

**PAGES
MISSING**

FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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No. 468.

"Great Britain's Canadian Empire."

In the above chance phrase an American journalist the other day aptly embodied his conception of Canada. Great Britain is an aggregation of empires held together by bonds of sentiment and trade. Of these there is none more devoted to the parent land, none more independent, none with greater and safer possibilities, than Canada. Two-fifths of the entire British Empire lie within the Dominion, but as yet only about one-fiftieth of its population, so that there is room here for scores of millions, and we have the foundation stock, the atmosphere, the soil, and the moral conditions to rear the best race of men upon this old earth. Lord Lorne, a former Governor-General, once said: "Canada offers this—a comfortable home on his own soil to any man who has a good pair of hands and a decent knowledge how to use them. If he has something of his own besides to start with, so much the better." The pessimistic utterances of Sir Wm. Crookes before the last annual meeting of the British Association for the Advancement of Science, regarding the failure of fertility and Britain's food supply, were evidently not based upon a study of Canadian conditions or potentialities. Not counting the undeveloped portions of Ontario and other Eastern Provinces, or the possible increases in production by better methods on occupied lands, we have yet a Western area fit for settlement of 300,000,000 acres capable of yielding, at 15 bushels per acre, supposing only one-half of it were adapted to wheat-growing, the whole of the world's present wheat supply! The conclusions of Sir Wm. Crookes are disputed by Sir John B. Laws and Sir J. H. Gilbert, England's most eminent agricultural authorities, who pay a high tribute to the wheat-growing capacity of Canada. They concede that the Canadian Northwest contains some of the finest undeveloped wheat fields in the world, and speak highly of Canadian soils, samples of which they have tested, and also of our favorable climatic conditions. Including our growing contributions of animals and their products, and fruit, Canada is not yet sending Britain one-thirteenth part of the food she imports, so that her opportunity to her capabilities. The Canadian people are resourceful. If the U. S. see fit they may shut out Canadian grain with prohibitive duties, but the Canadian farmer feeds it and captures the world's greatest market for bacon, cheese and other products, and gets a surer grip on the key to successful farming. With his past achievements before us, we have no fear but that he will rise equal in intelligence and energy to every occasion. Let the Canadian Government clearly understand that its most serious business is to see that the return that the producer on the farm should receive is not lost by deficient transportation nor swallowed up by transporting agencies, most of which are already heavily subsidized. To all who have to do with education or moulding public opinion, we say: Emphasize manhood and integrity of character in our people—because should the Canadian nation cease to do that, the bells will begin to ring the hour of her decadence, as they did for Babylon, Greece, and Rome.

The Yeoman's Path.

ROBERT ELLIOTT, BRYANSTON, ONT.

Young Canada, noble, inspiring, resplendent,
Musing long, musing sweet, at the close of the year,
Speaks in accents benign to her people attendant:
"Though each one I honor and all I hold dear,
Of the gifts you have brought at each beat of Time's pinion
One blessing's more welcome than blossoms of May—
'Tis that—making a splendor across my Dominion—
The path of the yeoman is brighter to-day.

"It shines o'er the prairie, it gleams by the fountain,
Lights up the old forest, winds down by the sea,
Dips into the valley, leads over the mountain,
Ever making new footing for Freedom and me.
May the light of the Star of fair Bethlehem mingle
With liberty's torch all the pioneer's way,
While carols proclaim from each Yule-hallowed ingle,
The path of the yeoman is brighter to-day.



CANADA CROWNS THE YEOMAN.

"Mid the yester-years' gloom there was ever a glory—
Each thicket of thorns saw the light breaking through;
That light, lent to me to illumine my story,
I owe, under Heaven, stout yeoman to you.
And 'tis meet that my benison lightly may hover
O'er the one who discover'd that glorious ray,
So I render my praise, saying over and over,
The path of the yeoman is brighter to-day.

"On a rock that endures, you have rear'd me a station,
Plac'd firm in my hand the old banner unfurl'd,
Gray'd, deep as true love, on my helmet, "A Nation,"
And, lifting my eyes, I look out on the world,
There liberty's torch is outflash'd by the gleaming
Of wills o' the-wisp luring mortals astray,
While here, as the sun on my heritage beaming,
The path of the yeoman is brighter to-day.

