

MANITOBA AND WESTERN
OF THE
FARMER'S ADVOCATE
AND HOME
MAGAZINE
FOUNDED AD. 1866. REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

VOL. II.

LONDON, ONT., and WINNIPEG, MAN., MARCH, 1891.

No. 15.

THE FARMER'S ADVOCATE & HOME MAGAZINE

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.

The Advocate is sent to subscribers until an explicit order is received for its discontinuance, and all payments of arrearages are made as required by law.

Remittances should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

The Date on your Label shows to what time your subscription is paid.

The Law is, that all subscribers to newspapers are held responsible until all arrearages are paid, and their paper ordered to be discontinued.

Always give the Name of the Post Office to which your paper is sent. Your name cannot be found on our books unless this is done.

Discontinuances—Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped. All arrearages must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post Office address is given.

Advertising Rates—Single insertion, 15 cents per line. Contract rates furnished on application.

All communications in reference to any matter connected with this paper should be addressed as below.

THOMAS WELLS,

Manager "Farmer's Advocate,"
WINNIPEG, MAN., CANADA.

Our Monthly Prize Essays.

CONDITIONS OF COMPETITION.

1.—No award will be made unless one essay at least comes up to the standard for publication.

2.—The essays will be judged by the ideas, arguments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling, our object being to encourage farmers who have enjoyed few educational advantages.

3.—Should one or more essays, in addition to the one receiving the first prize, present a different view of the question, a second prize will be awarded, but the payment will be in agricultural books. First prize essayists may choose books or money, or part of both. Selections of books from our advertised list must be sent in not later than the 15th of the month in which the essays appear. Second prize essayists may order books for any amount not exceeding \$3.00, but no balance will be remitted in cash. When first prize essayists mention nothing about books, we will remit the money.

A prize of \$5.00 will be given for the best essay on "The best varieties of Potatoes for Manitoba, and the best methods of cultivation." Essays to be in this office not later than the 15th of March next.

A NEW FEATURE.

Notice to Our Advertisers.

In order to encourage the spread of useful knowledge among the farmers, and also to increase our circulation, we offer, as a prize, a two-inch space for six months to be awarded to the live stock breeder who will send us the largest list of new subscribers during 1891. The advertising space may be used any time the winners appear after the award is made. To all who are winners in this competition we will allow the same commission advertised. (See page 69, January number.)

The Stallion Show at Portage La Prairie.

The second annual Stallion Show will be held at Portage La Prairie, on Saturday, the 11th of April. Send to A. A. MacLennan, Secretary, Portage La Prairie, Man., for the prize list. See advertisement in other columns.

Poultry Notes for March.

While not advising the use of any kind of breeding stock of mixed or uncertain parentage, it is assuredly better, where such must of necessity be used, that a careful selection be made, and the best only used. Half a dozen hens will produce enough eggs to hatch on almost any farm, and it is certainly better to select the best six hens in the flock and place in a breeding pen with the best male available. A pure-bred Plymouth Rock, Wyandotte or Brahma, if possible; but if not, use the heaviest, blockiest male in the flock, providing he is healthy and vigorous. There is no sense in keeping three or four males, and allowing the entire flock the freedom of the premises, when six or eight females and one male will provide all the eggs necessary, besides securing the eggs for hatching from the best stock. Many people do not think about this matter at all, and others think the hens produce more eggs when a male bird is kept. Such, however, is not the case, as hens lay better without the worrying and annoyance of the male, and the eggs keep much better. Having selected the stock for breeding, care must be taken not to overfeed, as eggs from overfed hens do not hatch well. On the other hand, they must be in fair condition and have plenty of exercise, or the number of eggs produced will be very small. To avoid both these difficulties, a dry floor should be placed in the poultry house and covered to a depth of not less than twelve inches with chaff or cut straw, and be fed chiefly by throwing oats on it, and compelling them to work and scratch for every grain they get. This keeps the birds healthy, prevents an undue accumulation of fat, and gives excellent results in hatching. It is not advisable under ordinary circumstances to set hens earlier than the 10th of April, but where circumstances are favorable it pays to hatch them even a month earlier. The advantages of early hatching are many, the pullets will lay not only sooner but younger if hatched on the first of April, than if hatched on the first of June, and the young males are worth much more if they can be made to weigh three pounds in July, than the same weight in September; but the early hatched chick requires so much more attention through the cold of early spring, that, as before stated, exceptionally favorable circumstances are necessary to obtain as favorable returns.

Birtle Farmers' Institute.

At the meeting for organization of this institute on Saturday, February 7th, the following officers were elected: President, J. C. Cooke; Vice-President, Jno. Dunlop; Secretary-Treasurer, Alfred Morton; Directors, J. B. Cartnell, Alonzo J. Shepherd, Wm. Higgins, Jos. Wilkinson, J. A. Edmonson and James Leggett. The President, Mr. Cooke, gave a short address on questions pertaining to institute work. He thought there was no class of men other than farmers that required to be "bribed" to come together to look after their own interests. He claimed that the aid which was given as an inducement was, in all respects, a bribe, and that it was a shame such was a necessity, and in this instance it must be acknowledged to be a necessity. He thought farmers were, as a rule, willing to do all the unprofitable work, and let others step in and do that which is more remunerative, such as shipping grain and other farm products. He commended the institute movement, but to receive benefit from it we must be willing to learn and not to flatter ourselves that we know about all there is to learn about farming. He had farmed twenty years, and found he had much yet to learn. He claimed we should not confine ourselves to economy of production, but should consider how we can place the grain on the market most economically. The speaker thought the farmer entitled to a voice in the formation of the grain standards. He thought it discreditable to the farmers that a man who was not a farmer had been the means of organizing the institute of which he had just been elected president. He thought the butter problem also worthy of attention. There were other matters to which he would like to call the attention of the institute, but time would not permit. After arranging the dates for meetings, viz., the first Saturday in every month, J. W. Bartlett, of the FARMER'S ADVOCATE, Winnipeg, made a few remarks on institute work, and the best methods of conducting institutes. After considerable discussion on this subject, the meeting adjourned to meet on the first Saturday in March, when the president will read a paper on marketing wheat, a subject with which he seems to be particularly loaded, and will, no doubt, handle it efficiently. Arrangements will also be made by the Executive Committee for papers on other subjects. This institute has now a membership of forty, and bids fair to become a successful and useful organization. New officers are of course placed at a disadvantage, and business is not done with as great dispatch as might be desired, but time fits the harness to its place, when much less time will be taken up discussing the proper course to pursue. The ADVOCATE wishes the institute success.

Fruit, Forest and Ornamental Trees on the Manitoba Experimental Farm.

BY S. A. BEDFORD, DIRECTOR EXPERIMENTAL FARM, BRANDON.

In the spring of 1889, three hundred and eighty apple trees were procured from various sources and planted on the farm, one-half in an exposed plot in the centre of the valley, and the balance in a plot sheltered by scrub, on the hillside overlooking the valley.

These trees consisted of ninety-three of the hardiest varieties in general cultivation in the most northern latitudes of the United States and in Eastern Canada, and of some of the hardy varieties recently introduced from Northern Russia.

Many of the hardiest Russian varieties are being grown as low bushy trees, and these are by far the most promising; in the sheltered plot, they are all living and making good growth, having a very healthy, thrifty appearance; but in the exposed plot, several of them were winter killed, and those still living appear to have suffered severely.

Of the tall standard trees, seventy were winter killed, and many of those surviving were injured from sunscald, etc. The following are some of the most promising varieties:—Anisim, Antonovka, Blushed Colville, Krimskoe, Liebig, Plekanoff, Repolovka, Red Repka, Silken, Vargulek, Vargul, Ukrain, Tusoff's Winter, Red Ania, Bielborodovka, Borovinka, Gipsy Girl, Golden White, Hiberna, Kalvil Krasni, Pointed Pipka, Romenskoe and Wealthy.

CRAB APPLES.

Twenty-five trees were planted in the spring of 1889, consisting of eight varieties; sixteen of these are still living and have made good growth. The following varieties appear to be the most promising:—Transcendant, Hyslop, Whitney's No. 20, Orange, Early Strawberry and Queen's Choice.

PEARS.

Eleven varieties of pears were planted in 1889, most of which were injured by the winter—either killed outright or to the snowline; but a few trees of the hardy Russian varieties escaped with very little injury, and have made fair growth during the past summer; these were the Bessemianka, Gakovka and Gliva Kurskaya.

PLUMS.

Fourteen varieties of these were planted, but nearly all were injured by the warm winds prevalent during the summer of 1889, and consequently were not in good shape to withstand the winter; only a few, however, were killed outright. The following are the most promising:—De Soto, Early Red, Late Red, Nicholas and Otsckakoff.

CHERRIES.

Only four varieties were sown in 1889, and of these but one (a Russian variety) is still living. A further supply of hardy Russian varieties were procured and planted in 1890, and it is hoped some of these will prove hardy.

SMALL FRUIT.

Of Gooseberries five varieties were planted on the farm, and have made good growth. The Houghton Seedling came through the winter uninjured. The next best were the Smith's Improved and Downing; but both of these varieties were slightly injured, the previous year's growth being frozen back.

CURRENTS.

Nine varieties of currants were grown; all survived the winter and are making good growth. Although very young, some of the bushes were loaded with fruit during the past season. The varieties grown appear to rank in merit as follows:—Black Currants—Lee's Prolific, Black Champion, Black Naples. Red Currants—Fay's Prolific, Ruby Castle, Victoria, Red Cherry and White Grape.

RASPBERRIES.

A number of varieties of Raspberries and Blackberries have been tested on the farm, of which the following are the most promising:—Turner and Philadelphia, red varieties, and the Hilborn, a black cap.

STRAWBERRIES.

Several varieties of Strawberries were planted, some in the valley, and some on cleared shrub land on hillside. All of those planted on the open prairie were killed, but those planted on shrub land were more successful. One of the varieties, the Crescent Seedling, produced an abundant crop of fine large berries during the past season; two other varieties, the Wilson and Captain Jack, also produced some fruit. The most promising varieties are the Crescent Seedling, Wilson, Captain Jack and Manchester. Some other varieties were tried but so far have not been very successful.

FOREST TREES.

It will be remembered that the summer of 1889 was dry and very trying for newly planted trees and seedlings, leaving them in bad shape to withstand the hard winter which followed. Yet, in spite of such adverse seasons, many of the trees and shrubs came through in good condition, while others which were badly frozen back have since made good, thrifty growth, and appear to be in better shape to go through the present winter. The Acacia or Honey Locust, Beech, Catalpa, Kentucky Coffee Trees, Rock Elm, Sycamore and Black Walnut were all killed out, and the following trees, although still living, suffered more or less injury, and at present cannot be considered as very promising:—White and Black Ash, Black Cherry, Oak, Norway Maple, Arbor Vitae or Cedar, Hemlock, Austrian Pine and Norway Spruce. The most hardy were the following:—

Green Ash (*Fraxinus viridis*), the native variety, American Mountain Ash (*Pyrus Americana*), very promising, European Mountain Ash (*Pyrus acuparia*), American Alder, European Alder (*Alnus glutinosa*), Yellow Birch (*Betula lutea*), White Birch (*Betula alba*), Canoe Birch (*Betula papyracea*), Sweet Birch (*Betula lenta*). The Birch are all very hardy and should be planted liberally. White Elm (*Ulmus Americana*), from native seed, Ashleaf Maple or Box Elder (*Negundo aceroides*), the native variety, Soft Maple (*Acer dasycarpum*), Cottonwoods, Russian Poplars (*Populus Beno*), (*Populus Pyramidalis*), (*Populus Petrovsky*), (*Populus bercolensis*), (*Populus Wobstii Riga*). The Russian Poplars appear to be very fast-growing, hardy trees; they have large leaves of a dark green glossy hue. *Populus alba argentea* and *Populus Bolliano* are white-leaved varieties. Russian Willows (*Salix coronata*), Laurel Willows (*Salix laurifolia*), an ornamental variety, Sharpleaf (*Salix acutifolia*). These Willows are all suitable for windbreaks. Wisconsin Weeping Willow, a very fast-growing variety, Basket Willow, Norway Willow, White

Willow (*Salix alba*), Yellow Willow (*Salix lutea*), White Spruce (*Abies alba*), the native variety.

SHRUBS AND ORNAMENTAL TREES.

Forty-one varieties were planted, of these the Robinias, Wiegelias, Coluteas, Hydrangeas, Deutzias, Privet and some varieties of Cytisus and Spiraea were entirely killed out. The following varieties proved hardy, and some of them are very promising:—Cutleaf Weeping Birch (*Betula alba laciniata*), very hardy and ornamental; Asiatic Maple (*Acer Ginnala*), Caragana or Siberian Pea (*Caragana arborescens*), Lime tree (*Tilia Sylvestris*), Dogwood (*Cornus Sibirica*), Flowering Currants (*Ribes sanguineum and aureum*), Lilac (*Syringa vulgaris*), Lilac (*Syringa alba*), *Spiraea billardi*, *Spiraea Nobiliana*, *Spiraea Douglasii*, *Spiraea opulifolia*, Southernwood (*Artemisia ambrotanum*), Cytisus (*capitatus*), Berberry (*Berberis vulgaris*), Laurel Willow. These last four varieties are suitable for hedge plants.

CLIMBERS.

Several varieties of climbing plants were tried, but only two of them survived the winter. These were the *Lycium Europeanum*, known as the tea vine or as Washington's bower, very hardy and a rapid grower; and the *Clematis flammula*. These were wintered without any protection. Only one variety of Roses was planted in 1889, the *Rosa Rugosa*. This, however, wintered without any protection, and bloomed during the past summer. This is described as a hardy Russian rose of great beauty, producing fragrant flowers of large size and purplish scarlet color.

Blue Greys.

To the Editor of the FARMER'S ADVOCATE.

SIR,—In looking over the January number of your journal, I see an article on Galloway Cattle from the pen of Mr. James Walker, Winnipeg. Mr. Walker, after stating a few of their good qualities, goes on to say that when crossed with the Shorthorn they throw what is called in Scotland the Blue Greys, because of their color. Any one who has ever visited Smithfield Christmas Fat Stock Show has often seen the Blue Greys carry off some of the principal honors. Now, I don't remember ever seeing or hearing of a Blue Grey Galloway cross carrying off any of the principal honors. It is true that Blue Greys have carried off some of the champion honors at Smithfield, London. I think eleven years ago a Blue Grey cross steer, got by a Shorthorn bull and out of a Polled-Angus cow, carried off the blue ribbon at Smithfield. In 1882 a Blue Grey heifer was champion cross-bred animal, she also was a cross between the Shorthorn and Polled-Angus breeds. Some four years ago O. C. Wallis, of Bradley Hall, Northumberland, showed a very fine Blue Grey steer; he was a Shorthorn and Polled-Angus cross. I don't say but that the Galloway may make as good a cross with the Shorthorn as the Polled-Angus, as I don't remember ever seeing a direct cross between them, and I have never seen or heard of the Galloways or their grades or crosses doing much in the fat stock show rings either at Smithfield or Chicago, and I think most of the Blue Greys we have often admired at the English fat stock shows, nine of every ten were crosses between the Shorthorns and Polled-Angus. Honor to whom honor is due.

LESLIE SMITH.

Wawanesa, Feb. 16th, 1891.

Stonewall Farmers' Institute.

The preliminary steps were taken and petition duly forwarded for the formation of this institute on Wednesday, the 18th of February. The preliminary meeting showed that there is sufficient material in the locality to make it a prosperous institute. Organization is due largely to the efforts of Mr. Jno. McLure and Jacob Scott, jr., J. W. Bartlett, of the FARMER'S ADVOCATE, assisting. At the first meeting, Mr. Bartlett read a paper on institute work, and Richard Waugh spoke at some length on the same subject. Meetings will be held fortnightly.

Burns Visits the Brandon Experimental Farm.

If there is any place in the province that will repay a farmer for a three or four days' visit, that place is the Brandon Experimental Farm, conducted by Mr. S. A. Bedford. I am fully persuaded that many of our farmers do not fully realize the importance of the work being carried on there, or the object and aim of the directors and of the government. They have no idea of attempting to teach our farmers how they should manage their business or set before them a model farm for them to imitate, but to assist them by making hundred of tests and trying experiments which the farmer is not in a position to do for himself, the result being made known to all who wish to avail themselves of it. Mr. Bedford has arranged a permanent exhibit of all grains and grasses grown on the farm, both threshed and in straw, which are placed side by side with the product of the previous year, giving winter visitors an opportunity of seeing the results of the different seasons.

At the International Show at St. John, N. B., this fall the farm obtained the diploma for the best collection of threshed and unthreshed grains.

To show that the management of the farm is alive to the interest of Manitoba farmers, I would like to place before the readers of the ADVOCATE the following practical tests.

TEST OF TREATMENT FOR SMUT.

In all cases the same quality of seed was sown and the same kind of soil occupied. Untreated grain gave 6½ per cent. smut; that scalded in water, heated to 132°, gave 1 per cent. of smut; that steeped for thirty minutes in brine, strong enough to float an egg, gave less than half of 1 per cent. of smut; while that treated with one pound of blue stone, dissolved in a patent pail of water and applied to 10 bush. of wheat, was practically free from smut heads. Mr. Bedford does not consider it safe to use blue stone stronger than the above, as he is of the opinion it will injure the vitality of the seed. He will thoroughly test it, however, the coming season.

FROZEN GRAIN FOR SEED.

Many are of the opinion that any kind of chicken feed will do for seed, but the following test fully demonstrates the folly of using damaged seed. The tests were made in acre plots: No. 1 hard gave 33 bush. per acre; No. 1 frozen, 32 bush. and 40 lbs.; No. 2 frozen, 32 bush. and 20 lbs.; No. 3 frozen, 28 bush. and 56 lbs. The above tests were on the uplands, and a test on the lowlands gave: No. 1 hard, 24 bush. and 49 lbs.; and No. 1 frozen, 23 bush. and 23 lbs. Following this experiment farther we might mention that two experiments were tried in selecting seed, everything being screened out

but the very heaviest and plumpest grain. Black Tartarian oats were sown: The unselected seed, on a half-acre plot, gave 76½ bush. per acre, while the selected seed gave 88 bush. per acre. In native corn for fodder the unselected seed gave 24,420 lbs., where the selected seed gave 33,000 lbs. Several tests will be made with selected seed the coming season.

BROADCAST SOWING VS. DRILL.

The common drill gave 30 bush. and 24 lbs. per acre, the press drill 29 bush. and 24 lbs., and broadcast 28 bush. and 20 lbs. In wheat, the drilled-in ripened in 132 days, and that sown broadcast in 136 days. In oats, the press drill, 72 bush. and 30 lbs. per acre; the common drill, 72 bush. and 22 lbs., and broadcast, 56 bush. and 32 lbs. In barley, the press drill gave 60 bush. and 14 lbs.; the common drill 56 bush. and 60 lbs., and broadcast, 50 bush. and 46 lbs. In case of sowing with the drills, the grain came up very evenly and ripened together, whereas the broadcast sowing was of different lengths and uneven in ripening.

PLOWING IN SEED.

Oats sown broadcast on oat stubble and plowed in, being covered about three inches, gave 49 bush. and 30 lbs. per acre; those sown beside them with the drill in the ordinary way on fall plowing, gave 41 bush. and 10 lbs. On wheat stubble those plowed in gave 56 bush. and 27 lbs.; and those sown with the drill on fall plowing gave 51 bush. and 16 lbs. Wheat and barley treated in the same way did not show the same results in favor of plowing in the seed. The oats requiring more moisture to germinate receives the benefit from the plowing-in system.

NOTES ON RIPENING.

It must be remembered that it takes a great difference in the time of sowing as to the number of days in ripening. That sown very early, before there is heat enough to make the grain germinate, will naturally take several more days between sowing and reaping. About the middle of April is a fair test, and the following varieties were sown at that time: Red Fife yielded 28 bush. per acre, and ripened in 134 days; Ladoga yielded 21 bush., and ripened in 128 days; Eureka yielded 27 bush., and ripened in 128 days; Russian Hard Tag gave 26½ bush., ripening in 128 days; Golden Drop and Club wheat yielded 24½ bush., and ripened in 128 days; Eureka and Campbell's White Chaff each ripened in 130 days, yielding 24 bush. per acre. Experiments are being made with a number of varieties of wheat ripening in shorter time than the above, but the yield and quality are not yet satisfactory.

CORN FOR FODDER.

Occasionally we have a very dry scorching year, when our meadows are burnt up and hay is a failure, such a year is well-suited to growing fodder corn, for that plant likes heat above all things. I think it will pay to try an acre or two of it, as it only requires a small amount of seed. It may be sown by stopping up sufficient spouts in your grain drill to bring your rows about three feet apart, setting the drill to drop one kernel every eight inches.

Large numbers of tree seeds have been collected and forwarded to the Central Farm at Ottawa, where a general distribution will be made, and those applying for the same will be furnished free of charge.

A large number of grasses and millets have been tried, as well as about seventeen different mixtures of grain for fodder, which I hope may be given a mention in a letter later on.

BURNS.**Subscription Prizes.**

From lack of space we were compelled to lay over our list of prizes given to those who send us clubs of new subscribers. We refer our readers to page 69 of the February issue. Send in good large clubs and obtain some of these valuable prizes.

New Grains.

Mr. D. McNaught, of Rapid City, sowed four bushels of Carter's Prize Prolific Barley last spring and harvested eighty. From all accounts this barley is likely to prove a valuable acquisition to this country, as no poor yield has yet been reported. This seed is advertised in our advertising columns.

Mr. E. J. Darroch, of Minnedosa, this year sowed a bag of White Wonder Oats with excellent results, getting some eighty bushels from that amount of seed. Mr. Darroch also raised some California Prolific Barley which so attracted the attention of Professor Robertson on his recent visit that he bought several bushels (all that was available) for the Experimental Farms. The California Prolific is a two-rowed barley, and is very plump and heavy. Mr. Darroch has none for sale this season, but hopes to be in a position to furnish seed in quantities next year.

A Central Farmers' Institute.

Now that the farmers institutes have been organized, or are about to be organized in, at least, a score of the electoral divisions of the province, a permanent central institute is not only desirable, but an absolute necessity, if the very best results are to be obtained from institute work. This central institute should consist of delegates, and only delegates from local institutes. Each local institute should send one delegate for say every thirty-five members or fraction thereof. That is each institute send a representative, and if the membership is over thirty-five, two delegates, if over seventy, three, and so on. This central body should meet at some central point, and take into consideration the best methods of conducting institute work, how the most good can be accomplished with the least expenditure of money, etc., etc. At present there is a pressing need of steps being taken by the local institutes jointly to arrange a circuit of meetings early next winter, and secure assistance for the same. This can be accomplished in no other manner so readily as by such a central organization. Again, the local government have shown a disposition to aid the institutes, and would, no doubt, be pleased to learn in what manner such aid could be best rendered. It will be readily seen that thirty men representing each thirty-five members or thereabout of the local institutes, would have, and properly, too, great influence, and prove of great value in advising with the Department of Agriculture on this and kindred subjects. There is also another way in which this organization could be of use to the country at large. We all too often hear of frauds being perpetrated on farmers, such as seed grain swindlers, sales being made and notes given when the buyer supposed he was only signing an agreement to act as agent for the article. Such a fraud occurring in any locality could be at once reported to the Secretary of the Central institute, and he, in turn, could notify the local bodies, and thus put them on their guard. This is but a fraction of the many benefits to be derived from such an organization, which it is to be hoped will have been perfected by next winter.

Quality vs. Quantity.

BUTTER, EGGS, CHEESE, WHEAT AND MUTTON.

BY D. F. WILSON, BRANDON.

Under the above heading we have within the last year seen a number of most interesting articles from the pens of Canada's most noted stock breeders. They, however, confined their writings to the quality and quantity of their favorite breeds of sheep. Now, I think that this question deserves the most serious consideration of the Canadian farmer, not only with regard to the most suitable breed of sheep, but in connection with every product of the farm.

The intelligent producer, before he begins the production of any article, will first look for a market for that article, for no matter how successful he may be in producing it, if there is not a sufficient demand, he must place it in the market at a loss.

Those who have lived in or visited the Old Country, cannot help being struck with the very great pains that is there taken to have everything good, and in consequence Englishmen say that as a rule they can get nothing imported as good as the home product.

Now that the tariff shuts us out to a great extent from the United States, we must look to the Mother Country for a market, and if we are wise we will cater to the tastes of the consumers. We should also remember that a product of high quality creates for itself an increased demand, while an article of low grade has the opposite effect.

When a boy in the Old Country (my greatest wish then being to go to Canada as soon as I left school), I saw, one day in a grocer's window, a notice, "Prime Canadian Butter, —d per lb." I forget the figure, but it was very low. I went home, bent on having some, and to please me some was ordered. I was a growing boy, with a bigger appetite than any boy I ever came across, quantity being of far more consequence to me than quality. Notwithstanding this and my decided penchant for all things Canadian, I could not eat that butter. In all probability a large number of people in the town tried that butter, but it would require a good deal of persuasion to induce them ever to buy Canadian butter again, no matter how good it might be.

We should endeavor to make all our products fit to be branded Prime Canadian: but let Prime Canadian be a really prime article—equal or superior to the product of any other country. If such butter, of the quality I have mentioned, crossed the Atlantic, it is not to be wondered at that there is no market in the Old Country for Canadian butter.

EGGS.

There has been a good deal said lately about England being now the market for our surplus eggs, the United States having shut them out. I believe, if eggs are to be produced as cheaply as possible, Hamburgs are the fowls to keep; but if farmers went in largely for this breed the eggs, when sent to the Old Country, would soon be spoken of as "only little Canadians". In England brown eggs are preferred to white ones, so if our surplus eggs are to go there, farmers will do well to keep those breeds which lay a good sized dark-colored egg.

CHEESE.

I have, myself, often heard American cheese spoken of in the Old Country as "only Yankee". And in those days Canadian cheese had to be

sold as American in order to sell it at all, its quality was so much lower than that made in the States; but now that order of things has been reversed. Owing to the push and enterprise of Canadian cheesemen, and the introduction of the co-operative system, Canadian cheese has so improved in quality, and also in uniformity, that although the production is continually increasing the demand also increases. Canada's cheesemakers have made a name for their product, and a good name is everything in the market; but remember a poor article never gets a good name.

WHEAT.

Manitoba has made a name for its wheat by producing the quality which the market demands. I overheard two farmers talking the other day, one was upholding White Fife, saying he could grow more of it per acre, do so more safely, and get as good a price for it as he could for the Red Fife. The other admitted what he said—said the White had paid him best; but, said he, "it won't make the flour that is wanted; they will take some of it, but if we grew a little too much of it, just you see where our market will go to."

At a meeting of the Brandon Farmers' Institute, Mr. Bedford, of the Experimental Farm, spoke very decidedly on the importance of keeping up our reputation for the quality of our wheat. If farmers would take pattern by the cheesemen, and go in for improving the quality of all they produce, they would soon find it to their advantage. This action should be united, the wheat-growers of Manitoba have already reaped reward in this respect, by unanimously growing a wheat of the best quality. It has its faults, but it has paid them to put up with these faults in order to have the best wheat for the market. It must be remembered that, as a rule, quality and quantity never go together, though there are exceptions, notably, butter, for almost invariably under the same circumstances, those who produce the best butter will make the greatest quantity of it. But looking at the main object in all branches of farming—the profits, quality will oftener pay profits and leave a balance than quantity; quantity may sometimes bring in the most money, but that is not necessarily the greatest profit.

SHEEP.

With regard to the best breed of sheep, I believe that it is unanimously agreed that Southdown mutton is of the highest quality, being ahead of any other breed in this respect. The wool, also, of this breed is of superior quality, and this is an instance of quality yielding less quantity, for they do not shear as heavy a fleece as the coarser woolled breeds; even among individual sheep of this breed, the finer the fleece the less there is of it. Another reason for their shearing less than other sheep is, that they are so compactly built that they require less covering per lb. live weight. At present there is such a small percentage of pure Southdown wool grown in Canada (I believe about one per cent.), that there is not sufficient to make a market for itself, and, in consequence, the price, though higher than for other medium or long wools, is not in proportion to its quality. There is money for the Canadian farmer in raising mutton, but there is also opposition in the business. Australia, New Zealand and South America can produce mutton more cheaply than Canada can; but if Canada produces a higher quality than any of

these countries, she need have no fear for her market. This can be done by sheep raisers making use of Southdown rams and grading up their flocks till they produce mutton equal to the thoroughbred. If farmers were unanimous in this matter, there is no reason why the consumers in England should not look forward to fine, fat Canadian wethers for Christmas, just in the same way as when I lived in the Old Country we used to look for what we called the American apples at that time of the year. This American apple was the Newtown Pippin, the perfection of quality among apples.

If a product is made of such a quality that the consumers get to look forward to its coming in season, there is very little danger of it not paying a good profit. To sum up, if we give quantity the first place, we will soon find we have no market for it; while if we make quality our greatest aim, we will in a short time have a market for any quantity of it.

Wheat Cultivation.

Advisable or otherwise, wheat is the subject of greatest importance to the mind of the Manitoba farmer at the present time, as may be seen from the subjects chosen for discussion at most of the Farmer's Institute meetings held this winter. At the inaugural meeting of the Brandon Institute it was decided to take up the question of "The kind of wheat to raise in Manitoba" at the next meeting. At the first meeting of the Bradwardine Institute the same question was accepted for discussion at the second meeting. At the organization meeting of the Birtle Institute a resolution was passed requesting the President, Mr. Cooke, to prepare a paper on "Marketing Wheat." In view of the insatiable longing for light on the wheat question, a consideration of the best methods of cultivation is not out of place at this time.

PREPARING THE SOIL

is a duty that will soon devolve upon the husbandman, and one that may be considered of greater importance this season than usual, in view of the very limited area that has been fall ploughed. There are two objects in cultivating the soil, viz., preparing it for the seed, and destroying the weeds. To accomplish the former, it must receive a certain amount of cultivation, not merely to render it friable so the seed may be covered, but to render soluble a portion of the latent or unavailable plant food in the soil. Too much working, as on a well-worked summer-fallow, prepares so much of this that the crop continues to grow too long before ripening, and in this country it is often caught with the frost. In our soils, most of which are not only rich in, but largely composed of, vegetable matter, this method of cultivation is, however, occasionally desirable, and the amount of plant food prepared by one season's summerfallowing will usually enable the farmer to grow two, or possibly three, fairly good crops in succession. In the intermediate years, it is not advisable to plough, equally as good or better results being obtained with much less labor by using a Clark's Cutaway or Drader's Spade Harrow. Where the land contains sufficient soluble or available plant food, this method of cultivation will produce equally as good crops, and, if the season is dry, much better than will be obtained by ploughing. It is not advisable to prepare a seed-bed much deeper than the seed is to be sown. If the seed is sown at the bottom of the seed-bed, the roots at once run down into the solid, moist soil, and will not be affected by drought, while if there is porous soil between the seed and the solid, moist earth below, the roots are to that extent dried out in time of drought, and more easily affected by drying winds. It will be wise to make good use of the disc and cutaway harrows this spring where the ground has produced but one crop since being summerfallowed or backset, and if oats are to be sown it will not be a serious mistake to use these implements instead of the plough in any case.

The Columbia Exhibition to be Held in 1893.

At the last meeting of the Agriculture and Arts Association, the following resolution was unanimously adopted:—

Whereas the International and Columbia Exhibition will be held in Chicago in the year 1893, and as the President of the United States will shortly issue a proclamation inviting foreign nations to furnish exhibits,

Be it therefore resolved: That the Council of the Agriculture and Arts Association, of the Province of Ontario, call the attention of the Provincial Government and Legislature to the necessity of measures being taken at once to secure the active co-operation of all classes of industries in making an exhibit worthy of the resources of this Province; and to express the willingness of this Board to aid in disseminating such information as would induce the stock raisers to exhibit their herds, so that an exhibit worthy of Ontario, which is the breeding ground for pure-bred stock for the American Continent, as well as to call forth such an exhibition of the produce of the dairy as will continue to place this great industry in the foremost place when brought into competition with the exhibits of other countries of the world. And would further suggest to the Government that they be authorized to arrange for the selection of the products of the forests, farms and mines in the same systematic manner as was done for the Centennial prior to the year 1876, that we may be able to convince the people of the European nations of our great resources, as well as of our rapid advancement in the direction of prosperity; that by so doing we may secure, as permanent residents, a large share of the desirable emigrants who are rapidly filling other portions of the Continent.

We call the attention of the Dominion Government, as well as the governments of the various provinces, to this well-considered motion. We hope that each of our provinces will make a most creditable display. A great opportunity will be here given to advertise our country in a most acceptable manner. Canadian live stock breeders must be up and doing, in order to sustain the proud position they now hold. Those breeders who look well ahead and retain and properly feed their best animals, will be victors at this great show.

Clydesdales.

Home owners of Clydesdale stallions have been enjoying a brisk demand for their horses for next season, and at the date of writing one of them, Mr. Peter Crawford, Eastfield House, Dumfries, has no fewer than a dozen highly bred stallions hired. Several of these are promising young horses, got by Prince Lawrence, and from their breeding and individual merits they are likely to be successful at the stud. Mr. Crawford's best horse, however, in the opinion of most of those who have visited his stud recently, is the four-year-old Eastfield Prince 6722, a son of Lord Erskine, and a fine prize mare in Bute, named Maggie Scott. This horse gained first prize at the H. & A. S., Melrose, in 1889, and with their usual energy the Rhins of Galloway Horse Breeding Society have secured him for the Stranraer district. Over thirty horses are now under hire, and there are not likely to be any further engagements until the Glasgow Stallion Show on 6th March. The sires represented by the horses engaged are the following: Eight are sons of Prince of Wales 673; six are sons of Darnley 222; four are sons of Prince Lawrence; three are sons of Macgregor 1487; three are sons of Top Gallant 1850; and two are sons of Lord Erskine 1744. Besides those classed under those heads, there is Lord Erskine himself, engaged for service of forty mares in Dumfries district at £10 each, with £5 additional for each mare proving in foal. Garnet Cross 1662, engaged for the third season in succession by the Strathord district of Perthshire; Mains of Keir 8834, which last year travelled in the Carse of Gowrie, and this year is under hire to the Strath-

bogie district of Aberdeenshire; Lothian King 6985, a richly-colored horse, owned by Mr. Andrew Montgomery, goes to the Lockerbie district of Dumfriesshire; Brooklyn, a Keir horse, goes for the second season to the Dunblane, Doune and Callander district of Perthshire; Bothalough, a very powerful, big stallion, from Mr. Riddell's stud, is under hire by the Earl of Lonsdale's Cumberland Tenantry, and far off Caithness has hired Mr. Alex. MacRobbie's Gildroy 2nd on very handsome terms.

Perhaps there never before were so many horses got by Princes of Wales 673 under hire as there will be during 1891, and there is room for one or more of them making themselves a name as breeding horses. So far, without any doubt, Darnley has been by far the most successful sire of breeding stallions we have had, and his mares as matrons simply can't be beaten. As many of the best of the Prince's sons are out of Darnley mares, something better than their previous record may be expected of them.

Several important sales will take place early in spring. It is contemplated to have a sale of a draft from their Keir stud, and lovers of well-bred, strong, well-colored mares should not miss the opportunity that will then be afforded them of purchasing such. The Duke of Portland's stud of mares will be sold at Kilmarnock about the same time. These include a number of the pick of Macgregor's daughters, perhaps the best mare ever got by Lord Erskine, and a lot of young stock got by Auld Reekie and other sires. The annual draft sale from the Londonderry stud will be held in April, and altogether, should Canadians visit us early, they are likely to find something to suit them at these sales.

A notable sale of Clydesdales took place in Cumberland this week, when Mr. John Thornton, the celebrated London auctioneer, dispersed the stud owned by Mr. Richard B. Brockbank, Crosby, who is relinquishing farming on account of failing strength and old age. No finer specimen of an Englishman ever took hold of Clydesdales than this long-standing friend of the Cruickshanks Brothers in Aberdeenshire, whose Shorthorn reputation is world-wide. Like them, Mr. Brockbank is a member of the Society of Friends, and combines sterling integrity with shrewd business capacity. I don't know how his Shorthorns sold, but his Clydesdales took the market well. Most of them were up in years, but the following figures will give some idea of the value of a Clydesdale mare in Cumberland: The grey mare Griselda 7008, seven years old, went to the Earl of Carlisle at £52 10s, her color lowering her value a good deal; Crosby Lass, a brown mare, foaled in 1886, and got by Macgregor, was knocked down to Mr. Thorn, Stonehaven, at £136 10s.; Maid of the Mist 2948, fourteen years old, sold for £42, to Sir Edward Loder, and Crosby Trim 5970, a brown-colored nine-year-old mare, winner of many prizes, but unfortunately somewhat uncertain as a breeder, drew £126, at which figure she became the property of Mr. Graham, of Edengrove, Penrith. The top price of the sale was made by the seven-year-old mare, Jewel of Parkhead 8136, the dam of the famous prize filly, Crosby Rose; Jewel's dam is an own sister to Crosby Trim, and her sire was the Keir-bred horse Challenger 1083. She became the property of Mr. Wm. Montgomery at £262 10s. Her full sister, Jess of Parkhead 8139, a six-year-old mare, drew £225 15s., at which figure

she became the property of the Earl of Carlisle. Mr. Graham, of Edengrove, gave £74 11s. for Crosby Jewel, the filly foal of 1890, out of Jewel of Parkhead; Crosby Lovely 8138, a six-year-old mare of the same tribe, made £73 10s., going to Mr. S. P. Foster, of Kilhow, at that figure, and her filly foal of 1890, named Crosby Queen, and got by Lothian King 6985, went at £44 2s. to the same gentleman. Mr. Wm. Montgomery gave £64 1s. for Crosby Pearl, the filly foal in 1890, by Macgregor, out of Crosby Trim. There was little or no demand for the few colts offered, and indeed none of them were such as to warrant any great enthusiasm.

The feature of the Crosby Clydesdales, and indeed of Cumberland Clydesdales generally, is their great weight and substance, and in no part of the British Isles are better big geldings for street traffic bred than in Cumberland. It is cheering to find young Earl of Carlisle taking on to the Clydesdale interest, and another young nobleman is following his example, viz., Sir Richard Graham Bart, the Laird of historic Netherby. Draught horse breeding may not furnish the excitements of the turf, but the results to tenant farmers are more tangible and certain, and it is pleasant to see young noblemen spending their wealth in promoting healthful industry.

An important section of the county of Cumberland is the property of the famed family of the Lowthers, whose leading member is the Earl of Lonsdale. The present bearer of the title is a noted traveller, and lately distinguished himself by an extended tour in the Arctic regions and Alaska. His tenantry have long been permitted to select a Clydesdale horse for service in their district, the landlord paying the premium, and this season they have hired Mr. David Riddell's strong, big stallion Bothalough 6529, got by Cairnbrogie Keir 1993, now one of Colonel Holloway's stud horses, out of a Macgregor mare. Altogether, as far as the trade in travelling stallions is concerned, the prospects at this time are as cheering as they have ever been. I have not been able to learn particulars of the terms on which horses generally so far have been hired, but I imagine if anything is changed, they will be a little easier than during recent years. The doubtful element in our outlook is the trade from Canada and the United States. There seems to be a fear that the McKinley act, during the time it remains in existence, may hamper the Canadian trade in work horses from the States, and, of course, if Canadian farmers find no ready and remunerative market for their work horses, we can hardly expect them to buy breeding stallions. However, matters in this direction may not be so bad as some fear, and possibly all our old friends will again visit us this year.

One gratifying result at least is the evident appreciation of farmers in the United States for Clydesdales. Colonel Holloway's recent sale with its average of nearly \$900 apiece for half a dozen yearling colts, and remunerative prices all round, should put heartening into all breeders and owners of our unrivalled Clydesdales; and the plight in which the Association of American Percheron horse owners finds itself does not indicate unexampled prosperity in that branch of stock enterprise. We may rest assured that if the Clydesdale Horse Society of Great Britain and Ireland, and either the Canadian or American Clydesdale Association were unable to meet their ordinary running expenses from revenue there would be rejoicing in the tabernacles of the Percheron men. We will not try to rejoice at the misfortunes of others, but rather express the hope that the Percheron Society may soon see prosperity, and the supporters of the French horses, recalling their jubilation in the years 1881 and upwards, reflect on the ancient utterance that "pride cometh before destruction, and a haughty spirit before a fall."

SCOTLAND YET.

Clydesdales at Yelverton.

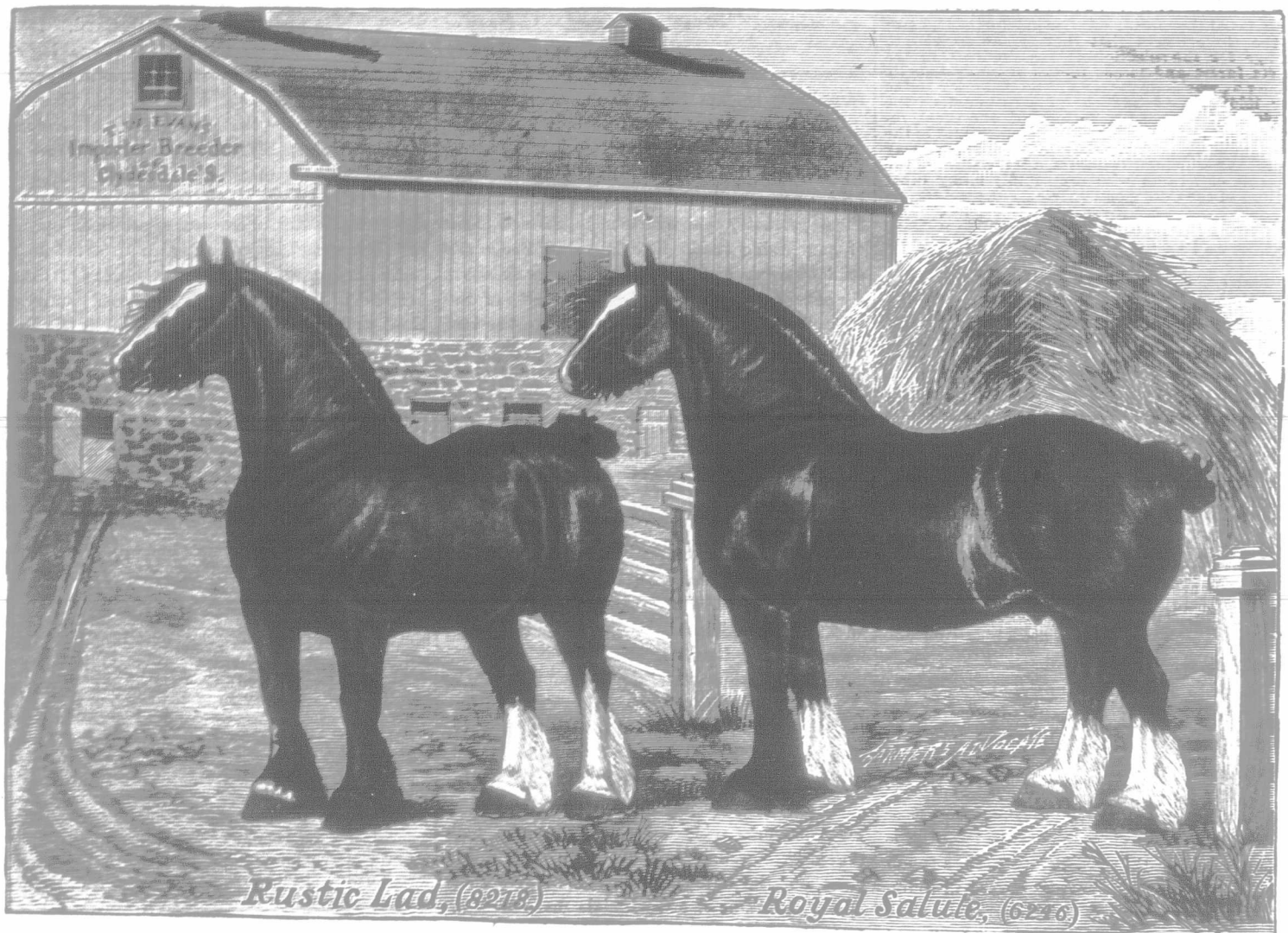
Mr. T. W. Evans, of Yelverton, who lives in the heart of a particularly productive county, six miles north of Pontipool, on the C. P. R., which station is some fifty miles east of Toronto, has made himself known to the public for several years by bringing out a few show-yard stallions and fillies, a number of which have been again successful after arriving on Canadian soil. He has always aimed to bring a few of undoubted good breeding, combined with individual quality, that at once makes quick sales a foregone conclusion, and he thus far has been enabled to sell all out before returning for a fresh lot. This season seven were brought over, including five stallions and two fillies, all of which are of the

gives an idea of the value at which his services were held at home, and how reluctantly he was parted with. Rustic Lad is a two-year-old colt, with feet and legs of the proper material and right conformation. This colt was third at Bishopston and Dalbeattie in strong classes before coming over, and second in a good class at the late Industrial Exhibition, Toronto; he was sired by the Darnley horse Knight of Lothian, lately purchased by the Messrs. Montgomery to assist his half brother, Macgregor, in their stud.

