pounds of butter or more per day on the show ground, and as high as 3.12 lbs. per day. Surely when all the circumstances and drawbacks in show ground tests are considered, everyone cannot help admitting that these tests are within easy "hailing distance of private records."

Objection No. 3.—"Big records often a bequest," etc., etc.—We will show that this is not the case by citing examples. Lady Fay (11 years old) gave, in 1884, 97 lbs. of milk in one day, 20,412 lbs. 3 ozs. in a year. She still lives and the test was made six years ago. Clothilde 2nd (9 years old) gave, five years ago, 23,602 lbs. of milk in a year, and 17 lbs. 12 ozs. of butter in seven days. She still lives, and quite recently has given 223 lbs. 5 ozs. of butter in 60 days. Piertierje 2nd gave, beginning February, 1887, 30,318 lbs. of milk in one year. She is now nearly 13 years old and she also lives. We may add that Lady Baker, with butter record of 34 lbs. 6 ozs. in a week; De Kol 2nd, 33 lbs. 6 ozs.; Gerhen 4th, 32 lbs.; Natchez, 31 lbs. 9 ozs., still live, and scores of others might be given. His reference to milk fever may here be referred to. This breed have not this disease any more than other breeds, but as a rule milk fever is brought on by injudicious feeding. Let us illustrate. Before leaving for the exhibitions we bought several grades to keep up milk supply for our customers, and among them we got a Shorthorn grade. The day after buying her she dropped a calf and took milk fever. We saw the owner and he said that he had fed her whole barley. This was done to put her in fine form for selling. Now, we do not propose to cast the blame on grade Shorthorns, but on the injudicious feeding she got. With a reasonable amount of care Holsteins are not apt to be troubled with this or any other disease.

Objection No. 4.—"By milkers \* \* \* uncontrollable," etc.—We have heard leading breeders



### The Milking Competition at London.

I suppose some of your readers will be expecting a few lines from my pen in answer to some of the statements of those who have written to the *ADVOCATE* about this subject. The petulant remarks of Mr. Guy about the lady whose Jerseys fairly won the valuable prize, hardly need passing comment. To call "sour grapes" does not make the fruit on one's own vines any sweeter.

Let me address myself to the few arguments in his letter. Mr. Guy writes: "Evidently Prof. Robertson does not allow anything for the quantity of milk produced, only its quality, viz., its butter fat and solids. This ruling we object to as being an unfair and absurd way of judging."

The fact is the scale of valuation, which was published long before the test began, and which was known to Mr. Guy, gave full and equitable value for everything in all the milk, except its water. Water in milk has no real or rateable value, so far as I know, whether it be put there by a cow or a man.

It is open for discussion and suggestion whether some extra points should be allowed for the milk of heifers in future tests.

I do not find anything else in Mr. Guy's letter worthy of remark, except, perhaps, his final complaint, to the effect that, if the standard of judging be not changed, the Ayrshires will not be represented at this year's competition. The standard is open for criticism on its merits. It was framed to show the real market value in Ontario of the milk yield of any cow. A fanciful scale of points does not usually indicate the real worth of the milk, or the profit-making power of the animal as a milker.

I will advert to one other matter in Mr. Guy's letter. The tables of points, which he gives, are erroneously calculated from standards of valuation, which are not applicable with fairness to our province. Let me show him where his own statements and figures would lead to: Take the points, as stated by him, from the Ohio Farmer's standard, at his own figures of 582.06 due to the Ayrshires, and 580.63 to the Jerseys; then, if the points claimed by Mr. Guy for each be divided by three, merely to bring the figures to something near a cash value in cents for the milk, the Ayrshires will stand with 160.68, as against 160.21 for the Jerseys. Now, if Mr. Guy will calculate the per cent. of profit on the value of feed consumed by the Ayrshires—\$1.48'8—when their milk is valued at \$1.60'68, he will find that it shows eight per cent.; and if he will calculate the per cent. of profit on the value of feed consumed by the Jersey—\$1.20'07—when their milk is valued at \$1.60'21, he will find that it shows thirty-three per cent. I have taken his own figures (I know they are not correct) to show that it is his way of writing, and not the "way of judging," that is "unfair and absurd."

Messrs. Smith Bros. look after the claims of the Holsteins to reputation, as well as they manage their own excellent herd of that breed. But I venture to predict that the report of a few instances in our own province, where the Holsteins have held their own when tested for profit-making talent with other breeds, would do more to strengthen their claims than a pamphlet full of notes of their achievements in the United States.

Your third correspondent seems to jump to many conclusions without wasting (?) time in the

examination of facts. That is not a wise practice for even a man who professes to be so "practical." I do not find in the report which I made upon the test, or elsewhere, that "cows 'J,' by total points allowed, were to 'A' as 44.—odd is to 11." Of course the deductions drawn by Mr. Rice from the statement are equally far from fact. The result recorded in my report gave the per cent. of profit on the cost of the feed consumed. To show that Mr. Rice's conclusions are wide of the mark, let us suppose that three lots of cows had been under test, and that the third lot, "C," (probably from excitement, or unsuitable and expensive feeding), had shown only one per cent. of profit in the value of milk, above the cost of the feed consumed, as against 13.87 per cent., and 47.04 per cent. in the cases of "A" and "J" respectively, would there, then, be any sense in saying that "cows 'C' would need to give 'thirteen times' the quantity of their milk to equal the quantity given by cows 'A'?" That would be the kind of logic, and would be equally applicable and true with the assertion of Mr. Rice that "cows 'A' would need to give four times the quantity of their milk to equal cows 'J'."

Now, Mr. Editor, I need not assure your readers, who know me, or who have read my writings, that I have no favorite among the breeds. I am humbly and earnestly trying to bring to the attention of the farmers of Canada, the profit-making talent of all the pure breeds in their several spheres. And I will return again to this discussion, and continue it as long as it will serve that end. The arguments of the special advocates of each particular breed in its favor, will be read with care. The public are with me, and we are after the cow that makes a large profit, and not a cow that can only conform to the fanciful milk standard of a fanciful expert.

JAS. W. ROBERTSON.

### That Dairy Cow Competition.

I was somewhat surprised that a breeder of Mr. Guy's standing would write such an article on the late London dairy tests. It only shows how sore he feels over his defeat, especially as he was defeated by three cows taken from one herd, and not as he was, assisted by a fellow breeder.

When Mr. Guy starts to prove that the Ayrshires ought to have won this prize, why does he not find out how the breeds were tested at Toronto in 1885 by Prof. Brown (not by Prof. Cheesman as he states), and not make an imaginary scale to suit his own purpose. I will give the scale of points by which the cows were tested at Toronto:—

- 1.—Weight of milk in 24 hours—Allow 1 point for every pound.
- 2.—Butter per 100 lbs. milk—3.5 being the standard, add or deduct 10 for every one above or below.
- 3.—Cheese curd per 100 lbs. milk—Allow 1 point for every pound cheese curd.
- 4.—Time since calving—days—Add one point for every 10 days.

It will be seen by the above that the cows were tested to find out how much cheese curd per 100 pounds of milk each cow would make.

By Mr. Guy's scale the cow that gave the greatest quantity of milk must of necessity make the most cheese. Just fancy the Holstein cow, Pieterje 2nd, with a record of 30,318 lbs. 8 oz. of milk in one year making 3,032 lbs. cheese. Why, Friend Guy, if you go on at this rate you will "glut" the cheese market within six months. Anyone who has had experience with dairy cows know that one cow's milk will make more butter and cheese from a given quantity than another, even if they are of the same breed.

To prove how absurd his arguments are, we will take his own two Ayrshire cows tested at Toronto in 1885, and note the results:—The cow Rosette gave in 24 hours 23 lbs. milk, from which was made 4.68 lbs. butter and 18.40 lbs.

wet cheese curd per hundred lbs. milk. She was 167 days in milk, and has a total of 69.90 points. The other, Oshawa Lass, gave 32.6 lbs. milk; 4.14 lbs. butter, and 13.33 lbs. wet cheese curd per 100 lbs. milk; 14 days in milk, and a total of 54.13 points. Now, according to Mr. Guy's opinion, Oshawa Lass was in her prime as she was in her flush; yet from nearly 10 lbs. more milk she gave over 5 lbs. less cheese curd per 100 lbs. milk than Rosette. This proves that a cow giving a large quantity of milk will not make more cheese and butter in the same time than one giving a lesser quantity.

Mr. Guy states that as two of the Ayrshires were three-year-olds, a certain number of points ought to be allowed for that. Where did he ever see in a test like this points allowed for age? Where were all their matured cows that they had to fall back on the three-year-olds? Truly they must have been hard pressed. As to time since calving, is he aware that in the United States last year a cow won a prize like this through her score being made up of points gained from being so long in milk? and the results of the test of his own two cows at Toronto show that a newly calved cow in her full flow does not stand so good a chance as one five or six months in milk.

Mr. Guy's remarks about how the Jerseys were fed, or, as he tried to make out, starved during the test, I will leave for their owner to reply to, as she is quite able to do so, but will say that Mrs. Jones did not intend trying for this prize before going to London, and it was only when she was informed that our cows were not there that she entered hers, so as not to let the Ayrshires take it by default. We have kept Ayrshires and Jerseys together, and the very best of each breed that could be got, and I can assure Mr. Guy that our Jerseys have made as high as two pounds butter to one from the Ayrshires from the same quantity of feed. As to the great majority of the Jerseys giving only a very small quantity of milk, such is not the case; and I ask Mr. Guy for proof of such and his experience with them. Mr. Guy tries to make out that Prof. Robinson's way of testing is not a fair way, and also tries to prove that had they been tested by the same scale Prof. Brown and Cheesman used it would have turned out different. Does he forget that the Jersey cow, Jolie of St. Lambert, stands to-day champion sweepstake cow over all Canada, having met and defeated all the sweepstake cows (Ayrshires included) since 1884? Her score (113.23 points) has never been attained by any other cow, and she was tested by Prof. Brown and Cheesman by the same scale as he wants.

Our reason for not competing for the *ADVOCATE* prize was that the cows could be owned by more than one person. We objected to this from the very first, and wrote to the editor of the *ADVOCATE* and Prof. Robinson about it, but it was too late to change the rules as they were published. Our objections to this rule were that three "Queen" cows could be picked out from several herds that would make a good showing, yet the breed which they represented as a whole might not make a good dairy breed.

We are willing to compete at any time with five or even ten of our cows against the same number owned by one party, and let them be tested by the scales used by either Prof. Brown, Robertson or Cheesman, the test to take place at any of the principal fairs held in Canada. Such a test, Mr. Editor, would, I think, prove which was the best dairy breed, and settle this vexed question.

GEORGE W. A. REBURN.

**The Farm.**

**Dr. Barnardo's Home—One Solution of the Farm Labor Question.**

Mr. Alfred B. Owen, agent for Dr. Barnardo's Home, Toronto, writes us in regard to the work of the Institution during the past year.

"Between the months of April and August, 1889, we placed our 300 boys who came from England in three parties, numbering respectively 150, 100 and 50. In addition to this number, 96 were brought out to our Farm Home in Manitoba, where they will receive a year's practical training before being placed out with farmers. The boys sent out have in all cases passed through a period of careful training in the London Homes, where, at the present time, 3,250 boys and girls are receiving maintenance and education, and being taught and trained for positions of usefulness in life. The boys who have passed through our hands during the past year have, as usual, been selected with great care from this large number, and our aim has been, as always, to send none but those who are at least physically healthy, mentally intelligent, and morally pure. As long as we do this, although there have been, and always will be, failures and disappointments, the charge cannot be laid against the work of the Institution that in giving these orphan lads a start in life, they are imposing a burden upon the country, or making an undesirable addition to the population of the Dominion. The demand for our boys during the past season has far exceeded anything in our previous experience in the work. Long before our first party left England in March, we had more applications for them than we could supply, and every day during the spring and summer letters poured in upon us from farmers all over the country, applying for boys of all ages and descriptions. It is needless to say we have been obliged to disappoint a very great number, while others we had to keep waiting many weeks for our second and third parties, until we could send them boys. On the other hand, most of those to whom boys were sent have been highly satisfied. Out of the entire number placed during the year, we can only find the names of three whom we are compelled to regard as failures. We do not mean to say that all the rest are faultless, but they are earning their living honestly and respectably, and they have been guilty of no moral offence beyond the ordinary failings and shortcomings of boyhood. We claim for our boys that this is a record of which, as a class of embryo citizens, they have good reason to be proud, especially when it is remembered that the influences they are under are not always the best, and even among employers there are sometimes faults of over-exertion or over-indulgence that tend to foster what is not good in a boy's character.

"Our visitors and travelling agents have been actively at work during the year in all parts of the country visiting the boys in their homes, seeing them and their employers, and ascertaining that they are contented, that they are being well treated, and that the conditions upon which they are placed are being carried out. Our aim is to visit each boy at least once a year for the first two or three years after his being placed out—longer if necessary. In all, 997 visits have been made by our agents during the past year, and from the full and careful reports made of these visits we find that twenty-eight boys only out of the entire number, less than three per cent., are doing badly. We have altogether the names of 1,906 lads on our books, brought out and placed through the Province of Ontario since the year 1882; of this number we are in direct communication with about 1,350, or about 71 per cent., the remainder being chiefly those who, having come to man's estate, have changed their settlements two or three times, and we have thus been unable to follow their movements, and whom we therefore only hear of by chance and at considerable intervals. The task of keeping in touch and correspondence with a family even of 1,350 is not a light one, as

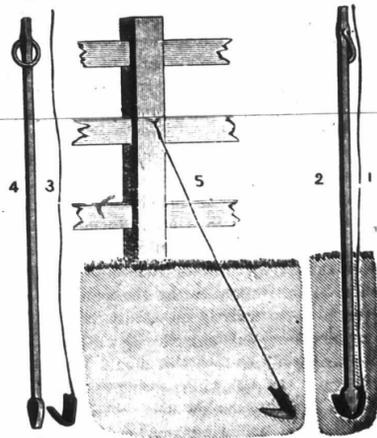
evidenced by the fact that our mail matter during the year 1889 shows 5,791 communications received at this office and 13,685 sent out. Our desire is to let every boy regard the agent of the Home as his friend, and we encourage them to come to us freely and under all circumstances for advice and help.

"We are glad and thankful to say we have had scarcely any instances of cruelty or ill-treatment of boys during the past year. We never send a boy to any man who is not certified by a minister or magistrate to be in every respect a fit and proper person to have a boy intrusted to his care, and this precaution, together with close and regular inspection, is an almost unfailing safe guard against a boy being subjected to serious ill-usage. In placing boys our rule is to allow a month's trial at the first commencement of the engagement. We make a special request that we may hear from the boy during the month, and if all is satisfactory, we correspond with the employer to settle finally the terms upon which the lad remains with him. The conditions, which are embodied in a simple form of agreement, provide for the boys receiving board, lodging, clothing, schooling for the younger boys, and for their attendance at church and Sunday school. Wages in the case of older boys are fixed for a year. Smaller boys are engaged until they are seventeen or eighteen, and receive wages in the form of a "lump sum" payable at the end of the engagement. Every agreement gives either party the right to terminate the engagement by giving a month's notice, but in addition to this we reserve for ourselves the right to remove summarily and without notice any boy whom we have reason to believe is not being properly treated. Our experience shows that these conditions are workable and generally fair and satisfactory.

"During the coming season we hope to place out at least as many boys as last year. They will vary in age from twelve to seventeen, and will have passed through the usual preliminary course of training and testing. We shall be glad to receive applications as early as possible, and will furnish the necessary particulars to anyone desiring them."

**Fence Post Anchor.**

The accompanying cut is a device termed by the patentee, Mr. J. D. Smith, Mount Elgin, Ont., an anchor for posts, which is intended to



secure such fences as the Russell, Crab, &c., that are built on the top of the ground. The wooden stakes usually used have not held securely during the high winds of this winter. The anchor (3 and 5) is a piece of flat iron bent in the form of a U, with a hole punched in one side for wire attachment. The anchor is driven into the ground two or three feet with a suitable iron bar (4) so as to keep the sides expanded (1 and 2) and in such a way that they take immediate hold and cannot be removed except with great force. The free end of the wire is fastened

to the bottom of post or stake to be secured. Without some such device as the above fences built like the Russell, Crab, &c., will be abandoned, as wooden stakes are easily loosened during wet weather and high winds, as can be seen by driving in any locality where these fences have been built, hundreds of rods have been blown down and with the wooden stakes attached. The anchor is out of the way of frost, is cheap, costing a fraction of a cent each, and much more easily driven than a wooden stake.

**Seed Catalogues of 1890.**

As a rule the standard seedsmen of each locality are the people that are most apt to know the requirements of farmers in their own part of the country. Therefore it is a pretty safe policy to follow: that those who have given good satisfaction heretofore are the ones to patronize in the future. Among the seed catalogues received at this office we notice that of J. S. Pearce & Co., of London, Ont., which, on the inside cover, gives first a useful table that at once shows the quantity of each variety of seed per acre and per hundred feet for field and garden culture, and also the distance to plant different varieties of plants and quantity required per given space. It is altogether a comprehensive work, and there is a great deal of information to be gleaned from it. Among the novelties for field cultivation are the following, which will be found worthy of space on any well appointed farm:—Carter's Orange Giant Carrot, Pearce's Canadian Giant and Carter's Warden Prize Yellow Globe Mangels. Colorado spring wheat seems to have done the best in this locality. Oats have a new variety in the Golden Giant Side Oat and Rosedale Oat, which are well recommended. The Egyptian Mummy Pea is certainly a distinct and valuable new variety.