"My Future?—Less darkling it looms, and I face it
With 'God and my country' the sum of my creed;
My Honor?—No power save my own may disgrace it,
Having friends at my call fit to answer my need,
As I follow the gleam that has lighten'd my sorrow,
With Virtue and Valor still leading the way,
I have yesterday's grace, I have faith in to-morrow
The path of the yeoman is brighter to-day."

Evolution of Farming in Canada.

We are apt to grow impatient with the apparently slow rate of progress made in the adoption of improved methods of farming and improved breeds of live stock, and their proper care, but a little reflection and a consideration of the circumstances will probably convince the complainer that in the history of no other country in the world has such rapid progress been made in these particulars in the comparatively short space of time since the settlement of Canada. There are men living to-day who can remember the days when even in the older Provinces ninety per cent. of the fine farms which are the pride of our people to-day were in a state of nature, covered with the primeval forest, and were the haunts of wild animals. There are men living who penetrated those forests in search of lands on which to locate, "blazing" the trees with an axe to mark the way they went in and to guide their return to the frontier—men whose only capital was their strong hands and stout hearts, which helped them to hew out homes for themselves, which have, through hard labor and a steady purpose, developed by slow but sure degrees into fruitful farms, where comfort and a competency are enjoyed in fuller measure than in many older lands whose history is reckoned by centuries. It seems but yesterday when the first pioneers tramped westward from the Red River country to dispute with the buffalo for the supremacy of the limitless prairie now occupied by thousands of prosperous farmers. There are men not yet counted old who have vivid recollections of the little log cabin of the early settlers, with its one or, at most, two small windows and the battened door, from which the latch-string always hung out; of the wide open fireplace with its blazing backlog, the flagstone hearth, the iron crane and the bake kettle.

These were the days of the ox-team and the wood-shod sled, of corduroy bridges over swampy places, and of trading at the corner store, when the weekly paper was read a fortnight after date by the light of a tallow dip candle, and agricultural journals were unheard of. And how fared the farm stock in those days? For the five long months of winter they were usually treated to a straight diet of straw from the frozen stack, on the lee side of which they found their only shelter from the winter blasts, for basement barns were undreamed of and balanced rations a term unheard. If occasionally a cow weakened and shook her head at the bill of fare, the quack doctor of the district invariably diagnosed the disease as hollow horn and prescribed the standard remedy—boiling the horn, splitting the tail, filling the orifices with pepper and salt, and if of the superstitious sort, walking in a circle round the patient three times, repeating the formula, "if she lives she lives, and if she dies she dies," the farrier left her to her fate, which was generally not uncertain. If some carping agricultural writer had gone to sleep, like Rip Van Winkle, fifty years ago, and waking up in this year of grace, a copy of the Christmas number of the FARMER'S ADVOCATE had been placed in his hand, with the assurance that the illustrations on its pages were true representations of homesteads and stock of Canadian farmers, one

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could readily forgive the thought that his credulity was being overtaxed, or that an imposition was being practiced upon him. But take him through the length and breadth of these fair Provinces, and what a marvellous and bewildering transformation—still going on—would meet his gaze! In the place of the little log shanty or the sod cabin and barn would be found tasteful and comfortable dwellings and substantial steadings, with warm stables filled with sleek stock regularly fed with mixed rations, compounded with a view to profitable production of meat and milk; fruit plantations and smiling fields, with crops gathered by the self-binding harvester where trees and stumps or wild prairie flowers abounded. The beginnings of our agricultural progress date back to those thoroughgoing methods, associated with advanced live-stock farming, brought to this new land from the old by intelligent pioneers. Agricultural schools and experimental stations, dairy associations, farmers' institutes, professors of agriculture, co-operative cheese factories and creameries, pork-packing houses, elevators and warehouses, the centrifugal cream separator and the Babcock butter-fat test, industrial exhibitions, fat stock and dairy shows, World's Fair victories in live stock competitions, transcontinental railways, and cold storage shipments of dairy products and fruits, which have captured the best markets of the world on the basis of high-class quality: Query—can this be Canada! and has the rate of progress been so slow? What other country under the sun has made similar headway in the same space of time? Even the grumbler must be gratified in view of the retrospect; and the FARMER'S ADVOCATE to the farmers of Canada offers congratulations on his growing time, with the compliments of the season—A Merry Christmas and a Happy New Year!