Earl of Casselis is a three-year-old bay, by the Lanark premium horse Harold. This colt has feet and legs of good wearing form, and he has good all-round qualities; is nicely turned above, of blocky type, and moves well.

Cairnbrogie Clydesdales.

With the memory of achievements in the show ring of representatives from this stud during the past year, both in Canada and the United States, the visitor at Graham Bros.' stables is full of expectation to see what the last comers across from the land of cakes and Clydesdales may be. The knowledge that sales with this firm have come thick and fast brings to mind the assortments of past seasons when such old time winners as Macqueen, Macarthur, Macbean, MacClaskie, Macneilage, of the clan Macgregor, were sweepstakes winners, and the thought recurs whether the present selection contains a candidate capable of adding to the honors already won by the previous champions from this stud. It was, therefore, with a ming-



TWO CLYDESDALE STALLIONS, THE PROPERTY OF T. W. EVANS, OF YELVERTON, ONT.

most popular lines of breeding. The two shown in the illustration are Royal Salute and Rustic Lad. The place of honor in this stud justly belongs to the five year old horse Royal Salute, by the greatest of all sires, Darnley, first dam being a celebrated prize winning mare by the famous Lord Lyon, thus combining in Royal Salute two sorts that have generally walked together in harmony for both successful breeding and showing. Royal Salute himself has been quite a prize winner in Scotland, and this, with his good quality and smooth finish altogether, makes him a most desirable acquisition to head a stud of pure-bred Clydesdale mares, or to improve those that are being crossed up. The fact that he was the premium horse for the Glasgow district, a few miles from Glasgow, where he received £100 premium and a service fee of 25s.

Island King is a large brown colt, by the Topgallant horse Cumbrae. He has abundance of clean, hard bone, showy head and neck, and bids fair for more than ordinary outcome.

A very neat yearling is the Macgregor colt Glenlee Chief, and alongside of his Royal breeding he has an individuality that will make him a most desirable horse for breeding to a good class of mares. The yearling filly Elsie Ward won third prize at Kelmalcolm a few days before being exported. She is by the capital breeding horse Prince Gallant. The filly Daisy that won second in 1889 at Toronto, has grown into a useful mare, and is now in foal to Just the Thing, with Mr. Evans sold to Mr. Wilson, of Janet, Ont., after being quite a successful show horse at Toronto. Taken as a whole, the horses of this stud have particularly good action, are well made, and have the good all-round qualities that breeders of this sort are seeking after.

ling of pleasure and curiosity we were led to the stables to view the arrivals. The weather being cold and the ground too slippery for out-door inspection, the horses were shown us on the show floor of their commodious new horse barn. Like most stockmen, we fully expected that we should not see those in the highest form first, and the two-year-old, Crosby Chief, one of the late arrivals, was the first shown. He is a dark bay, nicely marked with the orthodox white, with deep rib, strong back, good flat bone, strong wide joints, and legs well placed under him, and moves as if he had the full use of them. Although this colt had not yet recovered from the effects of his trip across, there was the undeniable stamp of plenty of size and beauty of form.

Very much the same description will suffice for Crosby Gallant, the same age, next led out, he

having the same required size and draught quality.

Arbitrator, second at the late Toronto Spring Show, as a yearling, is a two-year-old of great beauty, and is much the same type as Macbean that won sweepstakes in 1889 at the show above mentioned. He has a trifle heavier bones, and is probably a size larger, but otherwise is built after the same attractive form.

Cecil's Heir is another of those colts that are full of individual quality. He is a colt of much substance and particularly good at the ground, and displays the same magnificent action as his sire, Marquis of Salisbury, who has been successfully shown both in Scotland and Canada.

Fashion A., also two years old, by the Darnley horse, Laird Darnley, who is own brother to the

latter beating the renowned Flashwood as a yearling, and also most highly valued in the breeding ranks as a sire. With these high connections, Energy should have a grand future before him.

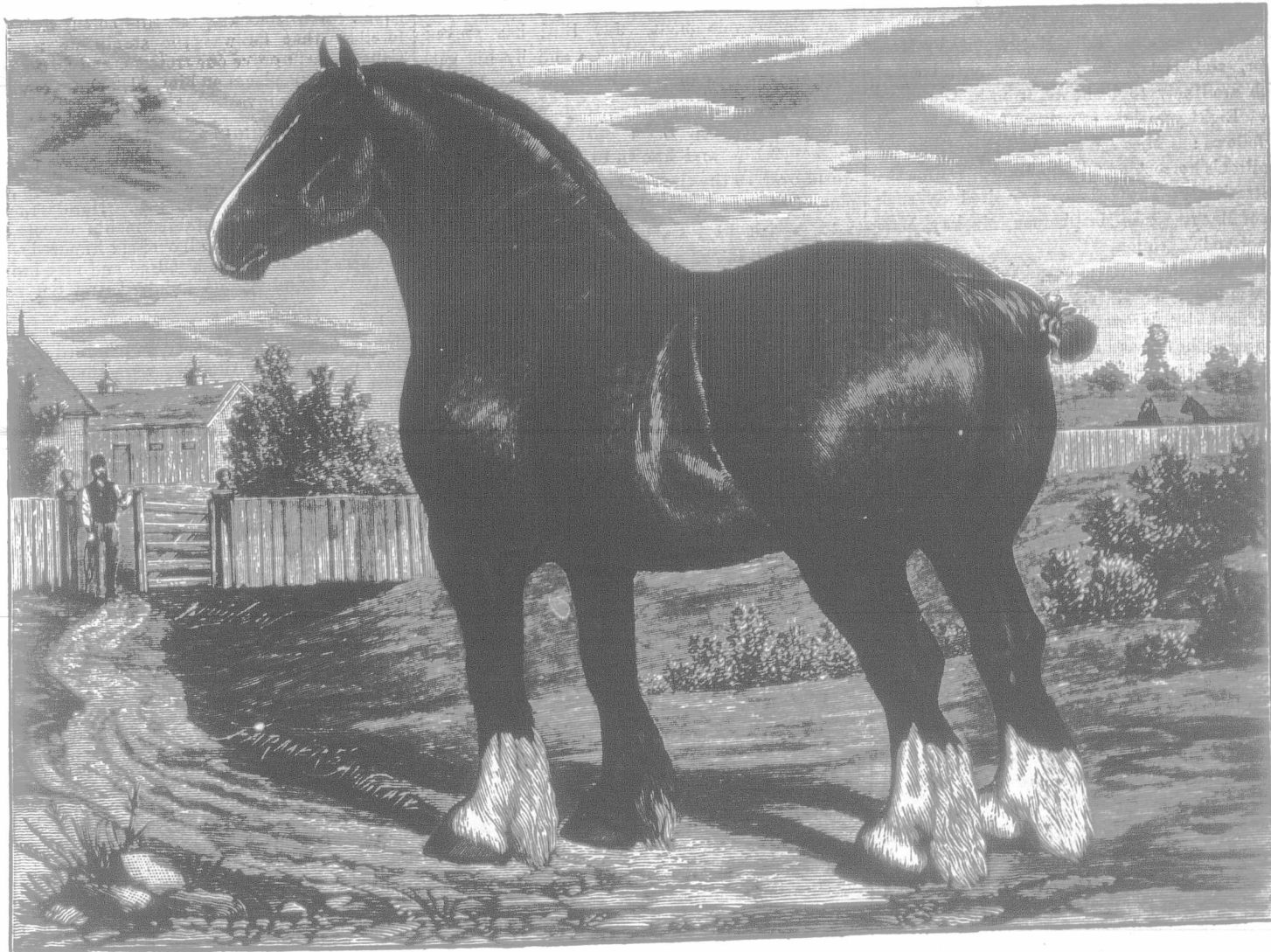
Among the splendid array of horses rising four is Lord Harcourt, who was a winner before leaving Scotland. This is a particularly flashy horse in appearance, backed with the best possible feet and legs. He is beautifully turned above, his beautiful color, handsome and spirited action altogether making him a most taking horse.

Othello, another of this age, is wonderfully deep-ribbed and grandly colored. He has capital underpinning, together with the best of Clydesdale action.

Dunglass is a beautiful whole colored seal

of thickness, but this colt in this particular outstrips them all. He is indeed a wonderful colt, and those that wish for the width, thickness, and middle of a Shire, with the wearing feet, flinty bone, silky feather, combined with Clydesdale quality, all in one horse, had better look this way first, and they will hardly go further; and in the show ring he will be found a very strong competitor indeed.

Craigisla, a four-year-old horse, sired by the Prince of Wales horse Prince George, his dam being a celebrated prize-winning mare, owned by that popular breeder Mr. Lawrence Drew, and afterwards a great prize-winner at English shows, and was for several years in the stud of Lord Middleton, who bred Craigisla, which is a horse



MACKECHNIE, THE PROPERTY OF GRAHAM BROS., CLAREMONT, ONT.

premium stallion Master of Blantyre, and the celebrated prize-winning mare Louisa. Fashion A. is a smooth built colt of the best possible breeding, and has both size and finish to recommend him, and almost Hackney action at hock and knee.

Last, but not least by any means among the two-year-olds, comes Energy, another to the credit of the wonderful sire Macgregor. This is a particularly hard horse to do justice to in a description, being of that magnificent type that requires comparison to bring out his grand individuality. He has the size of a three-year-old, has the quality and handsome formation of the most refined type of Clydesdales. We think he is to-day the best two-year-old Clydesdale stallion on the continent, and being own brother to the prize horses MacCallum and MacPherson,

that should be a most desirable acquisition to head a stud, as his breeding runs with exceptionally good prize-winning and popular strains, and quite the correct cross for Darnley and Macgregor mares.

International, by that popular horse Flashwood, who is own brother to Macgregor. Without doubt Flashwood is individually one of the best horses in Scotland, and has beaten some of the most famous show horses during the past two seasons. International will yet be a credit to his worthy sire, although not yet over the effects of his trip out. His beauty of form, beautifully placed pasterns, grand feet, flat bone, wide clean joints, roundness of form, toppy finish, will make him a strong favorite in any show ring he may enter.

The above illustration of MacKechnie, another son of Macgregor, a sort that can all boast

that should be a most desirable acquisition to head a stud, as his breeding runs with exceptionally good prize-winning and popular strains, and quite the correct cross for Darnley and Macgregor mares.

Royal Lawrence is a five-year-old, son of Prince of Wales horse St. Lawrence, and has proved very satisfactory to his owners on the route for several seasons. He is a very toppy, showy horse, with admirable feet and pasterns and capital quality in bone, and moves beautifully.

The yearling colt Stand Clear, by the Darnley horse Landmark, is a colt of superior breeding, and of smooth, blocky build. His blood lines are full of the names of the famous winners of both continents.

Tinto, also a yearling, is a colt of royal breeding, sired by Craigisla, as mentioned above, dam

by the famous breeding and show horse Lochfergus Champion.

Last of the stallions comes Macneilage; his massive form has often been described, and yet not enough said in his favor. We don't like to particularize. First at Toronto Spring Stallion show in 1890; first and sweepstakes at Toronto Industrial Exhibition; first and sweepstakes at Whitby Show; first and sweepstakes at Markham Show, and at New York National Horse Show he won first in his class, also the champion cup given for the best draught horse any age or breed. He is in quite as good form as we have ever yet seen him, and, better than all, his produce are coming to the front as winners.

The last importation of stallions was supplemented by a beautiful selection of fillies, for which we have not space to particularize. They are full of the Clydesdale character that breeders of this British sort are looking for, and consist of the two-year-olds Effie Macgregor, by Macgregor, and Daisy, by Belted Knight, both of which are likely to be heard from in the show ring. Eight yearlings of capital form, and bred as follows: Miss Weir, by the Duke of Hamilton's horse Almondale; Maid of Dalbeatie, by Strathdee. The balance are sired by such sons of Macgregor as Macpherson, Mackay, Macdermot and Marmion.

Among those sold are a grand lot gone to form a new stud for Mr. Robert Davis, of Toronto, a gentleman, by the way, who has draught horse breeding at heart, and who full well knows what is required in this line, his business being immediately connected with employing heavy teams for city work. Those purchased by him were the three-year-old stallion Gilroy, a son of that capital breeding horse Master of Blantyre, by Darnley.

The mares include the Darnley mare Bessie Bell, sweepstakes at Toronto Industrial, and the following mares and fillies that won in their respective classes at the same show: The three-year-old mare Lady Dunmore; two-year-olds, Barr Bell and Edith; yearlings, Lady Muir and Sweetheart. In addition to these, Mr. Davis purchased the two four-year-old mares Nelly and Sally and the yearling Sally, and the five-year-old mare Harriet that won in the team.

Second Choice, by Chastler, won first place in the two-year-old stallion class at Toronto and Chicago, was half brother to First Choice used in the Queen's stud. He and Lady Muir, the first prize yearling filly at Toronto, were sold to Mr. B. P. Clarke, St. Cloud, Minn. The Old Times horse St. Leger was sold to Mr. Steele, Richmond. The above were all included in the first of the three importations made during the season.

Although Messrs. Graham Bros. have been many years before the public as importers of the very best types of Clydesdales, it is only of late years they have paid attention to that English light harness horse, the Hackney. They fully realize the growing popularity of this sort, and have brought over several good ones of this class of late, and the last importation is Sea Gull 2261, by Donegault 174, he by the prize-winning Denmark 177. Sea Gull is three years old, a dark chestnut of true Hackney type. He has grand feet, neatly turned ankles, capital bone, breedy head and neck, capital back, and has true Hackney action.

Taken as a whole, the present stud displays much care in selection. They are large in size, and exceptionally well colored, there being a number of the most beautiful browns and bays. A glance at Graham Bros.' catalog will show their breeding is in the most fashionable lines.

"Down in Ole Kentucky."

THE HOME OF GEO. WILKES.

A few miles out of Lexington, on the Frankfort Pike, is situated Ash Grove Farm, the property of Mr. Geo. Wilkes Simmons, and known all over America as the home of the Wilkes family of trotters. As it was very late, and a nasty stormy evening when we reached Ash Grove, we were unable to see the brood mares, but through the kindness of Mr. Procter, Mr. Simmon's trainer, we were shown what is probably the greatest collection of Wilkes stallions on earth, comprising no less than six sons and one grandson of the famous Geo. Wilkes. The first horse shown us was Jay Bird, record as a three-year old 2.38½, sire of the great three-year-old stallion Allerton 2.18½, a red roan, standing full sixteen hands, and showing wonderful muscular development. Jay Bird has proved both by his own performances and by his get, that he is worthy of a place among Geo. Wilkes best sons. Next, after Jay Bird, we were introduced to William L, a full brother to Guy Wilkes 2.15½, and known to horsemen all the world over as the sire of the King of three-year-olds, the phenomenal Axtell, with a record of 2.12, a rich bay, standing 15.3. William L, though not showing as much substance as Jay Bird, still exhibits in a marked degree the heavily muscled forearm and powerful stifles that seem inherent to the Wilkes family. The most objectionable feature we could find in this justly famous sire was his hind legs, which are decidedly crooked; but as Mr. Procter informs us that Axtell's hind legs are exactly similar in shape, and as William L has sired four other three-year-olds in the 20 list, we are led to believe that a bent, or sickled hock is not as objectionable in a trotter as it is in other types of light horses. In a box adjoining William L, we found Young Jim, another son of Geo. Wilkes, and himself the sire of three in the 20 list and fourteen in the 30. This was our idea of a trotter; standing 15.3, and weighing 1,200 pounds, Young Jim has size and substance enough to satisfy the most critical observer, while with it he combines an amount of quality and finish that we hardly expected in a horse of his weight. From his clean cut head and neck to his long, smooth level quarters and sinewy legs, he has the word breeding stamped all over him, while his deep chest and well sprung ribs show a grand constitution, and from what we saw of his get he seems to stamp his own good qualities on his colts. Among the other stallions were two sons of Geo. Wilkes, Betterton and Prince Charlie. The first, a full brother to Lumps 2.21, is a very powerful but rather coarse horse, and in our opinion very much lacking in his hind pasterns; the latter is a very smooth, nicely finished fellow, standing about 15.3, and very rangy, with a beautiful head and neck. Although not trained for a record he has shown a mile in 2.22. The other stallion shown us was Eagle Bird by Jay Bird, and like his sire a roan. This horse is an inbred Wilkes, being by a son and out of a daughter of Geo. Wilkes. Standing 15.1, he is a big little horse, low set and thick, with a wonderful lot of substance; as a two-year-old he made a record of 2.30½, and as a four-year-old one of 2.21.

Among the youngsters, a little latter on, we saw a full brother to Eagle Bird, a three-year-old. This colt, a brown, is of an entirely

different stamp, being a big, rangy fellow, but like his brother he is a natural trotter, and considered one of the most promising colts on the farm. Among the yearlings was a roan filly by Eagle Bird, and out of Mother Lump, dam of Lumps 2.21. This is a very well put together filly, with any amount of size and substance. Another very strong boned yearling was a black filly by Betterton, out of a half-sister to Eagle Bird, by Waverland Chief, a smooth youngster, with nice lengthy quarters, and an uncommonly good set of legs; but the pick of the basket, to our mind, was a bay colt by Young James, out of Madam Adams by American Clay. As we said before, Young Jim is by Geo. Wilkes, and as Madam Adams is the dam of Clay Wilkes, who sold for \$15,000, this youngster is royally bred, and to say that he does credit to his breeding is simply justice, for a better pattern to our mind it would be hard to find; a rich bay without any white but a small star. He promises to make a 16 hands horse, while for bone and substance, combined with quality, we have never seen his equal. While looking at this colt it struck us forcibly that he was the stamp we need in Canada, to improve our trotters, and at the price Mr. Simmons places on him, \$1,250, he would be a good paying investment.

HIGHLAND FARM.

On the Frankfort Pike, a little nearer Lexington than Ash Grove, is Highland Farm, the property of Mr. W. C. France. Here we found one of the largest establishments devoted to trotters in America, in all over six hundred acres, stocked with some two hundred and fifty head of trotters, including one hundred and ten brood mares.

In our visit to Highland Farm we were again unfortunate in the weather, as it rained a steady downpour all the time we were there, and we were consequently unable to see much besides the stallions; these, however, were well worth a long journey, for here we saw the famous Red Wilkes, sire of no less than thirty-two performers in the 2.30 class. For this horse the owners claim that he is the greatest producer of all the sons of Geo. Wilkes, and when we point out that the thirty-two performers referred to are out of thirty different mares, by twenty-eight different horses, it goes a long way to prove the truth of their claim. On looking at Red Wilkes the first thing that strikes one is his extraordinary substance; standing 16 hands, he weighs 1,280 pounds, and to say that he is muscled like a draught horse is no exaggeration; his stifles are simply tremendous and are let right down into a pair of wonderfully deep, wide hocks, while his short back, powerful loins and close coupling, show him to be a horse of immense strength.

In a box adjoining Red Wilkes we found his half-brother Sentinel Wilkes, by Geo. Wilkes, dam by Sentinel 2.29½. This is a very handsome horse, a solid bay with black points; he is hardly as tall as Red Wilkes, and not nearly so heavy, but in some respects he is his superior; he is far breeder looking and has a much nicer head, while again his pasterns are far better, being long and springy, while Red Wilkes' are inclined to be short and stilted. A young horse yet, he may prove himself a sire of trotters. One of his get, Col. Strader, having made a two-year-old record of 2.32½ and sold for \$6,000.

Here also we saw Allendorf, a son of Onward, Col. Pepper's famous stock horse, and out of Alma Mater by Mambrino Patchen, 3rd dam a thoroughbred mare. This horse, unfortunately, was suffering from a puncture in one of his feet, but in the hurried glance we took at him we could see that he is a horse of great finish, his clean, breedy head, and flat joints showing clearly his thoroughbred blood.

Last of all came Pilot Mambrino, a son of Mambrino Patchen, and out of Santa Maria by Pilot Jr. This horse is now nineteen years old, yet a four-year-old might be proud of his legs, and, indeed, take him all over he is a wonderfully fresh looking horse for his age, standing only 15 hands 1 inch. He is uncommonly well put up, and his expressive countenance and well-shaped head show him to be a horse of unusual intelligence.

BLUE BLOOD.

Meetings of Live Stock Associations

DOMINION SHEEP BREEDERS' MEETING.

The Dominion Sheep Breeders' Association held their third annual meeting in Shaftesbury Hall, Toronto, Ont., on February 6th. A very large number of breeders attended; nearly every section of the Province of Ontario was represented. The subject of establishing Canadian records for the various breeds was fully discussed. From correspondence received by the Secretary, it was quite evident that the majority of those interested were in favor of home records. The following resolutions were unanimously adopted:—

Moved by R. Marsh, seconded by A. Telfer, and resolved—

1. That whereas the fees now charged by the American Southdown Association for recording sheep, viz., one dollar on all sheep or lambs and five dollars for imported animals, are excessive,

2. That the \$5 fee on imported animals is simply so much of a tax on the importer, and tends to discourage the improvement and dissemination of Southdown sheep in America.

3. That we are of the opinion that a large majority of importers and breeders of this class of sheep in the United States, as well as in Canada, are opposed to this high tax or tariff.

4. That the fee for recording imported sheep should not exceed \$1, and for American bred, when sire and dam are recorded, if done within the year in which they are yearned, should not exceed 50c.

5. For the reasons above cited it is deemed advisable and expedient to appoint the following named breeders as a committee, viz.: Messrs. John Jackson, T. C. Douglas, Robert Shaw, John Geary, Graham and Walker, with a view of establishing records in Canada, to obtain all necessary information as to cost, fees, rules and regulations, and the best method of conducting a flock-book to supply the want that is now felt; to take such further steps as to them may seem necessary and expedient, and report their deliberations as soon as convenient to the breeders of this class of sheep, at some suitable time and place, for the purpose of giving the matter further consideration.

Mr. Alfred Brown, of Bethel, seconded by Mr. F. W. Hodson, moved—

That the Dorset sheep record now in operation by the Agriculture and Arts Association, established by the request of a meeting of the Dorset-Horned Sheep Breeders in affiliation with this Association, be sanctioned by this Association, and that any other sheep record started by the request of the breeders of any class of sheep called together by the members on this Board for said breed be endorsed by this Association. The motion was carried.

REPORT OF COMMITTEE.

The Committee on the classification of sheep at shows reported as follows:—

Your Committee, appointed to take into consideration and report on a classification for sheep to be recommended to the leading fair associations, having carefully considered the matter, beg leave to report the following classification:

- Sec. 1—Ram, two shears or over.
Sec. 2—Ram, shearing.
Sec. 3—Ram, lamb.
Sec. 4—Two ewes, two shears or over.
Sec. 5—Two shearing ewes.
Sec. 6—Two ewe lambs.
Sec. 7—Best ram, any age.
Sec. 8—Best ewe, any age.
Sec. 9—Pen of one ram, two aged ewes, two shearing ewes and two ewe lambs.
Sec. 10—Pen of one ram and five of his get, the get to be under two years old and bred by exhibitor.
Sec. 11—Pen of three shearing ewes, bred by exhibitor.
Sec. 12—Pen of three ewe lambs, bred by exhibitor.
Sec. 13—Pen of three ram lambs, bred by exhibitor.

We would also recommend that beyond three money prizes, where the exhibit is deemed worthy, there be a reserve number and highly commended card of honor given, except in sections seven and eight (the sweepstakes for ram and ewe), where a medal would be sufficient. And, as there are records now established for all the leading breeds of sheep, we would further recommend that all sheep to be eligible to compete in the pure-bred classes must be eligible, and should be recorded.

And, while we feel assured that the adoption of the above classification would add very materially to the interest of the sheep department, it would only be in keeping with the classification already adopted for horses and cattle by the Toronto Industrial Association.

All of which is respectfully submitted.

The President pointed out that Mr. Henry Wade, Secretary of the Agriculture and Arts Association, was the proper person to conduct Canadian records, which was agreed to by the Association.

Valuable papers were then read by Messrs. Henry Wade, J. C. Snell, R. Marsh, Robt. Miller, James Tolton and others, after which the officers were elected for the ensuing year: President, R. Miller, Brougham; Vice-President, James Russell, Richmond Hill; Secretary, F. W. Hodson, London; Treasurer, F. R. Shore, White Oak. Vice-Presidents for the provinces: Nova Scotia, A. C. Bell; Prince Edward Island, Benjamin Wright; Manitoba and the Western Territories, John P. Hutchinson; British Columbia, Mr. Kirkland; Quebec, E. Casgrain. Directors: Shropshires, W. H. Beattie; Southdowns, John Jackson; Leicesters, John Kelly; Cotswolds, J. C. Snell; Merinos, Wm. Smith; Lincolns, John Geary; Horned Dorsets; John Tazewell; Oxford-Downs, James Tolton. Delegates to the various fair boards: Toronto Industrial, J. C. Snell and James Russell, Richmond Hill; Kingston, C. W. Neville, New Hamburg; London, John Geary and W. H. Beattie; Central Farmers' Institute, Wm. Rolph, Markham.

Mr. James Russell was elected to represent Canadian Cotswold breeders on the Board of the American Cotswold Record Association.

The Treasurer's Report showed that the expenses of the Association had been very light during the past year. The receipts were \$303.00 the expenses \$49.70, leaving a balance of \$253.30 in the hands of the Treasurer on the 31st of December, 1890. The following gentlemen were nominated as expert judges:—

Cotswold—John Thompson, Uxbridge; J. C. Snell, Edmonton; Joseph Ward, Marsh Hill; Wm. Thompson, Uxbridge; Joseph Bell, Uxbridge; Thos. Colley, Castlederg; Mr. Laidlaw, Wilton Grove; Heber Rawlings, Forest; Thos. Waters, Rockwood.

Merino—Louis Iapier, Paris; George Weeks, Glanworth; C. Buchanan, Branchton; Wm. Farr, Aylmer; Rock Bailey, Union, Ont.

Leicester and Lincoln—Geo. Weeks, Glanworth; Bilton Snarry, Down Mills; G. S. Cresswell, Edmonton; W. Cowan, Galt; Mr. Allan, Bowmanville; John Miller, Brougham; Wm. McKay, Elm Bank; Jos. Pearson, Whitby; Jos. Snell, Edmonton; J. C. Snell, Edmonton; W. E. Swain, Valentinia; Robt. Miller, Brougham; Andrew Telfer, Paris; John Mason, Princeton.

Oxford-Down—Henry Arkell, Teeswater; F. Shore, London; J. Russell, Richmond Hill; Mr. Story, Farm Manager of the Agricultural College, Guelph; Wm. Dickson, Mildmay; James Tolton, Walkerton; Peter Arkell, Teeswater; Joseph Harcourt, St. Annes.

Shropshire—F. R. Shore, London; T. M. Whiteside, Ellesmere; D. G. Hamner; W. H. Beattie; J. Campbell, Jr.; W. S. Hawkshaw; John Conworth; Alfred Brown, Bethel; W. D. Reesor; R. Miller.

Southdown—John Davidson, Monroe, Mich; Simon Lemon, Kettleby; E. G. Cresswell, Edmontonville; T. C. Douglas, Galt; A. R. Kidd, Warsaw; Thos. Wilkinson, Hamilton; Wm. Martin, Blinbrook; James Anderson, Guelph; James Smith, Mount Vernon.

AYRSHIRE BREEDERS' MEETING.

The annual meeting of the Ayrshire Breeders' Association was held at the Albion Hotel, Toronto, on February 5th, 1891. After the reading and adopting of the minutes of the last meeting, the Secretary, Mr. Henry Wade, presented the annual report, which read as follows:—

The Executive Committee beg to submit for your consideration the fourth annual report of this Association for the year ending December 31st, 1890. In the first place we have added eight new members to our Association, and now have a total membership roll of forty-eight.

REGISTRATIONS.

We have now on record and in readiness for the printer for the first volume of the new series,

Table with 3 columns: Item, CLASS I., Total.
911 Bulls, 1695 Cows, 2605
APPENDIX.
210 Bulls, 355 Cows, 565
1121, 2050, 3171

showing a total registration of 451 during last year; these have not been all new records, as the parents of several have been brought in from the old book in order to record their progeny.

We are pleased to say that a commencement has been made in the printing of the first volume of the new series. It will soon be completed, and a volume will then be sent to each member of this Association.

The Secretary-Treasurer's books have been audited. On the first of January there was \$106.50 to the credit of the Association; by the adding of eight new members it has been increased to \$130.50. A call will be made on this amount to pay for the first volumes that are given to the members.

Ayrshire cattle were well brought out at the shows last year, and in quality and numbers exceeded the shows of the year before. A few more were imported from Scotland to the neighborhood of Montreal. They still come to the front as dairy cattle, and during the last season several new herds have been established. Upon the whole the prospects ahead for Ayrshire breeders are pleasing.

The officers elected were: President, Jos. Yuill, Carleton Place; Vice-President, Thos. Guy, Oshawa; Vice-Presidents for distant provinces: Manitoba and the N. W. T., Geo. Steele, Glenboro; Prince Edward Island, C. C. Gardiner, Charlottetown; New Brunswick, C. C. Fairweather; Nova Scotia, Col. Blair, Nappan. Directors, D. Nicol, Cataragui; J. McCormick, Rockton; John Douglas, Warnworth; M. Ballantyne, St. Marys; Wm. Smith, Fairfield Plains; Walter Nichol, Plattsville; A. M. Smith, Simcoe. Auditors, H. Coldwell, Orchardville, Wm. Clark, Laural. Directors to the Industrial Exhibition, T. Guy and J. McCormick; to Ottawa Exhibition, Jas. Yuill and W. C. Edwards; to Farmers' Institute, Jas. Yuill; to Kingston Fair, D. Nicol and Ed. Serson, Kingston.

In connection with the election of officers, the Secretary was requested to correspond with Mr. W. C. Edwards, M. P., North Nation Mills, with a view of securing that gentleman as Vice-President of the Association for the Province of Quebec.

Mr. McCormick suggested that the same list of judges be appointed as last year. It was suggested to strike off the name of Ed. Serson, and add to the list the names of Wm. Crawford, Brown's Corner, and Robt. M. Carrons, Washington, Pa.

Mr. Guy brought forward a discussion in regard to the one or three judge question.

Mr. Shore brought forward a discussion in connection with the necessity of having a delegate appointed from each of the different breeders' associations to formulate a scheme whereby the selection of judges at fairs can be made more satisfactory.

The President suggested the advisability of appointing a delegate to meet with the Board at London, and request them to have a man capable of judging Ayrshire cattle.

Mr. Hodson said Prof. Robertson will meet you on March 12, in order to explain the milk test and talk over other important matters with you.

On motion of Mr. McCormick, seconded by Mr. Smith, Messrs. A. Kains, Byron; Ballantyne, St. Marys, were appointed delegates to the Western Fair Association on behalf of the Ayrshire Association.

Messrs. Guy and McCormick were also appointed a committee to meet Prof. Robertson.

Mr. Guy moved the following resolution:

"That this Association has heard with profound regret of the unexpected and sudden death of the late William Weld, of the FARMER'S ADVOCATE, and that they regarded him as a true and faithful friend of the farmers' best interests, and believe his loss will be very much felt throughout the length and breadth of this Dominion; and the sympathy and condolence of this Association is hereby tendered to the friends and relatives of the deceased gentleman, and that a copy of this resolution be forwarded to the widow of the late Mr. Weld."

Mr. McCormick seconded the resolution, which was carried.

The meeting then adjourned.

CLYDESDALE BREEDERS' MEETING.

The annual meeting of the Clydesdale Horse Association of Canada was held at the Albion Hotel, Toronto, on Feb. 4th, 1891. Mr. William Smith, M. P., Columbus, Ont., the President, occupied the chair.

After the President's address and the reading of the minutes of the previous meeting, the Secretary, Mr. Henry Wade, read his annual report which contained the following information:—The registration of Clydesdales exceeds in number those of the previous season by about fifty. During the year thirty-one stallions and thirty-two mares have been exported to the United States, and twenty-eight animals to Manitoba and Western Territories of Canada, besides those whose transfers have not been recorded. The membership fees paid during the year exceeded the previous year by \$102. While in Scotland and England last summer Mr. Wade said he was amazed at the prices asked for colts and fillies, and wondered how our people could pay such prices and make the business pay. Many Canadian farmers have an idea that such horses can be purchased in the Old Country for very little, but they have only to cross the ocean to be cured of this fallacy. Speaking of the Spring Stallion Show for 1890, Mr. Wade said it was a grand success. It increases in interest every year. This year we have amalgamated with the Agriculture and Arts Association to hold a two days' exhibition, they giving prizes to all regular breeds of stallions, and the Prince of Wales' prize to the Clydesdales, besides supplementing our list by a handsome donation, paying all outside expenses and allowing us to recommend the judges. This promises to be the best stallion show ever held in Toronto. It will take place on the 11th and 12th of March next at the Drill Shed there. The Clydesdale feature, as a matter of course, will be the great attraction. Our certifi-

cates are accepted at the custom house on the other side of the line without any delay to shippers, provided an affidavit from the breeder of the horse stating that it is the animal sold by him to the exporter, and one by the purchaser to the effect that he has bought it and is going to use it for breeding purposes, is produced. I would also advise the directors to direct that no more certificates from our office record be issued, to prevent their use to represent that the animals are recorded in the Clydesdale Book.

The audited financial report showed a balance of \$91.83 on hand. Since this statement this balance has been increased by \$219.

The election of officers was then proceeded with and resulted as follows:—

President, Wm. Smith, M. P., Columbus, Ont; Vice-Presidents, for Ontario, Geo. Moore, Waterloo; Quebec, Robert Hess, Howick; Nova Scotia, James McKay, Stellarton; New Brunswick, Hon. David Macdonald, St. John; Prince Edward Island, Hon. James Cowe, Murray Harbour; Manitoba, James E. Smith, Brandon. Directors, R. Beth, Bowmanville; John Bell, L'Amoroux; E. J. Charlton, Duncrief; Robert Miller, Brougham; Douglas Sorby, Guelph; Robert Graham, Claremont; John Duff, Rockwood. Auditors, Frank Shore, London; J. Y. Ormsby, Springfield-on-the-Credit. Delegates to the Toronto Industrial Fair, the President and Secretary. Delegate to Farmers' Central Institute, D. McCrae, Guelph.

First Prize Essay.

IS IT ADVANTAGEOUS TO BREED FARM MARES TO DROP THEIR FOALS IN THE LATE FALL OR EARLY WINTER, TO SECURE BEST RESULTS IN WORK AND FOALS DURING THE WINTER?

BY R. S. M'BETH, OAK LAKE, MAN.

This is a question that is being agitated a good deal in some quarters, but noticeably among men who have scarcely tried it, and others who do not raise horses at all, and are advancing theory only.

Occasionally a man may be found who has a good fall or winter colt, but we hear very little about the number of failures; for the simple reason that men are far more willing to tell of their successes than of their failures, and those who have tried raising winter colts have soon given it up and gone back to the old and well-tried way of having them come in the spring, and said very little about their failures unless closely questioned on the subject.

I have been looking through a few volumes of one of the Canadian Stud Books, and find that nearly all the horses registered in them have been foaled in April, May, June and July, with the greater proportion of them in the three latter months, this being silent testimony of the success of breeders in the past. And the farmers of Manitoba, and the west and east too, I might say, will do well to profit by the experience of others; and if they wish to raise colts, to have them come in the surest season. The spring is the natural time for horses to breed, and among Indian ponies, where the stallions have free access to the mares at all times, I have not seen nor heard of a single foal coming in fall or early winter, showing clearly the difficulty in getting mares to breed at that time.

If a mare is bred to foal shortly after seeding is ended, and is worked moderately through the winter, she will be in better condition to do the seeding than one that has done nothing but suckle a colt; and if a mare has to work in winter as well as suckle her colt, there is no advantage whatever in breeding at that season.

Taking into consideration the work on a farm, with its seeding, drawing out manure and summer-fallowing, breaking and back-setting, haying, harvesting and threshing, fall-ploughing, drawing grain to market, getting wood, and the many other things a farmer has to do, he finds no four or five months of idle time for his mare

to suckle her colt, if he depends on her to take an active part in all the farm work. And when not working a mare can be kept far cheaper in a pasture than a box stall; and such quarters is hard to provide and keep warm and comfortable through our severe winters, building material being scarce and dear, and consequently hard to get.

The fall or early winter-bred colt would need to be kept stabled all through seeding, and it would have to be well cared for to keep it thriving well at such a critical time in its existence, and that at about the busiest season in the year for farmers, when they are using every effort to get their crop in the ground, so that it may ripen ahead of the frost.

The spring-bred colt can be kept in the stable if its dam has to work on the mower or binder, and at that age will know enough to help itself to hay and grain while the mare is out, and at all other work the colt may be allowed to follow. It can be weaned at any time through the fall to suit the convenience of the owner, and it should be trained (not broken), through the winter to lead well, move from side to side and back out of the stall, hold up its feet quietly and be generally handy, and such training goes a long way towards making a good horse. At that age a colt learns quite readily, and such training never seems to be forgotten.

The owners of stallions would not like the idea of travelling them in the fall and early winter, as the weather is cold and hard on the horse, and owners like to get their stallions reduced in flesh at that time, and consequently feed light, so that they will the better stand the heavy work and feeding required of them in the spring.

In the fall and early winter the reproductive organs in horses and mares alike are sluggish, and mares apt to be fed freely on new oats, all of which combine to make the outlook for stallion owners very poor, unless they should charge by the season or leap, and their patrons would scarcely consent to any such terms.

If a farmer has horses enough to be able to let his mare do nothing in winter but suckle a colt, he would have enough force to let his mare pasture the greater part of the time, if rearing a colt in summer, and she could do the work expected from her and rear a far better colt for its age than the winter colt.

If a man has to work his mare hard at all the farm work he will find colt raising almost a failure, and had better buy his colts at weaning time, for unless the mare is out on grass a good deal through the summer, she will prove a very indifferent breeder.

Where grain raising is depended upon principally, horse breeding has not been very satisfactory, but where mixed farming is practised, and horses pastured in summer, it is quite a sure business.

Miniota, Man.

This municipality is largely settled by people from the old countries of England, Scotland and Ireland. Good cattle are being raised and fine samples of grain grown. The exceptionally well-built houses and farm buildings are noticeable features of this section of country. The Miniota Farmers' Mutual Insurance Company held their fifth annual meeting at Beulah Hall, on the afternoon of January 29th. Mr. W. A. Doyle Secretary-Treasurer, presented reports of a most encouraging character, showing large increase of membership and strong financial condition. We trust that the prosperity of the farmers here will be still very substantially advanced by the early introduction of the railway into their midst.

Coach Horse Breeding.

BY ARCH. WILSON.

The majority of farmers in Canada have their own particular notion in regard to horse breeding, regardless of the market. Some who have light mares, and have been breeding them to light stallions of no particular type whatever, find there is no market for this class of animal, hears of some one who has sold a team of heavy draught horses at a good price, and takes a notion he would like to do the same; he breeds his mares to a draught stallion to find, again, he is as bad as ever. There are others who having tried the experiment, and find it won't do, go back with their half-bred mares to light stallions again, which is continually adding fuel to the fire. Some, again, think it is impossible to breed a Coach horse without having a cross or two of draught blood in their mares for size. Such a system is preposterous. This class of stock is being raised in Canada to an alarming extent, and in many instances farmers who are raising them keep themselves poor by such mongrels eating them up, and the only possible way of getting rid of them, in many instances, is only by trading them, often having to give their note for the difference, and in many cases the difference they give is nearly value for the article they get. With the climate that Canada has, for raising horses, it ought to be in quite a different position to-day. I question very much if there is a country in the world that has such a climate as Canada so adapted for horse breeding.

A climate is one of the most essential blessings a country can have for the breeding of stock, especially the horse; it influences the stamina and form to a very large extent. There is just as much science required in breeding horses as any other animal, and with a little thoughtfulness and judgment it is easily attained, and one of the most profitable industries a farmer can try.

As a proof, the success of Great Britain I claim as an example. In early times there were imported into Britain stallions of different kinds, which were taken advantage of and judiciously crossed with the mares they had at that time, which has produced horses of different fashionable types; and to see the large amount of horses that are now being taken for breeding purposes to the very countries where the stallions came from in early times, and the demand for British horses and other animals for breeding purposes, it is impossible to look on Great Britain otherwise than a large stock farm, brought to such a high standard by the energy and thoughtful judgment of the farmers, who have always kept in view, and moved with the age they were living in, which can be seen in that beautiful breed of Coach horses, the Cleveland Bay, so named from their color, and the fertile district of that name in the north riding of Yorkshire.

There is no very authentic information about them in early times, almost every writer having his own views, and, as a rule, very conflicting. No doubt they are one of the oldest breeds of horses in England, and were used first of all as pack horses, and afterwards when coaches were first introduced in the reign of Queen Elizabeth. At this time they were very large—between seventeen and eighteen hands high. As roads got better and vehicles lighter, the blood of lighter horses were crossed with them and made suitable for the times, and so on down to the present day.

Recently a society with a stud book was formed to keep the breed in as pure a state as possible, which is most essential in all breeds. Lately a lighter animal has been in great demand, and a society with a stud book has been formed, namely, the Yorkshire Coach Horse Society, for horses with a large infusion of thoroughbred blood in them, which give them still more quality, the cross always being in the dam, great care being taken in the class of thoroughbred stallions used, so that the true type of the Coach horse may still be retained.

The English Coach and Cleveland Bay are the only fashionable coach horses in the world. They are sought after by all the crown heads, nobility and gentry of Europe, for state purposes.

For many years I have always found in my experience that stallions with a large amount of thoroughbred blood in them, but still retaining the type, color and size of the Coach horse, should be in height from 16 to 16.2 hands, and weighing between 1,350 and 1,400 pounds, with plenty of knee action. It is invariably horses of this stamp that come to the front in the show yard, and are the best getters in a country like this, where the majority of mares are very cold blooded.

To make the breeding of Coach horses a success, farmers should always study the kind of mares they have and mate them to suit, but never breed rough mares with draught blood in them to Coach stallions, expecting to get Coach horses suitable for the demands of the market. But mate light mares to good, strong blooded Coach stallions and it will always be a success. The time has gone long ago for the large overgrown Coach horse, as many think it should be; yet, it is almost impossible to sell a Coach stallion to some men in Canada and the Western States, unless he is a great overgrown brute from 16.3 to 17 hands high, and weighing from 1,500 to 1,600 lbs. If such horses were geldings in England they would be of no value whatever as horses for luxury, but would be used as drudges with their commoner bred brethren. Stallions of this kind are not in demand anywhere but in Canada and the Western States, and those that are taken of the right kind are very often mated to a rough class of mares. To hear the complaints of the New York dealers, that it is impossible to find horses to suit the market, one would think, seeing the amount of Coach stallions that go into that country, it could not be so, but it is. Stubborn prejudice seems to have such a hold of the farmers that they seem to think they know the wants of the man better than he does himself, and when they find they cannot sell they clamour for protection, so that they may be able to force such stock on the market.

I assure the farmers of Canada if they breed right, although there were fifty per cent. of duty into the States, it would not injure the market for good horses if they were suitable; it is not the price as much as the quality. And always bear in mind, whether it be Coach, riding or driving horses, or Hunters, to study the markets, and there will always be success.

There is one important point breeders should always consider—the quality and soundness of the sire; that is a matter that is very often overlooked in this country. I can say with safety that there is 75 per cent. of horses raised here professionally unsound, although they may be practically sound. The cause is not far

to seek. There are so many bred from unsound mares that are of no value for any other thing, and supposed to be good enough for this purpose. It would be better for the owner and for the country if such were destroyed.

It should be borne in mind that the better class of horses that are shipped to Great Britain and the larger cities of the states have nearly all to pass a veterinary examination at some time as to soundness, and all who have passed through the ordeal know how harassing a thing it is to have them condemned after they are sold.

There has been formed in South Dumfries and Paris district a breeding society to give a substantial guarantee of mares, with liberal terms, to engage two stallions, a Clydesdale and a Coach, the very best that can be found, for the use of the members. No doubt by forming societies of this kind farmers will get educated how to mate their mares and go on in one line of breeding.

If it is for draught purposes breed them as large and wide as possible with short legs.

For coaching horses, the great thing is a fine front with a grand broadside look, and plenty of knee action; although a horse be a little rough, if he has knee action it will always sell him. I assure the breeders of this country if they raise such stock they will find there will come here from Great Britain and France plenty of dealers and army contractors to buy their stock. There is something like eleven to twelve thousand horses imported into Great Britain every year, and more than that into France.

There is one important thing which ought to be taken into consideration by the exhibitors of this country, that is, the classing of different breeds and ages of horses. Many who are anxious to study and know the qualities of the different breeds are utterly at a loss with the present system.