Wm. Rennie, of Toronto, issues the Illustrated Guide for Amateur Gardeners. As usual he is forward with some valuable new specimens, such as his selected Long Red Mangel of prodigious size, also Mammoth Yellow Intermediate, Rennie's Prize white oats and American Banner oat, Colorado spring wheat, also imported Chevalier two-rowed and Duck-bill two-rowed barley, which there is great hopes of Canadian farmers being able to export to Great Britain.

The old established house of J. A. Simmers, of Toronto, issues a neat descriptive catalogue in which the standard sorts of field roots, the Canadian Banner oats, and Ladoga spring wheat, are favorably mentioned.

Unfortunately we are not in receipt of the catalogues of the reliable seedsmen Steele Bros., Toronto, and John A. Bruce and Robert Evans, Hamilton, but hope to review these in our next issue, along with the new varieties of potatoes, corn, turnips, &c., and the different varieties of garden seeds and plants that may be new to our readers.

The seedsmen of New York lead out with some beautiful designs in descriptive catalogues. The old time seedsman, James Vick, Rochester, N.Y., fully describes many of the new and old varieties he has been noted for. Peter Henderson, New York, and John Lewis Childs, Queen's Co., N.Y., have most elaborate catalogues in the line of flower and garden seeds. Lovett's Guide to Horticulture, of Little Silver Spring, N.J., is very descriptive in the line of fruits and nursery stock; and Landreth's, Philadelphia, is replete with everything in the vegetable line. Johnson Stokes, 217 Market street, Philadelphia, Pa., sends a manual of garden and field seeds, full of novelties in these lines. Samuel Wilson, Mechanicsville, Bucks Co., Pa., has a collection of beautiful and rare plants and flowers. Any of our readers desirous of obtaining information in the novelties for the next season, as well as practical information on gardening, should send for any or all of these catalogues.

### The Management of Agricultural Exhibitions.

BY W. A. HALE, SHERRBROOKE, QUE.  
(Continued from February issue.)

In preparing for the exhibition it seems best to allot to each director some one branch for which he seems most suited and for which he is to be responsible during the entire period of the exhibition. Official opening, in the majority of cases, can best be dispensed with and the time and money which would be expended on them be put to some more practical and profitable use. In judging, in all departments, decided preference should be given to the system of employing single expert judges instead of the usual custom of appointing three local men, one of whom usually does the judging while he throws the responsibility of his decisions upon the other two. Judging by points, especially in the dairy, poultry and live stock departments, should, whenever possible, be established; thus, by showing young breeders wherein lie their weak as well as strong points, is accomplishing far more than by simply awarding prizes to the two or three best competing animals, and should have a wholesome tendency in checking the injurious practice of grossly over fattening breeding animals for the purpose of covering up defects, greatly, however, to the detriment of the breeding powers and general usefulness of the animals themselves. Every publicity should also be given on the entry tickets attached to all exhibits as to the name and residence of the exhibitor. This, from an educational point of view, is of great importance, and it not only shows the public the confidence the directors have in their judges, but also prevents any biased judge from shielding himself in the professed ignorance of whose exhibits are being submitted to his inspection.

In the matter of providing amusements it seems that, as in the case of all circulating libraries, by far the largest proportion of works read are fiction, so for a like reason does it seem necessary that "attractions," as they are called, must be provided each day where the keeping up of the association is dependent mainly upon the gate receipts. What remains for the directors to do is to see that the attractions are of an inoffensive nature, and to entirely prohibit all gambling, betting or games of chance, and upon no excuse whatever to allow intoxicants, no matter of how mild a nature, to be sold or even brought upon the ground. So long as horse racing, or "speeding in the ring," as it is called, seems to be unavoidable, it should be governed by the strictest rules, and any attempt at "jockeying" be severely dealt with, and among these and other attractions a goodly share of the time and money should be allotted to athletic sports, "tugs-of-war," trials of strength between teams of working oxen and draught horses, and what is of more importance, and perhaps equally attractive with the "2:40 class," is a half mile walking race between working teams of horses.

As the interests of all agricultural associations are identical, so should perfect harmony and a willingness to help one-and-others exist amongst them all. Politics should never be allowed to enter into their constitutions; courtesy towards their sister societies, their judges, exhibitors and their visitors should ever mark their acts; severe and impartial judging should be their golden rule, and although the work at times may fall heavily upon the directors, they will learn by experience that eternal vigilance is the price of success, and that an honest and impartial reputation is by far the best and most profitable advertisement that could be devised.

### Garden and Orchard.

#### Raspberry and Blackberry Culture for Profit.

BY T. G. H. PATTISON, GRIMSBY, ONT.

The writer has often wondered that more farmers do not set apart a plot for this branch of fruit growing. Indeed, aside from the question of direct money profit, it would benefit every farmer to grow these delicious fruits for his own use; but let no one attempt to grow for profit who is not either near a good local market or close within reasonable distance from a railway station where he can ship his fruit at moderate rates to the large markets. It is also important that pickers be obtainable without difficulty in sufficient numbers and at moderate figures—one cent a quart, where the crop is good, is what we usually pay. Where these conditions are favorable, and with proper attention and cultivation, there is certainly as much profit, in comparison with the labor expended, as in any other branch of fruit growing.

Almost any soil will do for these fruits, provided it be rich and well drained. If not rich naturally it should be made so, and if not naturally well-drained it must be thoroughly underdrained before planting, for no success will be obtained if the land is poor, cold or wet.

Beginners should procure their plants from some responsible nursery—if possible in their own neighborhood—where they can be procured at reasonable rates, which, of course, vary slightly in different localities; afterwards the grower can raise his own plants by setting apart a small piece of land for that purpose. The red raspberries and the blackberries propagate from the roots, but the black raspberries from the tips, which must be laid down and covered with a little earth to ensure their taking root; from the last of August to the middle of September is the proper time to do this.

Either fall or spring will do to plant in, but it is the writer's opinion that in this climate spring is preferable. Select thrifty one-year-old plants, which should be cut back nearly to the ground at the time of setting. Plant in rows five to six feet apart, and from eighteen inches to two feet apart in the rows.

A good way is to plow out furrows at the distances apart you wish to, and set the plants, priming the earth well round the roots, then plow a couple of furrows up to them. Do not set the plants deep, they should never be set any deeper than they grew in the nursery. Give them good cultivation during the summer, and in the fall—particularly on stiffish land—plow up to the plants, finishing off with a dead furrow in the centre of each row, this should be plowed back again the following spring. Let both plowings be on the shallow side, then give good cultivation the following summer till fruiting time, when they may be left till fall plowing again. It will be found advantageous to go through the rows with a cultivator two or three times a week during the summer, it does not take very long to go through an acre or more, and the result will fully repay the labor, especially in a dry season. No grass or weeds should ever be allowed in the rows, and in places where the cultivator cannot reach the hoe and the hands should be freely used.

After fruiting time is over, the old canes should be cut out close to the ground and re-

moved, and in the spring the principal as well as the lateral canes should be well cut back to at least one-third of their original length. It is also a good plan to go through them in August or September and cut back the young bearing wood for the following year, not allowing these canes to grow more than from three to three and a-half feet in height, this plan will render much spring pruning unnecessary. Some recommend training to stakes or to a cheap trellis, but in the writer's opinion this is needless if they are kept well cut back. If too many suckers grow in the rows they should be removed, and none at all should be allowed between the rows.

By giving protection in winter a full crop can be obtained in many localities where otherwise little or no fruit could be had. The method is simple and consists of bending the canes down lengthwise of the row and covering them with earth; it requires two men, one to bend down the canes and the other to throw enough soil on them to keep them in place, then the plow should be run on each side of the row turning the soil upon them. This should be done pretty late in the fall, and in the following spring, after danger from severe frost is past, they should be released by passing a fork under them, then gently lifting and shaking off the soil.

If the soil is kept well manured a raspberry or blackberry plantation will last a long time and still bear profitable crops, indeed, under such circumstances, they have been known to last for twenty years in the older Provinces and in Europe, but the average duration under good culture is from about nine to thirteen years. As soon as the patch ceases to bear remunerative crops, plow it up and plant in a fresh spot. Compost, soap-suds, slops of all kinds, barnyard manure, or wood ashes (unleached) should be applied as a topdressing between the rows from time to time, especially to raspberries, which are gross feeders. Some cease cultivation the second year and simply keep the ground well mulched with long manure, a plan which is found to answer fairly well and to be a considerable saving in point of labor.

Raspberries and blackberries are not much subject to disease, they are sometimes troubled with leaf blight or rust, usually in old plantations where the soil is becoming exhausted and the plants are growing feeble. Applications of sulphur or sulphate of iron will be found beneficial; the affected parts should be cut off and burned. Nor are they much troubled with insects, though the Blackberry Bush Bore sometimes attacks the pith of the young canes, but is not very common. Infected canes should be pruned off in the fall and burned. The beetle, the parent of this grub, is about half an inch long, black, yellow on the breast and top of the thorax. It lays its eggs on the stems early in August.

There are a great number of varieties of these berries, and new ones are constantly being thrown on the market, some of which are good and more worthless. Beginners should select varieties that have been tested and found to do well in their neighborhood, as different varieties suit different localities and soils, so that it is impossible to give a list that will succeed everywhere. For the purposes of this paper it will be sufficient to name four leading varieties of red raspberries, black raspberries and blackberries, although there are many others that will give good satisfaction:—

RED RASPBERRIES.

1. Highland Hardy—Early, hardy, productive.
2. Cuthbert—Medium, half hardy, productive, large, a great favorite where sufficiently hardy.
3. Marlboro—Medium, large and fine, half hardy.
4. Turner—Early, hardy, productive.

BLACK RASPBERRIES.

1. Souhegan or Tyler—Early, hardy, small but profitable.
2. Gregg—Late, rather tender, large and productive.
3. Ohio—Medium, hardy, productive, inclined to be small.
4. Mammoth Cluster—Medium, hardy, productive.

BLACKBERRIES.

1. Lawton—Large, fine, productive, but tender.
2. Kittatinny—Large, productive, half hardy.
3. Snyder—Productive, hardy, but inclined to be small.
4. Western Triumph—Hardy, productive.

It is a difficult matter to estimate the profits of raspberry and blackberry culture, prices vary so much in different localities and other conditions are so unequal, but the following estimate may give some idea of what a grower should receive from a plantation in full bearing. With reasonably good culture, from 2,000 to 3,000 quarts can be raised to the acre. Raspberries should at least fetch from 8c. to 10c. per quart, and blackberries from 9c. to 11c.; then, allowing 2c. per quart for picking and marketing, and 2c. for cultivation, etc., there would remain a net profit of from 4c. to 6c. per quart on raspberries, and from 5c. to 7c. on blackberries. Now, taking 2,500 quarts as raised to the acre, then the net profit to the grower per acre would be, on raspberries from \$100 to \$150, and on blackberries from \$125 to \$175. These amounts, undoubtedly, have been far exceeded in some instances where conditions were favorable and prices good—as much as \$600 and even \$700 having been realized from a single acre. The latter figures, however, are merely possibilities not probabilities, but the former ought to be within the reach of the ordinary grower who is suitably located.

Vegetable Pathology.

BY JAMES ELLIS HUMPHREY.

Prof. of Vegetable Physiology, Massachusetts State Agricultural Experiment Station.

(Continued from February issue.)

THE BLACK-KNOT OF THE PLUM.

*Plowrightia morbosa* Sacc.

This wide-spread and fatal disease, so common on cultivated plums and cherries and on some species of wild cherries, is peculiar to America, being, as yet, unknown in Europe. Its characteristic elongated, black, knot-like excrescences are two well known in Massachusetts to require detailed description, since its attacks have practically put an end to the culture of plums in many parts of the state.

The disease is caused by a fungus, *Sphaeria* or *Plowrightia morbosa*, which attacks the branches of the trees and whose mycelium lives in the swollen tissues of the knots. One of these may often extend nearly or quite around the branch, girdling it and causing the death of all above the knot. When this is not the case, the tree is greatly weakened and soon ceases to produce fruit, while the knots increase rapidly and finally kill it.

Besides reproducing itself by spores, the fungus spreads within the branch by the growth of its mycelium and the consequent gradual extension of the knot. Thus it is common to find, in the spring, a new knot immediately adjoining the remains of that of the preceding year.

The fungus produces two chief forms of spores. In spring and early summer the surface of the

young knot becomes covered by a "bloom," composed of short threads which bear what we may call the *summer spores*. These germinate promptly and can probably produce fresh infections at once, though our suppositions on this point are based rather on analogy than on direct evidence. Later in the season the black surface of the knot shows to the naked eye, on close examination, a division into many minute facets or regions, separated by slight furrows. Microscopic study shows that each of these facets corresponds to a cavity which finally communicates with the exterior by a pore at the middle of its facet. In these cavities are developed the *winter spores*, which become ripe and are set free in late winter and early spring, and, presumably, produce the beginnings of new knots at that time.

Nearly all our knowledge of this fungus is due to the admirable account of it in Part V. of the Bulletin of the Bussey Institution, by Prof. W. G. Farlow, of Harvard University; but further study is needed of the manner in which the infection of the branches of the host by the spores of the fungus is accomplished, and of the early history of the development of the knots. When a tree has become badly infested with the knots not much can be done except to prevent its continuance as a spreader of contagion, by cutting it down and *burning* it. Simple cutting down is not sufficient, for Dr. Farlow has shown that knots on a tree, cut down in summer and allowed to lie through the winter, developed their winter spores as if the tree had been standing.

The treatment which has been recommended is that the knots be cut off and burned, as fast as they appear. This often leads, however, to very serious disfigurement of the tree, and a less heroic remedy is much to be desired. A treatment similar to that recommended in Bulletin No. 4, of this Station, namely, the painting of the knots with a mixture of red oxide of iron in linseed oil, has given very good results in case of young trees on the private grounds of Dr. C. A. Goessmann, Director of the State Experiment Station. This preparation seems to stop the development of the fungus so that the knots crumble and fall away, with the least possible injury to the branch. Even were its effects not so complete, such an application would be useful in preventing the dissemination of the spores of the knot-fungus. In connection with this painting of the knots, special fertilizers have been applied to the soil about the trees, with the object of lessening their susceptibility to the attacks of the fungus.

A very serious difficulty in dealing with a disease of this sort is presented by the fact that one man who is intelligently and persistently fighting it by destroying all his old trees and carefully treating the young ones, may be surrounded by and constantly exposed to old trees belonging to neighbors, who have too little energy or public spirit, or too little faith in "new-fangled notions" to co-operate in any systematic attempt to conquer the trouble. General co-operation over a considerable area is an important prerequisite to success, especially in dealing with diseases of long-lived plants, like trees. But unfortunately, there is found in almost every community, the slipshod man who reasons that, because his trees have suffered so long from black-knot, they always must, and whose simple laziness and conservatism lessen the result of the intelligent efforts of his progressive neighbors.

But attention must be paid, in fighting the black-knot, to other than cultivated trees, merely. Since, as stated above, the disease attacks some of our common species of wild cherry, care should be taken to destroy all such trees within a considerable distance of the cultivated trees, for they may serve, as well as any others, to spread the infection. Since one species of wild cherry, the black rum-cherry, is said not to be attacked by the black-knot, it would be safe to destroy those wild trees seen to be affected and keep all others in the neighborhood under careful observation.

[TO BE CONTINUED.]

Parasitic Plants—The Farmer's Microscopic Foes.

J. HOYES PANTON, M. A., F. G. S.

(Continued from February issue.)

In our first paper we endeavored to show the position of the Fungi among plants, and then proceeded to give some of the chief characters which mark the group. We shall now proceed to discuss some of the most common forms, and in considering them attempt to glean something interesting, instructive, and practical. Let us begin at the very threshold of life and examine some minute forms, at the present time grouped with the Fungi, and about which we hear a great deal; for around their life history there gathers much of an interesting character. We refer to the tiny forms of life known by such terms as *germs*, *bacteria* and *microbes*. These names are becoming household words, because it is now generally believed the forms of life so-called are closely associated with the origin and development of many diseases.

If a burning fever consumes us, if la grippe seizes us, or small-pox, cholera, diphtheria and a host of other ailments claim us as victims, we are now told some *microbe* has begun to prey upon us, and that our restoration to health will largely depend upon the condition of our system to resist and overcome this microscopic form of life, so rapidly permeating our whole body, developing at the rate of millions in twenty-four hours.

No time is lost among them in perpetuating the species, for they reproduce by a sort of division—one becomes two, two become four, the four eight, and so on. Sometimes the method is varied by a sort of budding process, the buds becoming adult forms. Whatever mode is followed the number increases rapidly. The three terms referred to above, require some explanation to the general reader. *Germ* is a very loose expression and may be used in various senses, but when applied to these minute organisms we usually speak of disease germs. *Bacteria*, too, is somewhat confusing, and was at first chiefly used in connection with the forms associated with certain diseases. *Microbe* is probably the best term of all. It means minute life, and thus covers all these tiny living objects found on the threshold of life, whether they be connected with disease or not. We are thus quite safe in using the word *microbe* when we are aware of the specific form.