Canada's Agricultural Resources and Her Opportunity.

BY THE DOMINION STATISTICIAN.

The world is becoming more and more densely peopled. The population is not standing still. The "hatches, matches and despatches" do not balance each other. The natural increase of the peoples of the world may be estimated to be six per cent. in ten years. It may possibly be greater. Improvement in sanitary conditions and reduction in the destruction of life by war may overbalance that general disposition to put reproduction under bonds which some of our clerical friends believe that they have discovered. The food requirements of the world are, therefore, increasing yearly. There are more mouths to feed. Further, as the owners of these mouths grow in the grace and knowledge of civilization they require better food. Content with rye or rice during the formative period of their life, the nations become in their later stages of development more and more desirous of wheat products as the highest form of vegetable aliment. The world at large, and the black, yellow and red races, as well as the white race, are doing very much as the people of Canada have done. It is within the memory of living men and women when rye formed a much greater proportion of the food of the people of Ontario than it now does. In 1852 there was an acre of rye for every twenty of the population, and in 1891 there was one acre of rye for every thirty of the population—so rapidly and greatly has rye dropped out of the list of desirable foods. If Russia develops in civilization as rapidly as she has done, the greatest rye-eating population of the world will consume less rye, and the demand for wheat will proportionately increase. The changes taking place in Russia are seen in the fact that while the population increased during the present decade about 10 per cent., the consumption of rye decreased by 16 per cent. If Russia attain to the normal average of the wheat-eating proclivities of other countries, the home demand upon her acreage in wheat would exhaust, within a score of years, all her possibilities under conditions similar to those to-day existing. These are factors making for increase in the consumption of wheat. If all the world's population arrived at the stage of civilization to which Great Britain, the United States, and Canada have attained, the demand for wheat would be about 7,000,000,000 bushels a year, and the supply at present rates would be not more than 2,500,000,000 bushels. To meet the world's demand, based upon the requirements of the three countries named, would call for an acreage three times that now sown in wheat.

It must not, however, be forgotten that we do not really know the possibilities of an acre. Regarding it as a bank to be drawn upon without depositing, we all know that there must come a time when the farmer will hear the ominous words, "No funds to credit." Regarding the acre as a laboratory, to be managed scientifically, no man knows the limit of production. Taking only the world's acreage under wheat in 1897 and applying to it the English standard, there would be 4,750,000,000 bushels, or more than double the actual yield, and even England's standard of recent times has been exceeded in her past history, and can easily be exceeded again, if it pays. To take our own country, the census of 1891 showed that we had in the year 1890 in wheat 2,723,883 acres, yielding 42,000,000 bushels, or about 15 bushels an acre. This yield could easily be doubled.

But it is in the possibilities of the extension of the wheat area that Canada's future position as contributor to the world's stock of wheat is interesting and important. According to the "Statistical Year Book for 1897," the land

area of Canada (not including the Boothia and the Melville Peninsulas, and the great aggregation of islands within the Arctic Circle, forming the District of Franklin) is over 3,000,000 square miles, or 1,920,000,000 acres. Of that vast area we have given under 3,000,000 acres to wheat-raising. What proportion of the 1,920,000,000 acres is available for wheat is not known.