W. C. Edwards & Co.

The above firm, who are among the largest mill owners of the Ottawa district, have lately gone quite extensively into fine stock operations. With a view to push this part of their business, they have equipped three large farms, all of which are conveniently situated for railway accommodation, being some thirty-five miles down the Ottawa River from the Capital city, the river also affording a convenient route while navigation is open. At each of these farms a different line of breeding is followed and a manager installed to whom all enquiring correspondence should be addressed. That nearest the office of the firm is Pine Grove Stock Farm, situated at Rockland post-office and station, the manager of which is Mr. Alex. Norrie, who is well posted in the requirements of Shorthorn breeding.

The barn on this farm is admirably laid out for high-class stock breeding, and is doubtless one of the best, if not the best, in use for cattle breeding in Ontario. The building measures 150x60 feet, and comprises stone basement, in one end of which are placed two silos in each corner, with large root cellars between, the next compartment being laid out with bins for ground grain, bran and cake for immediate use, while root pulper, water and other appliances are conveniently at hand for labor-saving and mixing feed.

The stable consists of rows of stalls running the remainder of the length of the building, with wide feed passage down the centre. Tied in these stalls are some three car loads of

high grade steers of extra quality, being fattened for the export trade. At each side a large, well-lighted row of box stalls are fitted up for the breeding herd. A stationary engine is used for grinding, chaff cutting, pulping, as well as threshing and cutting ensilage, the required shafting being conveniently placed for this work, and pumping water, the whole forming the most complete equipment we have yet seen.

At this farm the breeding of Shorthorns of a very high character is carried on, and the firm are to be complimented on the general appearance of their stock, as they are in the highest possible breeding condition. For a number of years specimens of a high order have been selected to place in this herd, when, in addition to these, two cows were purchased while the cattle were still in quarantine, from the importation made by Hon. John Dryden in 1887. Of these two, Sweet Rose, bred by Mr. E. Cruickshank, Lathenty, belongs to one of the Booth families for which this herd was at one time distinguished. This cow won first at the Provincial Exhibition held in Ottawa in 1887, and she has indeed turned out a most profitable investment to her present owner, as the four heifers she has produced for them attest. The first of these is Russell Rose, just turned three years old, by the Cruickshank Victoria bull Royal Victor, which takes well after her mother in show qualities and size. She is indeed a beautiful heifer, of the thick useful sort; full of the Shorthorn character that is now required. Bertha of Rockland, by Imp. Pioneer, of whom, as a sire, we will have more to say in future, is much the same type as her elder sister, and is also a worthy representative of her illustrious parent. Rose of Hope, just turned the year, and the calf now at her foot, are the other two from this particularly profitable cow. From the same importation was selected Twilight, also bred by Mr. E. Cruickshank.

This cow belongs to a family bred by Mr. Longmore, of Retty, from which herd Mr. Cruickshank obtained some particularly good cattle at the time of its dispersion, and on which he bred the best Sittyton bulls obtainable in his uncle's herd. Although this cow has not the unexcelled producing record of her stable companion, still she has produced two heifers and a yearling. Starlight, by Pioneer, is a very neat and straight red, who appears exceedingly well, even in the very select company in which she is found. The calf at foot, which, although the unfashionable white, bids fair to equal her sister in form. Several other cows and heifers, bearing the impress of the most notable Cruickshank sires that have been used this side of the Atlantic, are to be found in this herd, their thick, natural flesh, early maturing and easy feeding qualities making them distinguishable as the proper type. Several of the old Syme sort, which have done so much to improve the cattle of this county in the earlier days of Shorthorns, and which, from their being so widely dispersed through the county, makes more reasonable in value, still must always be looked up to as those of the most useful type.

The stock bull Grandeur, now in use in the herd, was imported in his dam, which is of the justly celebrated Brawith Bud family, so popular at Sittyton. Grandeur's sire was Patriot, which was also included in Hon. John Dryden's importation of 1887. This bull has much to recommend him. He is one of the thick-fleshed early maturing sort, and is of large size. We shall be much surprised if he does not turn out an impressive sire.

The Treatment of the Draught Stallion During the Season.

As the season for travelling stallions is drawing near, I think a few hints with regard to their treatment during that time not out of place. The most frequent mistake made by inexperienced persons, and even by many who ought to know better, is to endeavor to have the stallion in the pink of condition by the time the season opens. To acquire this end drugs and forcing foods are used, the horse is kept carefully housed and well blanketed, he becomes soft and flabby for want of exercise, and although he may come out in the spring looking well and apparently in the best of show condition, yet he is in reality not nearly so well fitted for service in the stud as he would have been had the forcing process been dispensed with. The whole secret of successful preparation, if the horse is in a healthy condition, is in feeding well and regularly on healthy and nutritious food, with plenty of exercise each day to keep his muscles firm and hard, and let him be well groomed so that his coat may have a fine appearance. The skin should be kept clean by occasional washing and frequent brushing and rubbing. The mane and tail must be combed and brushed every time the horse is groomed and just before the stallion is taken out for exercise. If the tail or mane be very dirty soap should be used, and when this is attended to closely there will be little danger of the horse rubbing them. The food should be mainly good sound oats with an occasional feed of bran mash or boiled barley, for a change of diet is conducive to health. Bran is the cheapest, safest and best regulator of the bowels, and it is especially rich in some of the most important elements of nutrition. No correct measurement or weight as to the quantity of food can be given, as some horses require nearly twice as much as others, but the quantity that may be safely given depends greatly on the amount of exercise the horse receives. If any feed be left in the feed-box it should at once be removed, and the quantity at the next meal should be reduced accordingly. The hay and grain feed should be sound and free from mould and dust; the stall should be kept clean, well lighted and perfectly ventilated. The amount of exercise to be given will vary somewhat with the condition and habit of the horse. If he be thin in flesh and it is thought best to fatten him up a little, the exercise should be lighter; on the other hand, if there is a tendency to become too fat, he should have more exercise. No draught horse should have less than five miles a day, and a roadster or running horse about ten miles. The point to be aimed at in the stable management of the stallion is so to feed, groom and exercise, as to keep the horse to the very highest possible pitch of strength and vigor. The number of mares that a stallion may safely be permitted to serve during the season has long been a subject of discussion among horse breeders, but it is generally held that the two year-old stallion will be all the better for not serving any at all, that the three-year-old should be limited to twenty mares, and that the four-year old should not go beyond forty. But, while this is the true theory of perfect development in the male, there are advantages attending the earlier use of the horse to a moderate extent that perhaps more than compensate for all the damage that may result from it. It is often desirable when the horse is two years old to find out his qualities as a foal-getter, and with this object in view, I consider it wise to let the two-year-old serve a few choice mares. When the young stallion is to serve a few mares, I should prefer that they should all be served within the space of a few weeks, and then let him be withdrawn entirely from the breeding stud. He will soon forget all about them, and will cease to fret after the mares, and will have nothing to do but grow until the next season comes round. The number of mares the stallion serves during the season seems to have little effect upon the percentage of foals begotten, the condition of the stallion apparently being the controlling consideration, and so long as he is strong and vigorous his powers of reproduction continue.

Mr. Jas. Henderson's Clydesdales.

Two miles north of Kelly's siding, on the St. Mary's branch of the G. T. R., Mr. James Henderson, Belton P.O., has been for some years handling Clydesdale horses. These are of the best and most popular lines of breeding. His five-year-old horse Lord Ullin is one of the very few stallions that can boast of being a son of the famous Darnley, and a sort that through the natural turn of events will, unfortunately for the well being of Clydesdale breeding, now grow more scarce as years roll on. Lord Ullin is a horse of great scale and substance; he has good feet, with heavy bone, attractive head and neck, and is altogether a most useful horse. Lord Ullin took first in 1889 in a very strong ring of ten in three year stallion section at Western Fair of that year. He also won first at Goodwood as a yearling before being exported to Canada. We hear that he has proved exceptionally sure in the stud, and that his get are much admired. His stable companion, Scotland's Pearl, a two-year-old by Lord Erskine, is of more blocky type, quite popular among the breeders of this section of country where draught horse breeding has been followed with much success for a number of years. Scotland's Pearl won second prize at Paisley in a class against forty-two other yearlings, also second at Bishopton and second at Greenock. Since being imported to Canada he won first at Sunderland, first at Woodville, second at Canington and third at Western Fair. Farmers of this neighborhood have made considerable money by carefully breeding and raising this sort.

Chatty Letter from the States.

Illinois cattle shippers, who are contracting to pay \$6 on the farm for cattle in June, have a good deal of nerve, but it looks as if they had plenty of company who share their views, if they do not care to bet so much.

The hog market is making the boys perspire freely. January receipts were the largest on record for the first month, but the cry is, "still they come," and February will show a tremendous gain over all records for the month. Over 53,000 arrived one day, and over 61,000 another day. Such receipts for the second month were never before equaled. Prices, of course, go down as receipts go up. The winter has been cold enough in the east and north, and in some portions of the south and west, but in the great corn-feeding belt it has been unprecedentedly warm. The result of this has been a great saving of feed and a heavier production of meat than expected. Warm winter weather not only increases the production of meat from the same quantity of feed, but it also induces the consumptive demand. Then, again, meat will not keep as well or as long in the butchers' stalls. All in all, a warm winter is bad for the meat trade. A lot of 1,000 fat Texas goats sold at \$3 per head. They were slaughtered, and will be sold, of course, for mutton. The production of full blood and grade Angoras is getting to be quite an industry. The skins and meat are both valuable. Compared with one year ago, prices for cattle are \$2.75 to \$1.00 higher; hogs, 35c. lower, and sheep are now nearly as high. The year's receipts so far show a small decrease in cattle, a heavy increase in hogs, and a small gain in sheep.

The country demand for thrifty young cattle to feed is really quite strong, and becomes stronger at every favorable turn of the fat cattle market. Choice 1,000 to 1,200-lb. steers have recently sold as high as \$4 for feeding purposes. The strong demand for fat sheep from the Eastern States is regarded as a healthy feature of the trade by dealers. Very few sheep were fattened in the East the past winter. The demand for breeding sheep is only moderate. Sheep men seem to want wethers that they can fatten, shear and turn off early.

Reports from the Eastern States indicate an unusual scarcity of fat hogs. This, in a measure, serves as an offset to the very heavy crop in the Western States. The result is an unusually heavy movement of live hogs from west to east.

Canadian Percheron Stud Book.

A meeting of Percheron breeders of Canada was held February 10th, at 11 a. m., at 30 St. James street, for the purpose of founding a Percheron Stud Book for Canada, under the sanction of the Council of Agriculture of the Province of Quebec. The following officers have been elected: Honorary President, the President of the Council of Agriculture of the Province of Quebec. President, the Hon. M. Louis Beaubien, Montreal. Vice-President, M. W. E. Baker, Demorestville, Ont. Hon. Secretary-Treasurer, M. R. Auzias-Turenne, Montreal. Directors, the Rev. F. Prieur Titulaire, of Notre Dame du Lac, Oka, P. Q.; the Procureur of Institution of Deaf and Dumb of Mile-End, Montreal; the Vice-President of the Council of Agriculture of the Province of Quebec; M. J. X. Peireault, Montreal; M. Peter Campbell, Lachute, P. Q.; M. O. Milet, St. Clare, P. Q.; M. E. A. Brickman, Rednersville, O.

RULES GOVERNING ENTRY.

Eligibility to entry shall be based upon one or more of the following rules:

1. Any stallion or mare previously recorded in the Percheron Stud Book of France. The original certificate of registration must accompany the application in all cases, under this rule.
2. Any stallion or mare previously recorded in the Percheron Stud Book of America. The certificate of registration in the United States must accompany the application in all cases, under this rule.
3. Any stallion or mare whose sire and dam are recorded in the Percheron Stud Book of France or America. The application to be accompanied by the affidavit of the breeder.
4. Stallions or mares, the produce of five top crosses of sires recorded in the Percheron Stud Book of Canada. In all applications under this rule, the name and address of the breeder of each dam, with affidavit, must be given when application for entry is made. The Secretary may require affidavits in all cases where he may deem it necessary to clearly establish the facts upon which application for registration is based under any of the foregoing rules.
5. All applications for registry of animals bred in France and foaled in Canada must be accompanied by the card of service from the French breeder.
6. Every application for registration must contain all the descriptive, white and other marks, general appearance, and peculiarities, by which said animal can be identified, and the same must be recorded in the registry, and certificate issued for said animal.
7. When proper notification is given to the Secretary, free transfers of ownership will be published in the Stud Book.
8. A registration fee of \$2.50 will be charged for each animal recorded, which will include a certificate of registration issued by the Association.
9. The fund of the Stud Book shall be under the control of the Executive Board, and shall be by such board appropriated for the verification, preservation and publication of pedigrees and stud book annually, when deemed necessary by the Board of Directors.

Should it seem at any time that any breeder shall be charged with any fraud, in regard to any animal owned or bred by him, the Executive Board shall examine into the matter, and if in the opinion of two-thirds of the members present the facts shall so warrant, the offending breeder will lose all his rights to any registration.

For entry blanks or other information, address
THE HON. SECRETARY-TREASURER,
30 St. James Street, Montreal.

Veterinary.

Jas. H. Dunlop, Langville, Man., writes:— I have a valuable young mare, four years old, never been shod, done nothing during winter; about a week ago became suddenly lame, seemed to be in great pain, kept pawing with off front foot; could not locate the trouble for some time, at last discovered it to be in foot; thought it might be thrush; poulticed it for two days, when the outer edge of the heel, or what is known as the elastic frog, began to get soft and suppurate through skin between hoof and hair on outer edge of foot; only inner edge seems all right; the matter has a nasty smell, and seems as though the hoof would separate from the elastic frog at the seat of the disease.

1. What do you think is the trouble?
2. What was likely to be the cause?
3. What course of treatment would you recommend?
4. Should mare be confined to stall or allowed out on fine days, as she don't seem to limp much with it now when let out. I may state for your guidance, that the first night after we noticed the lameness she broke her halter and got loose; in the morning I noticed two swelled lumps on the nigh side, one on shoulder and one on neck, apparently as from a kick; also appeared to swell on outside only, at front knee joint, and on outside of hind leg from hock down to fetlock, but all on the opposite side from where disease is in foot; rubbed swelling with vinegar and turpentine, and since she has been able to be out swelling has gone off; but where the swelling was on front shoulder and neck it has left a dry, hard patch size of hand, apparently blistered by rubbing the liniment on it?

Would you kindly reply by return mail, as it takes such a long time to get an answer in this country, and the earlier the treatment is applied the better. Enclosed find \$1.00 for your valuable paper.

ANSWERED BY MR. W. A. DUNBAR, V. S.

The trouble with your mare's foot was evidently caused by external injury, probably by a nail or some other hard substance penetrating through the sole or frog into the sensitive structure of the foot. Cut away entirely all partially detached horn from the sole and frog; and if the parts are very irritable and a fetid discharge is proceeding therefrom, apply a linseed-meal or bran poultice, containing carbolic acid, ten per cent., until the irritability disappears and the discharge ceases; afterwards saturate a piece of cotton batting with the following lotion, and apply to the parts twice a day until they are healed, viz.: Sulphate of zinc, acetate of lead, carbolic acid, of each one ounce; water, one pint. Keep the animal in a comfortable, clean, warm, dry place while under treatment. The swelling which appeared on her side was probably due to kicks or other physical injury. The proper treatment for such would be warm fomentations, two or three times a day, and after each fomentation an application of the following liniment, viz.: Tincture of arnica, alcohol, of each four ounces; water, one pint. Your vinegar and turpentine treatment was too harsh. Your mare, if not in foal, should get a dose of purgative medicine. Feed her exclusively on bran mash for sixteen hours, and then give the following, viz.: Barbadoes aloes, seven drachms; calomel, one drachm; ground ginger, two drachms; syrup sufficient to form a ball. Feed principally on bran mash until the action of medicine ceases.

Manitoba Experimental Farm.

RESULT OF TESTS WITH WHEAT, 1890, SOWN ON FALL PLOUGHING AFTER FODDER CORN IN VALLEY.

VARIETIES.	Sown.	Came up.	Headed.	Ripened.	Yield bushels.	How Sown.	Matured in days.
Red Fife No. 52	April 23	May 12	July 15	Aug. 22	34 1/2	Press Drill.	121
Blue Stem	7	2	10	18	33 1/2		123
Colorado	7	5	7	14	31 1/2		129
French Imperial	7	1	9	12	31 1/2		127
Assinaboine	23	13	14	22	31		121
Hungarian Mountain	7	2	9	18	30 1/2		121
Wellman's Fife	7	2	10	18	30 1/2		123
Red Fife	7	5	10	22	30		127
Hueston's	7	3	9	18	29 1/2		123
Calcutta Club	7	5	1	16	27		121
Green Mountain	2	2	8	19	26 1/2		124
Carter's Selection I.	17	12	19	22	26		127
Calcutta Hard	7	4	June 27	9	25 1/2		124
Red Fife	17	12	July 15	22	25 1/2		127
Red Fife	7	5	10	22	25 1/2		127
Campbell's Triumph	7	2	9	19	24		124
Wheat No. 1701	7	3	9	18	23 1/2		123
Chilian White	9	2	8	22	23 1/2		125
Gahul, India	7	2	16	7	22 1/2		121
Paine's Defiance	7	5	10	18	22 1/2		123
Magyar	7	5	20	25	20 1/2	140	
Bruce's Defiance	9	2	1	20	20 1/2	123	
Greek Summer	7	5	2	15	19 1/2	120	
Talavera	7	5	20	25	19 1/2	140	
Sima Dist, India	7	6	5	16	17 1/2	121	
Harrison's Beardless	7	2	10	22	16 1/2	127	
Indian Karichl, India	7	5	June 24	16	16 1/2	121	
Spitte Valley, India	9	2	July 2	9	9	122	
Soft Red, Calcutta	7	5	June 28	12	8 1/2	127	

SOWN ON BACKSETTING ON HIGH PRAIRIE IN 1/2 ACRE PLOTS.

VARIETIES.	Sown.	Came up.	Headed.	Ripened.	Yield bushels.	How Sown.	Matured in days.
Red Fife	April 11	May 8	July 11	Aug. 25	30 1/2	Broadcast.	128
Red Fife	10	8	11	25	30		127
White Connel	10	8	12	22	29 1/2		124
Summer Cob	11	8	12	25	28 1/2		126
Johnston's Defiance	10	8	11	22	28 1/2		124
Rio Grande	10	7	11	25	28 1/2		127
Red Fife	10	7	11	22	28		124
Eureka	10	5	10	16	27 1/2		122
Russian Hard Tag	11	8	5	17	26 1/2		122
White Fife	10	8	10	21	26 1/2		123
Red Fife	10	8	10	22	26		124
Red Connel	10	8	10	17	26		129
Junket	10	8	10	20	25 1/2		122
Red Fife, cut green side	10	8	11	Cut 16	25 1/2		122
California White	11	8	June 29	25	25 1/2		127
Red Fern	10	5	July 11	18	25 1/2		120
Red Fife	10	7	11	22	25		124
Saxonka	11	7	5	19	24		120
Campbell's White Chaff	11	8	8	19	24 1/2		120
Golden Drop	10	6	7	16	24 1/2		122
Club	10	8	7	16	24 1/2	122	
Old Red River	10	6	10	18	24	120	
White Delhi	11	8	June 25	14	17 1/2	122	
Russian Gerklce	14	8	July 13	15	16	120	
Soft Red, Calcutta	14	8	25	12	12	122	
Omega	10	8	2	16	10 1/2	122	

RESULT OF TESTS WITH WHEATS SOWN ON BACKSETTING ON PRAIRIE.

VARIETIES.	Sown.	Came up.	Headed.	Ripened.	Yield bushels.	How Sown.	Matured in days.
Russian Gerklce	April 14	May 8	July 18	Aug. 25	16.	Broadcast.	122
Soft Red, Calcutta	14	8	June 28	17	12.7		125
Red Fife No. 3	10	7	July 11	22	25.6		124
Red Fern	10	5	10	18	25.24		120
Eureka	10	5	10	16	27.16		122
White Fife	10	5	10	21	26.42		122
Red Fife No. 7	10	7	11	22	27.58		124
White Connel	10	8	12	22	29.14		124
Red Connel	10	8	10	17	26.		129
Junket	10	8	10	20	25.42		122
Red Fife No. 10	10	8	10	22	26.6		124
Club	10	8	7	16	24.16		122
Omega	10	8	2	16	10.22		122
Johnston's Defiance	10	8	11	22	22.22		124
Red Fife No. 14, cut green side	10	8	11	16	25.38		122
Golden Drop	10	6	7	16	24.16		122
Old Red River	10	6	10	18	23.56		120
Rio Grande	10	7	10	25	28.12		127
Red Fife No. 18	10	7	11	25	30.		127
California White	11	8	June 29	25	25.29		126
White Delhi	11	8	25	14	17.52	125	
Summer Cob	11	8	July 12	25	28.26	126	
Red Fife No. 22	11	8	11	22	30.16	123	
Campbell's White Chaff	11	8	8	19	24.36	120	
Saxonka	11	7	5	19	23.56	120	
Ladoga	11	6	7	16	21.20	127	
Russian Hard Tag	11	8	5	17	26.48	122	
Red Fife No. 3	11	8	11	22	29.12	123	
Azima, Russian	11	8	11	Sept. 9	16.24	151	
No. 1 Club, Bombay	11	8	11	Aug. 15	12.16	122	
Red Fife No. 34	11	8	11	20	37.	121	
Hard Red, Calcutta	11	8	11	16	24.40	127	
Australian	11	8	11	18	30.50	129	

TREATMENT OF SMUTTY WHEAT.

VARIETIES.	Smutty Heads.	Sown.	Came up.	Headed.	Ripened.	Yield bushels.	How Sown.	Matured in days.
Red Fife, Scalded	1/100	April 23	May 9	July 9	Aug. 22	23.44	Press Drill.	121
" Salted	None	23	9	10	22	22.9		121
" Bluestoned	None	23	9	10	22	25.11		121
" Untreated	6/100	23	9	10	22	22.18		121

DIFFERENT WAYS OF SOWING WHEAT ON STUBBLE LAND.

VARIETIES.	Sown.	Came up.	Headed.	Ripened.	Yield bushels.	How Sown.	Matured in days.
Red Fife, Plowed in	April 21	May 10	July 18	Sept. 2	20.	Press Drill.	124
" Drilled in	21	16	20	22.	22.		124

RESULT OF TESTS WITH BARLEY—CONTINUED.

VARIETIES.	Sown.	Came up.	Headed.	Ripe.	Yield bushels.	How Sown.	No. days ripening.
SOWN ON FALL PLOWING IN VALLEY.							
Goldthorpe	May 5	May 23	July 21	Aug. 24	56.25	Press Drill.	111
Prize Prolific	5	22	21	24	59.43		111
Carter's Saale	5	22	21	20	40.14		107
Odessa Six-rowed	5	23	7	14	68.24		101
Rennie's Six-rowed	5	22	8	10	54.36		97
Baxter's Six-rowed	5	22	10	7	44.2		94
Palampur Tahsit, from India	5	22	June 28	11	60.29		98
Huller Tahsit	5	23	July 11	17	50.		104
Sorag Plain	5	22	June 30	19	47.		108
Spitte Valley	5	22	30	6	39.18		93
Bhagarman	5	22	July 10	7	39.14	94	
TEST OF DRILLS							
Danish Chevallier	Apl. 24	May 10	July 17	Aug. 24	60.14	Press Drill	122
" "	24	12	17	24	56.10	Com. Drill	122
" "	24	15	20	24	50.46	Broadcast.	122
TEST OF EARLY, MEDIUM AND LATE SOWING.							
English Malting	Apl. 16	May 8	July 16	Sept. 3	45.40	Press Drill.	140
" "	24	10	17	3	45.32		132
" "	May 22	10	28	5	43.36		104
TEST OF THIN VS. THICK SEEDING.							
Prize Prolific, 6 pecks per acre	Apl. 24	May 12	July 17	Aug. 30	50.36	Press Drill.	128
" " 8 " "	24	12	17	30	58.4		128
" " 10 " "	24	12	17	30	47.12		128

Drop Seed Grass.

Mr. Peter McNabb, of Neepawa, in renewing his subscription to the *ADVOCATE*, sends a stem of this grass, and asks: "Can you give the name of the inclosed specimen of native grass. It is a rank grower, in bunches to the height of eighteen to twenty-four inches; have gathered a quantity of seed, which I intend to cultivate. Do you think it worth anything for hay?"

This grass is the Drop Seed, and one of the most promising the country affords. Mr. Patmore, who has charge of the grasses at the Brandon Experimental Farm, under Mr. Bedford, writes as follows concerning this grass:—

"All who have seen these grasses during the growing season have unhesitatingly selected, as the most promising, the *Muehlenbergia Sylvatica*, or Drop Seed. This grass much resembles timothy, but is shorter, with a smaller head of a foxtail shape. In its wild state, it grows to a height of from 12 to 15 inches, with a purple-jointed stem. It is to be found mostly alongside the trails and ravines, very seldom being seen on the prairie far away from the trail, but it has often been noticed growing luxuriantly on summerfallows and on breaking, thereby showing its preference for cultivation. Under cultivation it does not start its growth so early as some of the other grasses, but grows very rapidly and produces a heavy swath, attaining a height of 27 inches. From the small plot grown this year it was estimated to yield two tons per acre. It also gave a good return in the dry season of 1889. This is probably one of the finest grasses on the prairie for either hay or pasture, for being a late grass, it would on that account be especially valuable for pasturage. Ripens in October."

Mr. Patmore refers to the head of this grass as of a "foxtail shape". He cannot, however, wish to convey the impression that the head resembles that of the Foxtail grass of Eastern Canada, but of a shape known as foxtail. There is little doubt that this is one of the most valuable, and more than likely the most valuable native grass, for cultivation in the whole Northwest. Mr. Patmore estimates two tons per acre, but it must be borne in mind it was in this instance grown in drills and covered only about half the ground. A yield such as grown on that plot, and covering the entire surface of an acre, would produce fully three tons.

Aerating Milk.

The New York Dairy Commissioner says that milk can be sent farther and will be in a better state for use when aerated down to the temperature of the atmosphere than when chilled and sent on ice.

The process is very simple, and consists in allowing the milk to run from one receptacle to another in fine streams, so as to come thoroughly in contact with the air. It should not be done in the barn or stable, but out of doors where the air is purest. If nothing better is at hand, let it run through an old colander two or three times. A better arrangement is a set of perforated milk pans one above the other, through which the milk may run in fine streams. It is held that tyrotoxin poison is generated in cream for want of proper aeration, and that unaerated milk is the great enemy of infants and the great cause of cholera infantum.

Polled-Angus and Galloways.

Mr. Joseph Lawrence, of Clearwater, writes the *ADVOCATE* as follows:—I intend to go into the Polled-Angus and Galloways. Which would you recommend me to get as a beef-breed? Is the latter as large as the former?

There is probably no breed of cattle known for which there is not a place in which they will excel all others, and to give intelligent advice on this subject, a knowledge of your surroundings and system of feeding, as well as the kind of a cattle-man you are, would be necessary. As to size, there is no difference when both are properly cared for. With the attention most cattle in your vicinity receives, the Galloway will prove more profitable, as they are a more active animal, have a heavier coat of hair, and seem better adapted to "roughing it." If, however, you care kindly for your stock, keeping them warm and stall-feeding in the winter, you will doubtless get more pounds of meat from the same hay and grain when fed to Polled-Angus than from most other breeds. Mr. Keough, of Owen Sound, Ont., made a number of experiments a few years ago as to the most valuable animal to cross on scrub stock, and found that for the first cross the Galloways were very profitable, while some of the best fat cattle of modern fat stock shows have been a cross of the Polled-Angus and Shorthorn breeds. (See article by Mr. Leslie Smith, of Wawanessa, in this issue). One of the most promising youngsters at the Brandon summer fair, was a six months calf, bred in this way.

Experimental Dairy Stations.

The report of the Ontario Creameries' Association in the *ADVOCATE* for February, foreshadowed the establishment of Experimental Dairy Stations throughout Canada, probably two in Ontario and one at least in each of the other provinces, under direction of the Dairy Commissioner, Prof. Jas. W. Robertson, whose outline of the scheme we append. It was approved by the Minister of Agriculture, and on January 31st sanctioned by the Dominion Government, it being decided to make the necessary grant. In addition to organization Prof. Robertson hoped to accomplish something practically useful this season. It is one of the most important steps ever taken in the interest of Canadian dairying:—

To the Honorable the Minister of Agriculture:—This memorandum is submitted as outlining the plan which I would propose for the establishment of Branch Dairy Experiment Stations in the several provinces of the Dominion.

THE NEED.

I. The magnitude of the dairy interests of Canada is unequalled by any other single branch of agriculture or manufacture in the Dominion. The success of the cheese trade in Ontario and Quebec has been satisfactory to the farmers. The other provinces, in many respects, are as well adapted for the prosecution of this industry, but a little outside encouragement is needed to set it going in them.

I would cite the case of Prince Edward Island, which is admirably suited for the development of dairying upon a large scale. Over twelve years ago several cheese factories were established; they were managed with such ill success that now the farmers are doubtful as to whether there is not some inherent condition in their situation, soil, cattle or circumstances which prevents them from succeeding.

A branch Experiment Station there would serve for direction, illustration and demonstration, and thus help both manufacturers and farmers.

II. Then the milk from cows in Quebec is different in quality from milk in Ontario. Investigations into the best methods of carrying on the business in each of the provinces would furnish valuable guidance for the dairymen of each. As an instance of the need of this, let me refer to the experience of one brief trip to the Saguenay district last summer. One cheesemaker drove sixty miles to receive one day's instruction from me at a factory at Ha! Ha! Bay. His patrons reported afterwards that the cheese from his factory sold for one cent per pound relatively higher than they did before. A branch Dairy Experiment Station could be visited at least once a year by a large number of cheesemakers.

III. Then the instructors of the cheesemakers in the several provinces would acquire uniformity in their methods, from having the privilege of visiting these stations. That would do away with the differing qualities and the names—as "Ontario Cheese," "French Cheese," and give us a better reputation for uniformly fine "Canadian Cheese."

IV. Then the manufacture of small, fancy varieties of cheese, which are in great demand in England—as well as in home markets—could be introduced into Canada through these Experiment Stations. A few trial shipments of these to foreign markets would furnish useful data for the guidance of dairymen and the promotion of trade.

V. Then the farmers in sections are now beginning to turn their attention to winter dairying. The export butter trade of Canada has almost clean gone from us, and in my opinion the only way to build up a large trade in butter is to encourage the manufacture of it during the winter.

No endeavor will be made or should be made to displace the cheese industry by a butter one. Our country is exceptionally well fitted for the production of cheese during the summer, even if

not so well situated as many other competitive countries for the production of butter for export during that season. It is possible to develop the buttermaking industry during the winter months to as great magnitude, and with more remunerative profits to agriculturists, than arise from summer dairying. The possibilities of cheap and suitable winter feed by the use of ensilage have been so well and satisfactorily demonstrated that now milk can be produced at less cost during the winter than upon pasture only during the summer. In the winter season, the average price of butter is almost twice as much as during the summer. Safe transportation can be economically provided for during the cold weather.

VI. The buyers in England hardly know what fresh-made Canadian creamery butter is like. The quantities exported are often stale before they reach the consumer. That fact led the members of the Dominion Dairy Convention in Ottawa last year to pass a resolution urging upon the government the desirability of making a provision of at least \$5,000 for the purpose of making weekly shipments with a view to opening up this trade.

The Danish Government supervised the shipments of butter for a considerable period, and one of the Australian Governments gives bonuses now to promote shipments.

VII. These branch Dairy Experiment Stations would encourage the farmers to furnish milk during the winter season, and also provide small quantities of finest butter to be used as trial shipments for introducing fresh made creamery butter to foreign markets.

Butter has been carried by the Canadian Pacific Railway across our continent to Asiatic markets, and Canadians ought to be able to supply those markets.

The West Indies offer many markets that might be secured to Canadians by the making of a few trial shipments in specially adapted packages. The publishing of the results of these would furnish valuable commercial data and the enterprise of commerce would do the rest.

THE PLAN.

VIII. The plan is feasible, and well within the usual policy of the government in looking after the interests of the farmers, and the foreign as well as the domestic trade of Canada.

IX. Branch Dairy Experiment Stations should be organized in the several provinces for the stimulation and guidance of dairy farmers. Through them it would be practicable to spread acceptable information as to the best practices. Everyone would be welcome to visit and learn. Frequent publications of bulletins on the results of experiments would keep them before the public, and that within a few months from their establishment.

X. New, small and fancy varieties of cheese would be made.

XI. Investigations under the direction of the Dairy Commissioner would be made; and some of the cheese would be brought to the curing-room in the dairy building at the Experimental Farm to prosecute enquiries into the causes of bad flavor in cheese, which is becoming a menace to the success of the trade in recent years.

XII. Butter would be made at the Stations, particularly during the winter, for us as already indicated, viz., to promote winter dairying among farmers and to facilitate the getting a foreign demand at high prices for Canadian butter.

(I put this illustration in here. At the Colonial and Indian Exhibition in 1886 I had charge of over \$10,000 worth of butter and cheese sent there by the Provincial Government of Ontario. The fresh-made creamery butter was sold to take the place of Danish butter, and during intervening years I have had enquiries for such butter from importers, who state that they will pay the Danish price for quality similar to what they received then. Presently and up till now no provision has been made for promoting the commerce in butter.)

XIII. I would suggest that suitable cheese factories or creamery buildings be rented by the year in the several provinces. A guarantee by the Dairy Commissioner would be given to the farmers who furnish milk, that they would

receive for it a price equal to or slightly higher than the average price realized from neighboring factories.

XIV. A sum of \$1,500 annually for the running expenses of each station, and to provide for probable losses in trial shipments of butter would be sufficient to cover the expenditure; an extra sum of \$500, for each Station for apparatus and fittings, would be required the first year. The location of the Experiment Stations need not be permanent in one district in any province. After serving one district for a year or two the Station could be transferred to another; and after several years work, if the Stations had fully served the purpose of their existence, they could be discontinued, and the plant in each could be disposed of.

XV. The Imperial Parliament gives a grant of £5,000 sterling for the support of similar Stations and instruction.

THE ADVANTAGES.

XVI. Some of these have already been pointed out incidentally.

This is a most opportune time for the establishment of these Stations.

Recent occurrences that have interfered with commerce have directed the attention of farmers to the possibilities of making farming pay better by new methods and the acquisition of new markets. The time is ripe for leading the farmers in the right direction.

These Stations would be very useful and exceedingly popular with the agricultural classes. If provision is made for their establishment, no effort will be spared to make them realize more than has been set forth in this brief memorandum.

I have discussed the plan and its advantages with Professor Saunders, Director of Dominion Experimental Farms, and he approves of the proposals. Respectfully submitted by

JAS. W. ROBERTSON,
Dairy Commissioner.

Studs, Flocks and Herds of Manitoba.

THE PIONEER SHORTHORNS.

This herd, the property of Mr. Walter Lynch, of Westbourne, Man., was referred to in our February number of last year, and some of the leading animals described. At that time the bull Duke of Colonus = 9282 = had been recently placed at the head of the herd, and what his stock might be was, to a certain extent, a matter of conjecture; but now it is evident that he transmits his excellence with reasonable certainty to his offspring. The Duke is a fine animal of the Bates type, and has many superior points. He is especially good behind; in fact, it is seldom that better is seen. A fine, stylish head and graceful neck gives him a good appearance in front, and grandly sprung ribs and straight underline fills up the middle satisfactorily. The herd, as a whole, is one of superior quality, being one of the best all round herds in the province. Among the especially meritorious animals may be mentioned Mermaid = 15818 =, a grand roan cow, with a grand back and loin and massive quarters, being slightly deficient in the crops, but only slightly; and the Shorthorns that are first rate, these are rare. Rebecca is a fine, thick-fleshed, four-year-old, of superior merit. Space forbids a further enumeration of the individuals, but the young animals are worthy of notice, and the greater the number of such bulls produced the better the quality of the cattle of the province will be. The only fault that can be found with the management of this herd is, that the young bulls do not receive as much attention as it would be advisable to give them, both for the present good of the animals and that of their future owners. A little to the west of Mr. Lynch's farm is that of

MR. DONALD STEWART,

who has the herd owned by the late E. L. Puxley, consisting of Herefords and Shorthorns, some of which are of considerable merit. The Hereford bull Pilot of Eastview, from the herd of Mr. Pope, of Cookshire, Quebec, is worthy of more than passing notice, being a low, heavy-set animal, with a grand front and good, stylish appearance, but a little thin in the hind quarters. This herd is increasing in number, but is not in as good condition as the best interests of the herd would demand. At Westbourne Station is

THE SANFORD RANCH,

where some very nice and well-kept stock may be seen. The Herefords, numbering about forty of different ages, are of good quality, and seem to fill the bill there better than any others. A few Polled-Angus are still kept, but it is not intended to increase the number. In all, four hundred and fifty cattle are now on the various premises of the establishment. There are over two hundred horses on the premises at the present time, some of which are half-bred Clydes and some of a lighter type. A Clydesdale stallion is kept, also a fine, blocky horse, with good limbs, which is understood to be a Cleveland bay, but is far removed from the orthodox type of that breed, having much the appearance of the Canadian French horse. This horse has great individual merit, and if he has a line of breeding to enable him to impress his offspring with his own merit, will be a valuable animal in the ranch stud. The horses at this ranch are stabled nights, and in warm weather run out during the day. In cold weather they are out but a short time. The stock throughout is in a healthy, thrifty condition, and is a credit to the management. At Rapid City

MR. S. L. HEAD

has about twenty-five pure-bred Clydesdales, most of which are of good blood and considerable individual merit, and, but for a mistaken idea that thin flesh contributes to health, would be an excellent lot. Prominent among the number of young stallions now on hand may be mentioned Kilrain (7869), now rising three years, sired by Gallant Lad (2781), imported by David Kirkaldy, of Austruther, Fifeshire, Scotland. Also Emin Pasha (6730), by Earl of Zetland (4892); Young Tower (8413), by Old (3042); Marquis of Kellie (8030), by Black Factor (4250); Bishopton Boy (number not allotted), sire Royal Salute (6246), and Favorite (number not allotted), sire Middleton Favorite (8048). This last imported by R. D. Dundas, Springville, Ont. Sir Michael [269], bred by Messrs. Sorby, of Guelph, Ont., is the stock horse of the farm. He is a nice smooth animal, with many good points, having fine bone and good feather. There is probably but one larger stock of Clydesdales in Manitoba, and it is to be hoped that Mr. Head may find ready sale for these valuable animals.

MR. McNAUGHT, V. S.,

of the same place, has a few Holstein cattle, and is so enamored of them that he purposes importing more at an early date. Mr. McNaught considers the Holsteins unsurpassed for milk. At Minnedosa our representative met

MR. R. P. FRAZER,

who has been for some time breeding Bates Shorthorns six miles north of the town and hiding his light under a bushel. He has about thirty pure-bred animals, of which the ADVOCATE will give an account in the near future.

THE BINSARTH HERD

is as usual in very good shape, and the young stock promising. The system of feeding here adopted is in accordance with the dictates of reason and common sense. Hay and straw are cut or chopped, and chopped oats, bran and pulped turnips thoroughly mixed with it, and the whole allowed to stand twelve to fourteen hours before feeding. This allows the entire mass to become slightly moist and soft from the moisture of the turnips and the small amount of water added in mixing, and the cattle eat it greedily. This is the best possible system of feeding for either young or adult animals.

Cost of Ignorance.

In no business perhaps does ignorance have to be paid for more promptly than in dairying. When we churn, if we don't know the right degree of temperature for the cream we may either waste many hours at the crank or else have the butter come too soon, with flavor and texture ruined. If we don't know how to feed our cows we may be wasting feed every day; we may be dairying with the wrong breed, and so on through the whole business, if we do not have the knowledge we are always in the way of making heavy losses. In the present state of dairy science it is inexcusable for any one to go blindly, about his work, when he, by a little reading and study, can be as fully informed on every dairy subject as the most expert.

Causes of Ropy Milk.

This is a matter that has puzzled many a dairyman and milk dealer, as well as farmer. Such milk is almost useless and unchurnable and yields a very small per cent. of butter, and it is well to know the cause and remedy, if any. Prof. F. G. Short, the State Chemist for Wisconsin, says this about ropy milk in the annual report of the Food and Dairy Commissioner for that state:—

"Ropy milk is said to be produced by a variety of causes; illness of the mammary glands, inflammation of the udder, cold of the same organ contracted by lying down on the ground, atmospheric influences, fodder containing certain plants, distillery slop, unclean rooms and utensils, etc. The remedies are equally numerous. The alleged causes for ropy milk point to two assumptions: either the milk when drawn from the cow is infected with the ferment, or the milk is infected after it is drawn from the cow. No experiments have been made to prove or disprove the first assumption. That ropy milk may be caused by infection after it has been drawn from the cow has been proved by experiment. If sterilized milk be inoculated with ropy milk and kept at a suitable temperature, it will be observed that no cream rises to the top, and that the milk gets ropy within twenty-four hours. After forty-eight hours have elapsed, the milk is of such consistency that it will not flow out of the vessel containing it even if the latter be turned upside down. The most suitable temperature for this development is 86° to 104° F. The energy of the ferment diminishes with rise of temperature, and at 104° F. it is entirely destroyed. Freezing prevents the development of the ferment, but does not kill it."

Dairymen's Remedy.

Last spring I asked a successful dairy friend why he did not get more cows, as he could easily do the additional head-work and his team could take a few hundred pounds more milk to the station without any more wagons or drivers than at present. He replied that he didn't want to increase his number, but was constantly increasing his milk by getting a better class of cows, and already nearly doubled the quantity of ordinary dairies. His receipts for eighteen cows for the seven months, ending April 30, were over \$1,100. He said that with the help of one hand he could milk and feed eighteen cows, with comfort to himself and the cows, but an increase of the number meant a larger stable and extra help, and he much preferred to draw the increase from the present number of udders. This idea is in the direction of progress, and in the coming dairy millennium will be so universal as not to suggest a newspaper item. The common cow gives 3,000 pounds of milk per annum; the uncommon one 18,000 pounds, or six times as much. To care for three cows would only give one man healthy exercise, while eighteen, as we have seen, gives work for two. Then the accidents of maternity and of disease are reduced in the ratio of 3 to 13, as in the stable-room.

A Model Subordinate Grange.

The Mutual Grange, No. 32, which meets monthly at Lambeth, Ont., is a model. We give a report of its last meeting that others may take note thereby. At their last meeting the election of officers took place; after the election and installation was concluded, the Black Knot and its destruction of our fruit trees was discussed, the subject being selected at the previous meeting. The discussion was heartily entered into by the members. Several remedies were mentioned and suggestions made, after which the following motion was unanimously carried:—

That we view with alarm the increase of what is known as the Black Knot in our plum and cherry trees, and, as symptoms of it is appearing in some varieties of apple trees, we would call the attention of the proper authorities to the fact, and think that the law should be more vigorously enforced.

A brother then gave a song, which was well received. After routine business, it was resolved that the subject for discussion at the next meeting be "Railroad Monopolies and How They Affect the Interests of the Farmer," to be followed by instrumental music by two members which were named.

For a time the Grange seemed to slumber; many of the Subordinate Granges ceased to meet; but we are glad to notice that a revival has taken place. The Grange is capable of being of great advantage to the farmers. The machinery for organization is very good and should be made use of.

Quality and Quantity.

BY WM. OLIVER, AVONBANK, ONT.

When Mr. Snell wrote an account of the importation and breeding of Cotswolds I do not suppose he expected any controversy. The Hon. Mr. Dryden tells us he has bred long-wools and does not wish to repeat the experiment again. I can tell him that I have experimented with Shropshires and I have no wish to try them again. Mr. Dryden also tells us that there are more people with twenty thousand dollars income in New York than any other city, and these are able and will purchase the best; but he forgets to tell us that there are hundreds of working people who are glad to take what they can get. Mr. T. C. Patterson can halloo bravo, Mr. Dryden, till he is tired, but it is like the empty hollow sound which the French soldiers raised at the Sourein Heights. Then Mr. Jackson tells us that the Shrop is not the sheep that the South-down is. Then Mr. Jackson tells us that when Mr. Snell won the silver water pitcher given at London for best flock of any breed it did not decide the point, but it carried its weight. Well, I think it carried something more, for I happened to be standing near a prominent importer and breeder of Shropshires and when the red ticket passed over on to the back of Mr. Snell's Cotswolds I beheld an expression pass over his face which reminded me very much of the expression which history tells passed over the face of the great Napoleon when he beheld the scarlet uniforms mingling with the waving plumes of the Old Guard at Waterloo. Mr. Jackson tells us what Alderman Frankland says, but he forgets to tell what Alderman John Hallam told us the year before. He also tells us why they won the sweepstakes at London. The reason was they (the judges) got into a dispute between John Kelly's Leicesters and William Walker's Lincolns, and to get out of it they gave it to the little Southdowns. However the Lincolns and Lincoln breeders are still alive, and to those who require a first-class feeding sheep, with the largest quantity of long, lustrous wool, which is ever in demand, the Lincolns will fill the bill. This breed, producing as it does, a large quantity of good mutton and wool and possessing a grand constitution, is a first-class producer of quality and quantity combined.