It is only a few years since the first ray of scientific light flashed out from this invisible world of microbes, and since that few fields of research have been more thoroughly searched and few yielded more prolific results. The microscope has been simplified, and microscopy become one of the chief departments in the study of life. The outcome so far indicates that particular *microbes* are associated with nearly

every disease, and it has become apparent that man is lashed on every side by an innumerable host of invisible foes; some are round, some oval, some rod-like, some not unlike the letter "S" in outline, while others somewhat resemble a corkscrew, but all invisible to the naked eye, and may be seen only by the highest power of the microscope. One writer, in comparing the size of a *microbe* to that of a man, says it would be about the same proportion that a grain of sand bears to Mt. Blanc.

Forms of microbes—

1.  $\circ$  Micrococcus.
2.  $\bullet$  Bacterium.
3.  $\parallel$  Bacillus.
4.  $\text{S}$  Vibrio.
5.  $\text{S}$  Spirillum.

We find them in liquids assisting fermentation, and amongst substances undergoing decay; many seem to work upon organic substances, changing them into inorganic material, so as to restore the elements of which they are composed to the mineral kingdom, and thus put them in a form that higher plants may feed from these elements again and prepare food for man and beast. We find them in the soil associated with the production of nitrates—a most valuable compound in the development of plant life. In this case we have a *microbe* which proves of great importance from an agricultural standpoint.

Erysipelas, scarlet fever, measles, diphtheria and small-pox show a minute globular form; consumption and anthrax develop a rod-like type, quite distinct under a power of 4-600 diameters; cholera fosters the growth of a curved type,

and some fevers are accompanied by a host of peculiarly twisted forms. To combat these subtle foes, some the one-fiftieth thousandth of an inch in diameter, is engaging the attention of many distinguished scientists today. We are rapidly gathering information regarding their life history, but there is much to learn and much to be done before we shall have become thoroughly acquainted with the microbes and the connection they have with the diseases with which they are associated.

By paying rigid attention to cleanliness, using pure water, pure air and wholesome food, we are putting ourselves in the most favorable condition to withstand attack. In the case of contagious diseases the isolation of patients affected, destruction of the *microbes* by the use of disinfectants and vaccination, have all been adopted on account of what science has revealed concerning the nature of *microbes*. By following these suggestions we are led to believe that we may be enabled to lessen, if not altogether resist attacks from a form of life that may float in the air invisible to our eyes, but if once introduced into the human system under certain conditions of health at once multiplies and in many cases causes the death of the individual attacked. In the next paper we shall discuss the fungus which causes the "potato rot."

[TO BE CONTINUED.]

### The English Sparrow.

BY W. E. SAUNDERS, LONDON, ONT.  
(Continued from February issue.)

This state of affairs cannot but cause grave concern to those who have given their attention to the matter, but as yet nothing has been done towards the extirpation of the nuisance beyond recommendations to the public looking to the lessening of their numbers in various ways, such as preventing them from breeding by destroying nests whenever possible, taking down houses put up for their accommodation, as well as those erected for other birds and usurped by the one in question, and refraining from feeding them at all times, which may sometimes result in starvation in winter.

In England, where the bird is indigenous, the damage done of late years has been enormous, and it has been stated by Miss Eleanor Ormerod, in a letter to the Times, of January 13th, 1885, that the ravages on wheat have been "estimated by judges of the farm crops in some districts to amount to one-third of the crop," and Miss Ormerod is one of the most prominent economic entomologists in England, and has devoted a large portion of her life to the study of the bearings of entomology on agriculture, and has included the sparrow in her labors, affecting as it does so largely the results of agriculture in that country. In a paper read before the Farmer's Club, April 30th, 1885, Miss Ormerod condemned the sparrow on all counts, judging both from evidence and inference, and she strongly recommends it for wholesale slaughter.

tions elsewhere, it may be recommended that as the females are the ones who are most actively engaged in perpetuating the baneful species, the price set on the heads of females in the breeding season, that is from March until the end of August, should be at least double that of the males, as, if the females can be exterminated, it goes without saying that the males will soon die out without any special assistance from man. It is generally held that until the Government take up this matter and vote a sum of money for the purpose, the increase of these birds will not be materially retarded, and certainly the sooner this is done the better for the country, and the more expeditious and less expensive the work will be. That it will come to this sooner or later, few that have given the matter much attention can doubt, as, even though the disgust and inconvenience caused to the residents of cities be not sufficient to call for its suppression, the time is coming when the damage caused to farm crops will become immense, assuming national proportions, and then one might almost say it will be too late, steps will have to be taken, and at an enormous expenditure of time and money the evil will be wiped out.

### How to Grow Pansies from Seed.

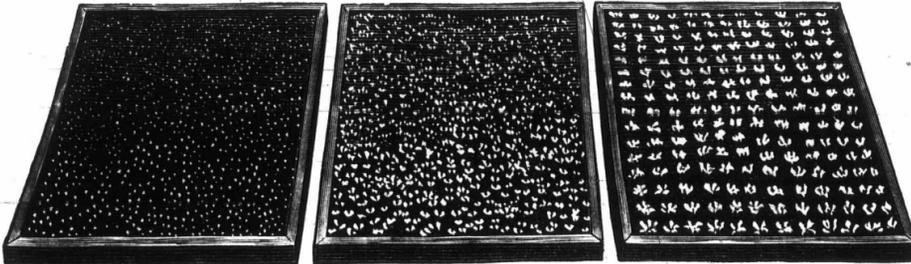
BY PETER HENDERSON.

The seeds of Pansies may be sown in the sitting-room, greenhouse or hot-bed where the temperature will run from 65 to 75 degrees, any time from middle of January to middle of April, but the earlier in the season they are sown the

stronger the plants will be.

The best way to start Pansies, or in fact, any kind of flower seeds, is in shallow boxes rather than in pots. To make it as clear as possible, we show three different stages of the operation.

Fig. 1 shows a box two inches deep, nine wide and twelve long, wherein a packet of Pansy seed has just been sown in



No. 1 Shows Pansy seed as sown.

No. 2 Shows the seedling Pansies 2 or 4 weeks after sown.

No. 3 Shows the pansy plants transplanted.

That the extermination of the English sparrow would be a great boon to Canada, the writer has no doubt, and for the benefit of those who may wish to lessen the numbers of this bird around their dwelling places, it may be mentioned that the Ornithologist of the Department of Agriculture at Washington has had experiments made with a view to determining the most convenient, efficient and economical poison for use, and the simplest method of preparation. It was found that of the common poisons, strychnine was much the quickest, but arsenic was better suited for the purpose, most birds that were fed on arsenic in the morning dying in the night following, when they would be in their nests or roosting places, and thus their poisoned bodies would not often endanger the lives of domestic animals, particularly in the winter, when they seek the most secluded places for roosting purposes.

The best form of presentation was one part of arsenic to fifteen of cornmeal by weight, mixed dry and fed wet. If whole grain, such as wheat, is used, it is well to moisten the grain with a little water to which some gum has been added, so as to cause the poison to adhere to the grains.

There is a little association in St. Thomas to which the writer would like to call attention, which has been doing good work with small outlay. By private subscription a fund was raised, and the members of the association, mostly boys who have the good of the birds and their country at heart, gave their own captures and services free, and spread the news over the town that so much a dozen would be given for eggs and so much each for heads; and the spread of sparrows in that city promptly received a severe check. In view of the possibility of similar organiza-

ordinary, rich soil, such as is used for almost any kind of house plant. The surface is made perfectly smooth and level before the seeds are sown, then the seed is pressed gently down with a smooth board, so as to merely sink it into the soil; over the seed is sifted through a piece of mosquito netting, just enough soil to hide the seed, say about 1-16 part of an inch in depth; again press gently down with a smooth board and the sowing is complete. Now, place your box in the light, water gently with tepid water, so as not to disturb the soil, and in about three weeks, if kept in an average temperature of 65 degrees, you will have a "braird" of young seedling Pansies, as shown in Fig. 2, which is a box of exactly the same kind as the seeds were sown in. In three weeks more, or in about five or six weeks from the time of sowing, you must transplant the seedlings into box No. 3, which in three weeks more will give the appearance as shown in the cut. The plants from box No. 3 will soon begin to crowd one another, when they will be placed in flower pots, or boxes, to be grown inside or in the open ground, as desired.

When it is not convenient to give Pansies the house culture just described, the seeds can be sown in the open ground as soon as it is dry enough to work in spring. They should be sown exactly as described—in the boxes—pressing down the seeds, then slightly covering up, and pressing down again, but they had better always be sown in rows, and when they come up and are about an inch or so in height, they can be transplanted at a distance of one foot apart, and if the soil is rich and the season at all favorable, you may expect continuous bloom throughout the entire season.

**Poultry.**

**The Lay of the Hen.**

From my earliest recollection,  
When I've scratched up a reflection,  
I have wondered how 'twas possible for honest  
thinking men,  
To heap such vile abuses,  
Notwithstanding all our uses,—  
Such abominable abuses on the poor domestic hen!  
Though we lay a baker's dozen  
Of fresh eggs, they come and cozen  
Every one of them for omelets, or puddings, cakes  
or pies;  
Till the state of things is vexing,  
And the problem grows perplexing.  
How to stop this kleptomaniac that goes on before  
our eyes!  
If we turn our minds to setting,  
In our thoughtlessness, forgetting  
We are only warming shingle nails, or door knobs,  
or old iron,—  
Though quite harmless our vocation,  
Yet our owners with vexation  
Send us whirling into mid-air, growling not unlike  
a lion!  
We are good industrious scratchers,  
When we're not employed as hatchers,  
Never leaving any soil unturned that might yield  
bug or crumb;  
Yet instead of words of kindness,  
It is "Shoo!" and in their blindness  
Men forget to heed the lessons daily offered by the  
dumb!  
When we're scarcely out of jacket  
Made of down, begins the racket—  
We are "getting old and useless, and have lived  
quite long enough!"  
For the epicure who buys us  
Would most certainly despise us,  
Should we savor of a quality denominated "tough."  
So we're never really certain,  
When an axe will draw the curtain  
Over the few days we're allotted here to cackle,  
sing and toll,  
And it's never been in history,  
But still remains a mystery,  
About our future welfare, as our bodies roast or  
broil.  
—Katharine H. Terry.

**Winter Care of Poultry.**

The house should be sufficiently warm to allow of a pipe running from at least two feet above the roof down to within one foot of the floor. For a house ten feet square, which will accommodate twenty-five to thirty hens, a ventilator pipe four inches inside measurement will answer, but six inches would be better. It will be readily understood that the outflow of air will not be nearly so great when the ventilator reaches to within a foot of the floor, as when it only comes through the roof, hence the necessity of the greater area of the pipe. The reason for taking the air from the lower part or near the floor, is that the lower or heavier air is loaded with gasses more detrimental to health than the lighter air that rises to the top, as well as that it is of greater importance to remove the impurities existing at the point where the fowls live and breathe than higher up. A dry floor is of great importance. There is nothing more conducive to disease than damp floors. For this reason it is best to have them of wood as well as to facilitate cleaning. If earthen floors are used they should be removed frequently to the depth of four or five inches, as they become so incorporated with the droppings as to emit foul gasses constantly. Poultry kept in confinement, as they must of necessity be in our long, cold winters, require to have constant access to fine, sharp gravel, powdered crockery or broken oyster shells. Ground bones and scraps of meat should also be furnished if the birds are to be made profitable. It is not at all uncommon for the beginner to overfeed his birds, in fact there are more choice birds killed every year from this cause than die of neglect. This danger, however, is much less where corn is not grown, as it contains so much fat that the attendant often

has the birds too fat for health before he is aware of it. As to feeding, it is well to feed soft feed in the morning, such as bran, chopped oats or barley thoroughly scalded. A few boiled potatoes or other vegetables fed hot are also excellent. Green food, to, of some kind must be provided. It is a good plan to hang a head of cabbage up by the roots, and let the birds pick at it as they feel disposed. A turnip, mangle wurtzel or sugar beet may be fed profitably by having a board of convenient size with nails driven in it to within an inch of the head. Then cut the root in halves and strike the round side of it on the nail, which will prevent it rolling over, thus allowing the birds to eat the inside, which they will do greedily, often digging it out to the very skin. The floor of the house should be covered with straw eighteen inches deep, and their grain feed thrown in it. This will keep them in healthy exercise and aid materially in keeping them healthy. Oats or wheat should be fed principally, although barley and corn may be fed occasionally as an evening feed. This system of feeding will be found especially beneficial for winter.

**Poultry Accounts.**

Those who think there isn't any money in maintaining poultry for the production of both eggs and chicks, in nine cases out of ten, base their conclusions on supposition only. Let a rigid account be the umpire that decides whether or not poultry pays with you. Run your poultry book on the debtor and credit system, and then the accounts will be simple of adjustment. If you have just purchased a flock of fowls, put down the price paid; or if not, estimate the value of the flock in your possession at present, and make a note of the sum. In order to illustrate more thoroughly a convenient method for keeping a hen book, I append sample forms to pages that can be used:—

STATISTICAL PAGE.	
No. of fowls in flock.....	64
Value.....	\$32
Laying hens.....	47
Cocks.....	4
Growing pullets.....	13
Breeds:—Leghorns, Wyandottes and Plymouth Rocks.....	
CREDIT PAGE.	
Month of January..... 1st. 2d. 3d. 4th. 5th. 6th	
Eggs gathered (doz.)..... 3 1/4 3 3/4 3 3 11-12 3 1/4	
Eggs sold, Jan. 5th, 12 1/2 doz., at 15c.....	\$1 88
Consumed, 1 doz.....	15
	\$2 03
DEBTOR PAGE.	
Purchased, Jan. 2d, 1 bushel wheat.....	\$ .75
1/2 corn.....	.25
Nails for repairing henry.....	.17
	\$1 17

The pages can be further itemized as desired, and the expenses and receipts for each month summarized and placed in regular order on another page where they can be quickly balanced with a glance of the eye. Under some such simple system you don't, as a poultry raiser and egg producer, go stumbling along in the dark, as to profit and loss. Charge your hens with every item of expense you lay out on them, be it a pound of feed or an outlay of repairs, and at the same time credit them with everything they yield you. If you dress a chicken for the table, credit this page with its moneyed worth, and also with the worth of all eggs consumed in the household.

We have seen very satisfactory results emanate from such an account, honestly and precisely kept. Different varieties of food can be fed, and their relative values noted on the egg yield. In fact, as you are running your henry on business principles, you have every detail of it constantly before you, and it is your own fault if, financially, you go to the wall.—[Geo. E. Newell, in Prairie Farmer.

**The Milk Test at London.**

*Editor Farmer's Advocate.*

Sir,—I was surprised to see in reference to the above in your January number of the *ADVOCATE*, that Mr. Guy is not reconciled to his defeat at the contest, and that he evidently feels sore over the matter. Now, I don't often appear in print, as writing "is not my trade," but I cannot help taking notice of Mr. Guy's statements or insinuations about the feeding of the three successful cows in the test.

I am the party who had full charge of Mrs. Jones' herd of Jerseys at London and Toronto, with discretionary power to feed to the best of my judgment, which I think I did successfully, as out of a herd of seventeen, I had not a sick or "stalled" animal during the two weeks the cattle were from home. It is most unpleasant, as Mr. Guy knows, to have a sick animal at a fair, and when you meet with one you generally find it is from over-feeding. Now, I want to tell Mr. Guy, no matter what "he thinks" or what was "generally known," that I fed the Jerseys during the test exactly the same as I did before and after the test. As proof of this, my cows did not shrink in their milk the second or third day, as they would have done had I made use of the "tactics" Mr. Guy gives me credit for. Mr. Guy must think that Mrs. Jones feeds her Jerseys by steam, or some other high pressure system at home, when he would expect them to milk as they did at London on what he imagines "stunted feed." With other things in Mr. Guy's letter I have nothing to do, but would remark, that on the whole, I think it both personal and vicious. Yours, ROBERT BROWNE, Foreman for Mrs. E. M. Jones.

**STOCK GOSSIP.**

Messrs. C. & C. Christner, of Haysville, Ont., report an imported Shropshire ewe, which recently died, that raised thirteen lambs in six years.

Mr. W. W. Chown & Co., of Belleville, are prepared to supply cheese factories with all necessary supplies. Our readers would do well to correspond with them.

We would draw the attention of our readers to the advertisement of Mr. Robt. Ness, Howick, Que. This gentleman has been long known to the Clydesdale breeders and importers in all parts of the Dominion. We hope to give a further account of this stud in our next issue.

We direct the attention of our breeders of Clydesdale stallions to the advertisement of the Hochelaga Agricultural Society, Montreal. This is a move in the right direction, and we hope to see a very large exhibit of stallions there on the 15th of April. Full particulars will be given by the Secretary, Hugh Brodie, N. P., Montreal, P. Q.

Canadian Enterprise.—The Ontario Pump Co. have recently completed the erection of the windmill waterworks contract we gave notice of last summer, at Shelburne, Ont. We are informed that it surpasses the expectation of the corporation as an efficient and economical means of water supply and fire protection. This Company's representative in England, Mr. N. B. Peck, has also just completed the erection of similar waterworks for the villages of Ockfield and Lecklade, and is now on his way to Bucharest, Roumania, to complete some large contracts the company have secured in that country. The manner in which this company are pushing their business in foreign countries speaks well for their windmills.

Jas. S. Smith, Maple Lodge P. O., Ont., writes:—Messrs. John Trott & Sons, Mount Brydges, Ont., have recently purchased from us the young bull San Ferratto 3rd, got by Duke of Colonus—9282—, dam Rose 5th of Maple Lodge. Messrs. Trott deserve great credit for placing so good an animal within reach of their neighbors, for, in addition to superior individual merit, his dam is an exceptionally good milker. Messrs. W. & S. Snell, Elmville, Ont., got Royal Barrington 7th, a blocky young bull calf from our mother of milkers, Princess Royal 2nd, and sired by Duke of Colonus—9282—. We have also sold the heifer Baroness of Thule to Mr. Richard Delbridge, Winchelsea, Ont. She also was sired by Duke of Colonus—9282—, and had for dam, Fifth Princess of Thule. We have a great many enquiries for Shorthorns of both sexes.