In Manitoba and in the Provisional Districts of Assiniboia, Alberta, Saskatchewan and Athabasca the Federal Government have 270,000,000 acres of land available for settlement. The Canadian Pacific Railway has unsold about 17,300,000 acres, of which 1,200,000 acres are in Manitoba. Other railway companies have about 5,500,000 acres available for settlement. The Canada Northwest Land Co. have 1,800,000 acres. Commissioner Chipman says "the Hudson's Bay Co. has a land grant in the fertile belt which amounts to 7,000,000 acres, of which about 500,000 acres have been sold, leaving say 6,500,000 acres available." The swamp lands of Manitoba are under the control of the Provincial Government, and have an area of about 1,000,000 acres. Here, then, in the new western part of Canada there are over 300,000,000 acres of land fit for settlement. Now, suppose that only one-half of that is suitable for wheat-growing, and that the average yield would be but one-half the English standard, you would have 2,250,000,000 bushels. If it pays, that average yield can be doubled.

It does not seem to me at all likely that in the near future the world's growth in population and in civilization will overrun the world's possibilities in wheat-growing even if we leave out of the discussion the enormous acreage in the other cereals, corn, oats, rye, buckwheat, and in potatoes and rice, all of which foods are used in greater or less quantity, according to the price of wheat.

What seems to me at present of greater importance to Canada is the question, "Are our farmers making the most of the market they have in the motherland?" The United Kingdom imported in 1897 of foods:

	Pounds.
Fish foods.....	274,369,760
Meats of all kinds.....	2,180,300,000
Butter, cheese, lard, milk, eggs, etc.....	1,251,000,000
Vegetable foods.....	20,948,000,000
Fruits.....	279,000,000
Total.....	24,932,669,760

It is difficult to grasp the meaning of these huge figures. A railway freight car holds about 50,000 pounds. It would take 500,000 cars to carry the food products Great Britain imports in a single year. These cars would form a train that would stretch from Belleville, Ont., to Montreal, and from Montreal to Vancouver—over 3,000 miles—in one continuous line. If put into barrels of a capacity of 200 pounds each, the annual food supply imported by Great Britain would require 124,663,348 barrels.

If ten thousand of these barrels were taken as the base, the column of barrels would rise in the air as high as two Mount Blancs, one on top of the other, with enough over to need Mount Carmel on the top of the second Mount Blanc to equal the height.

Mount St. Elias, the top of which is partly in Canadian and partly in United States territory, is said to be 18,000 feet high. Take that mountain, pile on it Vesuvius, Ben Nevis, Hecla, and the Rock of Gibraltar, and you would have just about the height of the 10,000-barrel column formed out of the foods imported into Great Britain in a single year. The highest mountain in the world, Mount Everest, in the Himalayas, would not be equal, by several thousand feet, to this food column.

Put ten thousand barrels together to form the base and pile all the remaining on that base, and the column would overtop Mount Chimborazo and on the top of it thirty of the highest edifices in the world, including the Eiffel Tower, Cologne Cathedral, St. Peter's (Rome), the Pyramid of Cheops, St. Paul's (London), etc.

These illustrations may help to give an idea of the vastness of the demand there is in Great Britain for food from the outside world.

Now as to value. The food imports of Great Britain are valued:

Fish foods.....	\$ 16,645,547
Meats of all kinds.....	189,490,838
Butter, cheese, etc.....	136,054,413
Vegetable foods.....	277,385,703
Fruits.....	16,998,957
Total.....	636,275,458

Taking the last five years, the production of gold in the British Empire is about \$100,000,000 a year, and in all the other countries of the world about another \$100,000,000. The production of silver the world over is about \$210,000,000. You would have \$410,000,000, and to make up the difference between these figures and the value of the eatables imported into Great Britain you would have to search through a long list of minerals before you attained your object.

It would take a great many Klondikes and South African and Australian gold fields to equal the value of the food imported annually by Great Britain.

The consumption of coal in the world is about 640,000,000 tons a year, valued at the pit's mouth at, say, \$1 a ton. The value to the coal owners of all the coal mined and consumed in driving all the steamships, all the locomotives, and all the factories, and in heating all the homes and hearths of all the world, is just about equal to the value of the yearly imports of food supplies into Great Britain.