Varieties of Seed.

In view of the varied results which must always attend the growing of all crops, arising from climatic differences and variety of soils, it is most desirable that every farmer should test a few of the best and newer varieties of seed each year on his own farm. This practice would not only enable each person to derive the greatest benefit from the valuable work done by the experimental stations, upon which the home-testing should be based, but would give facilities for becoming acquainted with the characteristic habits of new varieties, and also provide reliable seed at the lowest possible cost. If careful selections were made in this way, not in all cases of varieties giving the largest yield, but of those which combine the greatest number of desirable qualities established by exhibitions of well-doing, the benefits resulting could not well be over-estimated. The summary of tests made with different varieties of oats and barley at the experimental stations in several states during the last few years show the following yields:—

OATS.	Maline.	Pennsylvania.	Illinois.	Wisconsin.
	Bush. per acre.	Bush. per acre.	Bush. per acre.	Bush. per acre.
White Schoonen	51.		31.9	82.7
Clydesdale	47.3		33.8	
Wide Awake	42.6	79.38	28.6	82.5
Texas Rust Proof			55.9	47.8
New Race Horse	46.6		24.4	76.4
Improved American		68.44	88.4	85.3
Improved White Russian			35.6	89.5
White Defiance			81.1	91.1
Welcome	48.	50.93	88.4	76.8
White Wonder		49.38	35.6	
White Centennial	23.3			59.5
Canadian black				
Texas Red			49.7	
Virginia Winter			20.	
Hopetown	25.33		35.9	

BARLEY.	Maline.	Pennsylvania.	Illinois.	Wisconsin.
	Bush. per acre.	Bush. per acre.	Bush. per acre.	Bush. per acre.
Mansbury	26.6	31.49		73.4
Scotch		31.91		70.1
Imperial	30.6			
Black		23.09		50.6
Champion Two-Rowed	55.6			44.0
Chevalier	13.3			55.3
Nepaul	39.6			

Below are the results of tests made at the Ontario Agricultural College respecting the comparative yields of spring wheat, barley, oats and peas which have succeeded best with them:—

VARIETY.	Wbence obtained.	Bush. per acre.	Lbs. per bush.	Tons of straw per acre.	Date of maturity.
Herisen Bearded	France	27.2	64	1.90	Aug. 14
White Fife	Ontario	26.9	60	1.58	" 10
Bart. Trimenia	Greece	26.3	64	1.06	" 10
White Russian	Ontario	22.1	57 1/4	1.91	" 11
Red Fern	"	21.9	60	1.76	" 6
Cheyne (two-rowed)	Germany	18.5	53 1/2	2.18	" 6
Chevalier (two-rowed)	France	17.5	52 1/2	1.13	" 6
Empress (two-rowed)	England	15.4	51 1/2	1.92	" 1
Early Black (six-rowed)	Germany	14.8	51 1/2	1.42	" 1
Early Black (six-rowed)	France	14.8	51	1.61	July 31
Scotch Improved (six-rowed)	Ontario	14.4	52	1.27	" 31
Common (six-rowed)	"	11.7	54 1/2	1.29	" 9
Goanette Black	France	71.7	34 1/2	2.0	" 8
Houdan Black	"	69.1	34 1/2	2.0	" 8
Chenailles	"	68.1	34 1/2	2.3	" 8
Oderbrucher	Germany	66.6	31 1/2	2.3	" 9
Darabroy	"	64.0	32	2.7	" 9
Siberian	France	63.6	34 1/2	2.82	" 9
Sweet Jessie	England	31.16	63 1/2	1.86	Aug. 10
Early Race Horse	France	28.29	64 1/2	1.96	" 11
Mummy	Ontario	28.29	69 1/2	1.50	" 11
Early Britain	England	28.37	60	1.51	" 11

The Dominion Grange.

The Dominion Grange met in London, Ont., on the 10th, 11th 12th of February. A large number of delegates were present. We hoped in this issue to give a full report of the meeting, but could not do so, as we did not receive the official report from the secretary until it was too late.

A full report of the proceedings of the Experimental Union will be given in our next issue.

The Business Farmer.

[Read by E. J. Darroch at the Minnedosa Farmers Institute, Dec. 31st.]

In speaking on a subject of which you know but little, it is easier to criticize than to advise. I will, therefore, attempt to criticize the average farmer for not earning and wearing the title of this paper, and I may throw in a little advice at the same time; but it would be needless for me to do this if the average farmer was only alive to his own interests. There is enough advice afloat from good and reliable sources, but there seems to be a backwardness in accepting anything but those old methods that have proved good in their day, but are inadequate to the needs of the modern business man. And right here seems a slight mistake,—the farmer is not generally known as a business man, and the term does not seem to apply to him. We say that a person is a good business man when he not only accepts and tries new and approved methods and plans, but throws his individuality into his business and conducts it in a little different manner from his competitor. He buys as cheap as he can, and sells as cheap as he can afford—in fact, he tries to undersell his neighbor. When a farmer conducts his farm in a similar manner, he too becomes a good business man, and often a successful one, and his advice and influence is respected in the whole community in which he lives. Such a man we call a good business man. The farmer is to blame for this distinction between men engaged in mercantile pursuits and those engaged in tilling the soil. The difference is only imaginary, and the only way to remedy this imagination is by looking upward and onward—in earning the title and wearing it with professional pride. Who's to blame if the farmer is not generally known as a business man? I say the farmer himself. Does he advertise as he should? Is he a subscriber to all the standard farm journals of the day? A judicious investment in this line will bring you in far greater returns than you may at first expect. No man can make a success at anything nowadays unless he invests in printer's ink, and the amount of work accomplished by his toil will be far greater for the moments spent in reading papers devoted to farm work. The household work will be far lighter if the magazine makes its weekly visits to the library, and the chores are made light for glad young hearts when the table is replenished with fresh reading matter every few days. I have also known farmers who send their boys, good strong lads, into the fields to work alongside of the hired man, and expect the boy to do as much work, for his board and clothes, as the hired man does for a dollar a day, and when the day's work is done the boy must do considerable more than his share of the chores, and run on errands about the place until bedtime. I would say, what a blessed privilege it is to be such a boy and to live on such a farm! I would also say a word for our mothers, wives and daughters. They do all the household work, besides taking

care of the yard and garden, for their board and clothes, while at harvest time we hire a neighbor woman and pay her seventy-five cents or a dollar a day for doing about half the work our own wives and daughters do every day in the year. It is no wonder the life of the farmer's daughter has been praised in song and story, and that the beautiful girl clings so tenaciously to the old homestead! "I would say, brother farmers, do not make such a mistake; pay your boys and girls for their work; give them an interest in the farm; pay them according to their worth; pay them promptly as you agree, and let them do as they choose with their own, and you will find more farmers' sons will succeed their fathers in business, and farmers' daughters better satisfied with their lot as farmers' wives. I will mention a few of the surroundings of the farm that is not occupied by a business farmer,—poor fences, a littered door yard, no trees, shrubs or flowers, everything lying loose about the place, all betokening shiftlessness, and certifying that the owner is not a business farmer. Hang out a better sign if you would be classed with business men. A good business man never misses a chance to better his trade or condition by the experience of others. He studies closely the trade journals and the new methods of advertising; he attends the conventions and belongs to the associations that are held for the benefit of his particular trade. But how is it with the average farmer? He rarely attends, and takes but little interest in the county fair, leaving the horse jockey to arrange it to his own advantage. He has no time for the farmers' club, but leaves the work of that and preparing for the institute to a few enthusiastic villagers, who have no direct interest therein. What other class of business men, when meetings are gotten up for their benefit, would allow another profession to step in and transact the business of the meeting? Surely we know of no other; but it is a common thing all over our land to see agricultural associations and farmers clubs managed and run by those outside the farm; and we say it is a credit to those same villagers who take such an interest in our farm work, as to lead in the management of those different enterprises. We say they have no direct interest in our avocation, but they have an indirect one, and it is so vital that the life and prosperity of their business depends on the success of the farmer, and thus they take a lively interest in all that pertains to and interests him, to the extent of making us strive to excell each other in our farm products. There is no business that will succeed when the manager does not put all his time, energy and thought into it. No business will thrive when the manager is continually telling that it does not pay—that he is running behind—that he is heartily sick of his business, and wishes he could find something else to do. A man must like his calling before he can expect any valuable returns therefrom, and those who are lukewarm to their own interests will find it far more congenial if they would take off their coat occasionally and help sustain the county fair, the farmers' club, the institute work or any other means by which the farmer may gain knowledge without the slow, tedious, and sometimes expensive "actual experience" process. Every business farmer should be progressive and alive to the needs of his profession, and to the demands of the times. By so doing he can bring up the standard of the farmer, and be able to wear with distinction and pride the title of a good business man.

Institute By-Laws.

Several Farmers' Institutes have asked the ADVOCATE to formulate or at least outline a set of by-laws for governing said institutes. The following, while not by any means perfect, will be found to fairly cover the ground not already covered by the act:—

DUTIES OF OFFICERS.

- I. The President shall preside at all meetings of the Institute and of the Board of Directors.
- II. The Vice-President shall act in all matters in conjunction with the President, and officiate for him in his absence.
- III. The Secretary-Treasurer shall keep accurately the minutes of each meeting, including a short synopsis of the papers read and addresses delivered; keep the minutes of the meetings of the Board of Directors; keep accurate account of all moneys received or expended; give notices of meetings as instructed by the Executive Committee; and make a report in accordance with the act at the close of the fiscal year.
- IV. The Board of Directors shall arrange time of meeting, arrange programme for all meetings, control all expenditure of moneys and perform such other duties as the Institute may direct.

PROCEDURE.

- I. The person introducing a subject by reading a paper, or making an address, shall have unlimited time.
- II. In the discussion following the introduction of a subject no person shall speak more than twice, nor for a longer time than five minutes, except by a vote of the meeting.
- III. When a question is under consideration no motions shall be in order except the following:—(1) to adjourn; (2) to postpone; (3) to amend. These motions taking precedence in the order named, and the first two shall be decided without debate.
- IV. Before the vote is taken on any motion or amendment, the President shall ask, "Is the meeting ready for the question?" The question shall not be put so long as any member desires to speak and is in order. Any member desirous of asking a question on the subject introduced may do so verbally, but if he desires to ask more than two questions, he must submit them to the Secretary in writing.
- V. The membership fee of this Institute shall be fifty cents per annum. The same to be due and payable on the day of the annual meeting, viz., the second Monday in July of each year.
- VI. No person shall be eligible for office, nor be entitled to vote, who has not paid his fees in full for the year.

ORDER OF BUSINESS.

1. Calling the meeting to order by the President.
2. Reading the minutes of previous meeting and their adoption, with or without amendment, as the case may require.
3. Reading and disposing of communications.
4. Unfinished business.
5. Reports of Committees.
6. Programme of the day and discussion.
7. Adjournment.

The know-all farmer will learn nothing from any source, but is always ready to give instruction. He invariably sticks to the methods of his father's; is averse to any new-fangled ideas, and everlastingly down on "book-farming." He attributes all his troubles to the government, and spends enough time railing thereon to make a profit on his business, if properly applied, and refuses to believe he can do anything to better his condition by individual energy. He does not regard brains as a factor in making farming a success, and sneers at science.

The Aspinwall Potato Planter.

The excellent picture on this page represents quite a new claimant for public favor, and one that seems to win its way very thoroughly wherever it is tried. The machine will plant from five to eight acres of potatoes per day, and all the work of marking, furrowing, dropping and covering is done in a single operation. The planting can be varied in depth from three to nine inches, and the covering is uniform. Instead of the dry earth on top, the coverers of the planter draw upon the seed the moist under-earth. The value of this is well-known to all potato growers, for few things are more fatal to the starting of the seed than to cover it with dry earth. The work is superior to hand planting. The furrow being V-shaped, the seed must necessarily be dropped in the bottom in perfect line, and cultivation can be made early and close.

The planter is adjustable for planting either whole or cut seed, and will plant from ten to

Fodder Plants, Roots, Etc.

Read by S. A. Bradford, of the Brandon Experimental Farm, at the Annual Meeting of the Manitoba Dairy Association, Portage la Prairie, January 15th.

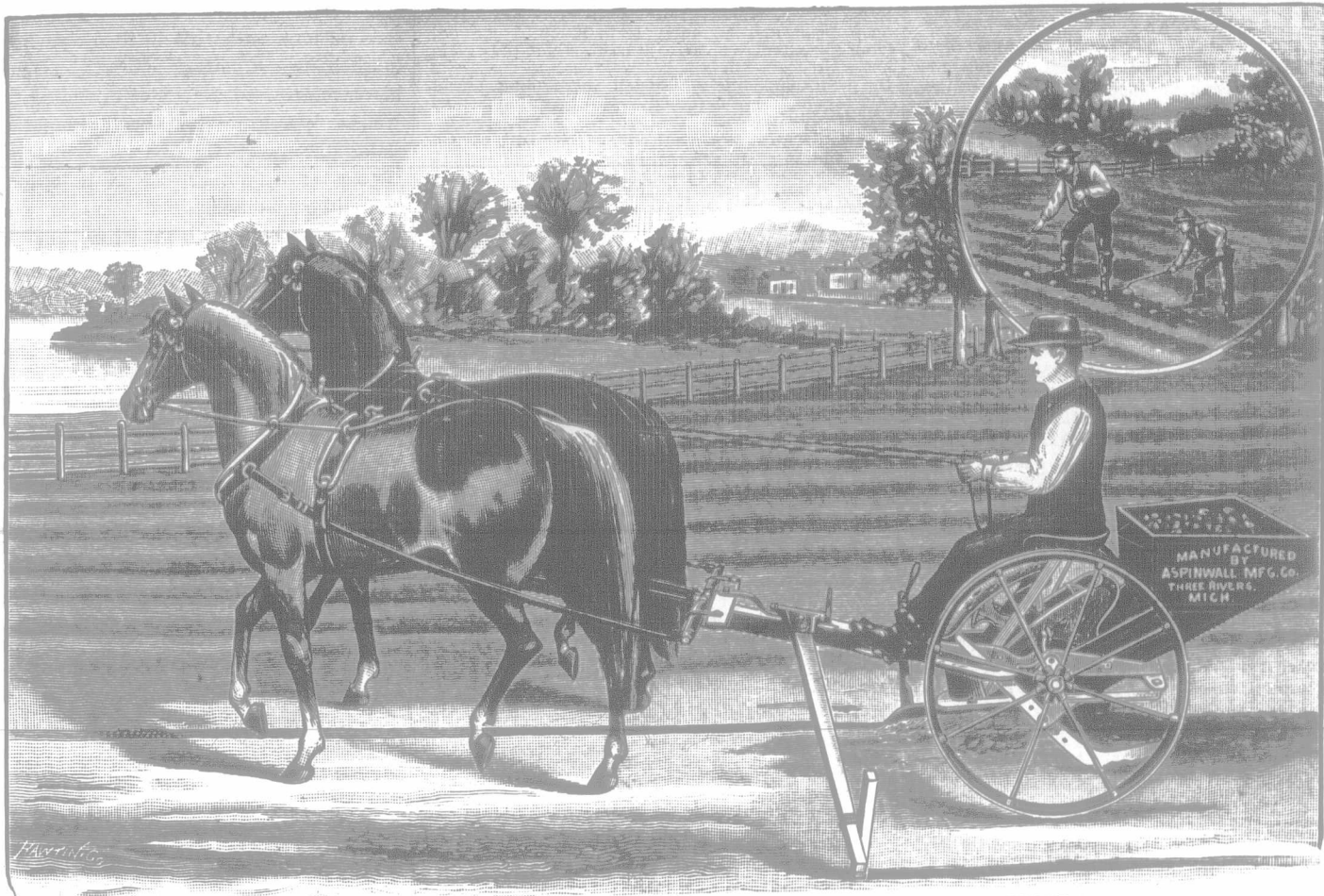
Owing to the unavoidable delay in providing the permanent buildings on the Dominion Experimental Farm at Brandon, nothing has yet been done towards testing the different breeds of dairy stock, therefore I am unable to speak on that portion of the work. Although scarcely expecting to be in a position to procure cattle this year, it was thought advisable to conduct some experiments with grasses, fodder plants, and root crops, and it is on this subject I would ask your permission to say a few words.

Owing to the condition of the farm when taken over by the government, only a few small plots of cultivated grasses and clovers were sown the first year. Of these, Lucerne, Red Clover, Timo-

Soon after getting possession of the farm, our attention was directed to the cultivation of the native grasses of the province. In 1889 a small quantity of the seed from several varieties was collected and sown in 1889. Despite the severe drought of that year, several of these varieties germinated and survived the following severe winter; these have now been growing two summers and one winter, and some of them are very promising; other varieties have been sown this year, and additions will be made from time to time.

Millet.—Four plots were devoted to the testing of Millet, and on June 5th the following were sown broadcast: German Millet, Common Millet, Hungarian and Chana, or Indian Millet. The yield per acre of dry fodder was as follows: Chana or Indian Millet, 5½ tons; German Millet, 4½ tons, and Hungarian, 3½ tons. The Chana is a plant introduced from India by Prof. Saunders last year, and is very promising.

Throughout Ontario, and in many portions of the neighboring Republic, the main dependence for cattle feed is on fodder corn. A few years ago



THE MODERN WAY—THE ASPINWALL POTATO PLANTER IN THE FIELD.

twenty-six inches apart. At all these variable distances it drops the potato with absolute regularity. The distance of planting is exactly the same in each row.

A fertilizer attachment can be used which deposits the fertilizer above the potato just as a portion of the earth has fallen upon it, thus all chance for injury to seed is avoided.

The mechanical construction of the planter is good. The materials are of the best, and it will last for many years. There is no cog gear and no fast motion. Excepting the pole and hopper, the machine is made of steel and iron.

A corn planter attachment is now made which will be wanted by many who purchase the potato planter.

Altogether, in its present high perfection, the Aspinwall Potato Planter is an implement few potato growers will care to do without. You can secure the catalogue from the makers by addressing the Aspinwall Manufacturing Company, Three Rivers, Michigan, U. S. A. This machine is very highly spoken of by all who have used it. Each machine is absolutely guaranteed by the manufacturers, whose catalogue contain a large number of very flattering testimonials.

thy and Kentucky Blue Grass survived the winter, and yielded a fair crop last season. The plot of Kentucky Blue Grass has proved very interesting; only a few plants of this grass started in 1889, but during the past summer these plants sent out side roots in every direction, and the ground is now covered with a luxuriant growth of herbage, which remained quite green until late in November. Although not suitable for hay, this grass promises well for pasturage; it requires some time, however, to get thoroughly established in the soil.

During the past season twenty-one varieties of cultivated grasses and clovers were sown with spring wheat. Among these grasses the most promising are Orchard Grass, Fescues, Timothy and Hungarian Forage Plant. The following clovers are also doing well: Lucerne, Mammoth Red, Common Red and Sanfoin. A long stubble has been left to collect snow, and we trust some of the varieties will survive the winter and prove useful for hay or pasture.

it was supposed that the climate of this province⁹ was not favorable to the growth of fodder corn, but on the Experimental Farm we have grown it for two years with marked success; this year the seed of over thirty varieties was sown with a common grain drill in rows three feet apart, and kept free of weeds by the use of the single-horse cultivator. When cut on the 28th August, the yield of green corn was from 12 to 46 tons per acre, or equal to one-half of this in dry fodder. These yields may appear very large to one unaccustomed to the growth of fodder plants here, but when it is remembered that in our rich soil all varieties of grain have a tendency to throw out side branches or stools, one can more readily understand the large returns. With us the corn is stacked in large stooks in the field, and drawn into the barn on the first fall of snow; it cures perfectly in the stook, and is readily eaten by the cattle. Next year it is proposed to sow a large area of this grain to be used for ensilage.

I shall be pleased at any time to give particulars as to the best varieties of corn for this province, manner of cultivating, etc., and I trust a number of you will give this promising fodder a trial next season.

On the South Pacific coast where, owing to severe drought, very few of the cultivated grasses thrive, we find large areas of grain of different kinds grown for fodder. This system has one great advantage for this country; for if the crop of native hay proves to be abundant, the crop of grain sown for hay can be allowed to mature and harvested as a grain crop, the farmer can by this means largely control his supply of fodder. On the Experimental Farm this year twelve different mixtures of grain were sown for fodder; of these a mixture of oats and peas gave the best results, yielding three and three-quarter tons of dry fodder per acre, closely followed by barley and peas with three and a half tons. Wheat and peas gave three and a-quarter tons. These crops were easily cured and greedily eaten by both horses and cattle. Spring rye has given an early crop of two tons, but I do not consider the fodder from this plant equal to a mixture of oats and peas.

Roots.—Seven varieties of swedes, and ten varieties of white and yellow-fleshed turnips were tested during the past season, the best of the swedes gave over one thousand bushels per acre, and the grey stone yielded 1,300 bushels, mangel-wurzel gave 825 bushels and field carrots 381 bushels. It will be seen by the above yields that roots can be successfully grown here. One of our most promising green crops is that of rape and cole; this has done remarkably well with us this year; sown in rows three feet apart on June 3rd, it yielded in October thirty-three tons per acre. Cattle eat it greedily, and with us it has never tainted the milk when fed to cows. It is a very useful feed for keeping up the flow of milk after frost has injured the pasture.

Seedsmen's Catalogues.

From a number of catalogues sent us by leading seedsmen, we call attention to the following:—

That of Messrs. Steele Bros., & Co., Toronto, is large and nicely illustrated, containing much valuable information. In it they mention many new and useful varieties of seed grain. From a large number of grasses, we notice, as being among their most useful sorts, Meadow Fescue, a variety that does well in most soils, making excellent hay and is a good cropper. Their new oats, Steele's White Cave, which are not procurable from any other source, as they have purchased the entire stock, are undoubtedly one of the very best. From our own experience with them we recommend them to our readers with confidence. Their earliest history, as far as known, takes us to the County of Ontario, where, to our knowledge, they gave a yield of over 100 bushels per acre grown on a trial plot. Last year we sent out over 800 packages from this office to various parts of the Dominion, and in every instance where replies were received they were entirely satisfactory. Below are testimonials from leading farmers:—

GLANWORTH, ONT.

The White Cave Oats that I saw growing on the farm of Messrs. Shore Bros., White Oak, was the most promising I have seen during the past season, and should yield most abundantly. When I saw them shortly before harvest they had made a most vigorous growth, standing very thick on the ground, the straw being a good length and very bright and stiff. The crop was remarkably heavy, and was particularly attractive. They should prove a great acquisition, as the grain is thin in the skin and heavy.

W. S. HAWKSHAW, F. R. S.

COLUMBUS, ONT., Dec 6, 1890.

Dear Sirs,—I have carefully examined the White Cave Oats when growing in the field, and from reports and observations, I have concluded it is a very superior sort, being a heavy yield. The straw and grain are most desirable. Yours truly,

WM. SMITH, M. P.

See article entitled "What Our Seedsmen Write Us" for further testimonials.

Messrs. Steele Bros. offer a prize of \$10 to the party growing the largest crop from five pounds of this sort grown from seed purchased from them.

This firm also offer a new spring wheat, Campbell's White Chaff, a sample of which we have examined. It is exceedingly fine. The introducers speak of it as follows:—

This remarkable new variety has now been grown in Canada for several years, and has proved itself admirably adapted to our climate. It originated in Incoe County, one of our finest wheat growing districts. Mr. David Campbell, the originator, selected it eleven years ago; for some years it changed somewhat in character, but the type has now become fixed. We have secured the whole stock of this *grand new spring wheat*, and feel that we are offering a wheat that will give our customers the greatest satisfaction. Campbell's White Chaff is a bald wheat, club shaped, with a compact and rather heavy head, well filled to the top, and is

a very good, thrifty grower, stooling profusely, for which reason five pecks of seed is quite sufficient for an acre. It grows a strong straw from 2½ to 3 feet high, and of a deep green color which it maintains till ripening; matures from ten days to two weeks earlier than other standard varieties. The grain is white, thin-skinned, and very plump. As the supply of Campbell's White Chaff Wheat is limited, we advise early orders, as we cannot fill any orders after the stock set apart for sale this season is exhausted, and we advise every person who wants to make the most money raising wheat to get a start this season. We claim that this is one of the earliest spring wheats grown.

Prof. Saunders writes from Experimental Farm, Ottawa, December 29th, 1890:—

GENTS.—We have had two years' experience with Campbell's White Chaff, and it has yielded the heaviest crop of any of our spring wheats. Last year the crop was 36¼ bush., when our best crop of any other variety was 30 bush. I have examined this grain very closely for the past two years in all stages of its growth, and I think it is the most promising spring wheat for Ontario in the east we have handled.

JOHN A. BRUCE & CO., Hamilton, Ont., offer seed grown from new varieties of oats introduced by them from the north of Europe, which they claim have proven exceedingly satisfactory. These comprise: Giant Swedish (side), obtained from Sweden. Although of recent introduction there it is largely grown; Holstein Prolific, from the shore of the Baltic Sea, a white variety, with large, branching, open head, and an early sort; Early Archangel, from the extreme north of Russia, which they claim is the earliest variety in cultivation, and possessing the desirable characteristics of having long, bright, stiff straw, and plump, heavy, white grain, of excellent feeding quality.

WM. EVANS, Montreal, whose extensive experience and long business career in the seed line should enable him to select those kinds which are the best. Issues this year his thirty-sixth annual descriptive catalogue, which contains a very extensive and complete list of agricultural grasses and cereals of merit. Evans' Improved Pea Bean is claimed to be a decided improvement on the old standard pea bean, in both earliness and productiveness, being an upright grower and heavy bearer, and ten or fifteen days earlier than the old sort.

D. M. FERRY & CO., Windsor, send a fine catalogue with many useful hints to practical people. One of their specialties is the Japanese Buckwheat, a variety of vigorous growth, early maturity, and very large grain of good quality, with thin hull.

WM. RENNIE, Toronto, also has a beautifully illustrated and fine catalogue. Their list of spring grains is very complete, including very many of the leading kinds of spring wheat, barley, oats, pease and buckwheat. He has Chevalier Two-Rowed barley, both imported and that grown from imported seed, as well as the leading six rowed varieties.

SAMUEL WILSON, Mechanicsville, Pa., whose artistic and handsome catalogue, among other cereals mentioned, directs especial attention to Okanagan Navy Chaff spring wheat, a sort originally from British Columbia, as one of high merit, and also Wilson's Prolific Side Oats, which, he says, produce large quantities per acre of grain, weighing from 40 to 45 pounds per bushel in ordinary seasons.

JOHN H. SALZER, La Crosse, Wis., whose catalogue is an exceptionally fine one, is replete with illustrations of grain and grasses, showing their manner of growth, and description of habits, yields and relative usefulness. Among the many sorts mentioned, we will only call attention to Salzer's California Prolific barley, which, from description and cut, appears to be an immense yielder, with very little beard, and grain of the largest size.

GEORGE KEITH, Toronto, is among the leading and most reliable seedsmen of Canada. His catalogue, although not of such an elaborate character as some, at once attracts attention by its neat appearance, and, on examination, is found to confirm the impression, at first formed, of usefulness, its suggestions regarding culture being very instructive. The list of agricultural grasses and seed grains, comprising wheat, oats, rye, barley and buckwheat, is complete, and cannot fail to be appreciated by the enterprising farmer.

MID-CONTINENTAL NURSERIES, Fairbury, Neb., whose catalogue contains a very complete list of trees, shrubs, vines and plants, both fruiting and ornamental, and who, from the locality of their nurseries, should be able to furnish the most hardy growers, also furnish a neat little instruction book for transplanting and culture of the different kinds which they grow, that will be very useful and a benefit to those who receive it.

THE GERMAN NURSERIES, Bower, Neb., of which Mr. Carl Londeregger is proprietor, are also operating in a latitude which should be able to supply the western provinces of Canada with hardy fruit and ornamental trees, shrubs and plants. His price list contains an extensive list from which to select at regular prices.

CHAS. W. BUTTERFIELD, Bellows Falls, Vt., whose catalogue is to hand, contains an extensive list of plants, seeds, cuttings, etc., comprising many selections of merit.

Besides the above there are among our advertisers Robert Evans, Hamilton; William Ewing, Montreal, and E. D. Smith, Winona, Ont., whose catalogues have not come to hand, but which would, no doubt, be sent free to any person applying, as well as the others whose names appear above. We advise our readers to write to each of these gentlemen for their catalogues.

Seed Testing at the Experimental Farm vs. at Home.

BY JOHN SEABURY.

I notice that you gave the article on testing seeds by Prof. Saunders a place in your number, and as your columns are open for discussion, I ask you to give the following a place also. To my mind this seed question is becoming monotonous and threadbare, and I think the Professor is making a great mistake in taking up the question in this way. My idea of an Experimental station is that it should be an educator of the farmers and people by giving them such information and instruction as will help them and teach them to be better farmers, better experts in their business, and above all to depend on themselves and not on the government for assistance to do the most simple and easiest of experiments and tests, viz., that of testing seeds. Why don't the Professor issue a bulletin and tell the farmers how to do this in their own homes and in their own kitchens. Can the teacher teach his scholars how to read by reading to them? Neither can Prof. Saunders teach farmers how to do this work by sending their samples to Ottawa to be tested. To me it looks childish and ridiculous to ask farmers to send their samples to Ottawa, when they can test them quite as well at home; and even, if not quite so well, it is an educator and instructor, and will be a step in the direction of awakening an interest in this class of work, and this is just the point, and a very important point. Farmers do not, as a class, take enough interest in the details of farm work, and if this interest can be awakened in any way, a good work will have been begun.

Many will say "how can farmers test their own seeds!" Nothing is easier. Take a few small flower pots, or, what is better, some shallow boxes similar to those used by gardeners for setting tomato plants in, and count out one hundred seeds of each variety, and put them in this box, first filling it with nice, clean, good soil—something soft and friable that won't bake or dry too quickly. Clean sand is better than a stiff hard soil. A box 12 x 6 will hold 12 to 18 samples of 100 seeds each of any ordinary variety of garden seeds. Keep this box warm and moist, and watch the growth, and when nicely sprouted count out the number grown, and that will give you the per cent. For instance, if 85 out of the 100 grew, then 85% is the growth of that sample. Should one test on any one sample tested not grow satisfactory, try it again. Don't condemn with one trial, for I have known the second test to be often entirely different from the first, and more satisfactory. Farmers will find this a most interesting and instructive work, and one that everyone should be familiar with, for I venture to say were they more familiar with the germination and growth of seeds, and the beautiful, delicate, sensitive things these young and tender plants are, they would be more considerate and give them a much better seed bed, and by so doing enhance the value and chances of their crops fifty per cent. Before closing I would call the attention of your readers to the article that appeared in the February number of your paper on seeds, page 51, viz.:—"Reply to our seedsmen and some needed reforms." The hints and instructions there given, with my feeble remarks, will, I think, enable any man of ordinary intelligence to test his own seeds, and if he does not succeed just as well as he might wish at the first time, by persevering he will soon be able to do this work to his perfect satisfaction.

Wheat.

[Read at the Bradwardine Meeting of the Lansdowne Farmers' Institute, February 7th, by S. A. Bedford, Director of the Brandon Experimental Farm.]

I am pleased to be with you this evening. I am in hearty sympathy with the work of the Farmers' Institute. The Experimental Farms are working on the same lines, and they can often materially assist each other. I have already attended several of the institutes throughout the province, and have received many good suggestions from the discussions carried on there.

The subject selected for this evening's discussion is, perhaps, one of the most important connected with the agriculture of this province, for if only a few cents per bushel can be added to the value of the fifteen million bushels of wheat grown in the province, it will put thousands of dollars into the pockets of the farmers. No doubt, the principal obstacle in the way of successful wheat-growing here is the liability to fall frosts; recognizing this fact, Prof. Saunders, Director of Experimental Farms, has taken pains to collect varieties of early wheats from nearly all parts of the world. These and a number of varieties already in cultivation here and in the Eastern Provinces have been tested on the Experimental Farms during the past season, and it is of these I would speak to-night.

In the commencement, perhaps, it would be well for us to define what is required of a wheat, to make it suitable for this province. I hold that first and foremost the quality must be good; we have too good a reputation as a wheat-growing country to allow a poor variety to replace varieties such as the Red Fife.

Then comes productiveness. Wheat has brought such low figures of late years, that, unless a fair return per acre can be obtained, farming becomes a losing business. As an evidence of how wheat varies in this particular, I might say that on the farm this year the yield of different varieties sown in adjoining plots have varied from twelve to thirty three bushels per acre.

Then, earliness in ripening is another important qualification, for unless the wheat is sufficiently early to escape our fall frost, the product will be of little value. No doubt some varieties are less liable to attacks of smut, rust, blight, etc., than others; all these points, and some others not mentioned, have to be studied when deciding on the question of a selection of wheats. Sixty varieties of wheat have been tested on the farm during the past season, but time will only permit of my dealing with a few of the most promising varieties. The plots used for testing wheats were generally half an acre in area, and every fourth plot was sown with Red Fife. By that means, a well-known wheat as a standard for comparison was growing in close proximity to the other varieties; all were sown at the same time, and received similar treatment during growth, harvesting, threshing, etc. The Red Fife, if properly matured is, no doubt, one of the finest milling wheats grown in the province, and we can scarcely expect to excel it in this particular. In productiveness it also stands at the head of the list of those varieties tested on the farm. It is also remarkably free from rust, blight, and smut; the straw is about as stiff as any variety we have; but in earliness and evenness in ripening, it is inferior to many varieties. When sown early in April, Red Fife has taken with us 134 days to ripen, while other varieties

matured in from 117 to 130 days, or from 4 to 13 days earlier than Red Fife.

White Fife rates high for quality and yields with us about the same as the Red. Although no earlier, it does not show the effects of frost like the Red Fife. The White Connel is another bald wheat, ripening with the Fifes, and yielding fully as much as either; it has also given us a better sample than Red Fife. Red Connel is also a wheat of good quality, five days earlier than Fife, and nearly equal in yield.

Among the red wheats we have the Ladoga, imported from Northern Russia by Prof. Saunders. This is a bearded wheat, a little longer in the berry, but not as plump as the Fife; this ripened with us six days earlier than the Fife, but gave eight bushels per acre less.

Red Fern is another bearded wheat, dark red in color, bright and hard, with a rank but stiff straw; this variety also ripened six days earlier than Fife, and gave the same yield within a few pounds.

Russian Hard Tag is another red wheat, too ricey to rank among the best varieties, but fully six days earlier than Fife, and nearly equal to it in yield.

Among the wheats grown on the farm are a number of varieties from India, all early, but very few of them are productive with us; one of the best for quality, earliness and yield is the Hard Calcutta, it ripened thirteen days earlier than the Fife, but yielded less by five bushels than that variety.

Of the soft varieties of wheat the following are early and productive:—Australian, a bald and very white wheat; California White is improving rapidly in quality; Defiance, Rio Grande, Judket, Campbell's White Chaff, Blue Stem, French Imperial, Golden Drop, and Green Mountain.

I have here with me samples of these varieties, both in grain and in the straw, and will be very happy to give all the information I can to anyone desiring it.

Early and Late Sowing.

The early sowing of spring wheat, barley and oats shows in every instance, beyond a doubt, the great advantages of the farmer. The generally accepted truism—that the best results are obtained from early sown spring crops has never had enough careful investigation to ascertain how much was the gain or loss from this cause. The valuable services rendered by trials at the Central Experimental Farm at Ottawa in this direction will, we trust, have a beneficial effect in not only inducing others to experiment in different localities, but of impressing more forcibly the advantage of early sowing upon the farming community. The loss on Prize Prolific barley by a delay of one week was nearly sixteen bushels per acre, and Danish Chevalier a little more than eleven bushels, while a delay of two weeks shows an average loss in the two experiments of more than half the crop, or about eighteen bushels per acre. If these tests could be relied upon as conclusive in an absolute sense the loss of one week's time in sowing the barley of Ontario, reckoned at 50 cents per bushel, would be over two and a-half millions of dollars in one crop. In spring wheat the loss of one week only gave a loss of about one-sixth of the crop, while two weeks delay resulted in a loss of one-fourth of the crop.

Oats seemed to be less influenced by late sowing than either wheat or barley. In the case of Prize Cluster there was a falling off of about three bushels per acre for the first week, but a

delay of two weeks resulted in a loss of over six and a-half bushels per acre. The oat area of Ontario each year is so large that the loss of one bushel per acre, taking oats at 40 cents per bushel, is equal to \$752,946.

These tests correspond with our own experience. We will cite two cases. The first was a field of thirty acres of barley. The land was similar in every particular. Fifteen acres of this was sown with six-rowed barley on the 28th day of April. A heavy rain prevented the sowing of the remaining fifteen acres for about eight days; it was then sown with seed taken from the same bin as that previously sown. The first half yielded 50 bushels per acre, the average weight of which was 54 pounds per bushel; the later sown half of the field yielded 39 bushels per acre, the average weight of which was 48½ pounds. A field of fifteen acres of White Russian wheat was treated in a similar way, four acres of which was sown six days earlier than the remainder of the field, and yielded per acre three bushels more than the average of the remaining land, and weighed one pound per bushel more.

Ottawa Central Experimental Farm.

The staff at which consists of Professor Wm. Saunders, Director; James W. Robertson, Agriculturist and Dominion Dairy Commissioner; John Craig, Horticulturist; James Fletcher, Entomologist and Botanist; Frank T. Shutt, Chemist,—thus are they equipped for efficient work in the different departments, all of which we hope to review from time to time, and from which we hope to derive a large fund of information, alike interesting and useful to our readers wherever situated.

Apart from what is being done in feeding experiments at Ottawa, of which we will have more to say next month, we may state here that the eight pure breeds of cattle kept, including Shorthorns, Polled-Angus, Galloway, Ayrshire, Holstein, Devon, Jersey, Quebec Jersey, as well as Grades, are all in the highest state of thrift. High, luxurious feeding is not aimed at in any case, but the most plentiful supply of cheap, bulky feed grown on the farm is used, to which is added a very small supply of the more concentrated sorts, including grain, oil cake, cotton-seed meal, etc. As might be expected where the greatest pains and skill, combined with watchful supervision, is practised, each breed is giving most satisfactory results, each of the buildings being laid out with a view to making each department tell, as well as the most economical expenditure of labor. In order to feed liberally, it is necessary that a liberal amount be grown, and in this particular the management have been eminently successful. Not only have ensilage crops turned out a decided success, but the roots were the finest, taken collectively, of any we have seen during this season, and speaks volumes for what attention and necessary labor will accomplish, particularly as not the first particle of any special or commercial fertilizer has been used. The root-house is divided into bins, holding large quantities of each variety of mangolds, carrots, turnips, sugar beets, etc., and each sort had numbers of specimens equal to those of any show collection at our exhibitions. Size and quality was remarkable in each of the varieties, not in picked specimens, but throughout the entire mass, and the yield of each variety, which is duly recorded, is in every case very large, and in some few particular cases enormous. Another month we hope to publish the weight

per acre of all root crops grown, as well as that of the corn and other crops that are being used for ensilage.

SEED DEPARTMENT.

The work in this line will be of most interest for our agricultural readers at this season, and it is with this department we wish more intimately to connect the review of the work now being conducted at the Central Experimental Station, it being just now farmers are looking out for the best varieties of seed grain.

The granary is admirably laid out for the purpose of keeping each of the different sorts of seed grain separate. It is large and airy, with each of the numerous bins having close-fitting lids, in order that no chance foreign grains be admitted.

Among the spring grains, oats, barley, spring wheat and peas are being experimented with in the order named, in order to find which of the many new and old varieties will yield the largest returns per acre, as well as to test the quality, relative value of the straw, early maturity, difference in hardness, and all other useful points being kept in view. Taken as a whole, the most encouraging results have been attained. Splendid specimens of each of those that are best known in the country, while a number of new kinds had more or less to recommend them. The smaller plots are carefully threshed by a small separator, driven by tread-power, due care being exercised to prevent the different sorts from becoming mixed. By careful weighing, the weight per acre of the small plots is ascertained, and all, both large and small, duly recorded, the greatest care being taken that the exact yield be arrived at.

Attached to the local tests of all varieties, three-pound bags to the number of 12,209, or over eighteen tons, were sent gratis to farmers in different parts of the country during 1890. The following are the numbers of samples of each grain sent:—Barley, 5,189; oats, 4,909; wheat, 2,079; peas, 216; corn, 16, and some few more from the branch farms in the other provinces. From these a great number of replies as to the value that each variety attained in the locality sown; and here we might say that those parties that have given the results obtained will be the first again to be supplied, and although many have obtained a large enough quantity of a new variety of seed grain to supply a whole neighborhood in a few years from this source, still it is by the collective experience of the whole country that the object sought will be arrived at.

Of the large quantity of prize prolific barley imported last spring, the replies and samples received have been most gratifying to the management. This barley was unfortunately very late in being received, Mr. Carter, the seedsman in England, through whom it was purchased, finding it a difficult matter to supply so large a quantity pure; this, again, had all to be recleaned, as having been through the elevators foreign seeds had found its way into it on its arrival; to this is ascribed the vexatious delay in sending it out; 7,500 bushels in all were sent out in two bushel lots. One thousand two hundred of the farmers who received this barley report an average of four bushels in excess of the ordinary six-rowed, and 1,000 of the samples sent weighed from fifty to fifty-four pounds per bushel. There is no doubt if this barley could have been distributed and sown at the proper time a much better showing

would have been the result, and doubtless the sowing of the seed grown here will give better yields of heavier grain, as those that are accustomed to sowing any variety of imported grain know how much better the growth is after it becomes acclimatized. A sufficient quantity of the Canadian-grown prize prolific has been exported to brewers in England, in order to test its value for malting purposes. The result is not yet known, but a most encouraging outcome is expected, and will settle forever the advisability of finding a market for this grain in England.

As this station is the central, having other stations in the lower provinces as well as Brandon, the Northwest and British Columbia, the Director is enabled to judge very closely which variety of any of the kinds of grain are best suited to a given locality, and therefore those sent out are, according to past experience, the most likely to succeed. The immense benefit that a few bushels per acre in addition to the crop ordinarily grown would make to the country at large, means a tremendous addition to the grain returns of the country. Governments of other countries have not been idle in pressing forward advanced methods, and Canada is reaching out as fast as any country to attain the highest position as a grain-growing and stock-raising centre.

Associated with the numerous experiments being conducted for the advancement of agriculture, testing the fertility of seeds is particularly useful; failure of crops is too often occasioned by sowing seed a large percentage of which does not germinate; and in barley some varieties are naturally lacking in this quality, which detracts materially from its value for malting. A hot-house, properly furnished for the work for both water and earth tests, gives the percentage of seeds that will grow, as well as their vitality and after-healthy growth.

All that is required is for the farmers or seedsmen to send samples to the Central Experimental Farm (free), and the desired result will be returned in short order, as there is plenty of room for this work.

Below is given the different yields of the several varieties tested at the Ottawa Experimental farm during last year:—

VARIETIES.	When sown.	When ripe.	Yield per acre.	Weight per bush.
OATS.				
Victoria Prize White.	April 22	Aug. 2	384	41 3/4
Prize Cluster.	April 22	July 30	37	42 1/2
American Triumph.	April 25	Aug. 11	374	35 1/4
Canadian Triumph.	April 25	Aug. 2	314	43 1/2
Banner.	April 25	Aug. 8	324	32 1/2
Flying Scotchman.	April 22	Aug. 2	304	38 1/2
Bonanza.	April 25	Aug. 5	42 1/4	41 1/2
Weis one.	April 28	July 29	33 1/4	36 1/4
WHEAT.				
White Fife.	April 25	Aug. 12	184	55 3/4
Judket.	April 25	Aug. 10	11 1/2	58 1/2
Russian Hard Tag.	April 25	Aug. 8	20 1/4	60 3/4
Red Fern.	April 25	Aug. 11	18 1/4	61
Rio Grande.	April 25	Aug. 16	17	59
Campbell's White Chaff.	April 23	Aug. 13	14	58
BARLEY.				
Selected Chevalier.	April 26	Aug. 5	46 1/2	53
Prize Prolific.	April 22	Aug. 4	40 1/4	52 1/4
Peerless White.	April 26	Aug. 6	46 1/4	51
British Chevalier.	April 22	Aug. 4	33 1/4	53
Golden Melon.	April 26	Aug. 6	44	52 1/4
Danish Prentice.	May 3	Aug. 12	30	52 1/4
PEAS.				
Golden Vine.	April 28	Aug. 4	36 1/4	65 1/2
Marble.	April 28	Aug. 9	35 1/4	65 1/2
Black-Eyed Marrowfat.	May 8	Aug. 9	39 1/4	61 1/2

Bee-keeping on the Farm.

BY R. F. HOLTERMANN.