[Continued on page 96.]



**Minnie May's Dep't.**

**An Old-Fashioned Dried Apple Pie.**

I sometimes look backward and sadly lament  
For the things of the dim long ago.  
To-day offers little with which I'm content,  
The present seems padded with woe.  
In all the dear past I recall but one thing  
For which no sane mortal could sigh,  
I never shall offer the praises to sing  
Of the old-fashioned dried apple pie.

Oh, wasn't it awful! I still recollect  
I greeted its presence with fear.  
My dream of the past it forever will fleck  
With shadows regretful and drear.  
It was made out of cotton, or sawdust or chips,  
Or something as miserably dry.  
Like a piece of wool blanket it seemed to the lips  
Did the old-fashioned dried apple pie.

I should hate to fall out with the friends whom I love  
And sever the ties that endear;  
I should hate in a desert forever to rove  
Where everything's lonely and drear.  
I don't want to practice unholy deceit,  
I'm really not pining to die.  
But I'd rather do most anything than eat  
An old-fashioned dried-apple pie.

— [Chicago Herald.]

**MY DEAR NIECES:—**

What a horror a woman as a rule looks when she is ready for bed, and small wonder if balmy sleep refused to visit her tired eyes at all. Her hair done up in about fifty small, tight braids, and her bangs in as many hideous newspaper curls, her face smeared with oil, or pomatum, or cold cream, and her hands incased in a pair of very soiled gloves. Now I leave it to yourselves to say whether this picture is a very inviting one—though true of fifty out of sixty cases. When we reflect that our beds are where we spend one-third of our lives, and as we lie there perfectly oblivious to all surroundings, we should endeavor to secure as much fresh air, cleanliness and comfort as possible, else if not we awaken unrefreshed and unrested. And neither can be secured if we seek that rest in a dirty condition, smearing our face and hands with grease. I very much fear whether a coating of oily substance is not positively injurious to the skin, for it must retard the functions of perspiration, which is intended to keep the pores of the skin open and clean. Which if obstructed will find outlet in roughness of skin and eruptions. No oily application can be got rid of next morning without a free application of soap, and consequently the face has a sore, scrubbed feeling all the next day. Do not be afraid of water for the skin, it will never injure it, though one dirty, old, titled lady once declared girls washed the bloom off their cheeks. Before going to bed bathe the face and hands in cool water, and if glycerine agrees with the skin, add a few drops to the water. Wipe dry with a soft towel, brush the teeth carefully and thoroughly with powder or soap, brush the hair until the head feels cool, and coil loosely behind the head, securing it with a large, smooth, horn pin; leave the bangs alone until the morning. Now slip on your nightdress, it may be ever so plain, but it should be clean and sweet, and your slumber will be light, refreshing and sound, and you will awaker in the morning fresh and rested as you never can do if you cover your face with grease. I have seen some women when ready for bed a positively repulsive looking object, and the sheets, blankets and pillow-slips would all be partakers of the anointing process. Nothing can look daintier than a woman in a white nightdress, and I have seen some positively plain looking women look even pretty when ready for bed.

And why do some women take such pains to disfigure themselves, when they can produce just the contrary effect without so much trouble. In the morning, if you do not indulge in the luxury of a bath, sponge the body all over with cold water and dry off quickly. The effect is wonderfully refreshing and only requires a basin full of water to do it. Pay particular attention to the care of the feet, keeping them scrupulously clean. Brush the teeth thoroughly, and rinse the mouth well, and brush the hair, part afresh, and dress for the day. Now for the bangs which went without the papers last night. Curl them on a little spirit lamp, which you can procure for a few cents. When you are dressed, just take a peep at the fresh, clean, rosy face, and smooth hair, with its fringe of crisp little curls, and you will wonder how you ever went to bed reeking with grease and untidy curl papers.

Do not be afraid of wrinkles my dear girls. No effort of yours except keeping your lives pure and your hearts light will keep them from coming. Grey hairs only add a fresher tint to your complexion. Let all about your bed and sleeping apartment be white and sweet. And your bed should be well aired every morning by opening the window until thoroughly cooled. Hang your nightdress up by day in preference to rolling it up tight or putting it under a pillow.

MINNIE MAY.

**Happy Married Life.**

We venture to hope that our young friends may in their married life afford a proof of the falseness of the saying that, "Marriage is the door that leads deluded mortals back to earth." Love does survive marriage in far more cases than is generally known. Experiences like those of James Nasmyth, the inventor of the steam hammer, and of Dr. Arnold, are not so very uncommon. The former said about himself and wife: "Forty-two years of married life finds us the same devoted 'cronies' that we were at the beginning." Dr. Arnold often dwelt upon "the rare, the unbroken, the almost awful happiness" of his domestic life.

Yes, the domestic happiness of some of us does, at times, seem "almost awful," when we consider how little we deserve it. It seems to be "almost awful" too, when we reflect how, how in this life at least, it must be rudely disturbed. Mrs. Elizabeth Fry, when a girl, loved her family so dearly that she used to wish that, when they had to die, two large walls might press towards each other and crush them all, that they might die all together, and be spared the misery of parting. Loving husbands and wives can sympathize with this wish.

"He will not separate us, we have been so happy." These were the last words of poor Charlotte Bronte when, having become Mrs. Nichols, and having lived with her husband only nine months, death came to snatch the cup of domestic felicity from the lips of the happy pair. But God has ordained that even the most loving of husbands and wives shall be parted in this world by the hand of death. The thought of this separation should make them very careful to treat each other as they would wish they had treated each other when the separation comes. Affections are never deepened and refined until the possibility of loss is felt. "Whatsoever thou takest in hand, remember the end, and thou shalt never do amiss."

"Woman is a delusion," said a crusty old bachelor in our sanctum recently. Snodgrass retorted: "Well, man is hugging some delusion or other."

**Fashion Notes.**

For spring wear nun's veilings have been imported of heavier make than heretofore, with borders of a contrasting color woven in lengthwise, they make up prettily in the draperies, and for vests, basque and sleeve trimmings.

The popularity of loose sleeves remain undiminished. The lining is always made coat shaped, the material, cut leg-o'-mutton or other shape, is fulled into shape over the lining, and usually finished at the wrist with a broad velvet band or such trimming as the dress is finished with.

Scotch gingham seem to be the favorite material for washing dresses, and they can be prettily made up at home without the aid of a sewing girl. Eiffel lace is shown for trimming them. It is a serviceable lace, with deep vandykes, which are set upwards around the bottom of the skirt.

Fringes are woven along the selvage of many of the new woollen "suitings," and are used for tailor made gowns. These "suitings" come in checks, bars, stripes or plain colors.

Lustrous mohairs and alpacas come in all the new colors for spring suits or for general country wear; in summer, beige, gray, suede, navy blue, réseda, sage-reed green, and the darkest myrtle are some of the shades. Polka dots and fine pea dots are on many of the summer woollens for children's wear.

The bonnets are still preferred small, though later spring fashions may favor larger ones it is still too early to decide.

Embroideries are amongst the first spring importations, and are very beautiful in design and execution, and will be much used upon dinner gowns, as they laundry well and are effective.

House slippers appear in very stylish and comfortable shapes; toes not too pointed and heels moderately low. For street wear the walking shoe is more favored than the high buttoned boot, which will be discarded just as warm weather permits.

Evening dresses are made up very nicely for young girls, and so many styles prevail that it is not difficult to choose some pretty, soft waist. The skirts are worn just touching the floor, the most convenient dancing length. Crepe of all delicate shades appear for these simple dresses, cream, pink, mauve, gray and yellow. A light silk undershirt is necessary to make them over.

**Pure Air.**

Do not be afraid to go out of doors because it is a little colder than usual. The cold air will not hurt you if you are properly protected and take exercise enough to keep the circulation active. On the contrary it will do you good. It will purify your blood, it will strengthen your lungs, it will improve your digestion, it will afford a healthy, natural stimulus to your torpid circulation, and energize your whole system. The injury which often results from going into a cold atmosphere is occasioned by a lack of protection to some part of the body, exposure to strong draughts, or from breathing through the mouth.

**COLORS AND COMPLEXIONS.**—All golden-haired women should choose colors which harmonize with their sunny locks, as a contrast in color brings out the objectionable red shade. If one so crowned would choose warm, bright browns, and golden orange, deep claret, and sea shell pink—she would surprise her friends with the glory of her hair.

## PRIZE ESSAY.

## Economy of Time.

BY MISS JESSIE J. LAMBERT, JOCELYN, P. O.,  
ALGOMA, ONT.

"To every thing there is a season, and a time to every purpose under the heaven." Economy of time in a household can be obtained only by prompt and strict attention to the details of each day's work. If we would sit down a few minutes and plan how we can save time about our work, making one step count for two wherever possible, the work would move on more easily; you can keep many operations going on at once if you use but a little deliberation, taking one up after another with a steady hand. An old mathematician once said, "If he had but three minutes in which to work a problem on which his life depended he would spend two of those minutes in deciding which was the best way to work it." It is like an old farmer's direction to his mowers: "There's no time lost, boys, in whetting." A sharp scythe will do enough more work to make up for the seeming loss of time. After a little rest we pick up the thread and weave on all the better and faster, and when night comes it finds us with as much work done and ourselves less fatigued than if we had allowed the work to keep us on our feet all day. But how is this to be done? With many it can be accomplished only through methods, order and system. We must learn to meet our work and not wait for it to rise up before us, and in meeting it to meet one piece at a time and in doing it in its own time. Be punctual; always be ready in time, and have all your arrangements ready.

Everyone, whatever her circumstances may be, should learn to do some one thing well so that she can rely upon it as an unerring resource in time of need. It takes time to perfect one's self in anything, and the wise girl will take time by the forelock and begin at once. See to it that every piece of work is finished within a reasonable time, and never allow yourself to say: "Oh, it's no matter when I finish this," or, "Any time will do." These are dangerous expressions for young or old to use, as they help to form the habit of putting off until to-morrow the work of to-day.

"Procrastination is the thief of time,  
Year after year it steals till all are fled,  
And to the mercies of a moment, leaves  
The vast concerns of an eternal scene."

Every womanly woman loves fancy work or needle-work of some kind or other, but no one should cultivate her fingers at the neglect of her mind, it is just as bad as to cultivate the mind to the exclusion of feminine accomplishments. "Gather up the fragments that nothing be lost," was spoken by Him who created the world, and each must interpret it for themselves and draw the line between wasting precious time and a true economy. The one who takes good care of the moments will be sure not to waste hours, and those who take good care of the hours will be sure not to waste days. The economies that win success in life are those which apply to little things, and are frequently repeated. "Spare moments are the gold dust of time," Dr. Carlisle says. To make the most of life with all its peculiar limitations and possibilities is, indeed, scattered, desultory particles of time. There is not time in life to do everything, but we should take care that the right thing is not crowded out.

"Use well the moments, what the hour,  
Brings for thy use, is in thy power;  
And what thou best can understand  
Is what lies nearest to thy hand."

Three score years and ten are the allotted portion, and often not half that number, a third or fourth of which nature claims for indispensable rest, and many a day consumed on the bed of sickness, and many a year of the infirmities of age, and some part must be spent to the recruiting of health by exercise. How then can the rest be most economically used. Time and tide wait for no man. Neither for the young with minds as yet unstored, unfitted by ignorance and error for the battle of life. Nor the old whose life is almost lived out, and but a brief space remaining to repair their mistakes and redeem lost time. The simple and ungifted, who have but little from nature, need to be the more careful of their precious time to improve the little they have. The clever and talented, who have the greater account to render for the gifts received. All have time to waste. If we would remember that time is not our own; it is the gift of God, and given for a purpose. Every hour that is wasted fails of that purpose and must be answered for. Time is the most precious thing in the world. We are given only a moment at a time without the promise of another, as if to teach us highly to value and diligently to improve it, by the consideration that for anything we know it may be our last. A moment once lost is lost forever. When we are animated by evil thoughts to revenge a wrong, to say bitter words, or do cruel deeds, then is the time to delay, but if there is any good deed to be done, any kindness to express, any joy to diffuse, let us hasten to give it form and voice, knowing that there is no time to lose in the blessed work of doing good.

Shun delays, they breed remorse;  
Take thy time, while time is lent thee.  
Creeping snails have weakest force;  
Fly their fault lest thou repent thee;  
Good is best when soonest wrought;  
Lingerer labor comes to nought.  
Hoist up sail while gale doth last;  
Tide and wind stay no man's pleasure.  
Seek not time when time is past;  
Sober speed is wisdom's leisure;  
After-wit is dearly bought;  
Let thy fore-wit guide thy thought.

## The Orioles.

BY OLIVE THORNE MILLER.

"In the elm flutters the golden robin."

Beautiful to look at is the orchard oriole, and sometimes he behaves as well as he looks though his temper is not to be relied upon. If he is alone in a cage it doesn't matter; he will always get on well with himself, and if he disapproves of you in any way and speaks his sentiments—as he will be sure to do—why, you will not mind it much. It is otherwise, however, with his cage mate, and a tyrannical bird of this family can make life a burden to one who has to live with him.

I always advise having two of a kind, since in that way you not only see more of the real character but you become familiar with the "talk" and many notes and calls you would never hear were one alone. But you should be careful to secure those who can live together. Even when the sweet influence of spring makes this oriole sentimental, he is inclined to be disagreeable to the ladies of his family, but two males will often live together in harmony.

The Baltimore oriole, who is commonly seen and is more gorgeously dressed than are other varieties, is also more amiable in temper and treats his cage-mate,—whoever it may be, with entire indifference.

Both these birds need the mocking-bird food mixed with carrot, and in addition they must

have fruit. During the season of pears they flourish best if allowed to nearly live upon them, although of course, they must always have the solid mocking-bird food also. An orchard oriole once nearly starved to death in my house before I discovered accidentally that it was fruit he wanted.

He had his own ideas too, the fruit must be fresh and tender. A solid apple like a Spitzenburg he would not touch, nor did he care much for a soft one, but in a ripe Bartlett pear he revelled—sensible soul! I used to cut off the stem end and set the pear upright in a seed cup of a size to hold it steady, and he would with his sharp bill clean the inside of that fruit perfectly, leaving a complete skin without a break and a core standing upright in the middle, with hardly a morsel of the soft pulp within the cup thus formed.

Neither of the orioles sing through the winter but the orchard oriole begins quite early in the spring, and sings almost constantly, a loud, rich carol with considerable variety of which one does not tire. The Baltimore oriole is not so lavish of his music, although he does find his voice at that season.

Both of these birds are interesting out of the cage, especially to tame. If you want one for this purpose it is better to have but one; in the absence of companions of his own family he will respond more readily to his mistress' efforts of cultivating his friendship. He will become very familiar, almost inconveniently so, for orioles have a genius for picking things to pieces.

To begin with, they thrust their beaks into every opening they find, whether it be between two leaves of a book, or in the lace at one's neck. Having the beak in, the next operation is to enlarge the hole, by stretching open the mouth. Very industriously they will work at it too, and with a singleness of purpose that explains their power of making the close-woven mats they hang high up in our elms and maple trees. Another passion as strong as that for testing and enlarging holes, is for pulling out threads. Woe to any embroidery you have about! An oriole picked out the silk threads from an embroidered pin cushion on my bureau, till it was half covered with hanging bits an inch or two long, and he enjoyed the performance so much that I hadn't the heart to take it away from him. He went to it regularly in a business like way, after his breakfast and bath, and worked at it with a zeal and patience, that was a lesson to the household. When he accomplished anything, as drawing out a stitch he had been laboring over, he uttered a quiet chuckle, and to see him seize the end of a bit of embroidery silk, and pull and tug with his stout little legs spread far apart, exerting every atom of strength, was very entertaining.

It is not so amusing when he takes a notion to pull your hair; and a mass of material so easily detached, must be very tempting to the bird, but he readily learns that this is forbidden. It is always well to keep something in which he can amuse himself by executing his fantastic "drawn work," a soft, loosely woven towel, or a piece of cheap lace, fastened down so that he can pull on it, will entertain him (and you) for days. Picking holes in wall-paper or plastering, is a particular delight to an oriole, and in fact he must use his long sharp bill for something.

As a graceful and entertaining pet about the house, either the Baltimore or orchard oriole is unsurpassed. —[American Housekeeping.

**Satisfy Your Appetite.**

A physician writing on the food necessary to give strength and sustenance says that if a person uses up his brain faster than he makes it he soon becomes nervous and irritable. If he does not assimilate enough food to supply its demands his mind is sure to become weak. The healthiest and strongest individuals even should eat a far greater proportion of meat than of vegetable food. Beef should be taken as a standard meat. It answers every purpose of the system. Veal and pork are not as easily digested. Pork, so far as its composition goes, is an excellent food for nervous persons, but it is not readily digested. Yet, in the army, we used to think nothing better for the wounded men than bacon. As a rule salt meat is not adapted to the requirements of the nervous individual, as nutritious juices to a great extent go into the brine.