Now, what share in this enormous business has Canada, with all her vast acreage, her special

climate, her capacity for transport by rail, river, canal, and cool ocean route? If the cars measuring the quantity of foods required by John Bull from outside countries were divided into sections, according to the countries supplying the demands Canada's section of the 3,125 miles of cars would be 243 miles long, or just 20 miles shorter than the distance between Montreal and Peterboro, Ont., by the C. P. Railway. Roughly, the section between Montreal and Peterboro would represent what we have managed to do; that between Montreal and Vancouver would represent what other countries have done, in which we could and should have an appreciable proportion. With over three thousand miles of freight cars to fill, we have thus far in our agricultural history only succeeded in filling 243 miles of freight cars.

Now, to come to particulars. Take the meat supply. Great Britain imports, as already stated, 2,180,300,000 pounds of meats of all kinds. Canada sends as her contribution 144,973,000 pounds, or 1 pound in every 15 pounds of the import. Canada could do a good deal better. Look at some of the articles. Of bacon, Great Britain imports 500,550,480 pounds. Canada supplies 32,511,696 pounds, about 1 pound in every 17½ pounds needed. Of hams, the British imports were 193,293,000 pounds, and Canada's portion in that quantity was 13,342,896 pounds, somewhat more than 1 pound in every 14½ pounds needed. Of beef, salted and fresh, the United Kingdom imported 398,497,000 pounds, and Canada supplied 1 pound in every 168 pounds wanted. Of live cattle, Canada supplied 1 beeve in every 5 Great Britain imported, and of sheep, 1 in every 10. We have no show at all in fresh and preserved mutton, though Great Britain needs to import 368,000,000 pounds weight in the year. Australia cuts us out of this business, and we don't begrudge our sister colony the trade.

To revert to our railway freight car illustration: of the 272 miles of cars that would be requisite to transport the meat imports of Great Britain during a year, Canada's share would be carried in 18 miles of cars.

In butter, cheese, lard, milk, eggs, and honey, Canada does, on the whole, somewhat better. The British demand is equal to 156 miles of freight cars, and Canada's supply would need 24½ miles of cars. In bare figures the demand was 1,251,000,000 pounds, and Canada's share in the supply of that demand was 196,292,000 pounds.

Of vegetable foods, wheat, peas, beans, barley, corn, rye, oats, flour, and meal and vegetables generally, Great Britain imports 20,948,000,000 pounds. These would require 2,625 miles of cars to convey them. Canada's share would be represented by only 195 miles. Look into some good map and see what a little dab the 195 miles is upon 2,625 miles.

Of fruits, Great Britain imports 279,000,000 pounds. To transport this quantity 35 miles of cars would be required. Canada's portion would be carried by 5 miles of cars. That Canada is able to supply one-seventh of all the English demand upon the world at large for fruit is very good evidence of the capabilities of the country in fruit culture.

There remains yet one feature to be considered. That is the extent to which we are dependent upon the Mother Country for a market for the products of the farm. Speaking in the large, we send out of Canada in the year, of meats, of butter, cheese, etc., of vegetable foods and of fruits, 2,800,000,000 pounds, and of this quantity 1,900,000,000 pounds go to the motherland. Roughly and on an average 70 per cent. of the exportable surplus of our farms and our orchards go to Great Britain, leaving but 30 per cent. for all other countries; and this percentage to Great Britain is an increasing percentage, notwithstanding that Great Britain's requirements are greater and greater year after year. What Canada has wisely elected to do is to cultivate this constantly increasing English market as her best possible market. In corroboration of the statement of the developing character of the British market, it is only necessary to give the figures for the last few years. In 1894, Great Britain imported of the above foods \$580,000,000 worth, which in 1897 had increased to \$640,000,000—\$60,000,000 more in three years.

In conclusion, I may point out that the present Minister of Agriculture in the Federal Government, Hon. Mr. Fisher, has applied himself earnestly, energetically, and with great skill and success, to the various questions of scientific farming; of adaptation to the wants of other countries; and of transportation, including cold storage, by which improvement in the net results obtained from our disposable surplus has been so wonderfully marked, as the figures show.

GEORGE JOHNSON.

Ottawa, Dec., 1898.

Subsidizing Danish Farm Produce.