The above subject appeared to excite some interest at the last meeting of the Ontario Agricultural and Experimental Union, and therefore, before it slips out of my mind, it will be well to define the position bees should occupy as a branch of the farm. The specialist in gardening, poultry raising, stock raising etc., will doubtless say, in order to make the very greatest success in their line of business and know most about it, you must have the characteristics which are requisite to success in anything. Next, you must be in the right locality, you must like the business, and next you must make a specialty of it. The specialist in bee-keeping will doubtless say the same. So far, therefore, these other branches which are generally found on the farm do not differ from bee-keeping. There are men who appear to be able to make a success of everything they undertake, and again those who make a failure of everything; the latter will probably make even a greater failure of bee-keeping. Bee-keeping appears to require special attention at certain times of the year. The bees, unless attended to properly during the honey season, will, or at least may, prove a loss; swarms must be looked for and hived, and if there is no honey coming in they need no attention as far as swarming goes, and none as far as taking of honey is concerned. If little honey comes in, the attention is proportionately small, and in no case, with a few colonies, is the labor great. The only difficulty is swarming where children are at home, and most of the swarming is during the summer holidays. The promise of 5 or 10 cents for every swarm detected, makes the youngsters hang about the hives all day with contentment and keeps them out of mischief, besides educating them to observe closely and be useful. Where no children are, and they cannot be placed near the kitchen window and watched there more or less, or the bees watched in some other way, bees had better not be kept unless some of the swarm catching devices are used, with which I have no experience. The queen traps may work, although the bees may not do as well as if the entrance were quite free from obstructions. The farmer must judge from his own locality if it will pay to keep bees there. It would not be wise for every farmer to embrace all the other branches of the farm, so it would not pay every farmer to embrace bee-keeping. No sound reasons can, however, be advanced why bee-keeping should not be a branch of the farm as well as poultry raising, fruit growing, etc., etc. The farmer will probably not make as much money out of bee-keeping as the specialist, yet, not having all his eggs in one basket, he may be in a safer position. He has another advantage in a majority of cases over the specialist; his locality is not as well stocked as the specialist's, and his bees have a better selection of flowers from which to gather the most honey. Again, he can sow Alsike clover, buckwheat, and other useful crops to the advantage of his bees, and no injury to the other branch of the farm.

A representative of the ADVOCATE working his way from Saltcoates to Birtle writes as follows:—"To the north of the Qu'Appelle River, between the Little Cut Arm and Big Cut Creeks, in Assiniboia, is a stretch of country well adapted for ranching purposes. In the neighborhood of Dongola, a few miles to the north of the river, a good sample of grain is grown. With the advent of the Great Northwest Central Railway into this section of country, prosperous times may be looked for by present and future settlers."

Successful Artificial Incubation.

BY W. G. HUGH.

Does poultry-keeping pay? is one of the vexed questions to which one-half of mankind answers yes, and the other half, nay, nay. It, therefore, depends entirely on the keeping, the keeper and the surroundings. One of the best means whereby poultry have been made to pay at least a fair return, is the method of artificial incubation which has of late years attracted attention and made considerable progress. This system is generally adopted in large poultry yards in England, and a deal more in France. Incubators are very successful if thoroughly understood, and well repay the initial cost of purchase. Suffice it to say, they take up less room and less time than a number of sitting hens, and, when well understood, are as successful as the most careful hen. Do not for a moment imagine you have nothing to do but fill the tank with hot water, light the lamp, fill the drawer with eggs, and wait for the chicks appearing. Careful attention is required. It is not necessary to give a detailed account of all the various machines now in use; some are costly and perfectly useless. I would advise those who think of hatching poultry by artificial means, not to purchase an incubator when it is necessary to pour in gallons of boiling water every night, and at the end of twenty-one days be recompensed by six chicks from your fifty or more eggs. I have hatched forty-five chickens out of fifty fertile eggs. How this has been done I will briefly state. An incubator which can give such results must, in every respect, have the natural conditions of the hen. The essential parts of the contrivance are a cistern of water heated by coal oil, with a drawer beneath to receive the eggs. Ventilation is insured by a supply of air being allowed to ascend through a piece of very open canvas, which is kept moist by its margins being in a tray of water. This supply of air passes through perforated zinc, and a layer of finer canvas on which the eggs rest, so that the under sides of the eggs are exposed to cool moist air, and the upper to the heat radiated from the hot water cistern above. The maintenance of a steady temperature, which must not on any consideration be allowed to rise, even for a short time, above a certain point, is the most important consideration. This is very ingeniously accomplished in the incubator under notice. It consists of a small capsule placed immediately over the eggs, hermetically sealed. Within this capsule are a few drops of a volatile hydrocarbon liquid, which, by fractional distillation, can be obtained of the exact degree of volatility required, so as to boil at any desired temperature; when this is reached, the spirit is immediately volatilized, and the capsule from being flattened is distended into an ellipsoid form. On this capsule rests a perpendicular rod, in its turn supporting a horizontal lever, which carries at its end a disc closing the top of the chimney over the lamp, and so directing the current of hot air through the horizontal tube in the cistern. On the heat reaching the required point, the capsule expands, raising the lever and the disc which closes the top of the chimney, thus allowing the heated air to escape directly, in place of passing through the tube in the cistern. Consequently, overheating is impossible while the apparatus is in action, and by adjusting a movable weight on the lever, the temperature may be regulated as required. And

when once adjusted to any required temperature, no further attention is needed, and for six months the heat in the egg drawer did not vary more than one degree, while the heat of the atmosphere varied from ten to fifteen degrees. I have found that when the air in the room in which the incubator is placed is about 60° or 70°, the best temperature for the drawer is 104°. During cold weather the drawer may be a degree above 104°, and warm weather a degree below. I have hatched fresh eggs out on the nineteenth day. This I attribute to the steady heat maintained in the drawer.

A much more important point than mere exactness of temperature, is the supply of the proper amount of moisture to the eggs during incubation. The hen in hatching furnishes a good supply of moisture from her body, and in ordinary cases of natural hatching this is supplemented by moisture from the earth upon which she makes her nest. There is in an egg, in addition to the material necessary for the formation of the chicken and for its sustenance, a certain quantity of moisture. During the early stages it performs the important function of intervening between the floating germ and the lining membrane of the shell. If the heated air be too dry, the moisture of the egg is absorbed, the germ comes in contact with the lining membrane of the egg and sticks to it. The effect of this is that when the egg is turned the germ is turned away from the top of the egg where the heat is applied in most incubators, to the bottom, where there is too little heat to keep up the development of the germ. As it is stuck it remains down and the germ dies, and in course of time decomposition sets in, and the egg becomes what is known as rotten. It is necessary to turn the eggs at least once during every twenty-four hours. The custom of turning them had its origin in the fact that it is known that the hen moves her eggs about in the nest, placing those in the centre that had been outside, and vice versa. It is also necessary to air the eggs for at least from ten to fifteen minutes once a day.

I have found that the best method to rear chickens successfully, is to place them when hatched out under a sitting hen. When coming off during the night they take care of as many as thirty chicks, and are much preferred to brooders. Deformed chickens are caused by some unusual vibration of the incubator, or when eggs have travelled a distance. Either let the noise be continuous, or prevent as much as possible. It is not wise to keep quiet for a week, and then drop a cordwood stick near your incubator. Remember that the greatest care is necessary from the ninth to the sixteenth day. You will find that your chickens will be equally as strong as those hatched by the most careful hen.

Oak River Municipality, Manitoba.

The farmers of this municipality speak of the season of 1890 as a good one. Wheat, barley and oats yielded well, and are now commanding the highest market prices. A large number of good grade cattle, many bred chiefly from stock imported from Ontario some eight years ago, are here, and doing well. Messrs. Jas. Smith and Jas. Anderson, of Logoch, and Mr. Geo. Rankin, of Hamiota, are owners of pure-bred Shorthorn cattle, which will doubtless lay the foundation of such herds as will be a credit to their owners and to their neighborhood. Messrs. John Riddell and Geo. Rankin own flocks of sheep, numbering at present 110 and 75 respectively. Mr. John Riddell, who has been farming here successfully for a number of years, and has had large experience in sheep rearing in Scotland, in speaking of sheep rearing as an industry here says they are the best paying stock on the farm. These flocks are of mixed breeds at present, but in the future these gentlemen purpose, in this direction, confining themselves chiefly to the breeding of the pure-bred Leicester.

Family Circle.**The Bubblyjock.**

At Abbotsford Sir Walter sat,
His friends about the board,
In easy after-dinner chat,
When spoke an English lord:

"Talking of troubles, we are told
Each mortal takes his share;
Now there are happy lives, I hold,
Exempt from thoughts of care."

"Not so," Sir Walter said: "No heart
That beats in human breast
But bears apart some inward smart,
Some burden of unrest."

"I'll venture," said my lord, "I'll find
One neck without its yoke;
One truly calm and tranquil mind:
Take that daft laddie, Jock."

By shaded walks of Abbotsford,
Sir Walter led them down,
Called the poor lad before the lord,
Whom, tossing half a crown,

"You live in luck, good Jock, I see;
Well fed, light work to do?"
"Oo, ay, the malster's gude to me,
An' I hae plenty, too."

"Well said, brave Jock, and now once more—
Of troubles know you aught?"
At once his face was "sicklied o'er"
With the "pale cast of thought."

"Trouble enough! Wha could hae mair?"
He shuddered as he spoke.
"Oo, ay, wi' fear I'm fashit sair,
Ye'll mind the bubblyjock?"

"The bubblyjock? What thing on earth
May that be?" says my lord.
And then amid a roar of mirth,
They see, across the sward,

A turkey-cock of stately size,
Slow strutting into sight,
Poor Jock beholds with quailing eyes,
And quickly takes to flight.

"Ah!" says Sir Walter, "it's the same
With all poor human folk;
Our troubles jiffer but in name,
Each has his 'bubblyjock.'"

—St. Nicholas.

A DOMESTIC REVOLUTION.**INFLUENCE OF A WOMAN'S CLUB.**

Mr. Philander Hawkins was a slave. He lived in the land of the stars and stripes; he was a property owner and an office-holder; he came and went, like any other man. Still, he was a slave. He bent the knee to the most despotic tyrant that ever reigned over cowering humanity. That tyrant was his wife.

Mrs. Hawkins was a clever woman, but ignorant, narrow-minded and unreasonable, with a temper that carried all before it, including Mr. Hawkins and the three children. People said Mr. Hawkins didn't dare to say his soul was his own. Still less dared he assert any rights as to the house, the children, or any worldly possessions.

When Mrs. Hawkins drew down the shades and locked up all the front part of the house, and made the family sit in the dining-room, the neighbors hinted that it was "cranky." But poor Mr. Hawkins dared not remonstrate. He was equally powerless when she dined the family all winter on buckwheat cakes and apple-sauce, and all summer on boiled potatoes and mush and milk.

Mr. Hawkins was fond of music, but Mrs. Hawkins kept the piano securely locked, save on those rare occasions when they had company. Mr. Hawkins longed to go into society, and to entertain his friends in his own home, but his wife set her face against all manner of amusements and recreations, and although Mr. Hawkins had been petitioning ever since they were married that they might have "a little company," this petition had always received a withering veto from the reigning power.

Mr. Hawkins was a Methodist and strongly attached to his own church but his stronger half was a Baptist, and, much against his will and conscience, Mr. Hawkins followed his wife every Sunday to the Baptist church around the corner.

One afternoon Mr. Hawkins sat in his office with a cloud on his brow. He had just come from a stormy scene at home, in which Mrs. Hawkins had informed him that no one in her house should go in and out at the front door except on Sundays.

A knock at the door, and a lady entered, wearing a black silk dress, a stylish bonnet, and a pleasant smile. She introduced herself as Mrs. A., from Boston, and at once made known her errand.

"I am soliciting contributions," she said, "for a most worthy object. I desire to found a club for the ladies of this city. It is called the Woman's Mutual Improvement Club. We shall study history, literature, art, housekeeping, hygiene—in short, all that tends to enlighten and cultivate women. I think I can promise that this club will make the women of this place more intelligent, cultured, independent—"

"Stop!" shrieked Mr. Hawkins. "For heaven's sake, stop!"

The lady looked at him in amazement.

Mr. Hawkins was seized with an awful fear.

"Independent! O heavens!" he groaned.

"I'll have nothing to do with the thing!" he

shouted. "I won't subscribe a cent, and I'll do all I can to oppose it."

The lady left precipitately, convinced that Mr. Hawkins was an escaped lunatic.

"Then you aren't in favor of this club?" said his partner, as the door closed behind the lady.

"Well, I should say I wasn't!" thundered Mr. Hawkins. "That woman ought to be suppressed. What right has she to come here, putting any more independent notions into our women's heads?"

But his partner only smiled and winked knowingly at the clerk.

Mr. Hawkins did not breathe a word about that club at home. He feebly hoped that his wife might not hear about it. Delusive dream! The next evening, at tea, she informed him that she had been invited to join the Woman's Mutual Improvement Club, and she had put her name down as a charter member.

Poor Mr. Hawkins! Fate was against him. He went about in a walking night-mare, vaguely wondering what awful thing would happen next.

There was just one thought that gave him the faintest gleam of comfort:

"Whatever comes, it doesn't seem as if Sarah could be any worse than she is now. Perhaps she'll take to going around lecturing on spiritualism or some other strong-minded subject, and if she should, why, the children and I would try to bear up while she was gone."

Two weeks passed. Mr. Hawkins had twice been present at the deliberations of that awful club. Mr. Hawkins had listened with a morbid fascination while she held forth at the tea-table about the first afternoon on "Ruskin." The subject announced for the next day was "Hygiene." Mrs. Hawkins came back from the second meeting and drank her tea in meditative silence. Mr. Hawkins was filled with apprehension. What was Sarah up to now?

After tea, Mrs. Hawkins said, "Leander, you may go to Smith's and order a five-pound roast of beef, and stop at the grocery and get some onions and turnips and molasses and raisins and oranges."

"Say, ma, are we going to have company?" queried her son.

"No, we aren't," replied his mother, shortly, "and nobody asked you to say anything."

Mr. Hawkins laid down his paper, curiosity getting the better of his fear.

"Why then, Sarah," he said, mildly, "What are you going to do with all those things?"

"They said at the club to-day," said Mrs. Hawkins, "that no one could have good health who didn't have good, substantial food to eat. Dr. Wellington Hawes said it was better to pay the butcher than the doctor. And I've been feeling kind of tired and miserable for the last few days, and I believe it's because we don't have hearty food to eat."

Mr. Hawkins' face expressed a thousand different emotions as he retired behind his paper, grimly wondering if that was what had made him feel "kind of tired and miserable" for the last fifteen years.

The family fared better after that. Mrs. Hawkins bought a new cook-book in place of the one that had been in her family for thirty years, and Mr. Hawkins began to take a more cheerful view of life.

The next Monday afternoon Mr. Hawkins came home to find the front curtains up and the sun shining right into the parlor, where sat his wife, talking with a neighbor. Mrs. Hawkins was saying, "They said at the club this afternoon that sunlight was health, and that people have been known to die from living in rooms where the sun never came. So I'm going to keep the shades up after this."

And a second time Mr. Hawkins had occasion to bless that club.

A few weeks later, the club had a day on "Home Decoration," after which Mrs. Hawkins proceeded to take down the hideous blue shades from the windows and replace them with soft, graceful hangings, and hung up some engravings, and put scarfs on the tables and chairs.

One evening Mr. Hawkins found his wife's face weathered in smiles. He couldn't imagine what it meant. But shortly it came that an article at the club asserted that fretting produced wrinkles. Hence those smiles.

But when, at the close of an "Emerson" day, Mrs. Hawkins announced that the Concord philosopher thought that a man and wife might have different religious creeds, and she didn't know that she had any objections to Mr. Hawkins going to his own church after this,—when this happened, Mr. Hawkins was fain to believe that the millennium was at hand.

There was still another round in the ladder of progress, and Mrs. Hawkins never faltered when she reached it, but mounted it boldly. The subject at the club was "Our Social Natures." Mrs. Hawkins walked home from that meeting with two club ladies, and stood at the entrance and talked earnestly for half an hour. That evening she informed Mr. Hawkins, with the air of having always thought so herself, that it was natural for people to like society. Carlyle said, "Beware of the solitary man," and Mrs. Dr. Grimes said at the club that it was every woman's duty to look after the social interests of her family.

"She made a splendid speech," said Mrs. Hawkins, "and we all agreed with her. And I've been thinking it would be a good idea for us to have some company, and I'm going to let the children have a party."

That night Mr. Hawkins wrote a letter to Mrs. A. in Boston. He humbly apologized for his rudeness to her. He enclosed a check for a hundred dollars, and told her to use it where it would do the most good, and he concluded with these fervent words: "So long as I live, I shall bless that club. It helped me when everything else failed." HERMINIA'S GRAND

Minnie May's Dep't.

MY DEAR NIECES:—

So much has been written lately about physical culture, and as a means of preventing consumption, that a few remarks upon it for your guidance may not be misplaced. By physical culture do not understand that it means training for an athlete, for it does not. Men so trained usually die of some pulmonary disease, as too much training of one particular organ usually defeats its own object. The same rules for physical culture cannot be applied to any two persons, for no two men or women are exactly alike in constitution; so they must each find out for themselves just what their weak parts are, and strengthen them, then a general development can be proceeded with. A regular course of physical culture, as far as it can be done, is given at all colleges and large schools; but those who have not had such advantages can improve both health and figure. More can be done during the growing period of man's life; but much can be done even in maturity to strengthen weak organs and develop weak parts. Pure air is the first great essential to health, and points to the necessity of well-ventilated homes, especially every morning, after so many hours of closed doors and windows and exhalations from sleepers. Who has not witnessed the rush of a pet dog into the fresh air and his wild scamper around, returning to you panting and refreshed. Cleanliness comes next—a sponge or towel bath every morning, with a scrub of soap and hot water once a week, will keep the skin in proper condition to perform its functions, and the hot bath taken just before going to bed prevents a chill, or cold taken afterwards. Next comes food, and as our digestive organization is a very important part of our whole, we should take care that all food is well cooked, and of an easily digested quality. Here comes in the importance of good cookery, and here, my dear girls, is where you should try to attain perfection, for a vast amount of the woes of humanity is attributable to bad cooking. Our clothing should be well and carefully considered. Warm, and close next the skin, and warm and light for outside wear; but it is very difficult to secure warmth without weight in winter garments; the feet should be always warm and dry; some water-proof shoes should be worn in damp weather. A judicious use of light dumb-bells, or Indian clubs is beneficial for weak-chested persons, and can also be used with advantage by persons who are round-shouldered; but those with any heart-weakness should not indulge in such exertions. Walking is invigorating when not pursued to over-fatigue; so is riding, dancing, rowing, or any other form of amusement. All such tend to develop the form and give a wholesome, vigorous tone to it; but it would not be advisable for any one to pursue a course of physical training without the advice of a physician, and under the supervision of a competent instructor.

MINNIE MAY.

Prize Essays.

Minnie May offers a prize of \$2.00 for the best article on the following subject:—"The best and most satisfactory way of utilizing a small space of ground for flowers, to have bloom from the early spring until late autumn." All essays to be in our office by the 15th of April.

Address, Minnie May,

FARMER'S ADVOCATE,
Winnipeg, Man.

Our Library Table.

The Household for January comes to us as bright as ever, its pages abounding with all the information a household most requires, and all for the very low price of fifty cents a year.

The Ladies' Home Journal is just as interesting as ever, containing something for all its readers. Some of the best American writers contribute to its pages. A series of short articles from the pen of Rev. de Witt Talmage, entitled "Under my Study Lamp," are of universal interest.

The Ladies' World for February is, without doubt, a family magazine. A large amount of reading matter, besides instructions in needlework, art of entertaining, household receipts, etc., is found in its pages. The price of subscription is so small as to be within the reach of all. Only twenty-five cents per annum, club rates.

The Herald of Health is still the neat, welcome little publication it ever was. Every article abounds with useful information, with which every one should be familiar, such as health, food, disease; and an article upon good cooking, from the pen of Alice Cassin, is worth the price of the year's subscription alone.

L'Art de la Mode comes to hand full of bright, artistically colored fashion plates, with the very latest advice upon style, color and material, which every woman should consult before purchasing.

Recipes.

NICE PANCAKES.

One pint of milk, two soda biscuits rolled fine, one ounce of melted butter and two eggs, flour enough to make a thin batter. Fry in small cakes with lard.

FRUIT BISCUITS.

Five cups of flour rubbed into one cup of butter and two of sugar, which have been creamed together; add five eggs and half a cup of milk, with two teaspoonfuls of baking powder. Roll thin, spread over with raisins (stoned), then cover with another layer and cut into square biscuits, and bake slowly.

RICE AND APPLES.

Boil rice in milk until quite soft and the milk all absorbed; mix in butter and flavoring according to taste; place a basin in the centre of the dish upon which you want to serve the rice; pile the rice around the basin, smoothing it with a spoon; remove the basin; have some apples peeled, cored and quartered; boil in a syrup of sugar and water until tender, but not broken; lift them carefully into the place where the basin was withdrawn, and set in the oven to brown lightly; when done pour over the syrup and serve with cream.

BLANC MANGE.

Put one quart of milk into a preserving kettle, with one-quarter pound sugar, one and one-half ounces gelatine, and the rind of half a lemon; simmer gently until the isinglass or gelatine is dissolved; strain it through a sieve into a jelly mould, and when cold turn on a glass dish and garnish with red-currant jelly.

Sleeplessness can often be overcome by rising from bed and rubbing the body and limbs briskly with a rough, dry towel, or go up and down stairs quickly several times before going to bed.

PRIZE ESSAY.

An Assortment of Winter Tea Dishes for a Farmer's Family, and How to Prepare Them.

BY MISS ANNIE AUSTIN, SIMCOE, ONT.

"What shall we have for tea to-night? If we only lived in town instead of a few miles away we might have something for a change once in awhile besides cold pork and plain apple-sauce. Now that the men have time to think of something else than having to swallow their tea as quickly as possible, hurrying back to work, I am sure a genuine change would be appreciated, and would tend to make us all feel in the mood for home enjoyment during the coming long winter evenings, as reading aloud by turns, music and social games. Then, during the cold weather, the children taking a cold lunch to school will often like something warm for supper. If I only knew how to vary it properly, I would make out a bill of fare of teas for a farmer's family for each day in the week. I want something that will be nice and inexpensive, too, made up of things that can readily be got on a farm without going to town for them. Cousin Nellie is full of bright ideas; I believe I shall go over and consult her on the matter after the tea dishes are washed and put away." This was the burden on my mind one afternoon in early November. So I hurried with the work, and, taking a paper and pencil and throwing a shawl over my head, ran across the fields to Uncle Will's house, soon telling Nellie my errand. She was quite willing to assist me, saying "two heads were better than one" sometimes, and she was sure we could make a list of lovely teas, that might even tempt the gods.

So, with the help of a few suggestions from Auntie, and amidst much joking and laughing and talk of dyspepsia, heartburn and other ills, it was not long before the paper was decorated with the desired bills of fare, and I returned home eager to try the experiment. Mother kindly gave me permission to do just as I pleased for a week, though she knew it would prove a failure, and I would make them all ill. However, I determined to do my best, and began on

MONDAY.

In the first place, I laid the table with a clean, fresh cloth, putting a pot of flowers in bloom in the centre, and arranging the knives, forks, spoons and dishes around the table as tastily as possible. Some of the pretty, fancy, "company" dishes were also used. That night we had potato pie, (recipes of all I shall give further on) cream biscuits hot, boiled sweet apples, bread, butter and tea. The three last named articles I suppose you to have every night.

TUESDAY.

Codfish balls, brown and white bread, and baked apples.

WEDNESDAY.

Macaroni and cheese, dry toast, canned fruit of some variety, or else apples, as I consider fruit and variety of vegetables every day quite indispensable for good health.

THURSDAY.

Poached eggs on toast, bread rolls or buns, gingerbread, fruit.

FRIDAY.

Pancakes, with syrup, bread, fruit, etc.

SATURDAY.

Headcheese or fried breakfast bacon, baked potatoes, muffins, apple sauce, etc.

SUNDAY.

Thin bread and butter, some fruit or jelly, and some light tea cake and a good cup of tea.

At the end of the week no one was ill, and all voted the change and experiment a success. Father and the boys said I ought to publish it for the benefit of others; so, my dear Minnie May, I place it in your hands. Of course, I would suggest to vary the prescribed bill of fare with cold ham, sausage, beef hash, pork pie, chicken pie, corn cake, oatmeal scones, Graham biscuits, trifles, jellies, cakes, etc., if desired; but I would strongly urge the use of good substantial food, and less of pies, cakes, etc. Something warm and wholesome for a farmer's tea is what is wanted. I would suggest milk, either hot or cold, for the children to drink, and the older ones too, if they like it.

POTATO PIE.

Mince scraps of cold fresh meat; add an onion chopped fine; season well and boil slowly for an hour; thicken with a tablespoonful of flour and butter rubbed together; line a deep pie dish with mashed potatoes, then pour in the mince and cover well with a layer of mashed potatoes; bake for half an hour in a hot oven.

CODFISH BALLS.

Soak over night a piece of codfish; after boiling pick out the bones and pull in pieces with two forks; then mix with mashed potatoes, butter and pepper; make into balls, and bake for half an hour.

MACARONI AND CHEESE.

Take a bowl of macaroni, rinse, pour on boiling water, with a little salt; boil for half an hour, then strain in a colander; grate half a bowlful of cheese and place in layers in a deep pie dish; first a layer of macaroni, then sprinkle over with cheese, adding little pieces of butter and some mustard; fill in alternate layers, lastly covering over with cheese; bake half an hour.

POACHED EGGS.

A very delicate as well as nourishing dish. Break the eggs gently into slightly salted boiling water; when just done lift carefully with a skimmer, and slide it on to a half-slice of thick buttered toast.

PANCAKES.

Mix one quart of sour milk, two teaspoons soda, two of salt, and enough flour to make a thin batter; have ready a frying pan, with some hot lard or dripping, and pour in three small cakes; turn quickly with an egg-lifter; eat hot with syrup, or sugar and butter.

CHICKEN PIE.

Cut up a chicken into small pieces, divide the joints and break the big bones; stew slowly for two or three hours until tender; flavor with salt and pepper, and thicken by rubbing a good tablespoonful of butter and two of flour; pour into a pudding dish; line and cover with good pastry; set away to cool, thus making a delicious dish for tea.

HOT MUFFINS.

Six cups of sifted flour, two eggs, one tablespoon of sugar, saltspoon of salt, half a cup of butter and one pint of new milk, warmed; when all are mixed, add one cup of yeast; make in the morning; let rise till noon; put in muffin-rings till tea time, and bake in a moderate oven. I think it unnecessary to give more recipes for the other dishes, for we have seen and tried so many of Minnie May's, and always found them good.

Robin's House.

"Where shall it be, Mrs. Robin,
This dear little house of ours?
What nook all cosy and shady,
And safe from the wind and showers?"

"Now you are mine, little lady,
My own little bonny bird bride,
'T won't do to be roaming like gypsies
Over the world so wide."

"Come, then, and we'll find in the meadow
Green branches so cool and deep,
Where I'll build you the daintiest palace,
And sing you to sweetest sleep."

Up glanced little fond Mrs. Robin,
With happy, approving look,
And away they flew over the valley,
Just stopping to drink at the brook.

"O see what a beautiful maple!
Shall we build it, my lady, here?"
"No, no, it's too straight and stately;
It is n't our style, my dear."

"Ah! there is an elm, Mrs. Robin,
So graceful: now what do you say?"
But that was too high and airy,
And onward they kept their way.

"Look, look! oh look, Mr. Robin!
For here is the very tree,
Bending its crooked old branches
Into crannies as snug as can be."

"And oh what snow-flakes of blossoms,
Filling with sweetness the air!
And oh what bluebells so climbing
And clustering everywhere!"

So merrily went the young robins
To work, like the busiest bees,
Gathering queer little hay-straws,
And odd little sticks from the trees.

And then they bent and they twisted,
As only the birds know how,
Till at last, all soft and downy,
In the kind old apple bough

Was the dearest and daintiest palace,
The sweetest and cosiest nest,
And a jubilant song filled the orchard
As the sun sank down in the west.

So, all through the warm days, the breezes
Whispered their magic spells,
And nearer the bright morning-glory
Climbed, swinging its airy bells.

And five little blue eggs were nestled
Under the brooding wings,
And five little younglings were learning
The love-song our Robin sings.

So, slowly and surely and safely,
They grew 'neath that tender care,
Till they sprang to the happy sunshine,
Into the glad, free air.

And five more pert young Redbreasts,
At the daylight's earliest peep,
Are chattering under our window,
To waken us out of our sleep. —Young Folks.

The Household.

SIMPLE COUGH CURE.

Roast a medium-sized lemon; when hot through, cut and press the juice upon three ounces of pulverized sugar. Take a spoonful whenever the cough is troublesome.

TO RELIEVE NEURALGIA.

Take two large tablespoons of cologne, and two teaspoons of fine salt; mix them together in a small bottle; every time you have any acute affection of the facial nerves, or neuralgia, simply breathe the fumes in your nose from the bottle, and you will be immediately relieved.

CROUP.

Pure onion juice will cure croup in the first stage. Cut the onion fine, put in a cloth, pound with a hammer, and squeeze into a small dish; sweeten, and give until it produces vomiting.

TO REMOVE WARTS.

Do not disfigure the hand with caustic to remove warts, but touch them with strong soda water several times a day. They will disappear.

HIVES.

Rub the irritated skin or the pustules with castor oil applied with the tip of the finger. Baby will pass from fretting to slumber while the process is going on, the relief will be so great and so quick.

English Sovereigns in Verse.*Norman Kings.*

William the Conqueror long did reign,
William, his son, by an arrow was slain.
Henry the first was a scholar bright,
Stephen was King without any right.

Plantagenet.

Henry the Second, Plantagenet's scion,
Richard the First was as brave as a lion.
John, though a tyrant, the charter signed,
Henry the Third had a weakly mind.

Edward the First conquered Cambria's dales.
Edward the Second was born Prince of Wales.
Edward the Third humbled France in its pride,
Richard the Second in prison died.

House of Lancaster.

Henry the Fourth for himself took the crown.
Henry the Fifth pulled the French King down.
Henry the Sixth lost his father's gains.

House of Tudor.

Edward of York laid hold of the reins.

Edward the Fifth was killed with his brother.
Richard the Third soon made way for another.
Henry the Seventh was frugal of means.
Henry the Eighth had a great many Queens.

Edward the Sixth reformation began;
Cruel Queen Mary prevented the plan.
Wise and profound were Elizabeth's aims.

Stuart Line.

England and Scotland were joined by King James.

Charles found the people a cruel corrector.
Oliver Cromwell was called Lord Protector.
Charles the Second was hid in an oak,
James the Second took popery's yoke.

William and Mary were offered the throne.
Annie succeeded, and reigned alone.

Hanoverian Kings.

George the First from Hanover came,
George the Second kept up the name.

George the Third was loved in the land.
George the Fourth was polite and grand.
William the Fourth had no heir of his own,
So Queen Victoria ascended the throne.

Why Will They?

Why will people continue to do the things that are to their disadvantage? This is a problem that has puzzled us for a long time.

Why will a man with a mouth like the entrance to the Mammoth cave shave his face smooth, when by allowing his beard to grow he might conceal the opening he so unhesitatingly offer to the world?

Why will a short woman always wear plaids, which make her look even shorter and more dumpy? And why do tall women take naturally to stripes?

Look about you when you take a walk down one of our fashionable streets, and notice the fact that the plainest-faced women wear the most striking costumes, as if they hoped by gaudy colors in dress to make amends for undue length of noses and excess of freckles and pimples.

Short, fat women wear belted circulars, almost to an individual; and tall, lean women affect short walking jackets, and look like liberty poles with night gowns on.

Long-necked women invariably "do" their hair in a French twist, so as to bring all creation observe the fact that their necks are long; and short-necked women stick to the napes of their necks, and from behind present the appearance of their heads resting on their shoulders.

Small, short men appear in the street under the impression that the tile adds to their height, while in reality it gives them the appearance of a hat walking off with a man. One man has a deal more hat, proportionately, than his neighbor.

Why will women go shopping after dark, when they never will buy anything like, and they know that they shall not?

Why will people run down every other religion but their own? They know they never make converts by so doing.

Why can two of a trade never agree?

Why does a young man, when he is going a courting, act as if he were doing something he were ashamed of?

Why do old people so hate to see young people enjoy themselves?

What makes everybody like to hear of bad luck coming to somebody else?

There are good souls in the world who will say that they do not enjoy anything of the kind, and perhaps they think so; but just let a scandal arise affecting the minister of "the other church," and see how active those very same good souls will be to find out every minute particular!

Why do boys like to break glass, and stone cats, and tie tin dippers to dogs' tails?

Why do men like to see a runaway? Why does everybody in a crowded railway car watch the woman who has a crying baby? Has she not enough to contend with without feeling

conscious that every man, woman and old maid who knows about as much concerning a baby as an elephant knows about frying doughnuts, is looking at her, and wondering why she doesn't do this, and why she doesn't do that?

Why do dyspeptics keep on eating baked beans? Why do fat people, who agonize over adipose tissue, keep on eating candy and using sugar?

Why does a person with "poor circulation" hover over a hot stove, and make the circulation aforesaid still poorer?

Why do men marry women unfitted for them and bewail their fate forever afterward? Why does a girl unite herself for life to a man who she knows drinks, and then spend her life-time in groaning over her lamentable misfortune?

Why do they do it? We have asked the questions, but we are no nearer answering any of them than we were at the beginning.—[Kate Thorn.]

How to Destroy Moths.

Close all the windows and all doors leading from the room about to undergo treatment, open wide each drawer and closet, and hang the contents over chairs or upon a clothes-horse brought into the room for the occasion. Take a piece of gum-camphor as large as a hazel-nut for an ordinary room (as large as a walnut for a room 20x16), put in an iron pot, and place the latter within another iron pot or upon an iron stand. Set fire to the camphor. It burns very fiercely, so set it at a safe distance from furniture or hangings; the middle of the room is the best place for it, unless this be directly under a chandelier, in which case it can be placed more toward the side, as the heat is apt to injure the gilding or bronze. The dense smoke soon permeates every nook and corner and suffocates every insect that inhales it. Canary birds or goldfish are to be carried from the room before beginning operations, and as soon as the camphor begins to burn, the operator may leave the room, as, provided she has taken the above precautions, there will be no danger of the fire spreading. The camphor will burn from a quarter to half an hour, but it can be extinguished at any moment by placing over it a stove lid or the cover of the pot. Let the smoke remain in the room about half an hour, then open the windows wide, leaving them so all day. After a few hours during which the rooms can be treated thus in succession, the moths, a care being taken to guard against them.—[Harper's Bazar.]

The General Favorite.

"'Tis strange," said Mehitabel Jones
To her neighbor, Zeruvia Barry;
"'Tis strange—I declare if it isn't I
That Nancy Terhune doesn't marry.
She's had offers enough, goodness knows;
So that doesn't furnish a reason;
And no longer she blooms as a rose,
For this is her twentieth season.

"Why, there was a picnic that year
At Farmer Terhune's, I remember;
And Nancy was just seventeen,
Her birthday the first of September;
And she was the life of it all,
A creature of frolic and fancy;
And some of the girls that were there
Were mightily jealous of Nancy.

"She wasn't a flirt or coquette,
As ever I could discover,
But, somehow, as soon as she'd won,
She was always right off with a lover;
Yet oh, she was pleasant and kind,
With manners so easy and hearty,
We knew we should have a good time
If Nancy was one of our party."

"And 'tis strange—I declare now it is!"
Said Mehitabel Jones, rather nettled,
"That Nancy—the belle of the place—
Wasn't long ago married and settled!
She's nigh on to forty, you know,
And with young folks no longer should mingle;
But she laughs with our girls and our boys,
Who rejoice that she still remains single."

"I see how it is—with a nod—
Said her neighbor, Zeruvia Barry;
"The general favorite's the one
You'll find the least likely to marry.
And though she may be very oft
By match making parties berated,
She'll be missed very, very much more
Than her sisters—the married and mated."
—New York Ledger.

How to be Popular.

BY EMMA V. SHELDON.

The girl who has a generous share of good qualities, and who is generous about using them, is the popular girl.

Therefore, if you would be popular, make up your mind to be good-tempered, sincere, hopeful, sympathetic, gentle, and unselfish. Difficult? Yes; but not so difficult as it seems.

The popular girl, the girl who is a "general favorite," occupies a difficult position, and must work hard to keep it. The caprice of a season may hail a beauty, "popular," or a brilliant talker, a favorite; but genuine popularity must rest on more solid basis.

First among needed virtues comes sincerity. Mean what you say. Dear me, it is not necessary for you to say all you mean; that, in many cases, might at once ruin your popularity; but mean as much as you do say.

The girl who always speaks sincerely and never unkindly, can safely afford to "take sides" upon occasion, and she will find her popularity unimpaired, though her opinions may be protested.

Unfailing good-temper is an essential. The cheery, humorous, good-temper that can meet a snub, or an affront, or a discourtesy, and disarm it prettily. The cheery, humorous, good temper that is the saving grace of the picnic when the rain comes up; the comfort of the hostess when the "lion" does not appear; the consolation of the man who wants a smoke and can't; the timely help of the girl whose glove splits or whose dress tears at the last moment; the despair of the gossip who tries to bring every one into scandals; the terror of the ill-tempered, whose shafts fall harmless against the cheery armor.

This humorous, good-temper constitutes a safer laugh-provoking faculty, than does wit. The popular girl must, of course, be depended upon for keeping a party merry, and saying things that start a laugh around; but no one must be hurt. The woman whose laugh is feared must be clever, indeed, to sanction her sarcasms.

The popular girl must give other girls a chance; must cultivate the rare virtue of effacing herself now and then; must be quick to see when Alfred and Rosa want to slip off together, and be deft and good-tempered about helping them to do so.

She doesn't come plunging ruinously into the midst of tête-à-têtes, she is the good angel who averts the awful pause that falls upon some unintended admission, or some to-be-regretted slip of the tongue; she is too thoughtful to furnish information when she is not asked, and is careful about putting to embarrassment harmless schemers by injudicious questions. Thoughtfulness in these directions constitutes tact, and the popular girl must have tact. In other words she must be watchful, and thoughtful of others, and put her watchfulness and thoughtfulness to use with kindly motive.

Above all things, the popular girl must not appear to know she is popular. If the men run about to wait on her, and the girls tell her when her dress is pretty, she must consider herself indebted to the kindness of those who favor her, and not regard it all as tribute to her own attractiveness.

Also she must not let her popularity become confined to one set. If the men say of her, "An awfully jolly girl, ready for anything," the woman must not balance it by "She's very free and rather imprudent." She must be a welcome addition to a party, not only from the young people's stand-point but from the chaperone's. The clever men must find she interests them, but stupid men must not feel that they do not entertain her.

The children must shout at her coming, but grandfather must not think her a romp. The man she favors must think her an angel, but the one she leaves must not call her a flirt. The daughter must confide in her little romance, but the mother must feel sure she will not be a letter-carrier. Girls must admire her and not envy her; she must talk base-ball with Charley, and heathen with Charlie's uncle, and, though she has no interest in heathen or base-ball, Charlie and the uncle must both vote her an intelligent girl.

To be a popular girl is no easy task. The girl who achieves genuine popularity is pretty sure to be rather a nice girl, who deserves all the love and praise she gets.—[The Ladies Home Journal.

"We are Wonderfully Made."

An old preacher told some boys of the Bible lesson he was to read in the morning. The boys, finding the place, glued together the connecting pages. The next morning he read on the bottom of the page: "When Noah was one hundred and twenty years old he took unto himself a wife, who was"—then turning the page—"one hundred and forty cubits long, forty cubits wide, built of gopher wood, and covered with pitch inside and out."

He was naturally puzzled at this. He read it again, verified it and then said: "My friends, this is the first time I ever read this in the Bible, but I accept it as evidence of the assertion that we are wonderfully made."

Sometimes the sense of overmuch control is terribly vexing to a child. I would never refuse it anything without a good reason, and when refusal was necessary I would explain why. You cannot always tell how intense the desire is that prompts the request. You will find that to adopt this system is to have a reasonable child, who accepts your necessary refusal without complaint.

Uncle Tom's Department.

Don't Leave the Farm.

Come, boys, I have something to tell you; Come near, I would whisper it low.— You are thinking of leaving the homestead, Don't be in a hurry to go. The city has many attractions, But think of the vices and sins! When once in the vortex of fashion How soon the course downward begins!

You talk of the mines of Australia, They're wealthy in gold without doubt; But ah, there is gold in the farms, boys, If only you'll shovel it out! The mercantile life is a hazard, The goods are first high and then low, Better risk the old farm a while longer; Don't be in a hurry to go.

The farm is the safest and surest, The orchards are loaded to-day; You're free as the air of the mountains, And monarch of all you survey, Better stay on the farm awhile longer; Though profits should come rather slow, Remember you've nothing to risk, boys; Don't be in a hurry to go!

—Kansas Spirit.

MY DEAR NIECES AND NEPHEWS:—

Once there was a man who undertook to write a great debt off. Do you know how? By writing books and earning money to pay the debt. It was a brave undertaking, through the point of a pen to write off hundreds of pounds. His name is quite familiar to you, and almost any of my nieces and nephews could give me quotations from his writings. They are beautiful, too, descriptive of scenery and character. For any one possessing a romantic nature, this man's writing has a strange fascination. Listen to him! How pleasing the rhythm, how beautiful the thought, as he describes the sunset hour:—

"The western waves of ebbing day, Rolled o'er the glen their level way; Each purple peak, each flinty spire Was bathed in floods of living fire."

Had you stood by the cemetery gate as the immortal Scott was borne to his last resting-place, what a train of thought would have come to mind; for amid those who came to do the last honors would come his characters of poetic genius. The indignant Helen Macgreggor, brave Rob Roy, the Gipsy Meg Merrilies, Guy Mannering, and many, many others, whose names my young friends will readily recall. But there are two pictures I want to write you before I close. I saw both in living reality the other day. They are of young girls. One is a coquette, who has just stepped into long dresses. She was putting on the airs of a society belle of little sense, and what troubled me the most was, that two of my little nieces were admiring her. They thought her tawdry finery nice, and her airs with gentlemen just what they would like to assume. I saw another, too, older than the other, a maiden of some twenty summers—

"Her goodness and her worth to spy, You need but gaze on Ellen's eye."

A lowly home is her's, and in it a father lies dangerously ill. She is his nurse, and proud indeed may that sick father be of his eldest child and only daughter, as she smooths his pillow, bathes his head, cools the parched hands, or moves so gently the pained limbs. When the sufferer needs her she hears no other voice, but when for a time repose comes to him she can speak intelligently and well, and has read more deeply than the young girls one generally meets, who have much better opportunity. She has a sensible face and a level head to guide her through the journey of life. I do not think she thought of it, but Uncle Tom was wondering who the happy young man would be who would

claim this young queen of home to be his, and find in her one who had all a woman's love to give—one who had not frittered it in follies and pretences till there was nothing left to give.

Among my nieces and nephews may there be many such, and you yourselves will reap the benefit as well as please **UNCLE TOM.**

P.S.—Strange that the two prize-winning stories this month should come from the two extremes—east and west. I trust some of my nephews or nieces in Ontario will beat them all next month. I'm sure you will all be interested in Ed. Fairbrother's autobiography, and regret with me that he must separate himself from us, for a while at least. Now let me hear from you all for April. **UNCLE TOM.**

Address all letters to "Uncle Tom," FARMER'S ADVOCATE office, Winnipeg, Manitoba.

Back Where They Used to Be.

Pap's got his patent right, and rich as all creation, But where's the peace and comfort that we all had before? Let's go a visitin' back to Griggsby Station— Back where we used to be so happy and so pore!

The likes of us living here! It's just a mortal pity, To see us in this great big house, with carpets on the stairs, And the pump right in the kitchen, and the city! city! city— And nothing but the city all around us everywhere!

Climb clean above the roof and look from the steeple, And never see a robin, nor a beech or ellum tree! And right here in ear-shot of at least a thousand people, And none that neighbor with us or we want to go and see!

Let's go a visitin' back to Griggsby Station— Back where the latch string's a hanging from the door, And every neighbor 'round the place is dear as a relation— Back where we used to be so happy and so pore!

I want to see the Wiggenses—the whole kit and 'bilin, A drivin' by from Shallow Ford, to stay the Sunday through, I want to see 'em hitchin' at their son-in-law's and pillin' Out there at Lizzy Ellen's like they used to do.

I want to see the piece quilts that Jones' girl is makin' And I want to pester Laury about their freckled hired hand, And joke about the widower she come purt' nigh a takin', Till her pap got his pension 'lowed in time to save his land.

Let's go a visitin' back to Griggsby station— Back where's nothin' aggervatin' any more, She's away aafe in the wood around the old location— Back where we used to be so happy and so pore!

I want to see Merindy and help her with her sewin', And hear her talk so lovin' of her man that's dead and gone, And stand up with Emanuel to show me how he's growin', And smile as I have saw her 'fore she put her mournin' on.

And I want to see the Samples on the old lower eighty, Where John, our eldest boy, he was took and buried—for His own sake and Katy's—and I want to cry with Katy, As she reads all his letters over, writ from the war.