The flesh of wild birds is more tender and more readily digested than that of domestic ones. This is accounted for by the greater amount of exercise they take, thereby renewing their flesh more rapidly and making it younger than that of birds which lead a more quiet life. This is a suggestion that might be of benefit to women of sedentary habits who are desirous of prolonging an appearance of youth. Fish of all kinds is a good food for the nervously inclined. Raw eggs, contrary to general opinion, are not as digestible as those that have been cooked. A notion has been prevalent that many persons injure their digestions by eating too much. The fact is that most people don't eat enough. There are more people killed every year by insufficiency of nourishment than by overloading their stomachs. Many of those who do eat a sufficient quantity are prevented by disease from digesting enough for the economy of their systems. The very first thing for any one to do who has exhausted himself by mental work or who has been born weak and irritable is to furnish his brain with sufficient nourishment to either repair the damage it has sustained, or to build it into a strong healthy condition. People in this condition usually suffer from nervous dyspepsia. Their stomachs are unable to perform the labor assimilation. Owing to the deficient nerve power of the individual the food lies in the stomach unacted upon by the gastric juice because there is none or the quantity is insufficient to have any power. The food, instead of helping to renew the body, and the nervous system with the rest, undergoes fermentation, and the body and brain it should nourish may starve, and the person is in a worse state than if the food had not been taken, for the fermentation generates acids and gas.

Nervous individuals may derive all the fat they need from sugar and starch. It is better, however, for those weak digestive organs, or whose nerves are in a highly sensitive state, to get it from the animal kingdom than compel their enfeebled stomachs, intestines and pancreas to create it out of these articles. Good bread, sweet butter and meat are the best foods for the nerves.

People troubled with insomnia, nervous starting from sleep and sensations of falling, can often be cured by limiting themselves to a diet of milk alone for a time. An adult should take a pint for a meal, and take four meals daily. People with weakened nerves require usually a larger quantity of water than those whose brains and

nerves are strong. It aids in the digestion of food by making it soluble and seems to have a direct tonic effect.

With proper eating and drinking we should have fewer broken-down nervous wrecks, and far more vigorous intellects. The present human species cannot eliminate flesh from its food and amount to a row of pins. The fancy that nothing but vegetables should be eaten is apt to overtake every one somewhere in life. It is due to some disorganization and usually passes away with the disturbance that creates it.—(Chicago Globe.)

**Candy Making Recipes.**

BY CHAS. SCRANTON.

Fancy candy making seems to be to many anything but an easy and delightful task. But surely not because it is so difficult as from a lack of the proper recipes.

I have often wondered at the lack of real confectioner's recipes, and these are what I propose giving.

Now with plain, practical recipes there is no good reason why any woman should not make delicious and healthful candies, and for about half the same article sells for at the confectioners.

And then the great satisfaction of knowing they are absolutely pure is certainly no secondary consideration to a thoughtful mother.

Now armed with the proper recipes and exercising the same care and good judgment brought to bear when trying a new cake recipe, success is almost certain.

Now glucose (which is simply corn syrup) is the foundation of all candies, and may be procured very cheaply from any confectioner. As to utensils, while a granite iron saucepan with lip to facilitate pouring out, is preferable, any bright tinned pan or kettle may be used.

**VANILLA CARAMELS.**

If the directions are carefully followed you will say with many another "Such caramels are seldom tasted."

4 cups granulated sugar,  
3 tablespoons glucose,  
1 cup water.

Boil, stirring most of the time, until it will harden when dropped in cold water. Then add immediately one cup rich cream, and butter the size of an egg. Let it boil again till it will harden in cold water, when remove from the stove and flavor to taste—about three teaspoonfuls generally—but one must be governed by taste in that as some extracts are much stronger than others.

Pour out in a buttered dripping pan, so that it will be about  $\frac{3}{4}$  inch thick. Let it cool, then cut up in square blocks and wrap in paraffine paper.

This paper should be cut up in squares about two by three inches and kept ready.

The paper which grocers put over butter is just as good, and much cheaper, though not quite as attractive looking on account of its yellow tint. When the above caramel recipe has been mastered it is very easy to make a great variety, by using different flavorings, etc.

**CHOCOLATE CARAMELS.**

Same as above, only adding one-fourth pound of Baker's chocolate, grated fine, with the cream and butter.

**NUT CARAMELS.**

Same as vanilla caramels, only add two cups of hickory or walnut meats just before removing from the stove. These are delicious.

**COCOANUT CARAMELS.**

After the caramel is poured out, sprinkle desiccated cocoanut thickly over the top, or what is nicer still, though some trouble, pare off the hard part from a fresh nut and cut in very thin slices, sprinkle on in same manner.

**EXCELLENT CREAM TAFFY.**

3 cups granulated sugar,  
 $\frac{1}{2}$  cup vinegar,  
 $\frac{1}{2}$  cup water,

Butter the size of a walnut.

Boil without stirring until it will candy when dropped in cold water. Flavor, and pour out on a buttered dish. When cool pull till white, then cut up in sticks with sharp scissors.

**BUTTER SCOTCH.**

1 cup sugar,  
1 cup molasses,  
 $\frac{1}{2}$  cup butter,  
1 tablespoon vinegar,  
Pinch of soda.

Boil all together till done, pour in buttered pan and cut up in squares when cold and wrap in paraffine paper.

**CHOCOLATE CREAMS.**

4 cups granulated sugar,  
3 tablespoons glucose,  
1 cup boiling water.

Stir thoroughly, put cover on, let it boil rapidly, till it will almost candy (but not quite). Then pour it out in a large pan so that it will cover the bottom not more than two inches deep. Set in a cool place till it is about luke warm. (Try putting the finger into the bottom). Then stir with a wooden paddle until it looks white and dry as if it was graining, then put in the hands and knead as you would bread, when it will soon be of a fine creamy consistency, and this is just what is wanted.

You can, if you wish, make several varieties of this cream at once, simply by dividing in several parts and flavoring differently—say one vanilla, one lemon and one rose, and the rose may be tinted a lovely pink.

To flavor, pour a few drops of the extract on the cream and knead a few times.

Cover the cream with a damp napkin and it will keep in perfect condition some time. Dust your molding board with the least bit of flour, roll this cream on it, then cut in small pieces and form into balls between the palms of hands, and set on paraffine paper to harden. It is better to do this part the day before you fix the chocolate as they will be firmer.

Put a cake of Baker's chocolate in a pan (set in another pan of boiling water) to melt. When melted cut into a lump of paraffine the size of a small hickory nut, and a piece of butter about half as large, add a few drops of vanilla.

Now roll the cream in this melted chocolate and set on paraffine paper to harden. A fork is convenient to dip them with.

Now for that which is tinted pink. First form into nice round balls the size of a twenty-five cent piece, and press into the top of each a blanched almond, then roll in granulated sugar. They are very pretty.

A part of the cream may be tinted chocolate by kneading in a little grated chocolate.

Now to make a lovely fruit candy, or "Wedding Cake" as confectioners call it. Chop up raisins, figs, citron and almonds to suit you, and knead it in with some of the plain cream. Then roll out a layer of the plain white cream about a half inch thick, then put a layer of the pink on that, then a layer of the fruit, then pink again being careful that it reaches over the side to the other layer of pink, then the white again to reach over to the other layer of white. Roll in the melted chocolate and lay on paraffine paper to harden. When hard, slice across as you would a loaf of bread and you will be surprised to see how lovely the "Wedding Cake" is.

The pink color is simply a little cochineal and aniline put in a bottle and some alcohol poured on. Any druggist will put it up for a few cents.

## Uncle Tom's Department.

## Under the Snow.

Under the snow the roses lie,  
And violets blue as the summer sky.  
They reck not how fiercely the north winds blow,  
Under the snowdrifts, under the snow.

Under the snow the mountain streams  
Babble all day of their mighty dreams,  
Whisper and frolic as on they go,  
Under the snowdrifts, under the snow.

Under the snow in bowers of moss,  
The Dryads are wearing their robes of floss,  
Robes that in summer will sparkle and glow,  
Under the snowdrifts, under the snow.

Under the snow are voiceless lips,  
And tender eyes in dark eclipse,  
And hearts that are pulseless, yet I know  
That a spring will come and melt the snow.

## MY DEAR NIECES AND NEPHEWS:—

How gladly we welcome in this blustering month of March, carrying as it does amid its snows and storms and drifts its tokens of Spring. Already the longer days, bright mornings and sunshiny evenings, tell us of the coming summer days to follow. My nieces and nephews do not sympathize with the poet who wrote:

"My heart is weary waiting—waiting for the May."  
There must have been something wrong with him physically, else he would not have felt like looking through such blue spectacles as to see no pleasure in other months preceding May. Farmers' boys and girls have no time for such longings—there is too much to do, too much to keep their minds and hands busy. With lessons and music, and reading and playing, swinging clubs, sleigh-riding, going to and coming from school, with the knitting and crocheting and washing dishes for the girls, and the care of the little lambs, calves, ducks, and the interest taken in them, there isn't much time to wait or long for anything. Every day is full or ought to be, and the time goes by so quickly, that we wonder how the weeks and the months are passing, bringing the returning seasons in their regular courses.

Isn't it a good, a blessed thing, this world is not governed by chance. What a world it would be if we didn't know when the sun would rise or set, if we didn't know what season we would have next. If people were made by chance, and instead of our limbs being mated they were uneven, and part was neglected in one and given to another. What a strange, hap-hazard world this would be! The wisdom of the Creator is seen in all His works. We admire this regularity and wise Providential arrangement; but how many of my boys and girls have their work and play planned thus wisely. Thanks to father and mother, in your well-regulated home everything goes on smoothly and happily, and the boys and girls—the men and women of the future—are preparing for the work. O look out for the habits of order, and you will do much more with less trouble in this busy life world of ours.

How many of you have heard a phonograph talk? You know it is a machine which will say again, word for word, what is said by the speaker or speakers in the room where it is. How many of us would like to have one start and tell all we said to-day—secrets, nonsense and all! I wonder if we heard it once if we would not ever afterwards be careful of the "idle words." Mr. Edison is the inventor, and in order to make it reproduce the exact sound, had to think and toil long and hard. Listen to his

words:—"From eighteen to twenty hours a day for the last seven months I have worked on this single word 'specia.' I said it into the phonograph, 'specia, specia, specia,' but the instrument responded 'pecia, pecia, pecia.' It was enough to drive one mad! But I held firm and I succeeded." Just think of it, boys and girls, seven months, scarcely taking rest, determined to succeed. How much has that man accomplished in this *one life* with his persevering efforts on electricity!

Can you imagine him a boy at school, giving up a hard problem before solving it? Can you imagine him letting a weak lamb die for want of care? Can you imagine him sitting wasting his time, trying to *pass it away*, when a boy, and asking to stay at home from school because the lessons were hard to learn? Can you? Can you? Can you think of a lot of other things he did or did not do when a boy? Do not think, now boys and girls, that he was clever and you aren't? That isn't it. Some very clever men found school and home works very irksome; and one, a distinguished naturalist, seldom knew his lessons, and was very careless and stupid, so his teacher thought, but observing that his pockets were receptacles, not for string, nails, pencils and marbles, like other boys, but for toads, lizards, and other living specimens, he gained his friendship by talking about these, winning the boy's confidence, and was surprised to find how much he *knew* whom he had thought dull. After showing him that in this line other branches of education were necessary to make his knowledge useful, he began to learn with interest, for the simple reason that it would further the darling study of his heart. Do not, then, strive to crush out your likings. Shakespeare says:—

"To work, we love; we rise betimes  
And go to with delight."

So cultivate, in every way you can, your tastes. The little girl who can dress her dolly tastefully and neatly, is likely to be herself neat and tidy. And the boy who has a pet subject, in which he delights, will find, in being interested and succeeding in it, will be more interested in other things too. This calls to mind a little chap who thought shavings "bitty" (pretty) when he made them on the newly swept floor, who is now the successful carpenter; also of a boy's room, on whose walls were pinned butterflies, moths, insects, and in jars snakes of various kinds, who, from his observant qualities, has learnt much, and is not weary when left alone—because not alone, his thoughts are busy with interesting subjects. And so with another, who is himself his own taxidermist, and whose variety of birds, squirrels, etc., is interesting and instructive.

But Uncle Tom must close his long letter, hoping that all his nieces and nephews have recovered from "La Grippe," which seized so many of them in his unkind embrace.

Your loving UNCLE TOM.

A REPLY BY TELEPHONE.—BROWN (who has just had telephonic connections established between his office and house, and is very much pleased with it): "I tell you, Smith, this telephone business is a wonderful thing. I want you to dine with me this evening, and I will notify Mrs. Brown to expect you." (Speaking through telephone.) "My friend Smith will dine with us this evening." Now listen, and hear how distinctly her reply comes back. "Mrs. Brown's reply coming back with startling distinctness." "Ask your friend Smith if he thinks we keep a hotel."

## Death by Cold.

The immediate cause of death by cold is apoplexy. The heart is arrested and paralyzed in the exercise of its office, and no longer supplies the brain with arterial blood. Nor is the blood thrown with sufficient force to the extremities. It accumulates, therefore, in the large vessels proceeding immediately from the main spring, and there is no ingress for the blood returning from the brain. The large sinews therefore become overgorged and apoplexy follows.

## The Greatness of London.

Every four minutes marks a birth. In the next two hours after you read this thirty babies have been born and twenty deaths will have taken place. Think of it! The evening paper that records the births and deaths of the preceding twenty-four hours must give 300 separate items. Verily, its joys and sorrows are a multitude. London has 7,000 miles of streets, and if you walked them at the rate of twenty miles a day you would have to walk almost a year, and more than a year by nearly fifty days if you should rest on Sundays. And if you are a thirsty sort of a traveller, and couldn't pass a public house, don't be alarmed, the 7,000 miles have five-and-seventy miles of public houses; so you need not think of thirst. In a year London folks swallow down 500,000 oxen, 2,000,000 sheep, 200,000 calves, 300,000 swine, 8,000,000 head of fowls, 500,000,000 pounds of fish, 500,000,000 oysters, 200,000,000 lobsters—is that enough to figure on? If not, there are some million tons of canned provisions, no end of fruit and vegetables, and 50,000,000 bushels of wheat. But how they wash all the food down you might feel glad to know. It takes 200,000,000 quarts of beer. But more than this, they drink 10,000,000 quarts of rum and 50,000,000 quarts of wine; the wine, the rum, the beer, 260,000,000 quarts. The population of London within the police districts is 5,600,000. The police force consists of 9,000 men.

## He Got It.

Among the passengers on a western train recently was a much overdressed woman accompanied by a bright looking nurse-girl and a self-willed, tyrannical boy of about three years. The boy aroused the indignation of the passengers by his continued shrieks and his viciousness towards his patient nurse. He tore her bonnet, scratched her hands and finally spat in her face without a word of remonstrance from the mother. Whenever the nurse manifested any firmness, the mother chided her sharply. Finally the mother composed herself for a nap, and about that time a wasp came sailing in and flew on the window of the nurse's seat. The boy at once tried to catch it. The nurse caught his hand and said coaxingly:

"Harry mustn't touch. Bug bite Harry."

Harry screamed savagely and began to kick and pound the nurse. The mother, without opening her eyes or lifting her head, cried out sharply:

"Why do you tease that child so, Mary? Let him have what he wants at once."

"But ma'am, it's a—"

"Let him have it I say."

Thus encouraged, Harry clutched at the wasp and caught it. The scream that followed brought tears of joy to the passengers' eyes.

The mother awoke again. "Mary," cried she, "let him have it!"

Mary turned in her seat and said confusedly: "He's got it, ma'am!"

Puzzles.

1-MARCH, 1890.

Grid for puzzle 1-MARCH, 1890. A 10x10 grid with numbers 1-30 in various positions.

ACROSS.—1. A Roman numeral. 2. The outtle-fish. 3. A fabulous animal. 4. One who plunders. 5. To burden. 6. Bachelor of Divinity (A B B R).

DOWN.—1. An evergreen tree of the south of Europe. 2. To forsake (O B S). 3. To bathe. 4. The mouth of a river (CELTIC).

2-DOUBLE LETTER ENIGMA. In "pineapple," juicy and sweet, In "ripe oranges," we like to eat, In "white-sisfy," if you try, You'll find it makes a very nice fry.

3-NUMERICAL ENIGMA. My 1, 2, is oft called by a child. My 3, 4, 5, 6, 7, is a piece of beef.

4-CHARADE. 'Tis a hard case friend Ada thinks, To get our cousins true, Making Charades for Uncle Tom, And anagrams quite new.

5-LADDER. This is a ladder by which to climb To fame's most envied height, Who gets to the top in the shortest time.

6-STAR. In February ADVOCATE two cousins new I find, And gazing at their signatures, this thought comes to my mind.

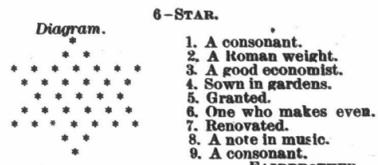
7-MUTATION. That there will likely be a change in the winning-list this year. I'm FIRST, it must have been a SECOND, that long-continued silence, But better late than never so, welcome, Clara Rillance.

8-HIDDEN POETS. Do not speak so low, Ella. You should speak loud enough for the whole land to hear. The conductor of that car let on too many passengers at that upper door.

9-ILLUSTRATED REBUS. What is that man going to do with his axe? Is he going to kill his calf or his cow? Perhaps he is going to kill both.

10-GREEK CROSS. Upper Square—1. A vestment; 2. To soar; 3. Due; 4. Smoothly; 5. A diseased condition of grain.

11-GEOGRAPHICAL LETTER. Dear (a town in New York.)—I (a town in Arkansas) you (a village in Illinois) not (a village in Arkansas (in becoming one of us).