According to the Danish Budget for 1898-9, there are two steamboat services from Denmark to England, largely employed in the butter and bacon trade liberally subsidized. The railway line from Egsberg to Parkeston, in the first place, gives preferential rates for dairy produce for export, the gain last year to the farmers being represented at nearly £10,500. Then, since September, 1897, a grant of £4,166 has been made to the United Steamship Company of Denmark for establishing a bi-weekly service for the carriage of dairy produce to Grimsby. This special line is placed under Government supervision, and the greatest care is taken to see that the butter, cheese and bacon are properly treated. The rate of charges from Denmark to Grimsby are now fixed as follows: Butter, 16s. per ton; salt meat, 12s.; fresh fish, 18s.; eggs, 20s.; and fresh fish, 11s.

An English Country Gentleman of the Old School.

BY RICHARD GIBSON.

"Ill fares the land, to hastening ills a prey,
Where wealth accumulates, and men decay;
Princes and Lords may flourish, or may fade;
A breath can make them, as a breath has made;
But a bold yeomanry, their country's pride,
When once destroyed, can never be supplied."
—Goldsmith.

I am not going to give you a polemic against wealth, or the coxer thereof; but at this Christmas season a line upon a class now extinct, a class it has been my privilege, however, to have known. Why it is appropriate to write of them at this season is because it was at Christmas he (or they) more particularly shone. "Peace on earth, good-will toward men," was his motto, and never was he more happy than when making others feel the same. I sing of the

"Fine old English gentleman,
One of the olden time."

I knew him and loved him — no youngster could fail doing so who came within range of his hearty cheer or within ken of his honest, sonnie face. The one I have in view was at least 70 years old fifty years ago. His dress never varied, summer or winter, and was a black melton coat and waistcoat, drab kerseymer breeches, with gaiters, a broad-brimmed, low-crowned beaver hat, and when riding or attending market the gaiters were discarded for a pair of mahogany-topped boots. On state occasions a blue coat with brass buttons, a canary-colored waistcoat and breeches, silk stockings, with shoes and buckles, formed his outfit. I was a youngster spending Christmas with an uncle. The hounds were to meet at his (my hero's) house between Christmas and New Year's; he had a cover that never failed to hold a fox. And it was a popular meet. Of course every schoolboy home for the holidays that could get a mount did so. Never shall I forget his words, after saluting the master when the hounds arrived,—"Fine entry this, My Lord," referring to us youngsters—most of us out for the first time, and eager as any young hound. And if by chance one of us happened to be up at the death, and so was duly and truly entered by having been "blooded" (smeared over the face with the mask), he was a hero for the rest of the year to the other boys at school, and at night the run had often to be described, not forgetting the "View Holloa," "Tally Ho, gone away, gone away," finishing with the "Death Holloa," often bringing the masters to the room, expecting a murder was being committed. The songs appropriate to the occasion were those always sung by the men when they gathered on festive occasions, and "as the old bird crows the young ones learn." So

"A southerly wind and a cloudy sky
Proclaims a hunting morn,
Always led. Then would follow,
"Do you ken John Peel," which was as surely echoed.

To say that this "English Gentleman" was worshipped by the boys would be to state the question very mildly—their ambition was to be like unto him. I remember once while on a visit to Mr. E. Bowly Cirencester (a perfect specimen of the host), now gone aloft, we were walking past the cover, and noticed some cubs scurrying in and out of the hedge. Meeting the gamekeeper,—"James, I told you to feed those foxes?" "Please, sir, I've killed all the hens and ducks."

"Indeed, then, you must buy more at once." Such was the sentiment. As a writer in a letter to the "Spectator" puts it: "I would only advise you, Mr. Spectator, to take care how you meddle with country squires. They are the ornaments of the English nation, men of good heads and sound bodies, and, let me tell you, some of them take it ill of you that you mention fox-hunters with so little respect." But I must get on to the Christmas ceremonies, and leave the youngsters dreaming and talking of Tarquin and Furrer, of Will Coolah and Tom Sebright. Christmas for youngsters in England is a perfect Elysium. Not that they go wild, but there is a relaxation of the proprieties, or etiquette, if you please. Good-will towards all is the sentiment.