What's in all this grand life and high situation, And navy pink nor hollyhock 'bloomin' at the door? Let's go a visitin' back to Griggsby Station— Back where we used to be so happy and so pore! *James Whitcomb Riley.*

Young Wife—"My dear, you were the stroke oar at college, weren't you?" Young Husband—"Yes, love." "And a very prominent member of the gymnastic class?" "I was the leader." "And quite a hand in all athletic contests?" "Quite a hand!" My gracious! I was the champion walker, the best runner, the head man at lifting heavy weights, and as for carrying! why, I could shoulder a barrel of flour and—"Well, love, just please carry the baby a couple of blocks; I'm tired."

First Prize Story—How I Killed My Bear.

BY EDWIN WOODHULL, BRANDON, MAN.

Perhaps the heart's desire, of every young sportsman is to kill a bear, deer, or other very large, wild or ferocious animal. Such was my experience, at any rate, from the day that, with the old shot gun resting on the middle board of our backyard fence, I succeeded in killing a bee-bird that had been making sad havoc among my father's bees, until my hopes were consummated in the occurrence that I am about to relate.

A few years after my debut as a sportsman, my father moved to Manitoba, and on our arrival I remember being much surprised that I was unable to scare up at least a herd of deer and a dozen or two bears from a patch or scrub that was situated about half a mile from our house. My disappointment was partly appeased by the abundance of gophers and prairie squirrels, against which I waged an incessant and not unsuccessful warfare. About twenty-two miles east of the city of Brandon there lies a large tract of sandhill and muskeg, which is covered with a thick growth of timber, poplar, spruce, birch and tamarack. It is from this forest that the farmers for many miles around, even from within a few miles of the Brandon Hills which were at one time covered with heavy timber, obtain their supply of firewood and building timber. This wild country, being by the poor quality of the land surrounding it a long way from any habitation, is the home of numbers of deer, bears, moose, wild cats, wolves and other wild animals that do not thrive in close proximity with man and his deadly desire for money, meat and glory, which have too often caused the death of some fine buck or moose in spite of the protection of the game laws. The Indians are the most successful hunters. However, they make annual hunting trips into this bush about the time of the first snowfall, and never fail to secure a big bag. A party of them from the vicinity of Brandon in 1887 killed two moose, four bears and sixteen jumping deer in two weeks. As this bush is only twenty-five miles from our farm, my chances of going on a hunt to that region were good, and when the wood supply on the Brandon Hills gave out, and this fall my father decided that we should have to go to the Spruce bush for our wood, I volunteered as one of the workers. Our plan for getting out the wood was to send three teams and three men to the bush, and they cut the wood and hauled it out ten miles. I was to be one of the three, and my father readily consented to my taking the first day in the bush for a hunt. I was in great luck. I invited my chum from town to be one of the party, and, as he was the owner of a first-class rifle, and a good shot, I considered that there was nothing that could make our hunt unsuccessful, but that night, we arrived in the bush on Monday, Jan. 19th, and the next morning, after a hearty breakfast, we started off through the brush on our bear hunt.

This portion of the story was written during the cold wave that swept over Manitoba on the 1st, 2nd and 3rd of February. It was my intention to go on with my story and tell how my chum and I, after tramping until noon the next day, the dense underbrush up hill and down dale, failed to strike back to camp. We found that we had travelled much further than we had supposed, or perhaps the distance seemed greater on account of our being tired. How we managed ourselves into camp at nine o'clock, then, weary and worn out, too tired to get anything to eat, and both declaring that bear-hunting was the greatest fraud ever invented! On the 5th of February the weather abated enough to permit us to finish our wood-hauling; and now some-

thing happened that spoiled my intentions concerning my story. When we returned on Saturday, there lay on the top of my load a large, brown animal—nothing less than a bear. The story of the bear's death is short and interesting. While hunting timber, quite close to the camp, I discovered Bruin lying in a hole at the foot of a big spruce. I ran to camp and aroused the whole party. When we reached the spot, I crept carefully up and applied my axe with such force to the bear's skull, that even had he been awake, his career would have been cut short. That is all. The skin was sold for \$25, and the meat for 10 cents a pound. So you see bear-hunting has more than glory in it for me.

Second Prize Story—An Anecdote of a Dog.

BY JOHN ST. CLARE BARNABY, BRIDGETOWN, ANNAPOLIS CO., NOVA SCOTIA.

When we lived in Queen's County, my father, Dr. Barnaby, owned a very valuable dog—a

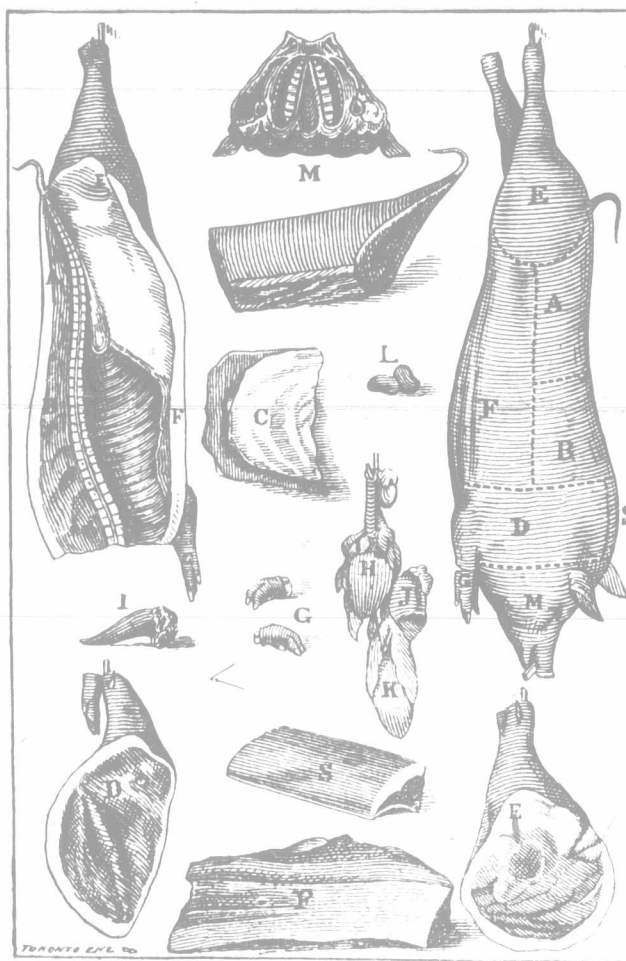
thoroughbred English pointer, which we called Bravo; and I think he was just as knowing an old fellow as I ever saw or read of. In our dining room, in the old home, there was an old-fashioned sofa, one corner of which old Bravo claimed as his own, and enjoyed many a quiet snooze thereon, dreaming of partridge and rabbits. One evening, after tea, my eldest brother laid down on the sofa thereby monopolizing Bravo's corner. It was not very long before old Bravo came to enjoy his evening nap. Finding "his corner" occupied, he tried every means in his power to rout my brother out. But seeing all his efforts (such as whining, scratching with his paw, and poking him with his nose) in vain, he deliberately walked across the room, and stood on the door leading to the kitchen, making a loud noise, and saying, "Well, the doggy," said my brother, as he rose to open the door, "that you may go if you want to, but the sofa you can't have," but he reckoned without

How Pork is Cut Up.

The accompanying diagram will show how pork is cut up by western packers. Fig. A illustrates the hind loin; B, fore loin; C, spare-rib; D, shoulder; E, leg; F, belly-piece; G, pettitoes; H, heart; I, tongue; J, fry; K, liver; L, kidneys; M, head.

HOW TO CURE BACON.

After killing the hogs, allow them to stand until all the animal heat is out of them, then cut up. Split first through the spine; cut off each half of the head behind the ears; remove the pieces in front of the shoulder for sausage; take out the leaf which lies around the kidney for lard; cut out the lean meat and ribs, then the ham and shoulder, and remove the loose pieces directly in front of the ham for lard. Cut off a narrow strip of the side for sausage, and leave the remainder for salting down. The shoulder and loins should be evenly trimmed and then salted. First rub the skin side well with salt, and then the fleshy side. A bushel of salt is sufficient for a thousand pounds of meat. When salted, the meat should be packed with the skin down. The time for allowing meat to remain in salt varies with the weather, from six to eight weeks; in very mild weather four weeks will suffice. When ready to smoke, hang the meat with the small end downwards and build a fire of green hickory under it every day until it begins to look yellow, when it should be taken down, rubbed with pepper, put in cotton sacks and rehung. Meat thus cared for will keep sweet all summer. Some housekeepers prefer putting meat in pickle instead of dry salt. For such, the following will be found an excellent recipe: Take eight pounds of salt, five of brown sugar, two ounces of soda, one ounce of saltpetre and four gallons of water; boil and skim; rub the joints with salt; lay in a tight barrel and pour the brine over. This is sufficient for fifty pounds of meat. Four weeks in brine is necessary to salt it before smoking.



HOW PORK IS CUT UP.

Men do not like women who reason with them, because, as a general thing, women reason so remarkably well.

There are sweet surprises awaiting many an honest soul fighting against odds in the battle of a seemingly commonplace life.

When washing fine white flannels add a tablespoonful of pulverized borax to a pailful of water. This will keep them soft and white.

If you have built castles in the air your work need not be lost; that is where they should be; new but foundations under them.

Little Roger—"What makes you walk lame, Uncle John?" Uncle John—"There was an accident on the bridge to-day, and I got caught in the jam." Little Roger—"I got caught in the jam once, and walked lame for a week."

Autobiography of a Confessed Puzzler.

Written for the Farmer's Advocate, by Ed. A. Fairbrother, Copenhagen, Ont.

I sat me down in a corner, In a lonely mood to think; Blank paper lay before my eyes, And so did pen and ink.

And what to write was the question, That alas! came to my mind; I'd thought of puzzles and puzzling, Until I was almost blind.

I have it, my autobiog' Will be a very good thing; But how to start? is the question That does my heart-strings wring.

Born of an honest parentage, And reared as all boys should; 'Til twelve years old or thereabouts, All temptations I withstood.

I shudder when I think of it, A model young man was I; And like the "Immortal Washington," I could not tell a lie.

Alas! for me, there came a day When there fell before my gaze A paper that contained a few Of puzzledom's sparkling rays.

Those rays did shine—my fate was sealed, Then little did I dream, That ere six months had passed away, I'd fall in with the scheme.

I wandered on, I look back now, That a hopeless wreck I am In the matter of puzzling by Conning o'er the anagram.

With a little practice from a friend, I took to forming squares, Diamonds, stars and crosses, And other things (in pairs).

The printer oft mistakes would make, My work was "forms" so "flat," At least that's what the "Ed." would say In writing up his chat.

To others in the mystic art I oft did wish to write; Alas! ahem, 'mongst a thousand men There's just one posser, bright.

I wished with them to correspond, Their names were so obscure; Just how to solve this question right Was a conundrum, sure.

'Twas in the year of eighty-six, If I remember right, Friend "Mystic" then of "Golden Days" A directory did indict.

My name appeared, so did my "nom," Amongst eight hundred more; I thought that now I sure would get, Of letters half a score.

I waited, not a blessed one Ever came unto my door; Excepting sample copies asking For a three month's sub', or more.

I drove the wedge of puzzledom Still deeper in the crack Of time left hanging on my hands, With a resounding thwack.

I took to puzzling day by day, And sometimes half the night; Until, alas! my mind it fled— I lost my appetite.

Undaunted still, I journeyed on, Bound to be known to fame; I joined the ranks of maniacs, And a puzzle Ed. became.

I offered prizes, rich and rare, To induce the posers to Cast in their lot within the 'Dom, And join the working crew.

But puzzle Ed's must pockets have, That's filled with gold, and more; He must have patience of his own, Or run his boat ashore.

And so it happened unto me, After sending out a score Of issues, that for lack of funds I rested on my oar.

To writing "flats" I then did go, They say it is a crime; But everything before my eyes Does somehow fall in rhyme.

I wonder oft, as I gaze back, If to choose my wretched lot Differently, I was permitted to, I'm afraid, my friends, I'd not.

And now, dear friends, I'd like to say, While pulling in my horns; I wish not to step upon your toes, Or trample on your corns.

All posers in the mystic art Must have, as I've heard say, A plentiful supply of "brains," To aid them in the fray.

Puzzles.

1-TRANSPPOSITION.

Dear Uncle Tom and cousins all, With you I've worked, I think, For five years now, and led the van In wasting printer's ink.

To others now I will resign, And let them take the lead; I've had my day at puzzling, Successful, too, indeed.

You have a leader, better far Than I, within the "Dom"; Who'll first you with her mirthsome wit, X L C R is her "Nom."

To visit you, I may, at times, Let each one, LAST to war; Take excelsior for your watchword, And aim to be a star.

And now, dear friends, I fain would stay, And with you still pursue, The mysteries of the mystic art; But I must say, adieu.

FAIR BROTHER.

2-ILLUSTRATED REBUS.



3-PUZZLE.

I met a man with a load, and asked him what he had in his cart. His answer was:—

Three-fourths of a cross, And a circle complete; Two semi-circles, a perpendicular to meet; A right-angled triangle set upon its feet; Two semi-circles, And a circle complete.

MATTIE WOODWORTH.

4-DOUBLE CROSS-WORD ENIGMA.

- In "Cochrane's Herefords", In "Beith's Clydesdales", In "Jarvis' Yorkshires", In "Miller's Shropshires", In "Dryden's Shorthorns", In "Graham's Cotswolds", In "Guy's Ayrshires", In "Jackson's Southdowns", In "Chick's Dorset Horned", In "Davies' Guernseys", In "Kough's Galloways", In "Palmer's Percherons", In "Harper's Devons", In "Jeffrey's Shetlands", In "Reesor's Jerseys".

The answer, read above, will plainly state what these breeders believe, and where 'tis best to carry their belief into effect.

HENRY REEVE.

5-CHARADE.

One night, when at a party, a lady said to me: "Are you not tired, THREE dear; I'm sure that you must be?"

In haste I then made answer: "I cannot thus complain, Except when dancing; I have had a pleasant seat, Miss Jane." But TOTAL that I her assured, of her own mind she'd be;

And, in fact, I was a little tired, but certainly ONE, TWO, THREE.

ADA ARMAND.

Answers to February Puzzles.

- 3-C A L L A 1-Chest-nut. U L S T E R 2-Knowledge. P A L L O R I N D I G O 4-Counsel may stop awhile D A W what it will not stay. Cupid, Arrow.

5-The letter C—Harm, charm; andy, candy raft, craft; a lash, calash; a bin, cabin; ell, cell lad, clad.

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

Ed. A. Fairbrother, Ada Armand, Mattie Woodworth, I. Irvine Devitt, Henry Reeve, Elsie Mason, Harry Ferguson, Minnie Loucks, Louisa Arnold, B. Barker, T. H. Munro, Jessie Ellis, Maggie L. Marshall.

NEW ADVERTISEMENTS.

Poultry—Dayton's Poultry Yard, Kildonan. Poultry—R. W. Caswell, Gull Lake. Eggs—Thos. Reed, Winnipeg. Eggs—A. H. Wallace, Woodstock, Ont. Eggs—M. Maw, Winnipeg. Seed Oats—R. D. Foley, Manitou. Seeds—Chester & Co., Winnipeg. Seeds—D. McNaught, V. S., Rapid City. Seeds—J. M. Perkins, Winnipeg. Implements—A. Harris, Son & Co., Winnipeg. Implements—J. O. Wisner, Son & Co., Brantford. Implements—Frost & Wood, Winnipeg. Hay Forks—M. T. Buchanan, Ingersoll, Ont. Stock—Sharman & Sharman, Souris. Improved Large Yorkshire Pigs—E. J. Darroch. Pumps—J. W. Ferrier, Portage La Prairie. Dry Goods—Wm. Bell, Winnipeg. Furniture—The Bishop Furniture Co., Winnipeg. Furniture—James Lyons, Winnipeg. School Desks—Wishart Furniture Co., Winnipeg. Watches—Red Cross Hospital, Winnipeg. Royal Soap Co., Winnipeg. Trees—German Nurseries, Bower, Neb. Royal Soap Company—Winnipeg, Man. Seeds—John A. Bruce, Hamilton. Seeds—J. S. Pearce & Co., London. Seeds—Wm. Ewing & Co., Montreal. Seeds—Wm. Rennie, Toronto. Seeds—John Pike, Woodstock. Trees—E. B. Richardson, Geneva, N. Y. Stallion Show at Portage la Prairie, Man. Shorthorns & Berkshires—R. Rivers & Son, Walkerton. Shorthorns—R. R. Sangster, Lancaster. Holsteins—H. & W. F. Ballerl, Cassel. Ayrshires and Berkshires—Alex. Hume, Burnbrae. Large Yorkshires—Wm. Davis, Markham. Herefords & Polled Angus—Dawes & Co., Lachine. Clydesdales—A. & J. Bell, Athelstan. Shorthorn Cattle—Jas. S. Smith, Maple Lodge. Shorthorns & Jerseys—J. G. Snell & Bro., Edmonton. Fertilizers—F. Rowlin, Hamilton. Fertilizers—W. A. Freeman, Hamilton. The People's Knitting Machine—Whitby. Combined and Single Drills and Seeders—Oshawa. Hay Forks—J. W. Provan, Oshawa. Favorite Seeder—J. O. Wisner, Son & Co., Brantf'd. Cook's Friend Baking Powder. Wanted, Man and Wife—Thos. Weld, Winnipeg.

A - NICE - PICTURE FREE!

Put one-cent stamp on Twenty-five ROYAL CROWN SOAP wrappers, mail to the ROYAL SOAP CO., WINNIPEG, - MAN., And they will mail you free a beautiful Hanger. 15-f-M

-SEEDS-

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. 1/2 oz. Henderson's Early Summer Cabbage... 15c. 1 pkt. Extra Early Selected Dwarf Erfurt Cauliflower... 25c. 1 oz. Guerande Stump-rooted Carrot... 10c. 1 pkt. Paris Golden Yellow Celery... 10c. 1 " Evans' Hamilton Market Lettuce... 15c. 1 " New Early Hackensack Musk Meion... 5c. 1 oz. Non Plus Ultra Radish... 10c. 1 pkt. Volunteer Tomato... 5c. 1 oz. Red Wethersfield Onion... 20c. \$1.25

ROBERT EVANS & CO., Seed Merchants and Growers, Hamilton, Ont. 393-OM

Trees! Trees! Trees!

We offer for Spring, 1891, a big stock of hardy FRUIT TREES, GRAPE VINES, Small Fruits and Flowering Shrubs, ALSO ORNAMENTAL AND FOREST TREES. Our specialties are Russian Mulberries, Russian Apricots, and Forest Tree Seedlings for timber claims and wind breaks. PRICE LISTS SENT FREE. Correspondence in English, German or French. Address—GERMAN NURSERIES, BOWER, 15-b-M JEFFERSON CO., NEBRASKA, U. S.

ELGIN STOCK FARM



We are one of the largest breeders in the Dominion of **CLYDESDALES** And have for sale a lot of imported and home-bred Clydesdales—male and female.

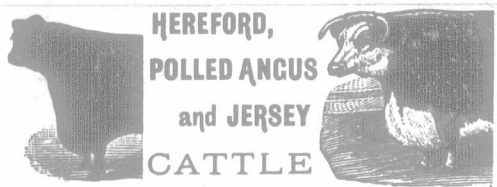
Durham and Ayrshire Cattle, Berkshire and Chester White Pigs, Shropshire and Cotswold Sheep.

A. & J. BELL,
303-f-OM Athelstan, P. Q.

DAWES & CO., LACHINE,
P. Q.

—Importers and Breeders of—

THOROUGHbred & SHIRE HORSES



HEREFORD, POLLED ANGUS and JERSEY CATTLE

BERKSHIRE AND YORKSHIRE SWINE.
The largest breeding establishment in Canada. Inspection and correspondence solicited. 303-y-OM

THOS. HARKNESS, HORSE DEALER,
Brandon, Man.

I handle all kinds of Horses, and make a specialty of Western Mares and Foals, either Single or in Bunches.

CLYDE STABLE, 9th Street,
Midway between N. P. & C. P. Depots. 12-y-M

MARCHMONT --: HERD
OF IMPORTED AND CANADIAN BRED

SCOTCH SHORTHORNS.



The Marchmont herd took five first and three second prizes at Portage la Prairie Fall Fair in 1889. At Brandon Summer Show, 1890, this herd took eight prizes, including three firsts and diploma for best herd.

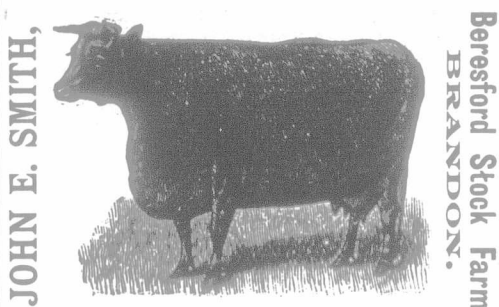
Inspection invited. Parties wishing to see the stock met at Winnipeg station. Distance from Winnipeg, seven miles north.

YOUNG BULLS AND HEIFERS FOR SALE.

W. S. LISTER,
MIDDLECHURCH, MAN. 5-y-M

EGGS! EGGS! EGGS!

Eggs for hatching from high-class stock:
WHITE P. ROCKS, WHITE WYANDOTTES, LIGHT BRAHMAS and BLACK MINORCAS.
Satisfaction guaranteed. \$2.00 per 13.
THOS. REED,
81 Lizzie St., WINNIPEG. 15-c-M



JOHN E. SMITH,

Beresford Stock Farm BRANDON.

We have a carefully selected herd of Shortborns, and can supply our customers with animals of any age or sex. Sometimes we are sold out, the demand is so great, but all parties can depend on getting what they require, as we import when the demand exceeds the supply. Come and see the stock. Wire or write. 13-y-M J. E. SMITH, Box 274, Brandon, Man.

DAYTON'S POULTRY YARDS
Kildonan, Man.,
Half mile from North Winnipeg Street Railway.

A choice lot of birds for sale, including 150 Mammoth Bronze Turkeys, 30 Pekin Ducks, and upwards of a hundred Light Brahmans, P. Rocks, Wyandottes, Langshans and Buff Cochins. Finest stock of fowls in the Northwest. Call and inspect them. 15-1f-M

CHESTER & CO.,
Seedsman,
535 MAIN STREET, - - WINNIPEG.
All kinds of Garden, Field and Flower Seeds, Timothy, Lucern, Clover, Millet and Hungarian Grass Seeds, also choice Seed Wheat, Oats and Barley. Twenty varieties of Seed Potatoes.
Special attention given orders by mail. 15-c-M

S-E-E-D-S
1 Expended in a post card will secure my new Seed Catalogue. Write for it.
Our stock is acknowledged to be the largest and best in the country, including all Grass Seeds.
J. M. PERKINS,
CENT 15-c-M 241 Main-St., WINNIPEG.

BEATTY'S PIANOS (new), \$145; **ORGANS**, \$35.
Catalogue Free. 303-a-OM
Address DANIEL F. BEATTY, Washington, N.J.

PUBLIC SALE OF SHORTHORN BULLS, JERSEY COWS AND HEIFERS, AND GRADE COWS, IN CALF OR IN MILK, ON WEDNESDAY, MARCH 25, '91

SALE WILL COMMENCE AT 1 O'CLOCK SHARP. On the above date we will sell by public auction at our farm, four miles from Brampton, on the G.T. R. and C. P. R., and two miles from Edmonton, on C. P. R., five Shorthorn bulls, from ten to fifteen months old, two of them out of imported Campbell cows; five pure-bred registered Jersey cows and heifers; one yearling Jersey bull, first prize bull calf at Toronto Industrial Exhibition, 1890; twenty pure-bred unregistered Jersey cows and heifers, a number of them in calf to registered bulls; twenty head grade Durham cows, in calf or in milk. Terms:—Eight months' credit on approved notes. Certificates of registration of all pure-breds will be furnished on day of sale. For further information apply to **JOHN SMITH, J. G. SNELL & BRO.,** Auctioneer, Brampton. Edmonton, Ont. 303-a-OM

PUBLIC SALE OF SHORTHORN CATTLE
—OF—
MAPLE LODGE STOCK FARM,
—ON—
THURSDAY, THE 26th OF MARCH, 1891.

On the above date we will sell by public auction 20 head of Shorthorns, consisting of Thirteen young Cows and Heifers and seven young Bulls, principally the get of the Bates bull Duke of Colonus =9282= and the Cruickshank bull Conqueror =12912=. Both Bates and Cruickshank families will be represented. They are an excellent lot individually, and are choicely bred, and mostly from our best milking families. TERMS:—Nine months' credit, or 8 per cent. per annum off for cash. TRAINS:—The morning and evening trains, both ways, on G.T. Ry. and L.H. & B. Ry. stop at Lucon Crossing Station, one mile east of our stables. The one o'clock mail train from the east on G.T. Ry. will stop at the farm on the day of the sale to let passengers off. Send for a catalogue and come to our sale.

JAMES S. SMITH,
MAPLE LODGE P. O., Middlesex Co., Ont. 303-a-OM

NORWAY SPRUCE, Straw-berries and Raspberries. Send for price list. **A. DAWSON,** Mohawk, Ont., 302-a-OM

DISPERSION OF THE HILLHURST HERD OF HEREFORDS

BY PRIVATE SALE.
The Grand Imported Prize Winner and Sire of Winners, Cassio 11353 (6849).

5 YEARLING BULLS; 23 IMPORTED AND HOME-BRED COWS, 15 TWO-YEAR OLD HEIFERS, in calf or with calves at foot; 11 YEARLING HEIFERS; 14 HEIFER CALVES; 12 BULL CALVES.

The show herd has taken first at all the leading shows in Ontario and Quebec during the last four years, and in only four instances has failed to secure first honors for individual exhibits. Owing to the farm being overstocked and the many disadvantages and extra expense consequent upon keeping three distinct breeds, I have determined to close out my entire Hereford herd at bottom prices, in lots to suit purchasers, and will arrange to deliver car load lots at any point on C. P. R. west of Winnipeg after May 1st. Write for Catalogue and prices.

303-b-OM **M. H. COCHRANE,** HILLHURST STATION P. O., P. Que.



The Coulthard Scott Co.,

OSHAWA, ONT.

COMBINED AND SINGLE

DRILLS AND SEEDERS,

Spring-Tooth Cultivators. Iron Disk Harrows.

SCOTCH DIAMOND HARROWS.

HON. JNO. DRYDEN, M. P. P., Minister of Agriculture, says:— It was my good fortune to win one of your Combined Champion Seed Drills given to the South Ontario Agricultural Society as a special prize some three years ago. Having used it each season since in all kinds of grain, I am glad to be able to say that it has given me the utmost satisfaction. The draft is light; the seeding is regular and easily controlled as to quantity per acre. My head teamster who has worked it always since I have had it is loud in praise of it, and declares it is "just the thing." Live hustling agents wanted where we have none. JOHN DRYDEN, M. P. P., Brooklin. 303-c-OM

NINTH SEMI-ANNUAL AUCTION SALE
 —OF THE—
WYTON STOCK BREEDERS' ASSOCIATION

—WILL BE HELD AT—
Wyton, Thursday, April 9th, at 1.30 o'clock, p.m.,

at which time we will offer for sale a number of Holstein

BULL & HEIFER CALVES, Also YEARLINGS AND OLDER
ALL STOCK THOROUGHbred AND GUARANTEED.

TERMS: Twenty-five per Cent. Cash, balance 3 and 6 months, satisfactory paper.

Trains leave London for Wyton at 7.30 a.m., and 2.15 p.m. Trains arrive at Wyton from Stratford and St. Marys at 11.00 a.m.
 Trains leave Wyton for London at 5.00 p.m., and for Stratford and St. Marys at 6.00 p.m.

For further particulars and Catalogue, apply to

W. B. SCATCHERD,
 Secretary, WYTON, ONT.

303-a-OM

PIGS! - CATTLE! - PIGS!
TWO GREAT CREDIT AUCTION SALES.

On Tuesday, March 24th,
MESSRS. ORMSBY & CHAPMAN,
 Springfield-on-the-Credit, Ont., 20 miles from
 Toronto, will sell by public auction,

50 Improved Large Yorkshire Pigs

Including Imported and Home-bred Boars, fit for
 service, sows, in pig, and young stock of all
 ages. Also seven head of

Pure-bred Shorthorn Cows and Heifers

And a number of Horses & Implements.
 SALE to commence at 10 a.m. Hogs and Cattle to
 be sold after lunch. Trains met morning
 and noon at Streetsville, on C. P. R.,
 and Pt. Credit, on G. T. R.

TERMS—\$10.00 and under, cash; over that
 amount, 7 months' credit, on approved notes. Eight
 per cent. discount for cash.

ALL WILL BE SOLD WITHOUT RESERVE.

If you want a good Pig at your own price, attend these sales.

303-a-OM

JOHN THOMSON, Auctioneer.

On Wednesday, March 25th,
MR. ROBT. DORSEY,
 Burnamthorpe, Ont., 12 miles from Toronto,
 will sell by public auction, his whole

STOCK OF PIGS

—INCLUDING—

Imported and Canadian-bred Yorkshires,

POLAND CHINAS AND SUFFOLKS!

—ALSO HIS—

Implements, Horses and Cattle.

Do not forget that Mr. Dorsey has been exhibiting
 33 years, and is now retiring. The stock is A 1.
Sale to commence at 10 a.m.

Hogs to be sold after lunch. Morning trains met at
 Cooksville, on C. P. R., and Malton, on G. T. R.

TERMS—\$10.00 and under, cash; over that
 amount, 7 months' credit, on approved notes.

CREDIT
SALE OF SHORTHORNS

Registered Cows, Heifers and young Bulls.
 Several fine cows with calves at foot, by the Water-
 loo Bull, Duke of Vittoria —5235—, son of 54th Duke
 of Oxford, from Imp. 3rd Duchess of Vittoria, bred
 by Mr. Murray, of Chesterfield, Ont. Most of the
 young stock are Adelizas descendants of that well-
 known Bow Park Cow Adeliza 19th, by the match-
 less bull, 4th Duke of Clarence, and are by Water-
 loo Duke 16th, Duke of Vittoria, and other A 1
 Bates' Bulls. Catalogues on application.

SALE AT 1 P.M., SHARP, ON

THURSDAY, MARCH 26th, 1891,

At the buildings on Dundas St., opposite Eastwood
 P.O., and almost adjoining Eastwood Station.

Eastwood Station is on main line of Great Western
 (G.T.R.), 4 miles east of Woodstock. Trains run
 conveniently, arriving at about noon, and leaving
 at 3.30 p.m.

N.B.—At same time several fine half bred young
 mares, broken to saddle and harness, by imported
 Strachino and Sharpcatcher, will be offered; and a
 selection of registered Shropshire ewes and rams,
 chiefly shearings. Address,

T. C. PATTESON,
 Postmaster, TORONTO.

302-b-OM

IRISH SOX,

Hand-knit by Donegal peasantry, pure wool, very
 warm, durable and comfortable. 12 pairs sent post
 free for Five Dollars. Men's long knickerbocker
 Hose, 6 pairs sent post free for 5, 6 or 7 Dollars,
 according to quality. Post Office Orders payable—
 B. & E. M'HUGH (Limited), Belfast, Ireland.
 301-c-OM

DISPERSION SALE!

ON ACCOUNT OF THE DEATH OF MY ONLY SON, AND HAVING SOLD
 MY FARM, I WILL SELL BY PUBLIC AUCTION, ON

WEDNESDAY, MARCH 18TH, 1891,
 —MY ENTIRE HERD OF PURE-BRED—

SCOTCH :- SHORTHORN :- CATTLE

—CONSISTING OF—

Seventeen Cows and Heifers, Three Bulls from 15 to 18 Months Old, and
 the Imported Cruickshank Bull Prince Royal = 6418 = (56349).

All of the cows and heifers old enough to breed; will have calves at foot sired by imported Methlick
 Hero = 2723 = (a son of the \$1,000 cow, Mademoiselle, imported by the Experimental Farm, Guelph), and
 Prince Royal, a winner and sire of winners, both at Toronto and London shows last fall. There will also
 be sold eleven head of High-Grade Cows and Heifers. The farm is three miles from Sebringville, a station
 on the Goderich branch of the G. T. R.; four miles from Stratford, Perth Co., Ont. Catalogues sent on
 application, containing full particulars. Address—

ROBERT BALLANTYNE,
 Langside Farm, SEBRINGVILLE, ONTARIO.

302-b-OM

Permanent Canvassers Wanted in Every County

To whom paying wages will be given. Write for particulars.
FARMER'S ADVOCATE, London, Ont., or Box 214, Winnipeg, Man.

SCHOOL DESKS!
 Supplied direct to Schools at
Wholesale Prices.
 Write for ILLUSTRATED CIRCULARS and
 Price Lists to
Wishart Furniture Co'y.
 Manufacturer's Agents,
WINNIPEG, - MAN.
 15-1f-M

SEED BARLEY
CARTER'S PRIZE PROLIFIC
From Government Seed
 Absolutely Free from Weeds.
 \$1.00 Per Bushel. Cotton Bags, 30c. extra.
D. McNAUGHT, V. S.,
 RAPID CITY, Man.
 15-a-M

MISSOURI NURSERY CO., Louisiana, Mo.
 Salesmen wanted; special aids; magnificent outfit free.

STARK NURSERIES. Stark Bros. Nursery Co., Louisiana, Mo. Founded 1833. Oldest in the West. Largest in the World. BEST of everything. Nearly 500 salesmen sell our stock in almost every State and Territory; volume of annual sales now exceeds that of any other Nursery. We sell direct through our own salesmen, without the aid of tree dealers or middlemen, and deliver stock, freight and all charges paid.

NO TREES Last and bear like whole root trees; or like plum, prune and apricot trees on staves, the best plum stock grown. Idises and other New & Old Fruits (by mail); ornamentals, root grafts—everything. No larger stock in U. S. No better. No cheaper.

File Co. Ark. Mo. La. Ill. Ind. Iowa. Ky. Mich. N. Y. Pa. S. C. Va. W. Va. Wis. W. Mo.

302-b-OM

SEEDS. To introduce my Seeds, I offer 12 pkts. of Vegetable or Flower Seeds for 25 cents, postage paid. Catalogue free. JOHN PIKE, Woodstock, Ont.

303-b-OM

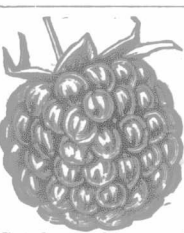
MOTTO.—“ Square dealing and the best stock in the market for our customers.”

Trees, Vines, Plants, Ornamentals, &c. Just the kinds wanted, strictly first-class.

Send your order to the Central. It will pay you. The Mailing Department receives special attention.

A. G. HULL, Central Nursery, St. Catharines, Ont.

Catalogue free. Send in your list for prices. 301-e-OM



J. W. FERRIER
 Portage La Prairie, MANITOBA.
 Manufacturer of

PUMPS
 —AND—
CLOTHES REELS.

SATISFACTION - - GUARANTEED.

Orders by mail promptly attended to.

15-f-M

ESTABLISHED 1879.
WM. BELL
 MAIN STREET 288 WINNIPEG.
 (CORNER GRAHAM.)

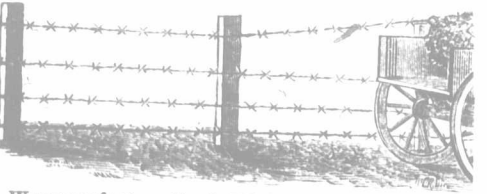
DRY GOODS!

Ladies' and Gents' Furnishings
 Always on hand. A full and varied stock of

STAPLE AND FANCY GOODS.
 Orders by letter and in person from our country friends given special attention. We have everything in stock to suit the farming community. Our stock will be found most complete, and in prices cannot be undersold.

WM. BELL,
 288 MAIN STREET.
 15-ff-M

Manitoba Wire Co., Winnipeg, Man.



We manufacture Barb Wire and Plain Twisted Wire without Barbs, and we are in a position to fill all orders promptly. Ours is the only wire manufactured in the Dominion of Canada on which is found the GENUINE LOCK BARR. A personal inspection will convince you of this fact. Quality of wire the best ENGLISH BESSEMER STEEL. Every pound guaranteed. Have sold during the season over 70 carloads (1,400,000 pounds), and have not heard an objection or complaint as to its strength or quality. Manitoba Wire Co., Winnipeg, Man. 14-l-M

DEDERICK'S HAY PRESSES.
 Made of steel, lighter, stronger, cheaper, more Power, everlasting and competition distanced.

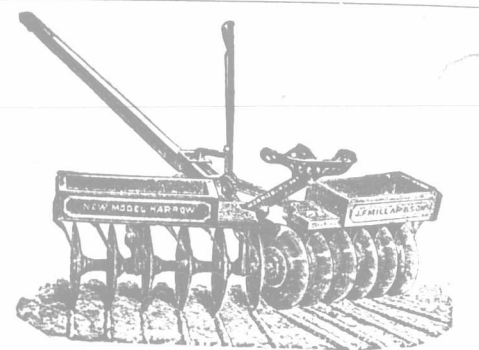
Address for circulars and location of Storehouses and Agents: P. K. DEDERICK & CO., Dederick's Works, Albany, N. Y., or Montreal, P. Q.



SEEDS WM. EWING & CO.,
 142 McGill St., Montreal, SEED -- MERCHANTS.
GARDEN AND FARM SEEDS of every description. Our Illustrated Catalogue mailed free to all applicants.

CHOICE LOWER CANADIAN GROWN TIMOTHY A SPECIALTY. Send for sample and compare with western grown.

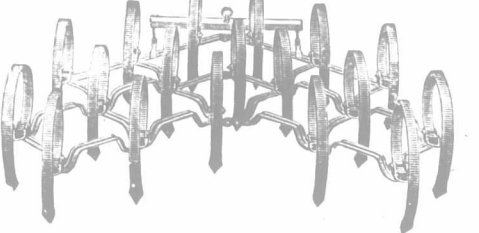
TARES, CLOVERS, GRASSES AND SEED GRAIN.
 Corn for ensilage of best varieties. 303 b-OM



The "New Model" Rotary Disc Jointed Pulverizing Harrow.
 All Steel Discs with Patent Automatic Scrapers.

The only Disc Harrow made with Scrapers that will keep discs clean without any attention from the driver. No Disc Harrow is complete without this great improvement. Receives everywhere highest commendation, because very effective in work, simple in construction, durable in wear, convenient in handling.

The Celebrated Stevens (Patented) All Steel, Arched Frame Spring Tooth Harrow.

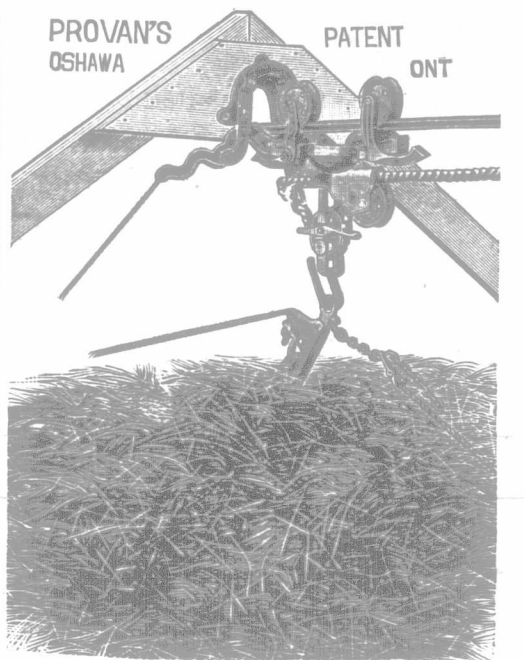


Away ahead of all others; all steel frame; no wood to decay and wear out; lightest draught spring tooth harrow made; teeth quickly adjusted—only one nut to loosen; will not clog or bury. On stony land its work is perfection; in sticky ground there is none like it.

Good live responsible agents wanted in every part of Canada. Write for circulars and prices. 302-b-OM

J. F. Millar & Son, Morrisburg, Ont.

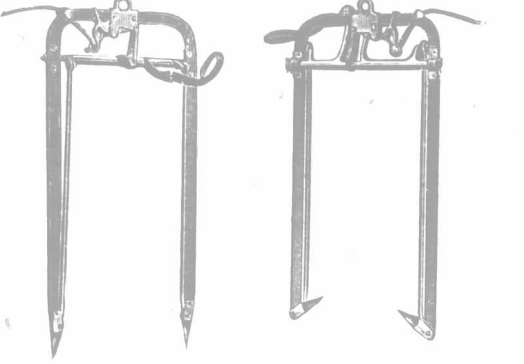
PROVAN'S Horse Fork and Sling
 IS THE BEST MADE.



SIMPLE, STRONG, DURABLE
 Many farmers who had other kinds have taken them down and bought mine after seeing it work. My Machine Handles Sheaves as well as Hay and Peas—It is the Simplest and Best Stacker Manufactured.

It has been in successful competition with the best in the market during the past six seasons. Its superiority to all others places it beyond doubt, as it is positively the only Double-Acting and Self-Reversing Machine on the Continent that has the following advantages:—A loaded fork or sling can pass the stop block. The pulleys can be instantly lowered or elevated to their position. This avoids all climbing or untying of the whiffletrees. The track acts as a strengthening brace, never warps, and is stronger and better adapted for unloading at the gable, as well as the centre, than any other. It is easily moved from one barn to another. The track used for this car is the best for the following reasons:—It is round; the car runs easily, and is not affected by a side pull. Any boy can change it with ease. Pulleys can be instantly raised or lowered at pleasure.

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



SENDING TO FARMERS ON TRIAL.
 It has been for years a part of our business to send our machine on trial to fair-minded responsible farmers living at remote distances, such machines to be put up by them and used until their harvesting be half done, when they are required to decide whether they will keep the apparatus or return it; if the latter, we will pay return freight charges.

J. W. PROVAN,
 OSHAWA, - ONT.,
 Sole Manufacturer and Patentee.
 We guarantee satisfaction in every instance 303-b-cot-OM

FIVE SUPERIOR VARIETIES OF OATS.

	PER BUSHEL.	IN TEN BUSH. LOTS
The Rosedale Oat, - - - -	\$1.50	\$1.25
The American Banner, - - -	85	80
Golden Giant Side Oat, - - -	2.00	1.50
The American Beauty, - - -	2.50	
Black Tartar, First Year from Imp. Stock,	1.00	90
" " " " " " " " " " " "	80	75

Cotton Bags, 20c. Each.

Full description given in our Seed Catalogue, which we mail free to all who apply. Do not write for special prices. Offer not good after April 1st.

Colorado Spring Wheat, White Russian Spring Wheat, Two and Six-rowed Barley, Mummy Peas Golden Vine Peas, Crown Peas, Choice Seed Potatoes. Prices on application.

Address, **JOHN S. PEARCE & CO.,**
Seed Merchants, 119 Dundas-St., LONDON, ONT.

Pearce's Extra Early Potato, price 50c. per lb., 3 lbs. for one dollar, post-paid. Three pounds given to every purchaser of 10 bushels of the Rosedale Oat, or Golden Giant, or with 5 bushels of each.

WANTED—MAN AND WIFE.

Man must be a first-class groom, experienced in handling a stallion and accustomed to all kinds of farm work. Wife requires to be a good house-keeper and capable of taking charge of farm house. Yearly engagements. References required.

Apply to
THOMAS WELD,
FARMER'S ADVOCATE,
Winnipeg, Man.

303-a-OM

FOR SALE.

12,000 acres of good Farming Lands, title perfect, on Michigan Central, Detroit & Alpena and Loon Lake Railroads, at prices ranging from \$2 to \$5 per acre. These lands are close to enterprising new towns, churches, schools, etc., and will be sold on most favorable terms. Apply to

R. M. PIERCE, West Bay City.
Or to
J. W. CURTIS, Whittemore, Mich.

303-c-OM

STANLEY POTATO.

WHAT ARE ITS MERITS?

It is a great cropper, will not decay or blight, strong stock, six days earlier than the Rose, color the same, quality not excelled. Every farmer and gardener should try at least one pound. Per pound, 60c.; peck, \$5. Address the originator,

O. H. ALEXANDER,
Charlotte, Vt.

303-a-OM

ESTABLISHED 1881.

ALEX. FLEMING, M.D.
DRUGGIST.

PERFUME & TOILET ARTICLES,
B. Lorraine's Spectacles.

BRANDON, MAN.



We manufacture and sell all the requisites for Cheese Factories: Gang Presses, Cheese Hoops, Vats, Boilers, Gurd Mills, Curd Knives, Weigh Cans, etc.; also Seamless Bandage, Open Bandage, Cap Clothes, Rennets, Rennet Extract, Rennetine, Cheese Color, Scale Boards, etc., etc. Lowest prices to wholesale dealers. **CHOWN, FOWELL & CO.,** Belleville, Ont. 303-c-OM

ESTABLISHED 1866.

KEITH'S

Gardener's Assistant and Illustrated Catalogue of Garden, Agricultural and Flower Seeds

NOW READY

and will be mailed free on application to any address.

Clover and Timothy, Orchard, Blue and Red Top Grasses, Flax Seed, Tares, Seed Wheat, Oats and Barley, &c., &c.