6-STAR. 1. A consonant. 2. A Roman weight. 3. A good economist. 4. Sown in gardens. 5. Granted. 6. One who makes even. 7. Renovated. 8. A note in music. 9. A consonant.

7-MUTATION. In February ADVOCATE two cousins new I find, And gazing at their signatures, this thought comes to my mind.

8-HIDDEN POETS. Do not speak so low, Ella. You should speak loud enough for the whole land to hear.

9-ILLUSTRATED REBUS. A rebus puzzle featuring a man with an axe, a cow, and a calf.



10-GREEK CROSS. Upper Square—1. A vestment; 2. To soar; 3. Due; 4. Smoothly; 5. A diseased condition of grain.

11-GEOGRAPHICAL LETTER. Dear (a town in New York.)—I (a town in Arkansas) you (a village in Illinois) not (a village in Arkansas (in becoming one of us).

and (a village in Kentucky) you can (a county in Kentucky) fall to get (a village in Indiana) answers. There are (a village in Kansas), then why not be (a bay in Nova Scotia) and help (a village in Nova Scotia) our uncle (a river in New Jersey) (a village in Kentucky) of the ADVOCATE.

Answers to February Puzzles.

- 1-BRAMBLE 2-RAVELIN 3-NOSEGAY 4-He has much to do who would please everybody. 5-Cannot. 6-Forgive. 7-Uncle Tom's Department. 8-Novice. 9-Charades. 10-Candlemas Valentine. 11-H.A. WOODWORTH. FAIRBROTHER.

Names of those who have Sent Correct Answers to Feb. Puzzles.

Sarah Moorhouse, I. Irvine Devitt, Clara Rillance, Drusilla A. Fairbrother, Dorothy Fox, Lucy Cunningham, Amos Howkins, Henry Reeve, Morley T. Boss, L. A. Boss, Willie N. Redner, Ada Armand, Ed. A. Fairbrother, A. Russell Boss, Ednor Moore, Geo. Harrison, Alice Hendrie, Harry Attwood, A. G. Clark, Mattie Woodworth, Mary Morrison.

Morning Dreams.

The old notion that "morning dreams come true," is interpreted by the physical state of sleep being less perfect; trains of thought suggested follow more nearly the course of waking associations, and the memory retains them.

Death by Lightning.

Few persons who have not inspected a human body struck by lightning, have an idea of the mode in which the stroke affects a sudden termination of life. The visible alterations in the frame afford a striking contrast to the ordinary ravages of what is termed disease.

Farmers, Enjoy Your Advantages.

It is the scarcity or want of an article that makes it a delicacy or enhances its value. We should prize and enjoy more fully the opportunities and privileges that are within our reach, and not be repining and complaining because we cannot have imaginary blessings that would in reality be inferior to those we possess.

Have a greater variety on your table, eat less pork and more poultry, use less lard and more butter, and you will be healthier and happier. Remember you on a farm can have all these luxuries at first cost, and in all their original purity and freshness.

Toddy, the term for a mixture of spirits and water, appears to be taken from the Indian word, tari, or tadi, the sap or wine of a palm.

## NEW ADVERTISEMENTS.

## SPECIAL NOTICE.

THE FARMER'S ADVOCATE refuses hundreds of dollars offered for advertisements suspected of being of a swindling character. Nevertheless, we cannot undertake to relieve our readers from the need of exercising common prudence on their own behalf. They must judge for themselves whether the goods advertised can, in the nature of things, be furnished for the price asked. They will find it a good rule to be careful about extraordinary bargains, and they can always find safety in doubtful cases by paying for goods only upon their delivery. Advertisements unaccompanied by specific instructions inserted until ordered out, and charged at regular rates.

The FARMER'S ADVOCATE is the unrivalled advertising medium to reach the farmers of Canada, exceeding in circulation the combined issues of all the other agricultural publications in the Dominion. Send for an advertising circular and an estimate. All Advertisements, to insure insertion, must be in this office by the twentieth of each month. In writing advertisers please say that you saw their advertisement in the Farmer's Advocate.

FOR SALE,  
CLYDESDALE -- STALLION!

Bred from imported stock, three years old in May, good animal. Also four Shorthorn bulls, ages ranging from eight months to three years, or will exchange for good Clydesdale brood mares or fillies or Bates bred Shorthorn cows. Apply to  
291-a-OM JOHN IDINGTON, Stratford, Ont.

## DISPERSION SALE

-OF THE-

## Lakehurst Jersey Herd

OAKVILLE, ONT.,

On Thursday, April 10, 1890.

Will be Sold by Public Auction, without reserve, the entire herd of

## AMERICAN JERSEY CATTLE CLUB JERSEYS

COMPRISING YOUNG

## BULLS, COWS AND HEIFERS

Of the St. Lambert and other noted families, including several prize winners at Toronto Industrial and Great Central Fair, Hamilton, 1889.

For Catalogue, which will be ready for distribution early in March, apply to—

**F. E. BRAMELD,**  
OAKVILLE, ONTARIO. 291-a-OM

## IMPORTANT PUBLIC SALE

Of High-class Pedigreed

## Shorthorns, Roadster Stallion &amp; Clydesdale Mare

Messrs J. & F. Gardner, of Britannia (six miles south from Brampton), announce that, having leased one of their farms, they will sell by public auction on

**WEDNESDAY, MARCH 26**

the whole of their valuable herd of high-class pedigree Shorthorns, comprising two imported cows bred by Campbell, of Kinellar, Aberdeenshire, Scotland, also several cows bred by J. C. Snell, Edmonton, and F. W. Stone, Guelph, all in calf to imported bull, also thirteen other pure-bred cows and heifers, some of them prize winners, most of them in calf to imported bull. Also one bull, FARMER'S FANCY, rising three years old, and five young bulls, all of first-class blood. Also at the same time their ROADSTER STALLION, BELMONT JUNIOR. He is a perfectly modelled horse, five years old, of a fine bay color, with black points. He is by Belmont Star, and has won first prize two years in succession at the Industrial in Toronto. Also their Clydesdale mare, DOLLY OF COLERAINE (A65), winner of several prizes. Also other valuable stock consisting of 20 steers, rising three years old, 11 horses, 40 sheep (all breeding ewes), and 7 Berkshire brood sows.

MR. JOHN SMITH, AUCTIONEER. Sale will commence at one o'clock sharp. Lunch will be served at noon. Visitors will be met at Brampton, G. T. R., and Port Credit, Southern Division G. T. R., and Streetsville, C. P. R., on arrival of all trains. The farm is situated on the Main Centre Road, about half way between Brampton and Port Credit. Terms—Seven months credit on approved joint notes; liberal discount allowed for cash. Catalogues may be had on application to the undersigned.

**J. & F. GARDNER,**  
291-a-OM BRITANNIA, ONT.

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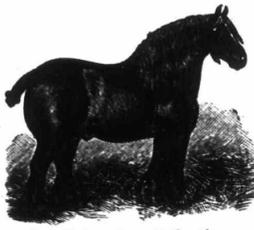
**FOR SALE.** Five young Shorthorn Bulls, and a lot of Berkshire Pigs. These are all first-class animals. Send for catalogue and prices. EDWARD JEFFS 291-b-OM. Bond Head, Ontario.

PRIZE-WINNING  
CLYDESDALE HORSES & MARES

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Stallions and mares. Several of them were prize winners at the leading shows in Scotland and Canada. Also a few choice Shetlands. Prices to suit the times. Address, **JEFFREY BROS., Whitby, Ont.** 279-y



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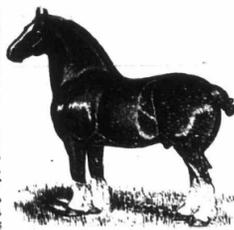
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The eleventh yearly importation consists of some of the best specimens of the several breeds. Clydesdales from such noted sires as McGregor (1487), Crown Royal (4315), Top Gallant (1850), Macfarlane (2888), Macbeth (3917), Sir Hildebrand (4024), Golden Guinea (3980), Old Times (579), Good Hope (1679), Knight of Snowden (2212). The stock is selected by myself with great care. Intending purchasers are invited to inspect.

The farm is situated 40 miles south-west of Montreal, on the G. T. R., and 100 miles east of Ottawa, by C. A. R. Howick Station on the farm.

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Visitors always welcome. 291-y-OM



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Offer for sale choice Stallions, Mares and Fillies which are registered in the English and Canadian Shire Stud Books, including prize-winners at the Royal Agricultural in England, and the Industrial at Toronto. Also a Roadster Stallion, two years old, and fillies, the get of General Stanton.

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WELLAND, ONT. 291-c-OM

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AND THE NORTHWEST  
FARMS FOR SALE!

Around Winnipeg, and in the best districts, on terms most favorable to actual settlers.

Write for Descriptive Catalogue and Price List, including map of the province.

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 Our Descriptive and Priced Catalogue for spring trade is now ready, and will be mailed free to all applicants, and to customers of last year without solicitation. **Market Gardeners** will find it to their advantage to sow our Seeds.  
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 FOR 1890.

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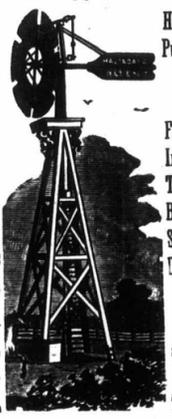
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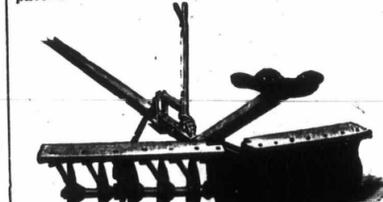
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 The Stevens is the best for the following reasons:—Lightest draft Harrow in the world. All steel frame. No wood to decay. A superior tooth holding clip. Spring teeth readily adjusted. Only one nut to loosen. Perfect device for securing the nuts. Frame rigidly rivetted together. Nothing to wear out. Fully warranted and protected by letters patent.



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 Responsible agents wanted in every section of the Dominion. Will give exclusive control of territory under satisfactory conditions.  
 We have the sole and only right to make either of the above Harrows in Canada. Both are broadly covered by patents, and infringements will be prosecuted.  
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From imported and prize stock. Prices from \$75 to \$150. Also one imported two-year-old Bull. Apply to J. & W. RUSSELL, Richmond Hill, Ont. 291-b

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I have just arrived from England with a splendid lot of Yearling Ewes, all in lamb, to high-priced prize-winning Rams. Also some choice Ham and Ewe Lambs. The entire lot were bred by the best breeders, and are the gets of the most noted sires of recent years. My flock has no superior as regards wool, breeding, or mutton qualities. Quality and quantity is my motto.

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March and April litters of both sexes and not akin, and eligible to register, of aged sires and dams. Price, \$5 each, six weeks old, crated on cars at Huntingdon (G. T. R.). Address

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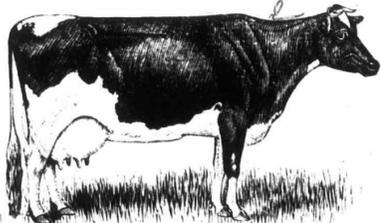
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The undersigned has two bulls for sale—one, a good roan, sixteen months old; the other, a red, fourteen months old; both sired by imp. Methrick Hero =2723=, and from dams by imported Cruick-shank bulls. Will be sold cheap.

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Bred at Bow Park; got by 4th Duke of Clarence; will sell to avoid inbreeding; also four of his get, from ten to twenty months old. These are extra good animals, and bred from good milk cows. Will sell cheap.

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Specially selected from the herd of G. F. Davies & Co., Indiana, the originator of the breed.

A few grand young Boars and Sows (registered)

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Two grand Shire Fillies, rising two years old, out of imported sires and dams; also four choice Scotch Shorthorn Bulls, and several heifers by the Earl of Mar (47815), out of imported cows. Prices reasonable. Address—

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**SHROPSHIRE -- SHEEP.**

This flock has won numerous prizes in England for the last twenty years, besides America, France and Africa. Has been established over seventy years. Several of the best flocks in England started from this flock thirty years back. Sheep always for sale.

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**FOR SALE**

Three young thoroughbred Berkshire Boars; good strong-boned, lengthy fellows; and by the same dam, a litter, five weeks old, from an imported prize-winning Berkshire Boar. The dam of these pigs is bred from the imported Gold Medal Herd of 1887. I will give special bargains to farmers' boys on pigs grown from Mr. Millar's seed, on clean clay loam soil, in five-bushel lots, at 80c. per bushel; bags free. All orders by mail, accompanied by the cash, will be shipped directly. Call, or correspond.

**W. C. SHEARER,**  
291-a BRIGHT P. O., OXFORD CO., ONT.

**BERKSHIRES**

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**COTSWOLDS.**

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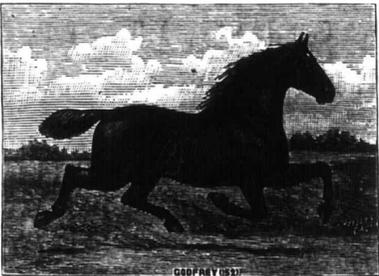
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**Carriage Horses.**

Choice quality. Terms reasonable. Correspondence solicited. Mention this paper.

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Comprising my importations for 1889, are now on exhibition at

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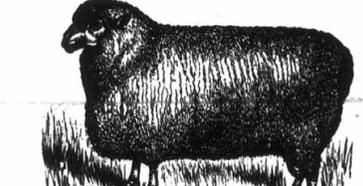
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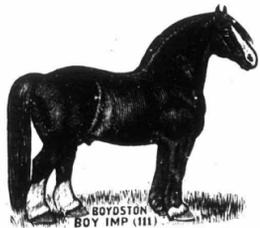
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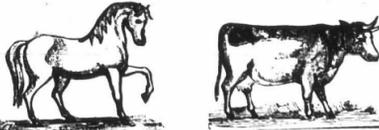
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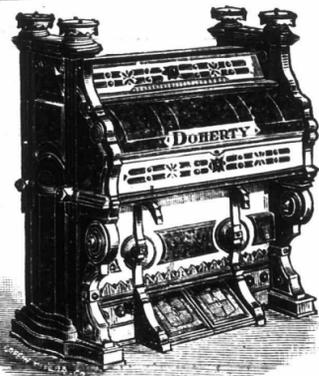
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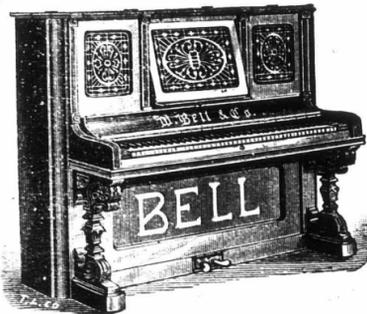
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In writing to advertisers please mention the Farmer's Advocate.

Mr. James Mullen, of Cypress River, recently sold to Matthew G. Ruston, of that place, the young Shorthorn bull Prairie Boy - 12469. He is said to be a promising young animal.

Mr. Arthur Johnston, of Greenwood, Ont., reports the demand for the best class of well-bred Short-horn bulls in good demand at a much earlier date than last year, though at somewhat reduced figures. Mr. Johnston says:—"I have sold a few young bulls, of which you shall hear next month, but I still have an exceedingly good lot for sale, and by far the best lot of young heifers I have ever owned. Send for my new catalogue, and examine their breeding. My herd, though not in high flesh, is in the very best shape I have ever had it."

Mr. Samuel Brims, of Athelston, P. Q., is the leading breeder of Shorthorns in the County of Huntingdon. This herd, which numbers seventeen cows and heifers, at the head of which stands Duke of Albany 2nd, of Crutchank line of breeding, was purchased for Mr. Brims by Mr. Robert Miller, of Brougham, Ont. Four of Mr. Miller's well known Strathallen family are in this family, and are now in calf to Duke of Albany 2nd. Mr. Brims is also breeding Clydesdale horses and Shropshire-down sheep.

The Bollert Bros., of Cassel, report their Holsteins are wintering very nicely, in fact, are doing better than ever before. Four very nice calves have already been dropped, and more are expected within the next few weeks. Of special notice is a bull calf sired by the richly bred bull Sir Westwood, and out of the two-year-old Farrington heifer, Clintonia 3rd; this heifer is now milking from 52 to 54 lbs. of very rich looking milk daily. They lately sold a bull to Mr. D. Gerrie, of Ingersoll, also a fine bull to Mr. N. H. Meagher, Q. C., Halifax, N. S., to be shipped in March next. The demand for first class stock is stronger than ever.

T. E. Brameld, Oakville, Ont., writes us that in consequence of the near expiration of my lease, I have decided to sell by public auction, on April 10th, 1890, the entire herd of A. J. C. C. Jerseys, numbering some twenty head, comprising young bulls, cows and heifers, sired by such bulls as Canada's John Bull 8388, One Hundred Per Cent 16500, &c. As will be remembered, this herd was most successful in the show ring last fall, as with twelve head exhibited they took nine firsts, diploma for best bull any age, seven second and three third prizes, including 2nd on herd at Toronto Industrial, and 1st at Central Fair, Hamilton. The only two places exhibited. See advertisement, and send for catalogue which will be mailed to all applicants.