Christmas Day itself is observed as a holy day. While good cheer prevails, it never loses its religious tone. The good things are consumed with thankfulness and with a hearty good-will towards all. But it is especially observed as a season wherein all related should meet and participate around the home altar. If there is a son or daughter within reach it is the season of festive gathering, and never missed unless something very much unforeseen occurs. The old English gentleman of whom I commenced writing observed this season with great enthusiasm, for not only was his own family to be reunited, but as many others as he could induce would be there. And no more cheery welcome

judge of him only as a blood-thirsty fox-hunter, or as a convivial *bonhomie* sort of a being. Not so. He was the confidant and adviser of the neighborhood. His opinion was sought, and lawsuits were almost unknown. His home life was so methodical that only the clock could be said to be more regular. When occasion rendered necessary he could leave his home duties for a run up to London during the session, and such an event as the Christmas stock market or Smithfield Club Show was never omitted. Allow me here to digress to say that the year after I met my yeoman at the cover side, I accompanied my father to the Smithfield Christmas market. He usually sent up about

30 head of extra prime steers, I mention this to get in a little sketch of Old London. We stopped at the Saracen's Head, Snow Hill. I was eleven years old; had just read Dickens' Nicholas Nickleby. I could fancy I could see Wackford Squeers in the coffee room. And of course boys of that age and date took what they read in print as perfectly true (some of them have learned better since). I felt scared at night that I was bound for Dotheboys Hall when the porter woke us up at 3 a. m. This was on a Monday morning. On the Sunday the salesman (there were even cattle commission men in those days) looked them over, put his mark (Scissors) upon and paired them up. "Would you believe that I had seen cattle tied up by the head in pairs to be sold in London's only market! Such is a fact, and the business was all over by 8 a. m. Newgate was just opposite the Saracen's Head, and at every hour when St. Sepulchre's bell struck the time I was dreaming about Cranmer, and Latimer, and Ridley, besides Col. Blood, et al.—who all quietly departed this life in the Smithfield, which was now being used for the more enlightened purposes of displaying food for the million. I guess some joker may make a play upon the word enlightened, but let her go. Cranmer did say, as I read, "He would light such a torch as would never be put out in England." The year to which I refer was Christmas, 1550. And I also had the opportunity of seeing the original Crystal Palace, which was erected mainly through the efforts of the late Prince Consort, in Hyde Park. There are three things in my varied experience that I shall never regret seeing, viz., the original Crystal Palace, Old Smithfield, and Dickens' Saracen's Head. 'Twas here I again met my old friend; he had some steers for sale, same as my father. This letter is getting too long. I would like to give a better home view of one of England's most staunch and lovable characters. When I say one, this is but a sketch of one whose prototype could be found in most every parish.

He was a Tory by birth and instinct. He had the highest opinion of the value of land and land owners. A merchant, a manufacturer or a shopkeeper might be tolerated, but not associated with. Church and State was a strong platform, and a dissenter was a rebel against the Constitution, and ought to be treated as such. He believed every word in the Bible as he read it. No geologist in his day had had the temerity to suggest that the seven days in which this world was made was not to be literally construed. No Voltaire or Tom Paine caused him to doubt for one moment everything he read. Colonel Ingersoll

had not mystified the multitude with such a crafty combination of words as would make an archbishop almost waver. He utterly refused to meet socially a Whig, and a poacher ought to be banished to some foreign country where lions and tigers abound, so as to give him a chance to follow his particular bent. If there was any one thing or being that he utterly abhorred, it was a something that would shoot a fox (no sane man would think of doing so), and ought to be consigned to the nethermost pit at once. As a friend, none could be closer, but one had to show his worthiness before he enjoyed that privilege. Outspoken to one and all, the poor were equally in his thoughts as those who were rich. He craved nothing from the latter, but to assist the former he considered his duty. He was



The Earl of Minto,

OUR NEW GOVERNOR-GENERAL.