Correspondence solicited from buyers and sellers.

GEO. KEITH, Seed Merchant,

302-c-OM 124 King-St. East, Toronto.

FARMERS!

If you want the best value for your money. If you want an article that will never disappoint you.

If you want thoroughly good and healthy Baking Powder, into which no injurious ingredient is ever permitted to enter.

BUY ONLY THE GENUINE



—REMEMBER THAT—

McLAREN'S COOK'S FRIEND

IS THE ONLY GENUINE.

THE BEST GROCERS SELL IT.

302-y-OM



ONLY LIVE FISH

SWIM UP STREAM.

IT TAKES VIGOR AND BACK BONE TO GO AGAINST THE TIDE. THE SICK MAN IS SELDOM THE SUCCESSFUL MAN. THE POINT IS: GET WELL AND KEEP WELL THIS CAN BE DONE; HERE'S A NATURAL WAY: INHALE NATURE'S VITALIZER—OXYGEN. NOT THE AMOUNT WHICH YOU GET IN ORDINARY BREATHING BUT A CONDENSATION OF IT. THIS IS FOUND IN COMPOUND OXYGEN. THIS POWERFUL REMEDIAL AGENT IS NOT ONLY AN INCREASE OVER THE NORMAL SUPPLY, BUT IT IS VITALIZED BY CHARGES OF ELECTRICITY. IT MAKES STRENGTH AND MAINTAINS IT. THE BEST FEATURE OF VITALITY GAINED IN THIS WAY IS THAT IT REMAINS AFTER THE USE OF COMPOUND OXYGEN IS DISCONTINUED.

A BOOK OF 200 PAGES WILL TELL YOU WHO HAVE BEEN RESTORED TO HEALTH AND STRENGTH BY THE USE OF COMPOUND OXYGEN.

THIS BOOK WILL BE SENT ENTIRELY FREE OF CHARGE TO ANY ONE WHO WILL WRITE TO

DRS. STARKEY & PALEN, No. 1529 ARCH ST., PHILADELPHIA, PA.

120 SUTTER ST., SAN FRANCISCO, CAL

58 CHURCH ST., TORONTO, CANADA.

NO BLIZZARDS, CYCLONES, THE FINEST, RICHEST
long line of expensive freights but in the world right at the door for farmers
with—**BEST PAYING MARKETS** in Michigan. How to get a long time, easy payments, and full information, address
FARM CHEAP, O. M. BARNES, LANSING, MICH.

303-f-108

STOCK FOR SALE.

FOR SALE,

At a very low figure, a grand young Cleveland Bay Stallion.—W. C. BROWN, Cleveland Bay Stock Farm, Meadowvale, Ont. 297-g-OM

A. B. SCOTT & SON,
VANNECK, - - - ONTARIO,

IMPORTERS AND BREEDERS OF

REGISTERED CLYDESDALES

The get of McGregor, Belted Knight, Good Hope, etc. Colts and fillies, winners at all the large shows, for sale at moderate prices. 293-y-OM



CLYDESDALES & Shetland Ponies.
A. K. TEGART,
Importer and Breeder, offers for sale choice stallions and mares of the above breeds. Address—Tottenham, Ont. 298-y-OM

IMPORTED -- CLYDESDALES

I have just returned from Scotland with my last importation, all good, hard-shanked, heavy-boned colts, including prize-winners at several leading shows. I can sell a first-class horse as low as any importer in America. Do not buy till you see my stock. Also a few choice fillies, imported and Canadian bred. 297-g-OM

NEIL SMITH, Brampton, Ont.



ROSEDALE FARM
HIGHFIELD P. O.,
MALTON, - ONTARIO.
Jas. Gardhouse & Son
Importers & Breeders of Shire and Clyde Horses and Shorthorn Cattle. First-class stock at rock-bottom prices. Write or call. 298-y-OM

ROBT. NESS, Woodside Farm

—IMPORTER AND BREEDER OF—

CLYDESDALES, SHIRES, SHETLANDS, AYRSHIRE CATTLE

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 (2988), Macbeth (3817), Sir Hildebrand (4024), Golden Guinea (3800), Old Times (579), Good Hope (1879), Knight of Snowdon (2212). The stock is selected by myself with great care. Intending purchasers are invited to inspect.

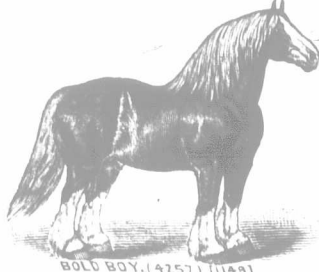
The farm is situated 40 miles south-west of Montreal, on the G. T. R., and 100 miles east of Ottawa, by C. A. R. Howick Station on the farm.

ROBERT NESS, HOWICK P. O., Que.
Visitors always welcome. 291-y-OM

D. & O. SORBY, GUELPH, ONT.,

Breeders and Importers of

FASHIONABLY BRED CLYDESDALES



We always have on hand a large number of imported and home-bred Clydesdales (male and female) of good breeding and quality, which we will sell at honest prices. Our specialties are good and well-bred horses and square dealing. Come and see us or write for particulars. 277-y

Pure-Bred Registered Clydesdales & Jerseys

Bred from pure imported stock. Young stock for sale at farmers' prices. 293-y-OM

JOHN PULFER, Springvalley Farm, Brampton, Ont.



Imported and Canadian bred
CLYDESDALES.

We challenge competition for quality and smoothness in our horses. Imported Stallions and Mares of the most desirable strains. We have been most successful in the show rings with mares, colts and fillies of our breeding. Stock for sale at reasonable prices.

PROUSE & WILLIAMSON,
297-y-OM Ingersoll, Ont.

PRIZE-WINNING Clydesdale Horses & Mares
FOR SALE CHEAP. TERMS LIBERAL.



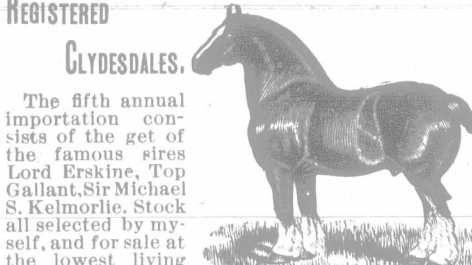
We have on hand and for sale a superior lot of imported and home-bred Clydesdale Stallions and Mares. Several of them were prize-winners at the leading shows in Scotland and Canada. Also a few choice SHETLANDS. Prices to suit the times.

Address—300-d-OM **Jeffrey Bros., Whitby, Ont.**

S. C. JOHNSTON,

—Letters and telegrams—

Manilla, - Ont.,
(60 miles from Toronto, on the Midland), importer of



REGISTERED CLYDESDALES.
The fifth annual importation consists of the get of the famous sires Lord Erskine, Top Gallant, Sir Michael S. Kelmorlie. Stock all selected by myself, and for sale at the lowest living profits. 301-y-OM



CLYDESDALES For Sale.

First Prize-winning Stallions, the get of Darnley (222) and Lork Erskine (1744).

JAN. HENDERSON,
302-y-OM BELTON, ONT.

Prize-Winning Clydesdales FOR SALE.




We have on hand a large number of Imported and Home-bred Stallions and Mares which we offer at reasonable prices and easy terms. Visitors always welcome. Catalogue on application.

DUNDAS & GRANDY,
303-y-OM SPRINGVILLE P. O.,
Cavanville Station, C. P. R.

THOROUGHBRED AND TROTTER-BRED STALLIONS FOR SALE
Messrs. Donaldson & Carmichael, Hillsburg, Ont., offer for sale the thoroughbred stallion Goddard, 7 years old, 16 hands high; bred by Chim & Morgan, Lexington, Ky. Also two grand young Road Stallions, both standard-bred and registered in Wallace's American Trotting Register. Confederate, by Confederate Chief, dam by Highland Boy, 5 years old, 16 hands high, solid bay, black points. Confederate, by Confederate Chief, dam by General Stanton, 3 years old, 16 hands high, bay, star and one hind foot white. For prices and particulars, address, DONALDSON & CARMICHAEL, Hillsburg, Ontario. 302-g-OM

YOUNG PERCHERON STALLION,
Registered, for sale cheap, or will exchange for other stock. Apply to, 303-a-O **G. BALLACHEY, Brantford.**

ISLAND HOME



Stock Farm. H. C. Farnum, Importer and Breeder of Percheron & French Coach Horses. Offer a very large stud of horses to select from. I guarantee my stock, make prices reasonable and sell on easy terms. Visitors always welcome. Large catalogue free. Address: H. C. FARNUM, Grosse Isle, Wayne Co., Mich. 300-y-008

PIONEER - STOCK - FARM.

THE LARGEST IMPORTERS & BREEDERS OF
Shire and Hackney Horses
IN AMERICA.

100 Head of Registered Horses on hand 100

Prices to suit the times. Long time given to responsible parties. Address—

W. E. Truman, Supt.,
300-f-OM BUSHNELL, ILL.

ENGLISH PEDIGREE LIVE STOCK.

SHIRES, CLYDESDALES, SHORTHORNS, HEREFORDS, JERSEYS, AYRSHIRES, KERRIES, SHROPSHIRE, OXFORDS, HAMPSHIRE AND SOUTHDOWNS, DORSETS, LEICESTERS, LINCOLNS, AND COTSWOLDS, BERKSHIRES AND YORKSHIRES.

Choice registered stock of the best strains and highest merit for sale at moderate prices. Foreign buyers assisted in purchase and shipment at one per cent. Stock purchased and shipped under experienced herdsman for two-and-a-half per cent. Bankers, Lloyd's Bank, Shrewsbury. Special low freights. Highest references from foreign breeders. All commissions personally executed. 1027 Shropshire sheep alone, exported to America in 1890, besides horses, cattle, pigs, and sheep of other breeds, to that and other countries. All importers should apply to—

E. GOODWIN PREECE,
Exporter and Live Stock Agent,
296-j-OM SHREWSBURY, ENG.

— THE —
SIRES OF CHAMPIONS.

STALLIONS:
William L., sire of Axtell, three-year-old, 2.12; Jay Bird, sire of Allextion, four-year-old, 2.13 1/2; Young Jim, Eagle Bird, Betterton, Etc.

TROTTERS FOR SALE.

"GEO. WILKES" SIMMONS,
PHENIX HOTEL,
300-f-OM Lexington, Ky.

THE German Coachers
VICTORIOUS!



29 first, 23 second, one third, and four highly commended ribbons and two grand sweepstakes prizes taken at the American Horse Show and the Illinois and Nebraska State Fairs

This year by the Hanoverian Coach Stallions and Mares owned by
OLTMANN'S BROTHERS, WATSEKA, ILL.
Farm 80 miles south of Chicago. 300-f-OM

PERCHERON AND CLYDESDALE STALLIONS FOR SALE.

The noted Percheron stallion Clovis No. (634) in the Percheron Stud Book of France, and No. 5346 in the Percheron Stud Book of America, dark dapple grey, seven years old, 16 1/4 hands high, 1,800 pounds weight, sound, a sure and excellent foal getter. One of the handsomest horses in America. At the great National Concourse at Nogent le Rotron, France, in 1888, in a ring of fifty-two three-year-olds, Clovis won third prize out of nineteen prizes awarded. Will sell as we require a change of blood.

Also for sale the pure-bred Clydesdale stallion Rokeby (1824) 4245, rising three years old.

MOSSOM BOYD & CO.,
303-a-OM Bobcaygeon, Ont.

SIMMONS & QUIRIE
IVAN, ONT.

Shorthorns, Berkshires.



Representatives of the Scotch families are MINA'S & STRATHALLAN'S. The sires in use are the Sweepstakes Silver Medal Bull SIR CHRISTOPHER and RED KNIGHT, winner of 1st prize at Toronto and London in 1888; also, prize-winning Berkshires.

FOR SALE! THREE SHORTHORN BULLS

Well bred and good animals. Ages 9 to 13 months. At farmers' prices. Apply to

JOHN IDINGTON,
303-a-OM Stratford, Ont.

SHORTHORN BULLS

HOME-BRED AND IMPORTED

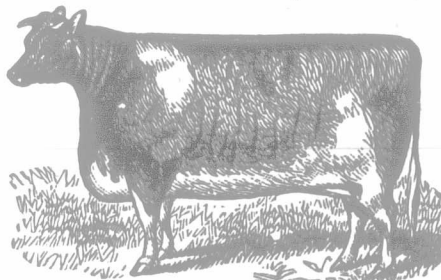
Shropshire Sheep.
The imported 2-year-old Aberdeen Hero

And a choice lot of young bulls of our own breeding. Some No. 1 imported Ewes & Lambs FOR SALE.

SHORE BEES,
WHITE OAK, ONT.



ARTHUR JOHNSTON,
Greenwood, Ont.,



Announces that he has for sale, at MODERATE prices, a large and exceedingly good lot of young things of both sex. The calves, yearlings and two-year-olds, are particularly good—all by imported sires and mostly from imported dams of the best strains obtainable in Scotland.

EXCELLENT CLYDESDALES OF BOTH SEX FOR SALE.
New Catalogue for 1891 now ready for delivery. Send for one; they are sent free.

My motto: "No business no harm."
Greenwood P. O. and Telegraph Office, Claremont Station, on C. P. R., or Pickering Station on the G. T. R. Parties met at either station on shortest notice. Come and see them.

Shorthorns for Sale.

Three young Bulls, fit for service, of good milking strains and good colors, also some Cows and Heifers, imported and home-bred, and Heifer Calves. Prices of bulls from \$50.00 to \$80.00 each. Apply to

R. R. SANGSTER,
303-a-OM Lancaster, Ont.

Shorthorns, Yorkshires and Berkshires.

My Shorthorns are bred from stock imported by such noted breeders as Arthur Johnson, J. C. Snell and Green Bros. I have a few choice heifers for sale. My Improved Large Yorkshires were imported directly from the famous herd of C. E. Duckering, Kirton, Lindsay, England. I have some young pigs imported in their dam, for sale. Prince Regent, bred by Snell Bros., heads my Berkshire herd. Times are hard and my prices are right. Write or call.

A. F. MCGILL,
303-a-OM Hillsburg, Ont.

SHORTHORN COWS, BULLS AND HEIFERS.

A few choice Berkshire Boars, fit for service; a number of grand young Boars, three months old, all sired by an imported Berkshire Boar, and out of imported and registered Sows. A few good Sows, in pig, about 8 or 9 months old. Prices reasonable.

H. J. DAVIS,

303-a-OM Box 290, Woodstock, Ont.

Shorthorns for Sale.

Bulls and heifers, sired by Laird of Kinellar, of the Campbell-Buchan Lassie family, from which we have some fine show animals, several prize takers at the Provincial Show, 1889.

JAMES CRERAR,
294-y-OM SHAKESPEARE, ONT.

PURE-BRED STOCK FOR SALE

Five choice Durham Bull Calves, from nine to thirteen months old, good colors and pedigrees. Also a few nice young registered Berkshires, male and female. Prices moderate and terms easy. Correspondence promptly answered. Visitors welcome.

R. RIVERS & SON,

293-y-OM Springhill Farm, Walkerton, Ont.

JOHN MILLER & SONS

Brougham, Ont.



Extensive breeders and importers of Clydesdales, Shorthorns and Shropshires. Business established in 1848. We always have on hand and for sale a large number of imported, and home-bred animals. A visit, or correspondence solicited.

SHORTHORNS

—AND—

COTSWOLDS

FOR SALE.

My Shorthorns are well bred, good colors, and have been fine milkers for generations. I have over 100 females and a large number of bulls, from which buyers may select. Prices to suit the times. Satisfaction guaranteed. Correspondence promptly answered. Visitors welcome.

JAMES GRAHAM,
290-y PORT PERRY, ONT.

BOW PARK HERD

—OF—

PURE-BRED SHORTHORNS.

We have on hand Eighteen Young Bulls, fit for service, that we offer at reasonable prices and easy terms. They are good individuals, and well bred. ADDRESS—

JOHN HOPE, Manager,

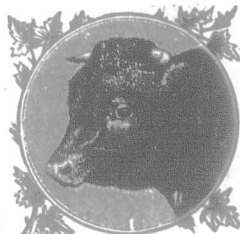
303-y Bow Park, Brantford, Ont.

FOR SALE 12 head of Shorthorns, bulls and heifers; 20 Leicester and South-down Ram Lambs, and about 30 Berkshire Pigs. All bred with care. Send for prices

294-y-OM **EDWARD JEFFS, Bond Head, Ont.**

NEIDPATH STOCK FARM.

We breed Scotch Shorthorns, founded on choice representatives, from the famous Aberdeen herds of Duthie, Marr and E. Cruickshank, headed by the Cruickshank Victoria-Nouparell bull INDIAN PRINCE. Produce only for sale. Address—



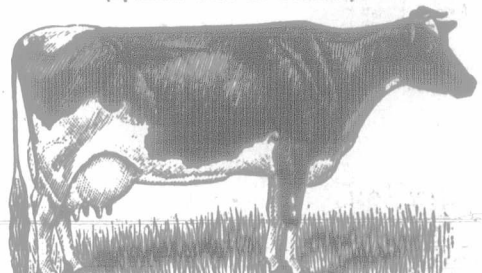
THOS. BALLANTYNE & SON

302-y-OM STAFFORD, ONT., CAN.

CHOICE HOLSTEINS FOR SALE.

I have a few very nice pure-bred registered Holsteins, bulls and heifers, for sale at very reasonable figures. Write or come and see me. Also one or two high grades.—JNO. A. LINE, Sherwood, Ont., Richmond Hill Station.

THE GREAT MILK AND BUTTER HERD OF HOLSTEIN-FRIESIANS.
SMITH BROS., Credit Valley Stock Farm, CHURCHVILLE, PEEL COUNTY, ONT.,
(24 miles west of Toronto).



MINK 402, H.F.H.B.

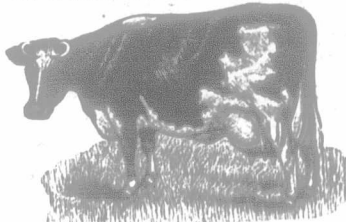
This is the place to get stock of best quality at reasonable prices. We have seventy-five head, including prize-takers; best strains, cows and heifers, with large milk and butter records; young bulls of superior quality. Send for catalogue.

RETIRING FROM FARMING.

Grand Clearing Sale of the oldest established herd of

HOLSTEIN-FRIESIANS

IN CANADA. MUST BE SOLD.



Together with one of the choicest stock farms in Eastern Ontario, containing 170 acres, highly improved and in an excellent state of cultivation; water supplied by spring and wind-power; close to railway station and steamboat landing on River St. Lawrence; residence located in a thriving village with churches, schools, etc., at door. A rare opportunity for investors. Our herd of Holsteins is one of the best in the Dominion, and includes representatives of the choicest milk and butter families of both sexes and all ages. Must be sacrificed in three months without reserve. Write for prices, or come and see our herd.

M. COOK & SONS,
302-c-OM AULTSVILLE, STORMONT CO., ONT.

Improved Large White Yorkshires

—AND—

ENGLISH BERKSHIRE PIGS.

All bred from imported stock and registered. Orders booked now for Spring Pigs.

PAIRS SUPPLIED NOT AKIN.

E. J. DARROCH,

15-y-M Minnedosa, Manitoba.

ADVERTISE IN THE ADVOCATE

HOLSTEINS, CLYDESDALES AND CARRIAGE HORSES.
I have one of the oldest herds of Holsteins in Canada, founded on the best blood in America; also registered Clydesdales and Carriage horses.
297-y-OM **WM. SHUNK, Sherwood, Ont.**

PURE-BRED REGISTERED HOLSTEIN-FRIESIANS
All imported or bred from imported stock. "Sir Mac," of the famous Aaggle tribe, heads the herd.
HUGH McCAUGHERTY & SON,
297-y-OM Walnut Hill Farm, STREETSVILLE, ONT.

PURE-BRED REGISTERED HOLSTEIN CATTLE.
The sweepstakes herd at the Toronto Industrial Fair, where my stock bull Woodbine Prince (6712) also took the first prize and sweepstakes silver medal. I keep no cattle that are not of the highest standard.

A. KENNEDY,
298-y-OM Woodbine Farm, Ayr, Ont.

HOLSTEIN-FRIESIANS
THE CHOICEST AND MOST UNIFORM HERD IN CANADA.
Telegraph and Post Office, New Dundee, Waterloo Co.; Petersburg Station on G. T. R. Send for our new catalogue.
A. C. HALLMAN & CO
294-y-OM

Holstein Friesians
Of the most remarkable families and greatest performers. Stock of all ages for sale at the lowest possible prices. Railway Stations—Tavistock and Hamburg, on G. T. R. Post Office—Cassel, Ont.
294-y-OM **H. & W. F. BOLLERT.**

BROCKHOLME STOCK FARM.
Holstein-Friesian Cattle.
ADVANCED REGISTRY STOCK.
Netherland Romulus, a grandson of Netherland Prince and Albino the second, heads the herd. Young stock for sale.
295-y-OM **R. S. STEVENSON, Proprietor,**
ANCASTER P. O., ONT.

HOLSTEIN BULLS FOR SALE.
Two nicely marked Yearling Bulls of the best milking strains.
302-y-OM **JOHN TREMAIN,**
FOREST, ONT.

HOLSTEIN-FRIESIAN
STOCK FOR SALE AT REASONABLE PRICES.
All my stock I have carefully chosen for their extra fine breeding and large milk records, and are all registered in Holstein-Friesian Herd Book. A visit, or correspondence solicited.
300-y-OM **R. HOWES CRUMP, Masonville,**
near London, Ontario, Canada.

LAKEHURST JERSEY STOCK FARM,
Oakville, Ontario.

T. E. BRAMELD, Proprietor, offers for sale, at very reasonable figures, choice A. J. C. C. Jerseys from his prize-winning herd; also a few extra good high-grade Cows and Heifers, and registered Improved Large Yorkshire Pigs. Write for prices.
P. O., Station and Telegrams, Oakville, on G. T. R.
302-f-OM

Clair House Vineyards, Cooksville, Ont.

B. W. MURRAY,
BREEDER OF
THOROUGHBRED JERSEY CATTLE
—AND MANUFACTURER OF
Pure Native Wine.
Write for prices. 298-y-OM

Riverside Farm.
PURE-BRED A. J. C. C. JERSEYS
—AND—
ESSEX PIGS.

Prince of Oaklawns (imp.) 12351, heads the herd. Young stock for sale. Also a few choice unregistered and high grade cows.
Farm one mile from Streetsville Junction. J. H. SCARLETT, Streetsville, Ont. 297-y-OM

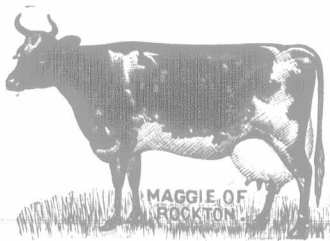
CHOICE Jerseys for Sale.

All ages and sex, of best milk and butter strains. St. Lambert blood prevailing. This herd has won sixteen medals (gold, silver and bronze), one hundred and forty prizes in money, several diplomas, many discretionary prizes, solid silver cup at Kellogg's New York sale for best prices on five head, silver tea set donated by FARMER'S ADVOCATE at London, 1889, for three best dairy cows of any breed

MRS. E. M. JONES,
Brockville, Ontario, Canada.
303-y-OM

PRIZE-WINNING AYRSHIRES FOR SALE.

I have at present one of the largest & best herds in Ontario, which has been very successful in the prize ring. They are deep milkers and of a large size. Bulls, cows and heifers for sale always on hand.
299-y-OM **JAS. McCORMICK,**
Rockton, Ont.



FOR SALE.
Pure-bred Ayrshire Calves, with pedigree, \$10; two and three crosses from heavy milkers, \$5; Pure-bred Improved Yorkshire Pigs, farrowed in February, \$5 each. Can furnish pairs not akin. Orders booked. **ALEX. HUME,**
303-b-OM **Burnbrae P. O.**

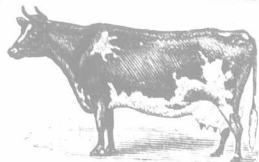
Ayrshire Cattle & Poland China Hogs, MERINO SHEEP AND FANCY FOWLS.

We have the largest herd of Poland Chinas in Ontario. At the last Industrial Fair we carried off 17 prizes out of 26, including both prizes for pens. We breed from none but the best, and our aim is to supply first-class stock at living prices. We mean business. Write, or come and see us.
298-y-OM **W. M. & J. C. SMITH,**
Fairfield P. O., Ont.

PARK HILL HERD OF AYRSHIRES.

This herd took all the first prizes in Quebec in 1887 and 1888, and in Ontario in 1889, in competition with all the leading herds. Young stock for sale, all of which is from the celebrated bull ROB ROY (3971), which is at the head of the herd.

JAMES DRUMMOND,
291-y-OM PETITE COTE, MONTREAL, P. Q.
Imported and Canadian-Bred



AYRSHIRES AND CLYDESDALES FOR SALE.

I have on hand a large herd of finely-bred Ayrshires of splendid quality. My Clydesdales are also first-class. Stock for sale. Prices and terms liberal.
298-y-OM **THOS. BROWN,**
Petite Cote, P. Q., near Montreal.

Prize Winning Ayrshires for Sale.



Mine is one of the largest and most successful show herds in Canada. They are finely bred and of great individual merit. Bulls, heifers and cows always on hand for sale; also a few good Leicester sheep. Correspondence solicited. Visitors welcome. Address

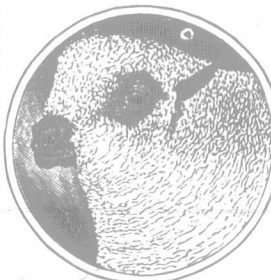
THOS. GUY,
290-y **Sydenham Farm, Oshawa, Ont.**

FOR GOOD HEREFORD CATTLE

—WRITE TO—
F. A. FLEMING
Address, **WESTON P. O., ONT.,**
Or 15 Toronto-St., Toronto, Ont.
Mention this paper. 300-g-OM

SHROPSHIRE! SHROPSHIRE!

JUST IMPORTED.
I have just arrived from England with forty-six Shropshire Yearling Ewes and a number of choice Ewe Lambs & Rams, all selected by myself from six of the leading British flocks. The ewes are all in lamb to noted English sires. My flock now numbers over 70 head. Parties wishing to found a flock, or buy choice specimens at fair prices, are invited to write for particulars. Come and see me. Visitors welcome. Satisfaction guaranteed.
291-tf-OM
W. S. HAWKSHAW, Glanworth, Ont.



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.
289-y **F. BACH & SON,**
Onibury, Shropshire, ENGLAND.

SHROPSHIRE

I have on hand a splendid lot of
IMPORTED EWES
from the best English flocks, and are now being bred to a first prize imported ram.
295-v-OM **S. C. MILLSON,**
GLANWORTH, ONT.

SHROPSHIRE

—AND—
Improved Yorkshire Pigs.

A choice lot, imported by ourselves. Sheep from the flocks of H. J. Sheldon, F. Bach, R. Mansell, J. Thonger.
Yorkshire pigs from last year's prize winners.
W. MEDCRAFT & SON
SPARTA P. O.
and Telegraph Station
297-y-OM





SHROPSHIRE SHEEP

DAVID BUTTAR,

Corston, Couper-Angus, N.B., Scotland

Has taken all the principal prizes in Scotland for several years. His sheep are of the purest blood, and carefully bred; every sheep eligible for registration. Pedigrees and prices on application. 284-y-OM



PRIZE-WINNING SHORTHORNS

—AND—
Shropshire Sheep

Now ready for shipment. Imported and Canadian bred Rams, Ram and Ewe Lambs, the get of the choicest imported sires. Good heads, good carcasses and good fleeces. None better in the Dominion. Write for prices. Address—

289-tf **JOHN DRYDEN, Brooklin, Ont.**

SOUTHDOWNS!

My sheep are imported from the flocks of Henry Webb, Geo. Jonas, J. J. Coleman and W. Toop. Will now sell a few ewes from the above in lamb to imported rams, also a few ewe lambs of my own breeding.



DAVID H. DALE,
Glendale, Ont.
296-y-OM



TAZEWELL & HECTOR,
Importers and breeders of Dorset Horned Sheep and Improved Yorkshire Pigs. **JOHN TAZEWELL,** Indian Village farm, Port Credit, Ont. **THOS. HECTOR,** The Cottage, Springfield-on-the-Credit, Ont. Stations—Pt. Credit, on G. W. R., Streetsville, on C. P. R. 298-y-OM

DORSET HORN SHEEP

MY SPECIALTY.

These sheep drop their lambs at all seasons of the year; are good mothers and most prolific. Devon Dairy Cattle, good milkers and grazers. Flock and Herd established nearly one hundred years. Also Shire Horses and Berkshire Pigs. Sheep, Horses and Pigs exported to America have given every satisfaction.

THOMAS CHICK,
Stratton, Dorchester, Dorset, England.
295-y-OM

Improved Large (White) Yorkshire Pigs and Scotch Shorthorns.



Entire breeding stock of Yorkshires are imported; specially selected from **MADMOISELLE (IMP)** stock of F. Walker-Jones and Sanders Spencer, Eng. Registered sows and boars supplied not akin. Shipped to order and guaranteed to be as described. **J. E. BRETHOUR, Burford, Brant Co., Ont.** 300-y-OM

THE - GLEN - STOCK - FARM

SCOTCH SHORTHORNS,



SHIRE HORSES,
Improved Large (White) Yorkshire Pigs.

Our pigs are specially selected from the prize-winning herds of Sanders Spencer, Ashforth, Charnock and F. Walker-Jones, who won upwards of \$10,000 in prizes in three years. Orders now booked for young registered pigs. Shorthorns and Shire horses for sale.

GREEN BROS.,
INNERKIP, Oxford Co., Ont.
292-y-OM

Improved Yorkshire Hogs and Shropshire Sheep, All bred from imported stock and registered. 293-y-OM **JAS. HALL, Edmonton, Ont.**

IMPROVED -- LARGE -- YORKSHIRES!

All bred from imported stock and registered. Imported boar "Holywell Wonder II." heads the herd. **JAMES FIELDS,**
Castle Hill Farm, ANCASTER, ONT.
293-y-OM

Improved Large Yorkshire Pigs



From the strains of Sanders Spencer and F. Walker Jones, England. Registered young pigs for sale. Apply to **WILLIAM GOODGER,**
293-y-OM Woodstock, Ont.

YORKSHIRES ONLY!

MESSRS. BUNBURY & JACKSON, Oakville, Ont., have for sale choice young Boars and Yelts of the Improved Large Yorkshire breed, bred from stock imported from the best herds in England. Orders booked now for spring pigs. P.O., Telegrams and Station, Oakville, on G. T. R. 302-y-OM

"We lead. All others follow."

—HEADQUARTERS FOR—

IMPROVED LARGE YORKSHIRES

MESSRS. ORMSBY & CHAPMAN, the pioneer importers and breeders of these famous pigs, have a choice selection of imported and home-bred stock for sale. The kind the bacon trade calls for—lengthy, deep-sided pigs, combining size with quality. Send for catalogue. The Grange Farm, Springfield-on-the-Credit, Ont. Stations—Streetsville, on the C. P. R., and Pt. Credit, on G. T. R. 297-y

IMPROVED LARGE YORKSHIRES

WM. DAVIS,
Kine Croft Farm,
MARKHAM,

Offers at very moderate prices several sows, six to ten months old. Some of my sows have farrowed. Can fill orders early for pigs at 8 weeks old, not related. All my breeding stock are imported from Jones' and Spencer's herds. Satisfaction guaranteed. Correspondence invited. Visitors welcome. 303-a-OM

IMPROVED - YORKSHIRE - PIGS

OF THE BEST QUALITY CAN BE OBTAINED AT MODERATE PRICES, FROM

C. E. DUCKERING,
THE CLIFF, Kirkton, Lindsay, England,

the oldest and most successful herd in the country, having gained since 1856 nearly 3000 prizes. All pigs supplied either entered or eligible for entry in the herd book. 300-y-OM

Improved Large Yorkshires.



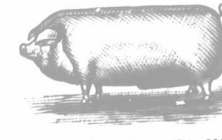
We have animals of all ages for sale, of good breeding and excellent quality.

SMITH BROS., Credit Valley Stock Farm,
CHURCHVILLE, ONT. 301-tf-OM

POLAND CHINAS

All pure-bred and registered. From the very best strains in America. First come first served. Write for prices. I mean business. 298-y-OM **W. S. HARRIS, Homer, Michigan, U.S.**

R. H. HARDING,
Mapleview Farm,
THORNDAL, ONT.



Importer and Breeder of Improved Chester White Pigs. First-class stock for sale at all times. Also a fine Carriage Stallion, rising two years old, for sale cheap; sire imported. Inspection invited. 301-l-OM

H. GEORGE & SONS, CRAMPTON, ONT.,

Importers and Breeders of Ohio Improved Chester White SWINE.



ALSO REGISTERED POLAND CHINA SWINE. Our herd of Chesters won the sweepstake herd prize at the Toronto fair this fall.

Young Stock for Sale.
Single rate by express. 296-y

BORNHOLM HERD OF OHIO IMP. CHESTER WHITES

This herd received more first prizes at the Toronto Industrial Exhibition in 1890 than any other herd shown of that class.

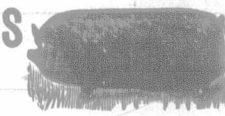


Young Stock always on hand and for sale. Pedigrees furnished. Prices away down. Mitchell Station on G. T. R. 293-y-OM **DANIEL DECOURCEY, Prop., BORNHOLM, ONT.**

SUFFOLK AND BERKSHIRE PIGS
From imported stock, \$6 each, \$10 pair. Address 293-y-OM **F. J. Ramsey, Dunnville, Ont.**

BERKSHIRES

—AND—
COTSWOLDS.



J. G. SNELL & BRO.

EDMONTON P. O.,

Brampton and Edmonton Railroad Stations.

For forty years we have led all others in these lines, both in the show yards and breeding pens.

We now have a choice lot of young pigs, varying in age from six weeks to six months; all are descended from fashionable bred, prize winning English stock. We also have a grand lot of Cotswolds, a large number of which are yearlings. Good stock always for sale. Visitors welcome. Write for particulars. 298-y-OM



The Great AMERICAN HOG

Two-thirds more raised than all breeds in the United States. Rapid growth. Most Pork for food consumed by actual test. Pedigreed. 200 FOR SALE. 290-j

G. M. ANDERSON, Tynaside, Ont.

A. FRANK & SONS, The Grange P. O.,

Ont., Cheltenham Station, C. P. and G. T. Railways. The Centennial - Sweepstakes herd of



SUFFOLK PIGS, being the oldest, largest, and most successful prize winners in America. The boar 1-am-First, at the head of this herd, is 17 months old and weighs 440 lbs.

Shorthorn Cattle of the Cruickshank blood. Young bulls for sale, got by Baron Camperdown = 1218 =, imp., (47389) and Baron of the Grange = 10854 =. 294-y-OM



SHARMAN & SHARMAN,

Breeders & Importers of Shorthorns & Berkshires Breeze Lawn Stock Farm, Souris, Man. A car of young Shorthorns and Berkshires expected from Ontario in a few days. Young Show Bulls and Heifers of the best strains, full of individual merit, at lowest prices, considering quality. We have also a quantity of Vick's American Banner and Black Tartarian Seed Oats for sale. The Banner is the best and most prolific oat grown in Canada. Visit Breeze Lawn, or send for prices. 15-b-M

STOCK GOSSIP.

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

Mr. Robert Kerr, of Portage la Prairie, has sold the well known Clydesdale stallion The Granite City [709] to Mr. Robert McKeowen, of that town.

Mr. Wm. Martin, of Hope Farm, at St. Jean Baptiste, states that the demand for young Gallows is good, and he will be able to sell all he has to spare in the province.

Dr. Harris, V. S., Moosomin, and Mr. Jno. Maxwell, Welwyn, have recently purchased two purebred Clydesdale mares and one stallion as a nucleus of a band of Clydesdales.

Moosomin Agricultural Society will hold a stallion and bull show on the 25th of April, a summer show of stock in July, and a show of roots, grain, dairy products, etc., etc., in November.

Messrs. Geo. and Alex. Parker, of Blythfield, have purchased from Mr. R. Foley, of Manitou, his interest in the Clydesdale stallion Grey Mannerling [915], also the Holstein bull Besostris 5730 H. H. B.

Mr. Walter Lynch, of Westbourne, recently sold to Mr. Jno. Laing, of Yorkton, a magnificent young Shorthorn bull, since named Duke of Yorkton. This is one of the finest animals yet produced in Manitoba.

Mr. R. L. Laing, of Oak Lake, Man., has bought the grand young Booth bull, Merry Monarch, =9219-, recently imported by Messrs. Sharman & Sharman, of Souris. Merry Monarch is said to be a "good one," and if he is not he will be very lonesome in Mr. Laing's herd.

Mr. Thos. Weld, Manager of the FARMER'S ADVOCATE, Winnipeg, has purchased the magnificent Hackney stallion Firefly 1779 from Mr. R. Kerr, of Portage La Prairie. Firefly is pronounced by competent judges, who have attended the great American Horse Shows at Chicago and New York, to be the best Hackney in America. He will make the season in the vicinity of Winnipeg.

Messrs. Robt. and Jno. Turner, of the "Clydesdale Ranch," Sheep Creek, Alta., write the ADVOCATE that they have recently sold their three-year stallion Strathmore [1246], who won first at the Toronto Spring Stallion Show in 1890, to Mr. J. M. Napier, north of Bow River and near Calgary. Messrs. Turner think the people in that locality will be hard to please if they are not satisfied with Strathmore.

The following stockmen have called on the ADVOCATE during the past month:—Mr. Jas. Beith, of Bowmanville; G. H. Greig, Oterburne; Messrs. Parker & Fowler, Headingly; Anderson Bros., Wavy Bank; Robt. Kerr, Portage la Prairie; W. S. Lister, Middlechurch; Robert Hall, Griswold; Jas. Hiddell, Lentrathen; Wm. Martin, Hope Farm, St. Jean Baptiste; Edward Anderson, Dugald, and others.

Mr. L. O. Lemieux, of Oak Lake, who is one of the kind of farmers that make farming pay, addresses the ADVOCATE in the following terms:—

Editor the ADVOCATE:

Dear Sir,—Since writing you I have imported a fine Collie pup from Scotland; also a fine one from W. H. Beattie, Wilton Grove, Ont., who advertises in your paper. I am under great obligations to you for selling my first prize Leicester lamb to Shanks Bros., of Rapid City. They seemed well pleased with him when they came for him. I sold another one to J. B. Blois, of the Wood Mountain district. Mr. Sharman has bought a pup from Flora IV. 6208, A. K. R. S. B. Hope the ADVOCATE is meeting with success. It is a great benefit to us farmers, being full of useful reading.

Mr. Thos. Ormiston, of Dongola, Assa., writes the ADVOCATE thus:—Dear Sir,—In looking over your December No., page 391, my curiosity was a little excited over the measurements of Mr. Lang's calf, which led me to measure two calves we have, and I now send you the result (you will please notice they are a month younger than Mr. Lang's). A light roan heifer, now ten months' old, has a heart girth of five feet eight inches, and a flank girth of six feet. The bull calf, nine months twenty-two days, has a heart girth of five feet three and a-half inches, and a flank girth of five feet eight and a-half inches—a beautiful red and white. These calves were sired by Scotch Victor (50422), imported Cruickshanks. These calves were nursed by their mothers only, and weaned in October; has been cared for up to the present by my son, who is not yet ten years old. How is that for boys and calves out in Assa.?

Mr. C. F. Herbert, of the Dominion Immigration staff, Winnipeg, recently imported from the East the following Polled-Angus cattle—three cows, a heifer calf and a bull:—Sir Knight 11724, Vol. III., A. A. H. Book, calved April 10th, 1880; sire I. H. P. of Eastview 5625, dam Dolly Varden of Eastview 2nd 6792; bred by R. H. Pope, of Cookshire, P. Q.; sire Amy of Adrie 5580, Scotch No. 5631, calved March 7th, 1890; bred by John Smith, Inverallen, Scotland; sire Scotia 2nd 3549, dam Flora of Inverallen 4841; registered in Vol. II., A. A. H. Book. Duchess of Clova 5th 5560, Scotch No. 4978, calved August 1879; bred by James Moir, Wardhouse, Scotland; sire Royal Prince 3718, dam Duchess of Clova 2nd 1827; registered in Vol. II., A. A. H. Book. Pride of Montbletton 5th 3472, calved Nov. 6th, 1883; bred by R. H. Pope, Cookshire, P. Q.; sire Duke of Eastview 3474, dam Pride of Montbletton 3rd 3473; registered in Vol. I., A. A. H. B. Heifer calf, Queen of the West, calved June 14th, 1890; bred by R. H. Pope; sire I. H. P. of Eastview 5625, dam Pride of Montbletton 5th 3472, and is not registered.

THE PEOPLE'S KNITTING MACHINE.

Retail Price only \$6.00.

Will knit Stockings, Mitts, Scarfs, Leggings, Fancy-work, and everything required in the household from homespun or factory yarn. Simple and easy to operate. Just the machine every family has long wished for. On receipt of \$3 I will ship machine, threaded up, with full instructions, by express C. O. D. You can pay the balance, \$4, when machine is received. Large commission to agents. Circular and terms free. Safe delivery and satisfaction guaranteed. Address

CARDON & GEARHART, Whitby, Ont.

Graduated Prices. Recently Furnished.

LELAND HOUSE,

W. D. DOUGLAS & CO., Proprietors.

The Finest Hotel in the Northwest.

Corner City Hall Square, Main & Albert Streets, CITY HALL SQUARE,

297-y-OM WINNIPEG, MAN.

LADIES

SEND FOR CHEAPEST LIST OF

Plants, Seeds and Cuttings

IN AMERICA.

LIST FREE. Novelties—Geraniums, Moonflower, Fuchsias, etc.

CHAS. W. BUTTERFIELD, Florist & Seedsman, Bellows Falls, Vt. 303-a-OM

TO STOCKMEN AND BREEDERS.

LITTLE'S PATENT FLUID

NON-POISONOUS

SHEEP DIP AND CATTLE WASH.

For the destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy.

The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock:

"MAPLE SHADE" HERDS AND FLOCKS.

BROOKLIN, ONT., Sept. 4th, 1890.

DEAR SIR,—I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested, I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders.

Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to

ROBERT WICHTMAN, DRUGGIST, OWEN SOUND, ONT. Sole Agent for the Dominion. 303-y OM

Hamilton Fertilizer and Casing Works

HAMILTON, ONT.

THE BEST AND PUREST FERTILIZER MADE.

	Price per ton.
Use Rowlin's Complete Fertilizer,	\$30.00
Use Rowlin's Pure Animal Fertilizer,	25.00
Use Rowlin's Pure Fine Bone Meal,	40.00
Use Rowlin's Evaporated Bone for Poultry, in two sizes, 1/2 inch and wheat size,	40.00
Per 100 lb. Bags,	2.50
400 lbs. per acre will double your crop.	

SEND FOR CATALOGUE AND ANALYSIS.

F. ROWLIN, Proprietor.

We use no acids or chemicals in the manufacture of those fertilizers; we guarantee them strictly pure. 306-c-OM

H. H. WALLACE, WOODSTOCK, ONT.

White Plymouth Rocks ("Empire" strain)—Awards: Detroit Exposition, 1889, cock 1st, hen 1st, breeding pen 1st; Detroit Exposition, 1890, cock 1st, hen 1st, cockerel 1st, pullet 1st; Toronto Industrial Fair, Sept., 1890, cock 1st and 2nd, hen 1st; Guelph, Feb., 1891, cock 1st, hen 1st, cockerel 1st, pullet 1st; Ontario show, Bowmanville, Feb., 1891, cock 1st, cockerel 1st. Best stock in America; winners wherever shown. Will give fullest guarantee. Every egg I sell shall be from 1st prize cock and 1st prize cockerel. White Wyandottes (Knapp br. and Craffuts strains)—Awards: Detroit Exposition, 1889, cock 1st, hen 1st, pen 1st. Black Minorcas (Judge J. T. Bicknell's specially selected)—Winner of 1st at St. Catharines, scoring 97 points. Mammoth Pekin Ducks (James Rankin's personal selections)—Won 1st at Buffalo Exposition two years in succession; also won 1st on old and young at both the Detroit Expositions, 1889 and 1890; won 1st at Toronto, Sept., 1890, on old and young, and at Guelph, Feb., 1891, they won four firsts on old and young. Drakes, in good condition, weigh ten pounds; ducks, nine pounds. English Rouen Ducks (imported direct)—Winners of 1st both years at Detroit Exposition, four firsts on young at Ontario Show, St. Catharines, 1st on old Drake at Guelph, and 1st at Ontario Show, Bowmanville, Jan., 1891. English Aylesbury Ducks—Winners of 1st both years on old and young at Detroit Exposition; 1st at Toronto, Sept., 1890; at Guelph swept four 1sts on old and young, and at Liverpool, Eng., my Aylesbury ducks, which I imported, carried off the 1st prize and ten-guinea challenge cup. I own the best ducks in America. Eggs—Fowls, \$2 per 13; Ducks, Pekin, \$1.50; Rouen and Aylesbury, \$2 per 13. Send for large, free catalogue. No stamp required. Fullest satisfaction guaranteed. Reference: J. W. Bartlett, "Farmer's Advocate," Winnipeg, who personally knows my character and reputation as a breeder. Stock for sale after first September. 15-c-M

SEED OATS.