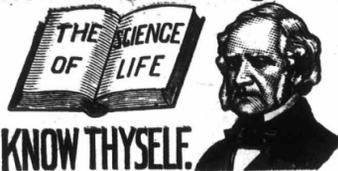
Messrs H. George & Sons report the following purchases from the herd of H. Bradford, Esq., Rochester, Ohio: Four sows and one boar, two of which have been bred to his white boar Black Cloud 2300, O. P. C. Record, and are near akin to the famous show boar Victor, that Mr. Bradford sold to John Harcourt & Bro., New Augusta, Ind., at \$900. Also the following sales of pedigree Chesters during the last few weeks: To David J. Donie, St. Augustine P. O., P. Q., one boar and two sows; to B. Story, Picton P. O., boar and sow; to John Gibbons, Linwood P. O., boar; to John Bright, Myrtle P. O., boar; to Richmond & Co., Creemore P. O., boar; to John Hickingbottom, Auburn P. O., boar; to Thomas George, Putnam P. O., imported sow; to Thos. Baylis, Trowbridge P. O., boar; to R. C. Nixon, Esquimaux P. O., boar; to Frank Knight, Avonroy P. O., boar and sow; to Samuel Taylor, Orillia P. O., boar. Our sales were never better, as we have three times as many orders booked for spring pigs as we had last year at this time, going to show that the Improved Chesters are gaining favor as a pig of quiet disposition and early maturity.

The following sales are reported by A. Gilmore, Huntingdon, Que.: Oxford Down sheep—One aged ram to Thomas A. Higgins, St. Amot, Que.; one aged imported ewe to John W. Brown, Huntingdon, Que.; one ram lamb to Joseph Davis, South March, Ont.; one ram lamb and two ewe lambs to William Neilson & Son, Lynn, Ont. In Imported Large Yorkshire pigs: Boar and two sows to W. Kough, Owen Sound, Ont.; pair to J. Watson, Dresden, Ont.; pair to Robert Baird, Chesterfield, Ont.; pair to R. W. Fowler, Emerald, Ont.; two sows to D. S. Robertson, Wyoming, Ont.; sow to G. B. Hood, Guelph, Ont.; boar to Henry Chesterfield, Dundonald, Ont.; two sows to Thomas G. Smith, Rosemont, Ont.; one boar and two sows to S. L. Tucker, Clarence, Ont.; one boar and two sows to Dougald McMaster, Laggan, Ont.; boar to A. & J. Blais, Glen Sandfield, Ont.; boar to S. J. Oswood, Cookshire, Que.; sow to Isaac Farnell, Lennoxville, Que.; pair to Clark Bros., Trout River, Que.; pair to James Dawson, Conductor of G. T. R., Montreal, Que.; boar to Mrs. E. Donnelly, Dewitville, Que.; sow to Charles Sherriff, Huntingdon, Que.; pair to Cote Bros., St. Philamene, Que.; also one Polled Angus heifer to the same firm; sow to J. Darnelly, Athelston, Que.; boar to Thomas Stark, Huntingdon, Que.; boar to James Copland, Herdsman's Corners, Que.; and one pair to Duncan Munro, Bay View, Nova Scotia. The demand for Yorkshires has been far in excess of the supply the past season, but I am prepared to fill all orders the coming spring. I may also state that the above sales were nearly all made through my advertisement in your valuable paper; therefore, I can recommend it to all intending advertisers.

We want all of our old subscribers to send in some new subscribers and get some of our premiums.

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THE SCIENCE OF LIFE  
A Scientific and Standard Popular Medical Treatise  
on the Errors of Youth, Premature Decline, Nervous  
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Dr. Parker and a corps of Assistant Physicians may be consulted, confidentially, by mail or in person, at the office of  
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No. 4 Bulfinch St., Boston, Mass., to whom all  
orders for books or letters for advice should be  
directed as above.

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The most successful Veterinary Institution in  
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TITLE GUARANTEED.

The Canada Company have still a large number of lots to dispose of at reasonable prices, (from \$4 to \$30 per acre, according to quality and location).

**In Western Ontario.**—In the Counties of Essex, Lambton and Perth; also in the Township of Tilbury East, in the County of Kent; and in the Township of Aldboro, in the County of Elgin.

**In Northern Ontario.**—In the County of Simcoe; also in the Township of Euphrasia, County of Grey; and in the Township of Amaranth, in the County of Dufferin.

**In Central Ontario.**—In the Counties of Peterborough and Hastings, and in the Township of Sheffield, in the County of Addington.

**In Eastern Ontario.**—In the Counties of Lanark, Carleton, Prescott, and Russell, besides many lots scattered through the older sections of the province.

These lots are, generally speaking, within a short distance of a railway, and are easily accessible by good travelled roads from a market town. Many of the farms have from fifteen to twenty-five acres of clearing fenced ready for cultivation.

**The Climate of Western Ontario.**—The winters being comparatively mild and short, and the summers correspondingly long, is specially adapted to the successful cultivation of corn, grapes, peaches and all kinds of fruit, for which this section is rapidly becoming noted.

To actual settlers the most liberal terms of payment are offered, only a small payment being required down, the balance payable in seven or ten years, with interest chargeable as a rental at the rate of 4 per cent. per annum.

Full particulars, with complete lists of vacant lands, and prices of any lots selected by applicants, will be furnished on application to the

COMMISSIONERS OF THE CANADA COMPANY,  
TORONTO, ONTARIO.

Offices, 204 King-St. East.

\$1,500.00

—WORTH OF—

## STOCK, IMPLEMENTS, ETC

GIVEN AWAY!

For Procuring New Subscribers to  
the FARMER'S ADVOCATE.

### CONDITIONS:

- 1st. Cash must accompany all lists of names.
- 2nd. In all cases to secure these prizes the names sent in must be new subscribers. *Renewals will not count.*
- 3rd. Competitors may send in their lists weekly if they so desire. The party who first sends in the full number of names will secure the prize.
- 4th. A Cash Commission will be allowed to all who are not prize winners: From 10 to 20 names, 25cts. each; 20 to 50 names, 50cts. each; 50 to 100 names and upwards, 40cts. each.

### STOCK.

For 200 new names we will give an imported Shetland pony mare, of extra quality, now four years old, imported by John Miller, Brougham, Ont.

For 150 new names we will give a Hereford Bull (fit for service), valued at \$150, bred by H. J. Mackie, Oshawa.

For 150 new names, a Shorthorn Bull (fit for service), bred by James Graham, Port Perry, Ont.

For 150 new names, an Avshire Bull (fit for service), bred by Thomas Guy, Oshawa, Ont.

A Heifer of any of the above breeds will be given for from 100 to 150 names, according to quality of animal.

For 30 new names, a Shropshire Ram or Ewe Lamb, bred by John Miller & Sons, Brougham, Ont., or Jno. Dryden, M. P. P., Brooklin, Ont.

For 30 new names we will give a Cotswold Ram or Ewe Lamb, bred by Joseph Ward, Marsh Hill, Ont., or David Birrell, Greenwood, Ont.

For 20 new names will give a Leicester Ram or Ewe Lamb, bred by Jeffrey Bros., Whitby, Ont.

For 40 new names we will give a Berkshire Sow or Boar 6 months old, bred by J. C. Snell, Edmonton, or J. G. Snell & Bro., Edmonton, Ont., or by Wm. Linton, Aurora, Ont.

For 10 new names we will give a pair, or for 5 a single bird, of any of the following breeds: Light Brahmas, Dark Brahmas, Langshans, Black Red Games, any variety of Leghorns, Wvandottes, Dorkings, Spanish, Bantams, Ducks, etc. Eggs will be given as prizes when desired from the yards of Wm. Hodgson, Brooklin, Ont.

We will give as subscription prizes young animals, either male or female, of any of the following breeds: Shorthorns, Herefords, Galloways, Ayrshires, Jerseys, a bull or heifer (of fair quality), purely bred, for 100 new subscribers, accompanied by \$100. We can also supply home-bred or imported stock of any desired breed, age or quality. In all cases we will guarantee satisfaction as to the quality, breeding and value of the animal. We will give very liberal terms to agricultural and other societies, and farmers in new sections, special inducements in sheep and poultry. Write for particulars.

### IMPLEMENTS, ETC.

For 110 new names a Bain Farm Truck, value \$75, manufactured by Bain Wagon Co., Woodstock, Ont.

For 65 new names a Patent Iron Frame Section Spring Tooth Cultivator, value \$36, manufactured by J. O. Wisner & Son, Brantford.

For 110 new names we will give a first class wagon, value \$75, manufactured by the Chatham Manufacturing Co., Chatham, Ont.

For 75 new names we will give one of the celebrated Westward Ho Sulky Plows, value \$40, manufactured by Copp Bros., Hamilton, Ont.

For 125 new names we will give one of Halliday's Standard Wind Mills, value \$75, manufactured by the Ontario Pump Co., Toronto, Ont.

For 140 new names we will give a Hay Loader, value \$75, manufactured by Matthew Wilson & Co., Hamilton, Ont.

For 100 new names we will give a large Straw Cutter with Carriers attached, value \$55, manufactured by B. Bell & Son, St. George, Ont.

For 40 new names we will give a large Agricultural Furnace, value \$22, made by the Gowdy Manufacturing Co., Guelph.

For 65 new names we will give a new Fanning Mill, value \$35, manufactured by Manson Campbell, Chatham, Ont.

For 90 new names we will give one of Osborne & Co.'s large Stock Scales, value \$50, capacity 4,000 lbs., manufactured by Osborne & Co., Hamilton, Ont.

For 40 new names we will give a Winchester Repeating Rifle or a Breech-loading English Shot Gun of latest design and good quality, or 10 new names we will send an imported Breech-loading German Rifle.

For 40 new names we will give the Model Harness, valued at \$20, manufactured by the Farmers' Supply Co., 176 King St. East, Toronto.

All stock or goods shipped free on board the cars.

For additional premiums see cover.

## Imported Clydesdale Stallions and Mares for Sale.

Highest Prize Winners in the Leading Shows of Scotland and Canada,

AND THE GET OF FAMOUS SIRES

Such as Lord Erskine, Darnley, Old Times, McCammon, Prince Lawrence, Lord Hopton, Bold Magee, Sir Wyndham, Good Hope and Fireaway.

Prices Reasonable. Catalogues Furnished on Application.



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BOWMANVILLE, ONT.

Bowmanville is on the line of the G. T. R., 40 miles east of Toronto and 294 west of Montreal.

IMPORTED AND REGISTERED

## CLYDESDALE AND HACKNEY

STALLIONS AND MARES

Constantly on hand, and For Sale at Reasonable Terms.



Our last importations comprise a large number of one, two, three and four-year-old registered stallions and mares, the gets of such sires as Macgregor (1487), Darnley (222), and Prince of Wales (673). Also a few choice **SHETLAND PONIES**. Correspondence solicited, and visitors always welcome.

**GRAHAM BROTHERS**

Twenty-five miles east of Toronto, on the C. P. R. **OLAREMONT, ONT.**



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The animals now on hand are of large size, good colors: low, wide and blocky; with good heavy bone, good feet, and the best of action. We have winners at many of the greatest shows of England. We offer first-class animals of the choicest breeding at very low prices. Every animal recorded and guaranteed. Visitors welcome. Catalogue on application. Stables in town. Mention this paper.

**T. W. PALMER'S**

## LOG CABIN STOCK FARM!

150 PERCHERONS.  
100 JERSEYS.

To be Disposed of this Season.

For catalogues and particulars address

**4 MERRILL BLOCK, Detroit, Mich.**



## DISPERSION SALE

## SHORTHORN CATTLE

AND  
**Shropshire Sheep,**

ON WEDNESDAY, MARCH 19, 1890.

WE WILL SELL BY PUBLIC AUCTION

At Our Farm, 5 Miles South of London, Ont.,

50 head of Shorthorn Cattle, comprising two imported Cruickshank Bulls, and Cows and Heifers of similar breeding, with representatives of families, as bred by Silvester Campbell, Kenellar, W. S. Marr, of Upper Mill; also, a choice lot of young Bulls of our own breeding. A choice lot of imported Shropshire down Sheep. The proprietors have reluctantly concluded to sell, without reserve, on account of two of the firm having made other business arrangements, and are therefore giving up farming. Terms:—A credit of eight months, on approved paper. Teams will be at the station, London, and drive visitors to the farm the day of and evening previous to sale.

**FRANK R. SHORE & BROS.**

### STOCK GOSSIP.

Messrs. Robert Beith & Co., Bowmanville, Ont., write us that they have recently sold the imported carriage stallion The Gem, also General Burnett, to Hon. James Clow, of Prince Edward Island, and a pair of mares to Andrew White, of Pembroke.

Mr. James Davidson, Reeve of Cypress, has secured the nucleus of a herd of Shorthorns, consisting of Lord Charles Beresford—11076—and the cows Lady Colon and Maid of the West. It is to be hoped that the same measure of success may attend his efforts in that line that has crowned his efforts in grain farming.

A review of the choice stud of Messrs. A. & J. Bell, Athelston, P. Q., came in after our last forms had gone to press. We very much regret this, as in this large stud, from which any of our readers who are on the outlook for anything in this line would have a large and good choice, comprising no less than fifty head of pure Clydesdales, amongst which they have seventeen stallions and twenty breeding mares. These gentlemen have been exporting Clydesdales quite extensively, and have made a vast improvement on the stock of horses in their locality. This firm is also breeding Durham and Ayrshire cattle, Berkshire and Chester Whiteswines, Shropshire and Cotswold sheep. Visitors in that part of the country will be well repaid by paying the Messrs. Bell a visit. We shall give a full account of this stud in our next issue.

Robert Morgan, Kerrwood, Ont., sends us the following notes on his flock:—My flock of Cotswolds are doing well. I went the round of the shows last fall and secured forty-eight first prizes and twenty-one seconds, three diplomas and three pen prizes, also the silver medal at the Provincial Fair, 1889, for the best pen of Cotswolds bred in Canada. I have lately made the following sales: To George Stratton, Cairngorm, one ram lamb; to H. Johnson, Kerrwood, one ram lamb; to Mr. Gibbons, Amadore, Mich. one ram two shears; to John Morgan, Kerrwood, one ram lamb; to Levi Bears, Arkona, one aged ram and four ewes; to G. W. Morgan, Kerrwood, one ram lamb; to J. McCaw, Napier, thirteen lambs.

J. G. Snell & Bro., Edmonton, Ont., write:—Our Berkshires and Cotswolds have done exceedingly well this winter; so far it has been exceptionally fine for young pigs. We have found the demand for sheep and pigs from the United States better than for some years. We have made some fine sales of both. Our sales of Cotswolds since last August is 73 head, at an average price of \$41 per head—highest price \$150, lowest \$15. We notice a report of Farmers' Institute meeting, held lately in our county, that Mr. John Dryden, Brooklin, Ont., made the statement that "Long-wooled sheep had gone out." From the above showing, and the fact that at the late Provincial Exhibition the Cotswolds won the special prize given for the best general purpose flock of sheep of any breed for wool and mutton combined, the Cotswolds at least have not "gone out."

Mr. Kerr, of Everest & Kerr, of the Ridgeway Stock Farm, Haxbur., Manitoba, has been for some time in this country selecting horses and sheep for export to the Prairie Province. He has, we understand, secured at a very high figure the three-year-old dark brown hackney stallion Jubilee Chief, sire Pilot, by Lord Derwent, by Denmark, dam Queen of the Forest, by the celebrated Triffitt's Fireaway. The latter wonderful stallion recently died, but it is estimated that he has left stock behind him to the value of a million and a quarter dollars. Mr. Kerr is also taking to Manitoba Conquest, a brown filly, by Anconeus, dam by Ellipse, granddam by Achelons, by Performer; Lizette, a chestnut filly, sire Anconeus, dam by Young Charlie; Florence, by Randolph, dam by Performer; Mayflower, sired by High Flyer; Maid, by Performer, and also her filly colt; Miss Rickett, sire Brother to Danegelt, dam Kilwick Lass, by Denmark.

Andrew Gilmore, Huntingdon, Que., writes us that he was very successful at the late Ottawa show. On four entries of Polled-Angus cattle, three firsts and one third; Oxforddown sheep, three firsts, two seconds and diploma; on Yorkshire swine, one first and one second. He also states the following sales were chiefly made through his advertisement in the ADVOCATE:—Polled-Angus—One yearling heifer to Cote Bros., St. Philemon, County Chateauguay, Que. Oxford down sheep—Aged ram to Thos. A. Higgins, St. Anicet, Que.; aged ewe, imported, to J. W. Brown, Huntingdon, Que.; ram lamb and two ewe lambs to W. Neilson & Sons, Lyn, Ont., and one ram lamb to Joseph Davis, South March, Ont. In Yorkshire swine—One pair to Duncan Munro, Bayview, Nova Scotia; boar to S. J. Osgood, Cookshire, Que.; one sow to Isaac Parnell, Lennoxville, Que.; one pair to William Dawson (conductor G. T. R.), Montreal, Que.; one sow to Charles Sherriff, Huntingdon, Que.; one boar to Mrs. E. Donnelly, Dewittville, Que.; one sow to James Donnelly, Athelstan, Que.; one pair to Clark Bros., Trout River, Que.; one boar and two sows to S. L. Tackee, Clarence, Ont.; one boar and two sows to D. McMaster, Laggan, Ont.; one pair to R. A. Fowler, Emerald, Ont.; one boar to Henry Chesterfield, Dundonald, Ont.; two sows to Thomas G. Smith, Rosemont, Ont.; one pair to Robert Baird, Chesterfield, Ont.; one boar and two sows to William Keough, Owen Sound, Ont.; two sows to D. S. Robertson, Wyoming, Ont.; one pair to John Watson, Dresden, Ont.; one pair to Cote Bros., St. Philemon, Que.; two to Dougald McCaig, Allan's Corners, Que.; six months sow to G. W. E. Dunning, Bear Brook, Ont.; one sow to J. Smith, Ottawa, Ont.; one sow to L. Lacombe, Ottawa City.