I have a limited quantity of

American Banner Oats

They are pure and free from all noxious weeds. These oats yielded fifty bushels per acre this season, and were about ten days earlier than any other varieties grown in this vicinity. They do not shell easily, and are free from rust.

PRICE, 75 CENTS PER BUSHEL

(with good cotton bag), free on board cars at Manitou Station. Write to

15 b-M

R. D. FOLEY, MANITOU, Man.

SEEDS

RENNIE'S GREAT DOLLAR COLLECTION OF GARDEN SEEDS \$1.00

RENNIE'S SEEDS ARE THE BEST

And in order to induce hundreds of new customers to use them, we are offering this complete collection of many novelties, FREE BY MAIL for \$1.00

The collections contain full sized packages of Rennie's New Intermediate Beet, the finest in existence; New Chantenay Carrot; Rennie's Nonpareil Lettuce, the best in cultivation; Crawford's Melon; Olive Gem Radish, the finest new radish; New Cory Corn, the earliest Sugar Corn in the world; and best varieties of Beans, Early and Late Cabbage, Cress, Cucumber, White Mustard, Red and Yellow Onion, Parsley, Parsnip, Early and Medium Late Peas, Radish Spinach, Tomato, Turnip, Sage. The entire collection will be sent FREE BY MAIL to any address in Canada for \$1.00. Order at once, and induce your friends to send with you. We will send Five of the above Collections for \$4.00.

RENNIE'S ILLUSTRATED GUIDE—MAILED FREE UPON APPLICATION

WM. RENNIE,

TORONTO, CAN.

SAUNDERS' RED CROSS HOSPITAL

For Sick Watches, etc.

Watches Cleaned for 99c., mail or express return charges paid.

—A FULL ASSORTMENT OF—

WATCHES, CLOCKS AND JEWELRY

ALWAYS IN STOCK.

REMEMBER THE 15-C-M ADDRESS:—712 MAIN ST., OPP. C. P. R. STATION, WINNIPEG, MAN.

THE BEST VALUE

That can be obtained in a newspaper in this country is The Winnipeg Weekly Tribune for \$1 a year. It is a bright, live, 12-page paper, and contains all the news each week—not a line missed. Address,

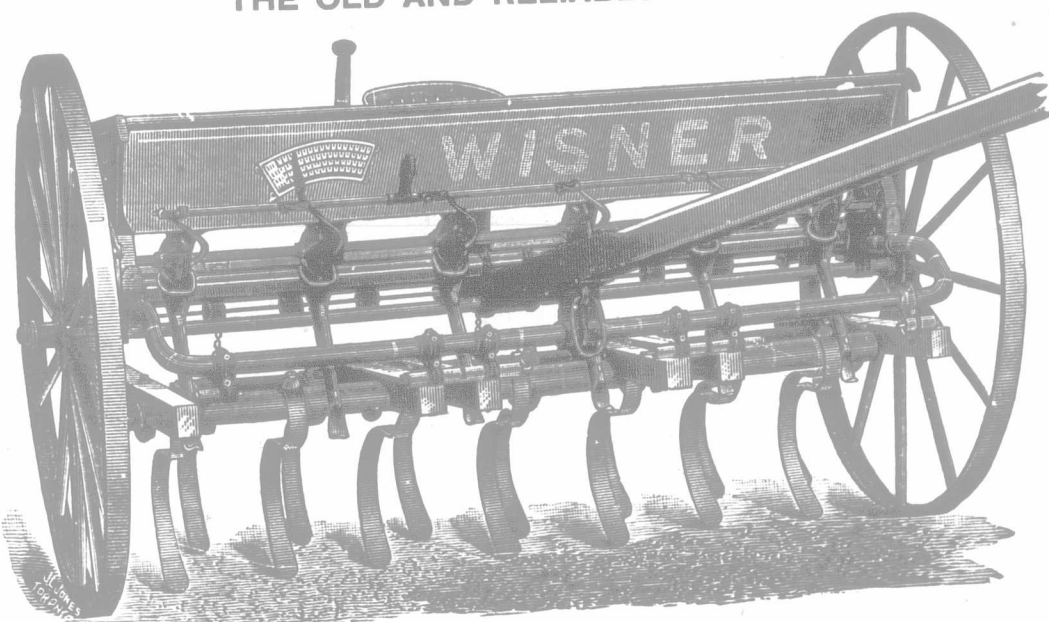
THE TRIBUNE PUBLISHING CO.,
Winnipeg.

14-1f-M

FARMERS!

Buy Brantford Seeders and Drills

THE OLD AND RELIABLE STAND-BYS.



More Popular than ever before.

A. HARRIS, SON & CO., Limited

Winnipeg, Manitoba. 15-hy-M

STOCK GOSSIP.

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

Mr. W. S. Simms, of Stonewall, recently purchased from Mr. J. H. Pope the three Polled-Angus heifers, Bettie of Eastview 11732, Matilda of Eastview 11716, and Amy of Eastview 11722, also the young bull, Manitoba Pride (number not allotted). These are all very nice animals, and if properly cared for will develop into magnificent animals.

In a communication from Sharman & Sharman, of Breeze Lawn Farm, Souris, Manitoba, they write us to the following effect that they have been making little or no fuss for the last year or so over what they are doing, but they are still working away with their old favorites "the Shorthorns," and, although their herd is only small, they claim to have the best individuals in their herd now they ever owned, not excepting 1888, when at the last Manitoba Provincial they carried away 1st on aged cow, 1st on 2-year-old heifer, 1st on 2-year-old bull, 1st on heifer calf, 2nd on 3-year-old cow, 2nd on aged bull, and 2nd on herd, in a ring where the best in the province were exhibited, and took everything along the line worth taking on the way home, including diploma for herd and sweepstakes for best Shorthorn on the ground at Brandon. Since that time the Messrs. Sharman have let their cattle out of show condition, and have been selling young show stock to breeders who are exhibiting successfully. We might mention scores all over this Province and the Territories who have prize winners from this herd, but will only name one or two:—Shanks Bros., of Rapid City, whose show herd—most of the animals purchased from the Sharman's—have won almost everything they have shown for the last two years, and R. L. Lang, of Oak Lake, with two of his invincible heifers, Countess and Pride, purchased at Breeze Lawn, and shown so successfully at Oak Lake, Virden and Souris last fall, the last mentioned lot, together with the yearling bull Merry Monarch = 9219 =, just purchased from the Messrs. Sharman by Mr. Lang, will make it a little interesting for some of the older breeders at some of the largest exhibitions another season. The latest importation made for the Breeze Lawn Farm are mostly representatives of the Sheriff-Hutton herd, of Yorkshire, England, a herd that electrified the Shorthorn world for many years, and although the herd has been dispersed, the stock and their produce continue their yearly record at the Royal and other leading shows as one of the most impressive herds England ever had. Wm. Linton, Esq., the founder of the Sheriff-Hutton herd, was a prize winner at the Royal, in 1847, with Star (8698), and in 1848 with Hudson (9228), the latter bull Mr. Linton sold to Amos Cruickshank, and that gentleman has acknowledged that Hudson was the sire of the best lot of cows he ever owned. Mr. Linton commenced in 1868 to exhibit again, and for ten years, down to 1878, was one of the most successful exhibitors in Britain, and during that time took 167 firsts, 81 seconds, 10 thirds, 81 cups, 9 specials, 4 pieces of plate and 5 medals, most of these prizes were won with bulls of his own breeding. He seldom exhibited females out of the calf classes. The principal exhibitors of this family of Shorthorns in Britain lately have been John Handley, Esq., of Greenhead, Westmoreland; R. Thompson, Esq., of Inglewood, near Penrith; and Col. Wolsley, of Ovingham, the former with Gold-finder, Gold-digger, Golden Treasure and Royal Ingram, all of which won the 1st at the Royal, and the last named winning it several times, all of them sired by Mr. Linton's champion Sir Arthur Ingram (32490). Mr. Thompson, with Beau Benedict (42760), another of Mr. Linton's breeding at the head of his herd, has been a most successful Royal winner; his success in 1888 is said to be the first instance where so many honors were taken by one individual at a Royal, and it is only just to say the sire whose impression was so marked was Beau Benedict. Mr. Thompson certainly deserves credit for bringing together blood capable of winning five out of a possible eight firsts, and held reserve for champion male; the champion female being the ideal Molly Millicent, owned by Mr. Thompson, who has now won this coveted prize four times. In 1888 seven out of a possible eight firsts at the Royal were taken by animals tracing to Sheriff-Hutton blood. Col. Wolsley, of Ovingham, who bought a couple of females of Mr. Linton's breeding, bred Self Esteem, who won the Royal twice, and in turn was the sire of Self Conceit, another Royal winner. Away to the north, in Scotland, choice specimens of this famous herd have been taken to put the finishing touches to some of the grand herds bred there. The sire of Mr. Duthie's Field Marshall (47870) (a bull used in Her Majesty's herd at Windsor several seasons, and through which that herd has been brought to the position it held at the last Royal), was sired by Lord Irwin (29123), one of Mr. Linton's Royal winners, and Field Marshall (47870) is in turn the sire of that noted Scotch bull Mario (51713), who inherits a large share of the qualities of Mr. Linton's old Royal winner Lord Irwin (29123). The latest importation made by the Messrs. Sharman is full of Sheriff-Hutton blood, and are by far the most valuable importation they have made, tracing, as they do, to Lord Irwin (29123), Sir Arthur Ingram (32490), the most successful stock and show bull ever exhibited, Paul Potter (38854), Arthur Benedict (40986) and other noted prize winners. We hope to be able before long to show our readers an illustration of four heifers, Blushing Beauty, Linton Lustre, Irene Irwin and Saldie Sowerby, representatives of the leading families now at Breeze Lawn. Such an illustration will give an idea of the value of this importation to the stock interests of this western country. One of the latest features in connection with this farm is the sale of some of the leading varieties of seed oats. (See advt.)

STOCK GOSSIP.

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

Messrs. Greig Bros., of Otterburne, recently received a letter asking for catalogue and prices for Aberdeen Angus Shorthorn cattle. The genius who wrote the letter did not know much, but evidently the light of the true gospel had fallen on him enough to show him that pure-bred stock of some kind was desirable.

Notice.

The immigration during the coming season is expected to be very large, not alone from Eastern Canada but from Europe. The number of enquiries being received by the steamship and railway companies are so numerous that Mr. Robert Kerr, General Passenger Agent, C. P. R., Winnipeg, has issued special instructions to all Station and Ticket Agents regarding prepaid business Parties, therefore, who have friends coming out this season will do well to call on the nearest Ticket Agent of the C. P. R., as he will be able to ticket through at less cost than if money were sent across to the Old Country.

ORNAMENTAL SHRUBS--ROSES

And all kinds of Ornamental and Fruit Trees. Small Fruits. Red and Purple Berberry for

ORNAMENTAL HEDGES.

Evergreens--The Colorado Blue Spruce a specialty. Forest Tree Seedlings for timber claims in large assortment. Very low prices.

Instruction Book for planting and managing ornamental trees and shrubs, vines, flowers, etc., 10c. Special ornamental catalogue free.

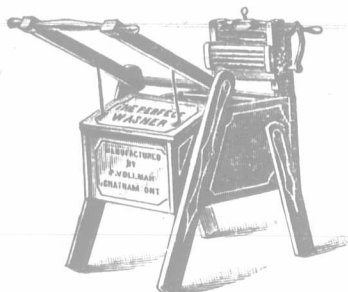
Mid-Continental Nursery Co.,

Fairbury, Neb., U. S. A.

Mention this paper.

302-c-OM

THE PERFECT WASHER

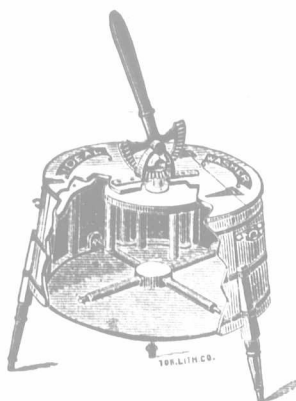


Has given the greatest satisfaction to all who have used it, combining ease in working with a great saving of time and the least possible wear on the clothes. All machines are warranted for

one year, and breaks from imperfect manufacture will be replaced free. Sample machines will be shipped on trial. Testimonials furnished. Address,

PHILIP VOLMER, Manufacturer, CHATHAM, ONT. 301-y-OM

THE IDEAL WASHER.



WASHES EASIER, QUICKER AND CLEANER THAN ANY OTHER.

The Ideal Washer is undoubtedly the best washer made; it is the only washer having revolving rollers inside, thus preventing any friction of the clothes; it will wash a batch of clothes in from two to four minutes perfectly clean. Thousands in use all over Canada. Good responsible Agents wanted everywhere. Now is the time to begin. Write for circular and prices.

THE IDEAL MFG. CO., ST. THOMAS, ONT. 301-d-OM

PLAYS Dialogues, Tableaux, Speakers, for School, Club & Parlor. Best out. Catalogue free. T. S. DENISON, Chicago, Ill.



SHROPSHIRE SHEEP

**— AND —
COLLIE DOGS.**



A choice lot of Ewes bred by Mr. David Buttar, Couper, Angus, Scotland; two Shear Ewes, imported last season, and their produce. Also Collie Dogs just imported. 296-y-O-M W. H. BEATTIE, Wilton Grove, Ont.

REMEMBER! The place to purchase Percheron Horses or Jersey Cattle is at the Log Cabin Stock Farm. Every Animal will be sold at a price profitable for the purchaser. Those that don't suit us (they may suit you) will be sold for the first offer we can afford to take. Address, LOG CABIN STOCK FARM, DETROIT, MICHIGAN.

296-e-OM

LA COMPAGNIE

Du Haras National

30 St. James-St.,

MONTREAL, - CANADA.

HON. LOUIS BEAUBIEN, Pres., MONTREAL.

BARON EDEGRANCEY, Vice-Pres., PARIS, France.



NORMAN, PERCHERON, BRITON STALLIONS.
CANADIAN HORSES.

303-c-OM

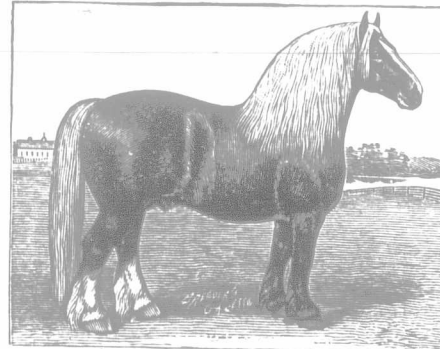
BLAIR BROS., Aurora, Ill.

—IMPORTERS OF—

CLEVELAND BAY, GERMAN COACH HORSES, English Shire and Clydesdale Horses.

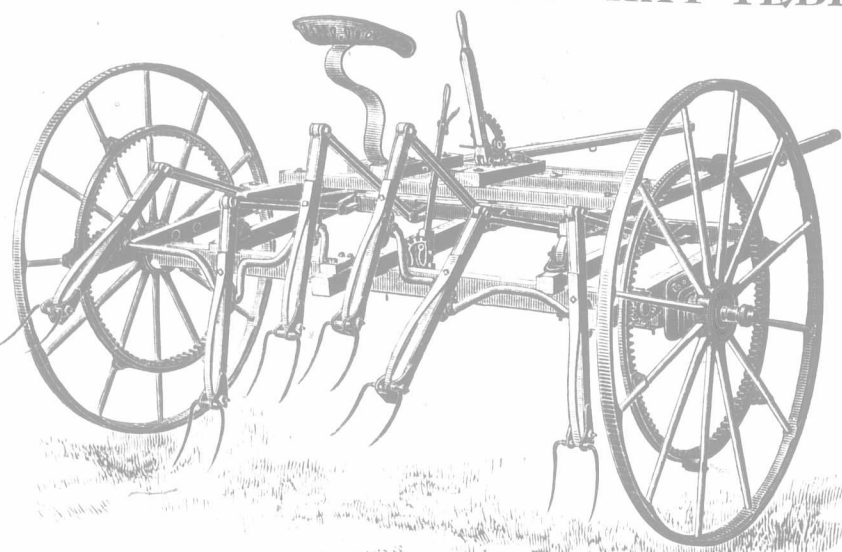
TWO NEW IMPORTATIONS THIS SEASON.

We have a choice lot, selected with reference to style, action, and quality, combined with good pedigrees. We have winners at many of the greatest shows of England, including the great London and the Royal Shows. We offer first-class animals of the choicest breeding at very low prices. Every animal recorded and guaranteed. Visitors welcome. Catalogues on application. Stables in town. Address as above. 301-e-OM



THE IMPROVED "WISNER" HAY TEDDER.

IMPROVED SPRINGS, STEEL CRANKS, AND METAL CRANK BEARINGS.



CANADA'S BEST FARMERS SAY: IT IS A PAYING IMPLEMENT.

Manufactured by **J. O. WISNER, SON & CO.,** BRANTFORD, ONT. 15-c-OM

H. CARGILL & SON, CARGILL, ONT., BREEDERS OF SCOTCH-BRED

Shorthorn Cattle!



With Campbell, of Kinellar, bull, imp. Albert Victor, at the head of the herd; also several imp. Urvs, also bred at Kinellar, and a daughter, and grand daughters of the sweepstakes cow Rose of Strathallan 2nd, and other useful sorts. A nice lot now on hand for sale.

HEADQUARTERS FOR Booker Brook Farm, Goldust Stock, Eminence, Shelby Co., Kentucky.

THE HOME OF Lexington Coldust, sire of Sir Rodger, 2.23 1/4; Indicator, 2.23 1/4, made in a fourth heat when 19 years old.

T. & J. HORNSBY, BREEDERS OF Trotting-Bred -- Horses

OF THE BEST STRAINS. Write for Catalogue and References of former purchasers.

Our aim is to combine size and quality with speed & style. We have sold more horses into Canada than any other breeder in the State.

Silver Lake Stock Farm, Frankfort, Ky.

S. BLACK & SON, BREEDERS OF-

Trotting-Bred - Road - Horses

We have a choice lot of young Stallions and Fillies sired by Pretender, Onward 1411, and others for sale at reasonable figures. We keep none but the best, and do not look for fancy prices. Send for illustrated catalogue and prices.

PRETENDER 1453 AT THE HEAD OF OUR STUD.

This is one of the best bred sons of the famous Dictator, and is himself sire of Beuoni, three-year-old record 2.28 1/4; Hermitage, 2.23 1/2; Blue Dick, 2.30, etc.

DR. CARVER 7369, two-year-old record 2.40.

By New York Dictator, (trial) 2.25 1/4. Dam-Kitty Morgan, Dam of Nannie Talbot, 2.29 1/4. 293-y-OM

Rideau Stock Farm KINGSTON, ONT.

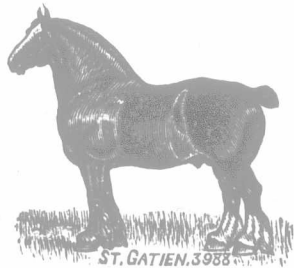
Standard-bred Trotting Horses, Registered Holstein (H.F.H.B.) and Jersey Cattle (A.J.C.C.) YOUNG STOCK FOR SALE. F. A. Folger, Box 579. Send for catalogue.

PALM LEAF 7634, Foaled 1887, BY PANCOAST 1430.

Sire of Patron, 2.14 1/4, Dam-Augusta, Dam of Chanter, 2.20 1/4, Dam of Shalleross, (trial) 2.23, 2nd dam-Dolly Mills, Dam of Orange Girl, 2.20, Walkill Chief, etc.

Imported Clydesdale Stallions and Mares for Sale.

Highest Prize Winners in the Leading Shows of Scotland and Canada, AND THE GET OF FAMOUS SIRES



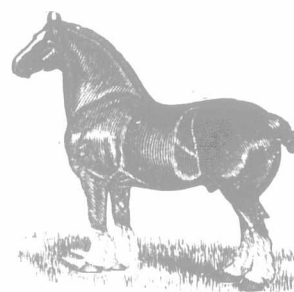
Such as Lord Erskine, Darnley, Old Times, McCammon, Prince Lawrence, Lord Hopton, Bold Magee, Sir Wyndham, Good Hope and Fireaway.

Prices Reasonable. Catalogues Furnished on Application.

ROBT. BEITH & CO. BOWMANVILLE, ONT.

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

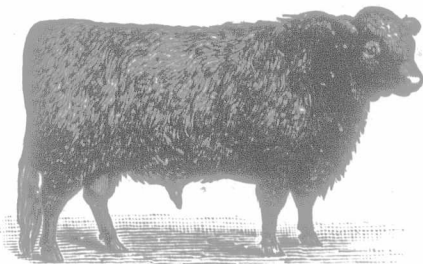
IMPORTED CLYDESDALE STALLIONS & MARES, Shetland and Welsh Ponies on hand and for Sale.



My last importation consists of a large number of Stallions and Mares from one to four years old, and the gets of such noted sires as Darnley (222), Macgregor (1487), Top Gallant (1850), Prince Gallant (6176), Knight of Lothian (4489), etc. Also a few choice thoroughbred Shorthorn cattle.

A call solicited. Visitors always welcome. T. W. EVANS, YELVERTON P. O., ONT. Pontypool Station and Telegraph Office on C. P. R., fifty miles east of Toronto.

GALLOWAY CATTLE!



A NUMBER OF Young Bulls and Heifers now on hand at reduced prices. Full catalogue will be sent on application. Send for it. No trouble to quote prices. Buyers will be met at Morris, C. P. R., or St. Jean, N. P. R.

J. G. BROWN, Manager, Hope Farm, St. Jean Baptiste, Man.

KINGSWOOD SHORTHORNS

The Red, White and Roan.

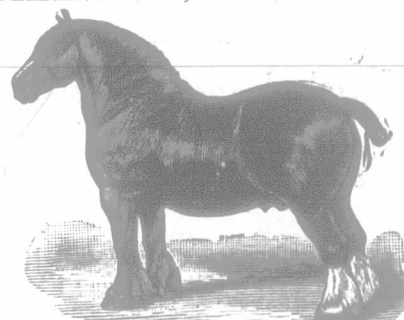
TO REDUCE STOCK GREIG BROS.

will sell, at farmers' prices, a choice selection of Dominion Herd Book Bulls, Cows and Heifers, also some good Grade Heifers. No reasonable offers refused. Kingswood Farm is eight miles from St. Agathe Station, N. P. R., and three miles from Otterburne, C. P. R.

Intending purchasers will be met on receipt of letter or telegram to Otterburne.

J. D. MCGREGOR & CO., -Importers of-

ENGLISH SHIRES Cleveland Bays and Blood Horses, BRANDON, MANITOBA.



Our second importation of Shires, Cleveland Bays and Thoroughbreds arrived direct from England, on Friday, 7th March, and will be offered for sale at reasonable terms. Every horse guaranteed a foal getter.

THORNDALE STOCK FARM.

JOHN S. ROBSON, PROPRIETOR, MANITOBA, MAN., Breeder and Importer of

SHORTHORN CATTLE A choice lot of young Bulls & Heifers now on hand.

Correspondence solicited 13-1f-M

Rose Comb White Leghorns.

R. W. CASWELL, GULL LAKE, ASSA., N.W.T., Importer and Breeder of R. C. W. Leghorns. Grand winter layers. No frosted combs. Eggs from No. 1 stock. Stamp for reply. 15-a-M

STALLION SHOW

PORTAGE LA PRAIRIE, MANITOBA.

The Fourth Annual Stallion Show will be held at the town of Portage la Prairie, Man., on Saturday, the 11th day of April, 1891. The prize list is as follows:—

	1st.	2nd.	3rd.
Thoroughbred Horses	\$100	\$—	\$—
Cleveland Bay (registered)	190	—	—
Forshire and French Coach	50	25	20
Clydesdales	50	25	20
Any other Pedigreed Draft Horse	20	10	—
Agricultural and General Purpose Horses	20	10	—
Roadsters	20	10	—
Standard-bred Roadsters and Hackneys	50	25	—

For circular containing prize list, rules, etc., address **A. A. MACLENNAN, Secretary,** Portage la Prairie, Man., Feb. 14, 1891. 288-b-O-M

PEIRCE'S SADDLERY & HARNESS STORE, WINNIPEG.

The Best and Cheapest in the Dominion.

EVERY ARTICLE — **HAND-MADE** and of the best stock only.

NO SLOP OR MACHINE WORK.

Send post card for prices, which can't be beaten. 14-y-M

THE Canadian Pacific Railway

THE CHEAPEST AND BEST ROUTE EAST OR WEST. **MONEY SAVED**

BY TICKETING THROUGH TO DESTINATION. SPECIAL FACILITIES FOR TICKETING PASSENGERS TO OR FROM THE OLD COUNTRY.

Baggage checked through to any point. **NO CHANGE OF CARS.**

Montreal to Vancouver.

Equipment is the finest and the service is perfect. No other Railroad is in a position to offer such advantages.

Apply to nearest Ticket Agent, or to **W. M. McLEOD,** City Passenger Agent, 471 Main Street, Winnipeg.

or to **J. S. CARTER,** Depot Agent, or to **ROBT. KERR,** General Passenger Agent, 14-y-M

EGGS FOR HATCHING from carefully selected Black Cochins, Light Brahmas, Plymouth Rocks, Wyandottes, Buff and White Cochins and Bronze Turkeys, price \$2.00 per setting, care fully packed in boxes, delivered at express office, Winnipeg. Eggs will be ready to ship by 15th of March. Above birds are mated to produce the best results and are not related. Write for circular and price list. Address,

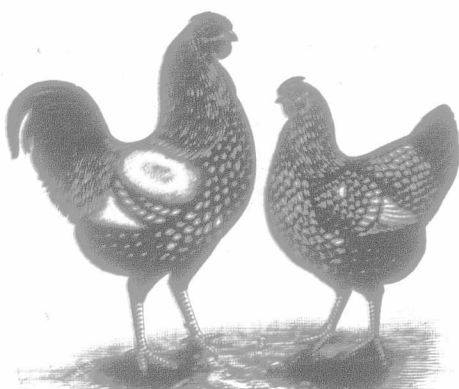
S. LING, Fort Rouge Poultry Yard. A few choice birds for sale. 15-y-M

ANDERSON BROS. & CO.,

DEALERS IN AND BREEDERS OF

HORSES, CATTLE and SHEEP

Also importers of Montana, Oregon and Washington Territory Horses, Sheep, etc. Farmers going into stock breeding, and can take stock by carload, will find it to their advantage to call on or write us; also parties wishing to dispose of stock. Will either buy straight or sell on commission. Purses for ladies or children, broken to saddle or harness, for sale. Horses, oxen, cattle and sheep for sale, wholesale or retail. All kinds of cattle taken in exchange or part for horses. Correspondence solicited. Ranch address, Clambyoys, Man. **G. B. Anderson, Manager.** 14-f-M Office and Stables, Princess St. WINNIPEG, MAN.



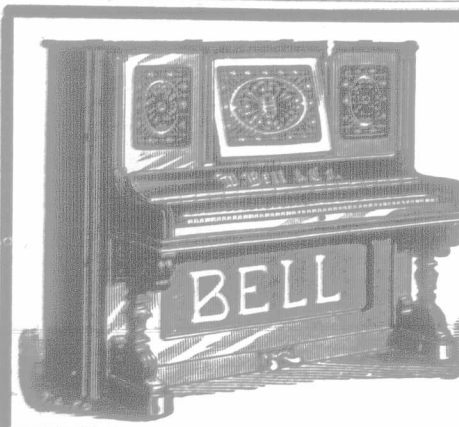
LACED WYANDOTTES

ONLY — 3 Magnificent Breeding Pens. **HAWKINS & McCLAVE STRAINS**

PRIZE WINNERS WHEREVER SHOWN. Great Winter Layers, 192 Eggs in February from 11 June Pullets. No artificial heat.

EGGS, - - - \$2.00.

WRITE FOR PARTICULARS. **M. MAW, Main St., North, WINNIPEG** 15-a-M



THE GENUINE BELL PIANOS AND ORGANS

New Williams, White and Household **SEWING MACHINES**

Fully warranted. Prices low. Terms easy.

W. Grundy & Co. 6-y-M 431 MAIN STREET, WINNIPEG.

NEW OATS AND BARLEY

NEW OATS. From the north of Europe, and now offered for the second time in quantity; of undoubted excellence and adaptability for all sections of the Dominion.

A CHANGE OF SEED ALWAYS PAYS. **GIANT SWEDISH.**—This variety was obtained from Sweden, where it is largely cultivated, though only of recent introduction there; it is a white (side) variety, grows from 4 to 5 feet high, with strong, yellow, bright straw, the panicles are of great length and the grains closely set, and enormously productive, many heads containing over 150 grains; it stools very freely and on poor soils, may be relied upon to make profitable returns, and when better known it will become a standard variety. Price for 4 pounds, free by mail, 50c.; by express or freight, 1 peck, 50c.; 1 bushel, \$1.50; 2 bushels, \$2.50; 5 bushels, \$5.00, including bags.

HOLSTEIN PROLIFIC. introduced from Schleswig, Holstein, bordering on the Baltic Sea. This is a white oat, with large, branching, open head, grows four to four and a half feet high, with fine, clean, bright straw, panicle close and compact, completely covered with close set grains, which are plump and heavy, said to be highly appreciated in hunting stables and large establishments. This is a very early variety, and certain to succeed in all northern latitudes. Price for 4 pounds, free by mail, 50c.; by express or freight, 1 peck, 50c.; 1 bushel, \$1.50; 2 bushels, \$2.50; 5 bushels, \$5.00, including bags.

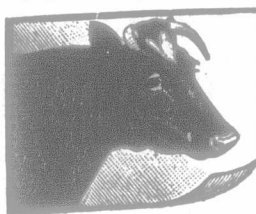
EARLY ARCHANGEL.—This variety was obtained from Archangel, in the extreme north of Russia, where it is extensively grown, and we are also informed that it is the favorite oat in Siberia, thus being well adapted for northern latitudes. It is the earliest variety in cultivation, grows on ordinary farming lands four feet high, has a branching open head, with panicle densely covered with close set grains, the latter are very plump, heavy and of excellent feeding quality, grain white, the straw is stiff and erect and greatly relished by cattle. This will certainly become a leading variety when better known. Price for 4 pounds, free by mail, 50c.; by express or freight, 1 peck, 50c.; 1 bushel, \$1.50; 2 bushels, \$2.50; 5 bushels, \$5.00, including bags.

CARTER'S PRIZE PROLIFIC TWO-ROWED BARLEY.—This magnificent variety is a selection from the well-known CHEVALIER, and in Britain expert judges acknowledge it to be the finest variety for MALTING PURPOSES in cultivation. It was awarded First and Second Prizes at the Windsor Show of the Royal Agricultural Society of England, also First at the BREWERY EXHIBITION in 1889. This variety does well in any soil, it is an enormous cropper, and by reason of its short, bright straw, it is less liable to go down in stormy weather. It may be so thin than barleys of less vigorous constitution, 5 to 7 pecks been counted in a single ear. The above description is by the introducers, and applies only to Great Britain.

EXPERIMENTS IN CANADA IN 1890.—In the Spring of 1890 the Dominion Government, through the Department of Agriculture, imported from Britain 10,000 bushels of the above Barley, and sold it in large lots to thousands of farmers, from Nova Scotia to British Columbia, and reports received by Professor Saunders, Superintendent of the Experimental Farms, states that on the whole the opinion seems to prevail that the Two-rowed Barley has done better than the Six-rowed, where they have been grown side by side, although the season is not regarded as having been a good one for barley growing. In farmers we have interviewed admit that it yielded a heavier crop than the Six-rowed, the yield on the 31 to 34 lbs. per bushel. We grew on our seed farm nearly 700 bushels (yield 25 bushels per acre); the quality is very fine, and being pure, have every confidence in recommending it for seed. As there will be a large demand the coming spring, we would urge early orders. Price, \$1.25 per bushel, bags, 25c.

OUR DESCRIPTIVE CATALOGUE, MAILED FREE TO APPLICANTS. **JOHN A. BRUCE & CO.** SEED MERCHANTS, HAMILTON, CANADA 10-a-O-M

W. C. EDWARDS & CO., Importers & Breeders



Pine Grove Stock Farm
ROCKLAND, ONT.

Scotch Shorthorns

THE IMPORTED

Cruikshank Bull,
"GRANDEUR,"

is at the head of this herd of Imported and Home-bred Cows and Heifers of the most approved Scotch families.

ALEX. NORRIE, Manager.

ELMHURST
STOCK & DAIRY FARM

CLARENCE, ONT.

Shorthorns, Shropshires and Berkshires

Our flock is from the choicest English flocks, headed by the Ram sent out by Mr. Thos. Dyke, also

MILKING SHORTHORNS

—WITH—
Imported Bull "PIONEER"

at the head of the herd.

HENRY SMITH, Manager.

LAURENTIAN

STOCK

AND

DAIRY-FARM

North Nation
Mills, P. Q.

Ayrshires, Jerseys and Berkshires.



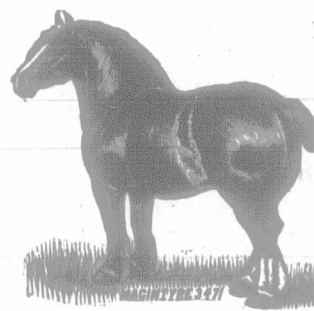
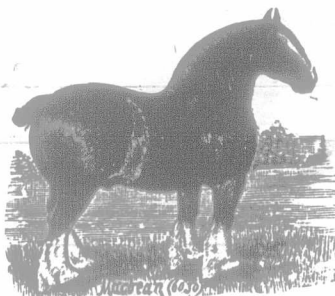
IMPORTED "EMPEROR"

at the head of a grand lot of Imported and Canadian-bred Ayrshires. St. Lambert Jerseys and Imported Berkshires.

GEORGE CARSON, Manager. 303-y-OM

THE HOME OF THE WINNERS

Imported Clydesdales and Hackneys.



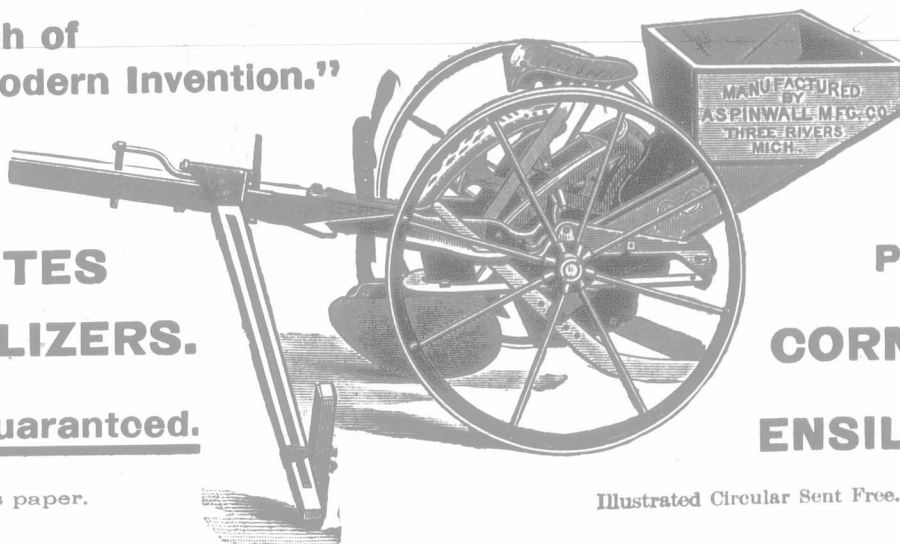
OUR SHOWING FOR 1890 WAS UNEQUALLED IN AMERICA,

beginning with Toronto Spring Stallion Show, where we won first in every class and sweepstakes for the best horse at the show. At Toronto Industrial we won seven firsts out of eight, including sweepstakes for best stallion, and also sweepstakes for best mare. At New York, first for aged stallion in his class, and champion cup for best draught horse, any breed, at the show. At local shows we were equally successful. A still better selection now on hand, both in breeding and merit.

GRAHAM BROS., (25 miles east of Toronto) 301-d-OM CLAREMONT.

"ASPINWALL"
POTATO-PLANTER

"The Triumph of
Modern Invention."



It Marks!

It Furrows!

It Drops!

It Covers!

All in One Operation.

DISTRIBUTES
FERTILIZERS.

Absolutely Guaranteed.

Mention this paper.

PLANTS

CORN, BEANS,
ENSILAGE, Etc.

Illustrated Circular Sent Free.

ASPINWALL MANUFACTURING CO., Three Rivers, Mich.
MASSEY & CO. (Limited), Agents, Winnipeg, Man.

PRAIRIE FARMS OF MANITOBA.

We have an exceptional list of choice land for Sale in the best farming districts of the Province and around Winnipeg, also a few improved farms. Local Representatives throughout the country. Every facility given for viewing lands. Descriptive Catalogue with prices and map of Manitoba free. Land bought and sold on commission. Owners of property, for sale, are invited to communicate with us. MONEY TO LEND TO SETTLERS AND FARMERS, to Purchase Stock, Pay for Land, etc., at lowest rates of interest.

OSLER, HAMMOND & NANTON,

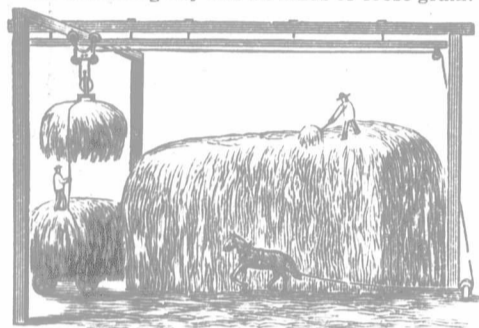
LAND OFFICE, 381 Main Street, WINNIPEG.

MANAGERS—North of Scotland Canadian Mortgage Co. (Ltd.) AGENTS—Ontario and Qu'Appelle Land Co. (Ltd.) LAND DEPARTMENT—The Qu'Appelle, Long Lake and Sask. R. & S. S. Co., Calgary and Edmonton Railway. 297-y-OM

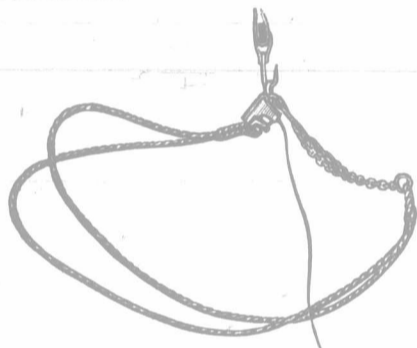
SEEDS NORTHERN GROWN WARRANTED BEST FOR ALL SOILS & CLIMES 60,000 • BUS. POTATIDES CHEAP SEND 2 CENTS FOR GRAIN SAMPLES AND FINE CATALOGUE JOHN A. SALZER LACROSSE, WIS 303-b

BUCHANAN'S Malleable Improved Pitching Machine

For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without changing car. No climbing necessary. Malleable Iron Cars. Steel Forks. Knot Passing Pulleys. Will work on stacks as well as in barns. Satisfaction guaranteed.



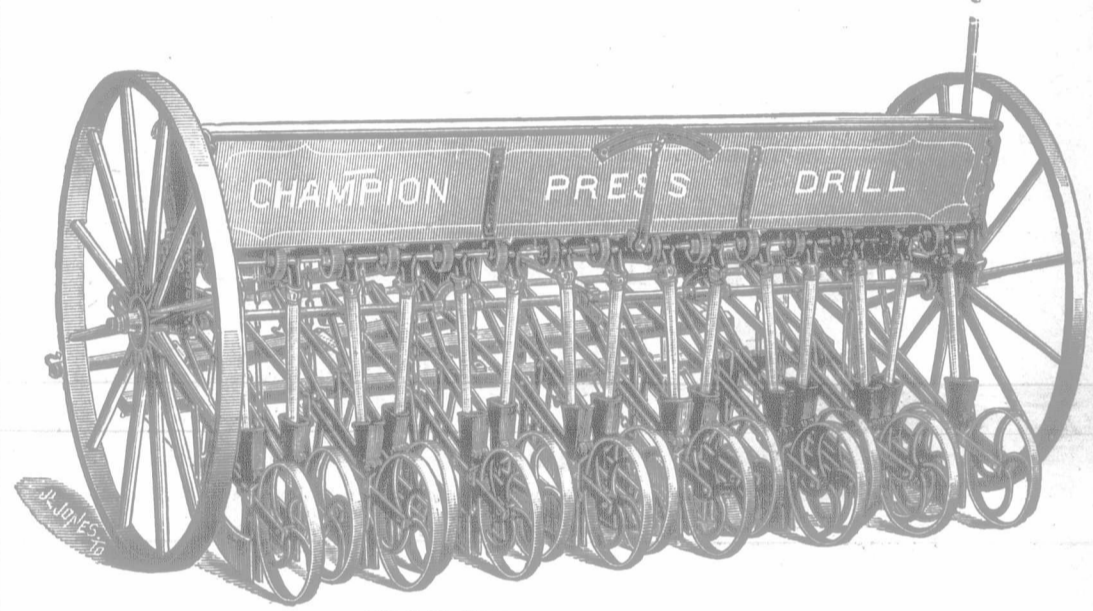
THE COMMON-SENSE SHEAF LIFTER

Works in connection with Pitching Machine, and is the most complete apparatus ever offered to the public for unloading sheaves. Leaves sheaves in the mow just as they come from the load.

Responsible Agents Wanted.
Circulars, Prices and Terms on application to
15 c-M M. T. BUCHANAN, Ingersoll.

FROST & WOOD

—MANUFACTURERS OF AND DEALERS IN—
AGRICULTURAL IMPLEMENTS



—DO NOT FAIL TO SEE OUR—

“CHAMPION” PRESS DRILL

UNEQUALLED AS A GRAIN-SAVING SEEDER.

**BROADCAST SEEDERS, SINGLE APRON BINDERS, MODEL MOWERS,
HAY RAKES and HARROWS.**

Full line of our well-known **BREAKER PLOWS** constantly on hand at our agencies. Write for Price List and printed matter.

FROST & WOOD, Winnipeg, Man.

WE LEAD. LET THOSE WHO CAN, FOLLOW.

\$16 ROAD CARTS.

Everybody wonders how we can make them for the money. We offer to every person sending us \$16 a good, strong Road Cart, equal to any \$35 cart ever yet put on the market. We use none but the very best material and workmanship. We guarantee that. We do not want agents, we prefer to sell direct to the public. The following is the specification of the

CHEAPEST AND BEST CART IN CANADA:

Best Steel C. B. Axles; Round Edge Steel Tires; Flat Steel Springs; all Braces and Seat Railing of Heavy Round Iron; Sarven Wheels of good material; Point Hub Bands; Swrd Whiffletrees; Double Bent Shafts; best 1 1/4 x 1 1/4 Seat Risers; seat for two; Cross Bars and Foot Slats of very best stuff; Whip Holder; Hold Backs, etc., all complete to hitch to. Finished in Wine Color or Natural Wood, and varnished as desired. Great attention is given to the material, especially the Wheels and Wood Work, used in the construction of these now famous carts. The style of the cart is without a doubt the very best pattern ever produced. It is absolutely without the customary horse motion that is so common with the great majority of road carts.

PRICE.—Only \$16 F. O. B., Hamilton, Ontario. We pay no freight and allow no cash discount. Our terms are spot cash with the order. Send money by registered letter or post office order. We ship promptly.

In quantities of half dozen or more, we quote special price on application.

BRACE AND SIX AUGER BITS, \$1.50.—We offer, in sets only, a good, strong brace and six auger bits, in the following sizes, viz.: 3/4, 5-16, 3/8, 1/2, 3/4 and 1 inch, for only \$1.50. This set would be good value at \$2.50 or even \$3.00.

FIVE CHISELS AND HANDLES FOR \$1.00.—Best Sheffield Chisels in these sizes: 3/4, 5/8, 3/4, 1, 1 1/4 inch, and five good applewood chisel handles for an even \$1.00.

HEAVY FARM WHIFFLETREES, 50 CTS. EACH.—For only 50 cents each, remember, we sell a good, strong farm whiffletree ironed off, \$1.00 per pair. Every reader knows what a blacksmith would charge for these goods. Our 15 cents clevis is a good one. For \$1.55 we sell two whiffletrees, two clevises, and good strong doubletree.

1000 LB. PLATFORM SCALES, \$12.90.

240 LB. UNION SCALES, \$5.00.

TERMS.—Our terms are cash with the order. We ship no goods without being first paid for them. We sell our goods too cheap to run any risk of payment. Send for Catalogue of our goods, and mention name of this paper.

S. MILLS & CO.,

Wholesale and Retail Hardware Merchants and Manufacturers,

94 JOHN STREET SOUTH,

HAMILTON, ONTARIO.