**STOCK GOSSIP.**

In our advertising columns will be found notice of the dispersion sale of Frank R. Shore & Bro., White Oak, which different business arrangements by two of the firm makes necessary. By referring to their late catalogue it will be seen that this herd has been formed carefully on the best and most useful lines of breeding, and that only the best bred imported bulls have been used for years. Parties having any idea of purchasing this season should not let this opportunity slip, as there are cattle included that will suit anyone, from the best show cattle, to some very useful breeding cows and heifers that will be likely to be sold under value. Besides two imported bulls, there are a lot of good ones bred in the herd.

On account of February being a short month, we have had to close two days earlier than usual in order to have the paper out by the beginning of the month. Unfortunately many of our patrons that are advertising with us have not remembered this and have sent us changes after our last forms had gone to press, and the same has been the case with correspondence sent in; therefore, if any are disappointed they will kindly take this excuse for not finding some expected article in or changes made.

A review of the Park Hill Herd of Ayrshires, the property of Mr. James Drummond, of Petite Cote, P. Q., through some mistake in post-office, came through the dead letter office, therefore came in after we had closed for this issue, but we hope to publish this account in the April number. This herd is one of the oldest established in Canada, and numbers sixty head, and is well known in the show ring, they having been very successful for several seasons, having come west to Toronto, Hamilton, and also up to Ottawa.

The Executive Committee of the American Shropshire Breeders Association have voted fifty dollars toward prizes to be awarded Shropshire sheep at the next Western Fair to be held in London. The prizes are as follows: 19 sheep bred and owned by exhibitor, a flock of six comprising two shearing ewes, two ram lambs and two ewe lambs, 1st, \$30, 2nd, \$15; also two ram lambs, 1st, \$10; 2nd, \$5. The English Shropshire Breeders' Association have also sent word to the Industrial Fair Association, Toronto, that they have granted \$100 to be also awarded as above, to their coming exhibition next season.

We are in receipt of the annual catalogue of Mr. Arthur Johnston, of Greenwood, Ont., the noted breeder and importer of Shorthorns and Clydesdales. The catalogue contains fifty-three head of cows and heifers, and thirteen bulls. Space forbids us make mention of the variety of highly-bred animals that are included both amongst bulls and heifers, but a glance at the catalogue will show that they are with very few exceptions of straight Cruickshank and Campbell breeding, with top crosses that at once show how carefully they have been bred. Any of our readers will do well to drop a line to Mr. Johnston who will be glad to send a copy of this catalogue to those who contemplate purchasing anything in this line.

E. D. George, Putnam, Ont., in a letter to us, says:—My stock of Chester Whites are wintering splendidly. Three sows farrowed to date with thirty-seven pigs to their credit, fourteen of which were by the noted sow Peerless, winner of first prize in the under-a-year class both at London and Toronto. The following are late sales:—T. Tuck, boar; J. Fox, Olinda, pair; W. Patrie, Holstein, boar; R. Underhill, Brougham, boar; G. Hall, Springfield, two sows; H. Allen, Hopeville, sow; J. Burnett, Toledo, pair; T. Baylis, Listowel, boar and two sows; J. Barkwell, Lucknow, pair; A. Meyers, Aitona, boar; M. Hill, Lansdown, B. C., pair; R. Nancekville, Ingersoll, boar; A. Newell, Rodney, sow; A. J. Montgomery, Elmville, pair.

Mr. Duncan McLaren, of Dunmore, county of Renfrew, Ont., has recently purchased from Mr. Arthur Johnston, of Greenwood, the imported prize-winning three-year-old Clydesdale stallion, Malcolm (7040), sired by the famous McCamon (3818), winner of first prize and the medal at the Highland Society's Show at Edinburgh in 1884. He was the first two-year-old Clydesdale stallion ever sold for \$350. Malcolm (7040) won second prize in an exceedingly good ring, including the Cambrobie First Love (6748), at the Aberdeenshire Exhibition held at Inverurie in July, 1888. Besides this he won several first prizes at local shows both in Scotland and in this country. He is probably as true a type of the pure Clydesdale as exists, with his clean, hard, flinty bones, clear, well-defined joints, and sound, hard feet, to say nothing of his smoothness and beauty of build.

In a letter from Mr. R. Stewart, Parkhill, Ont., he adds the following:—My Holstein-Friesians are doing fairly well; was quite successful at the local fairs last fall, winning first wherever shown. The bull calf, Blair Athol Boy (2042 H. F. H. B.), I sold to Mr. Thomas Kelly. He weighed 350 lbs. at ten months. His dam, Edgely Girl (549), gave birth to another bull calf, Nov. 26, thus having her second calf before she was three years old, and a few days after she was three years old made 1 lb. 12 oz. unsalted butter per day for three days on dry feed. Her last calf weighed when one day old 120 lbs., and when one month old weighed 230 lbs., thus putting on 100 lbs. in one day less than a month, which is not a bad showing for the mother's milk, calf being fed from pail, and three days of that time on skim-milk while the mother was being tested. And also says am well pleased with the Black and Whites and also with your paper, which should be read by all farmers.

**NO SOIL** in the World with **BEST PAYING MARKETS** right at the door for farmers in Michigan. How to get a long time, easy payments, and full information, address **O. M. BARNES, LANSING, MICH.**

**FAY CURRANT GRAPES** **LARGEST GROWER OF GRAPE VINES IN AMERICA**  
**HEADQUARTERS**  
**NEW GRAPES, ESTHER (white), and ROCKWOOD (black), originated by E. W. BULL, originator of the CONCORD GRAPE. Also EATON, MOYER, and all others, new and old. Best and Cheapest. Small Fruits. Free Catalogues. GEO. S. JOSSELYN, Fredonia, N.Y.**

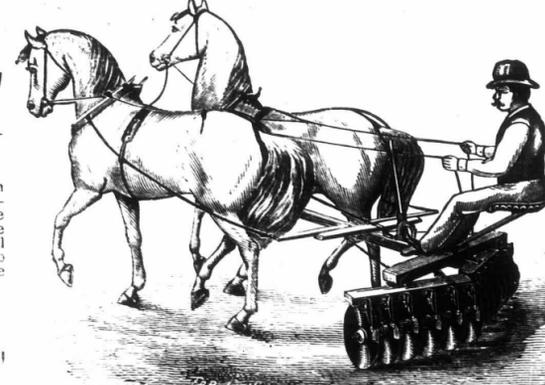
**GRAPE VINES** **Largest Stock in America.**  
**EATON, T. S. HUBBARD CO., FREDONIA, N.Y.**  
 Also other **SMALL FRUITS**. Descriptive Catalogue Free. Send list for prices.

**American Banner Oats.**  
 A quantity of the above now justly celebrated Oats for sale. Have turned out well wherever tried last season. For prices, particulars, etc., address,  
**ANDREW ELLIOTT, GALT P. O., ONT.**

**SEEDS** **SIMMERS' SEED CATALOGUE FOR 1890**  
 Will be sent **FREE** to all who write for it. It is a Handsome Book of 100 pp., with hundreds of illustrations, and tells all about the **BEST GARDEN, FARM and FLOWER SEEDS, Plants and Bulbs.** Valuable New Books on Garden Topics. It describes Rare Novelties in **VEGETABLES and FLOWERS** of real value, which cannot be excelled elsewhere. Send address on postal for the most complete Catalogue published to **J. A. SIMMERS, SEEDSMAN** 147, 149 & 151 King Street East, TORONTO, ONT.

**WILSON'S GRAND "RAINBOW" COLLECTION OF RARE AND BEAUTIFUL FLOWERS**  
 25¢  
 ENGLISH SHOW PANSIES  
 NUTMEG PLANT  
 We claim to be one of the largest growers and importers of Flower Seeds in America. In order to introduce them as widely as possible we make this **UNPRECEDENTED OFFER**. For 25c, in postage stamps or money we will send by mail one pkt. each of the following Valuable Seeds: **New Diamond Aster**, very handsome colors; **Mixed Balsams**, immense size, double as a rose; **Calliopsis**, Golden Splendens, 15 distinct shades; **GIANT SHOW PANSIES**, immense size, rich and velvety; **New Mammoth Verbena**, 12 choice colors; **New Giant Zinnia**, largest in the world; **10 Seeds of ANNUAL NUTMEG PLANT**, great value, never before offered; **Amaranthus Gibbosus**, highly ornamental; one Beautiful Everlasting Flower, 11 full-size pkts., with directions for culture, for 25c., 5 Collections, \$1.00. Catalogue with each order. **SAMUEL WILSON, Mechanicsville, Bucks Co., Pa.**

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 With its patent adjustable scrapers is the best on the market.  
 We still keep up our reputation for turning out the latest improvements in Steel Frame Spring-tooth Harrows, One and Two-horse Buckeye Model Mowers, Itasca Self-dump Horse Rakes, Tiger Horse Rakes and Single Reapers.  
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**Permanent Canvassers Wanted in Every County**  
 To whom paying wages will be given. Write for particulars.  
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The best berry for long distance shipments. Will not rot or melt down if packed dry. Headquarters for all leading varieties of Berry Plants and GRAPE VINES, having 300 acres in cultivation. Catalogue free. WM. STAHL, Quincy, Ill.

# Fertilizers! Fertilizers!

Pure Animal Fertilizer .....	\$25 00 per ton	Sure Growth (contains potash) .....	\$28 00 per ton
Pure Fine Ground Bone Meal .....	30 00	Grape Food (contains potash) .....	28 00
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Analysis on application. Send for catalogue. I will test the above Fertilizers with any in the market, side by side, and will show better results. Telephone 350.

**HAMILTON FERTILIZER & CASINGS WORKS,**  
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## A GLORIOUS FLOWER

No engraving can do justice to the unique and peerless beauty of this NEW CHRYSANTHEMUM. Imagine plants completely studded with balls of flowers one foot in circumference, whose petals curve gracefully inward, and which in turn are dotted with a peculiar hairy-like growth, the whole resembling, more than anything else, masses of SNOW-WHITE OSTRICH PLUMES, and you then begin to form some idea of the beauty of this royal flower. Your garden will not be complete this season if it does not contain the "OSTRICH PLUME CHRYSANTHEMUM." (Plain and full instructions for culture with each order.)

**PRICE.**—For fine plants, certain to bloom, 40c. each, three plants for \$1; seven plants for \$2; twelve plants for \$3. Free by mail.

With every order for a single plant or more will be sent gratis our superb Catalogue of "EVERYTHING FOR THE GARDEN" (the price of which is 25 cents), on condition that you will say in what paper you saw this advertisement. Club orders for THREE, SEVEN or TWELVE plants can have the Catalogue sent, when desired, to the SEPARATE ADDRESS of each member comprising the club, provided always that the paper is named.

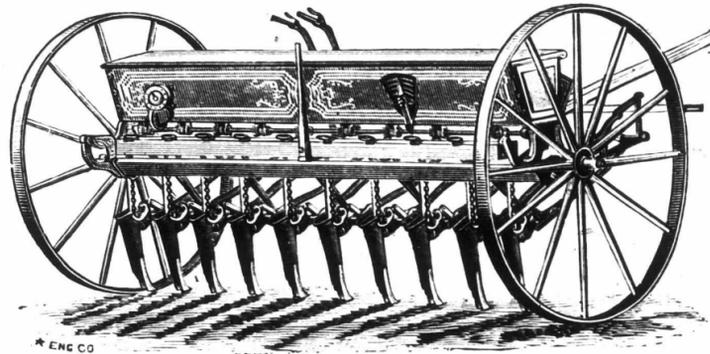
### THE "OSTRICH PLUME" CHRYSANTHEMUM

(Mrs. Alpheus Hardy).

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**GUARANTEED THE BEST IN THE WORLD,** and the only drill that can be instantly regulated to run the desired depth in hard and soft ground while moving.

**THE HOOSIER IS THE ONLY DRILL** that sows all kinds of grain and seeds evenly, and at the depth desired in all kinds of soil.

**THE HOOSIER IS THE ONLY DRILL** that commences to sow the instant the horses move.

**THE HOOSIER HAS THE ONLY POSITIVE FORCE FEED,** and the only drill that deposits the grain evenly just the depth you want it in hard or soft soil. **REMEMBER THIS.**

**THE HOOSIER COMBINED DRILL** with cultivator teeth is the best cultivator made, and is the only implement made with the teeth on independent draw bars that can be set for hard and soft land while the team is in motion. **THE HOOSIER** is lighter on the horses than any other Drill made. The points of excellence in the **HOOSIER** that other Drills do not have are worth more to the farmer than any Drill in the world.

**THE COMBINED HOOSIER** can be changed from drill to seeder or seeder to drill in less time than any Drill made. Send for our new illustrated catalogue and testimonial sheet. Beware of purchasing Drills that infringe the patents on our Drills.

NOXON BROS. MFG. CO. (Ltd.), Ingersoll, Ont.

## STOCK GOSSIP.

Mr. Joseph Featherston, of Springfield-on-the-Credit, writes.—My stock never looked better than they do at the present time of the year; the young pigs are growing as if it were the month of May, and have twenty-two sows to farrow in spring, and hope to be able to fill orders that are constantly coming forward for Yorkshires and Suffolks, and have made the following fall sales: Essex, 13; Yorkshires, 47; Suffolks, 11.

George Lee, Highgate, Ont., writes.—My Leghorns are wintering nicely and laying well. I was very successful at our county and other fairs last fall, winning thirteen out of a possible fourteen prizes. I have made the following sales lately:—Jno. Spear, Frankford, trio; D. Cockrane, Ridgetown, pair; Joseph Wilton, Bismark, pair; Jno. Tape, Ridgetown, trio; Alex. Luke, Bothwell, five hens and one cockerel; Thos. Cameron, Botany, cockerel; Wm. Campbell, Amberburg, cock. I am importing a cock at a high price from Knapp Bros. They claim he is a grand one, and are holding him till after the great New York Poultry Show this month.

In another column will be found the dates of the different breeders' association meetings. These meetings are arranged so that all the meetings and the Clydesdale Spring Stallion Show can be taken in at one visit to Toronto. These associations are now making themselves felt, for it is here the judges for the different classes are suggested to the different Fair Boards, so that those who do not attend will in a measure have themselves to blame if they do not help to choose the judges required in the line of stock they are interested in. Many other subjects will also be brought out, all of which will help along the live stock interests of the country.

Messrs. J. & W. Russell's (of Richmond Hill) herd, which now numbers sixty head, is in fine condition. The two-year-old imported Kinellar bred bull Windsor, winner last fall of first both at the Provincial and Industrial, has wonderfully improved, being low to the ground with well filled quarters. This is now the principal stock bull. This roan bull Stanley, the Industrial sweepstakes bull, is likewise in good shape, as are also the females, especially Nonpariel the 4th, which would take some beating, while in heifers the herd is particularly strong for besides the first and second prize heifers at London, Messrs. R. have the roan heifer Isabella 3rd, which will crowd them hard. The Clydesdales and Cotswold sheep are likewise wintering well.

We recently had the pleasure of inspecting the stud of Shire horses owned by Messrs. Morris, Stone & Wellington, whose advertisement will be found in another column. This stud is one of the largest in Canada, and contains several choice animals. The stallion Chieftain, which stands at the head, is too well-known to need description, and is leaving them some grand colts. The three-year-old brown stallion Active is rightly named, combining muscular development with great action; while the two-year-old colt, a son of the well-known Carbon, is a massive, low set fellow, on great bone nicely feathered. Among the mares is imported Lizzie, a light bay, is wide and deep and stands on clean, flat limbs, fringed with hair of the right kind. Imported Alice is a massive, short-legged bay mare, with plenty of bone, who, in 1888, was the winner of first prize at Buffalo, while Lancashire Lass is a roomy bay mare of great quality. But where all are good it is needless to particularize, and it is evident that Messrs. Morris, Stone & Wellington have been careful to import nothing but superior animals. In addition to the Shires, a stud of Roadsters is also kept, consisting principally of the blood of General Stanton.

## ON 40 DAYS' TRIAL THE GREAT SPIRAL TRUSS

The Best different from all others. It cures Hernia as if your extended hand was drawn together and one finger pointed in the centre. Bandage is held positive day and night with the slightest pressure, and healed same as a broken leg. You will be allowed three exchanges during the 40 days. There is no duty to pay when received or returned, which many Canadians found more expensive than the truss. It is the easiest, most durable, and cheap Truss. Sent by mail. Send stamp for illustrated book. CHAS. CLUTHE, Surgical Machinist, 134 King St. W., Toronto.

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We will forward the following to any address, postage paid, on receipt of One Dollar:

1 oz. Early Egyptian Beet .....	10c.
1/4 oz. Extra Early Express Cabbage .....	10c.
1 pkt. Fottler's Improved Drumhead Cabbage ..	5c.
1/4 oz. Henderson's Early Summer Cabbage .....	15c.
1 pkt. Extra Early Selected Dwarf Erfurt Cauliflower .....	25c.
1 oz. Guerande Stump-footed Carrot .....	10c.
1 pkt. Paris Golden Yellow Celery .....	10c.
1 " Evans' Hamilton Market Lettuce .....	5c.
1 " New Early Hackensack Musk Melon .....	5c.
1 oz. Non Plus Ultra Radish .....	10c.
1 pkt. Volunteer Tomato .....	5c.
1 oz. Red Wethersfield Onion .....	15c.

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