The above is a very good portrait of Sir Gilbert John Elliot Murray Kynnmound, Earl of Minto, the new Governor-General of Canada, who a few days ago took up his residence at Rideau Hall, Ottawa, and who has been warmly welcomed back to the Dominion. Many readers of the FARMER'S ADVOCATE will no doubt remember him as Viscount Melgund, who was Military Secretary to Lord Lansdowne when that nobleman was Governor-General (from 1883 to 1886). During that time the rebellion of half-breeds and Indians broke out in the Northwest Territories, and in restoring law and order the present representative of Her Majesty did signal service for the country in the field. Indeed, it is in the military field that our new Governor-General is best known. He was formerly of the famous Scotch Guards, and in 1879, during the Russo-Turkish war, he was attached to the Turkish army. In 1882 he served in Egypt, and, as we have said, he went to the front in 1885 to aid in putting down the rebellion in the Canadian Northwest. Though no longer in active service, he still takes a delight in promoting the national defence, and is commander of the Scottish Borderers, Volunteer Infantry Brigade. Lord Minto is a most successful sheep-breeder, his flock of Border Leicester-Cheviots (crossed) being justly celebrated. He has carried off many prizes in shows all over Great Britain. His Excellency is also a breeder of horses, both Thoroughbreds and Heavy Drafts, but not on an extensive scale. He takes a great interest in agricultural affairs, and is regarded, as was his father before him, as a model landlord. The family estates embrace 16,000 acres, chiefly of good arable land, in Roxburghshire, where the principal seat of the Minto family has always been, and in the County of Forfar. Lord Minto has a high opinion of Canada as an agricultural and stock-raising country. Though a dozen years had elapsed since he resided in the Dominion, he did not forget what he had seen and heard here when he came to make preparations for assuming the position of representative of Her Majesty in Canada. He at once sold off his fine carriage horses, relying upon his knowledge of Canadian stock to replace the animals when he came to this country. That he has been well suited, the last issue of the FARMER'S ADVOCATE, in chronicling the purchase for His Excellency of the handsome first-prize team owned by Mr. R. Beith, M. P. for West Durham, proved. Lord Minto was very happily married to Hon. Mary Caroline, daughter of Sir Charles Grey, fifteen years ago. They have an interesting little family, the eldest of whom, Lady Eileen Nina Evelyn Sibell, was born in Ottawa, on 13th December, 1884.

could be had than his "Merry Christmas" in notes not forced, but the words seemed to well forth from a heart and lips that even did not half express the feelings of the speaker. Christmas Eve was the time of the great festivities. After the shades of night asserted their prerogative over the ruler of the day, the yule log was hauled in, and the ample fireplace made to glow, such as our Canadian readers, of all others, can appreciate. The older folks opened up the festivities by dancing the minuet or quadrille, and then retired to the "other part" after partaking in a round of turn-trencher or blind-man's-buff, there to play cards, leaving the younger ones a freer license, wherein the mistletoe was a main factor. This has only shown one side of the yeoman, and my readers up to now will

possessed with the fixed idea that Englishmen were the cream of the earth. That one was equal to three Dutchmen, or to four Frenchmen. Can we blame him when we know that Howe, Nelson, Benbow and others were continually proving it on the seas, while Wellington, Clive, Gough and Napier were rolling up higher victories even upon land. He was entitled to all the satisfaction he could squeeze out of such faith. At home, early morn saw him in the saddle. His flocks and herds were his especial care, and not only England, but every portion of the habitable globe, has to acknowledge his skill in the development of all species of live stock, whether of horses, cattle, sheep or swine.

His public duties were not neglected. As Overseer of Poor and Highways he had scope for his ability to assist the one without offence, and to keep the other in repair by use of the former, thereby averting that last resort, the poor-house, and securing the independence of feeling that the poor ever possess, and which is one of the fine feelings that ought not to be ruthlessly rent asunder by proclaiming the "poor-house is open to you—no outside relief." At marketing his produce he was especially keen—no butcher could calculate nearer the weight of a bullock or wether—and as he had capital there was no need of selling his grain until his judgment told him he had better do so. As I remember him, Tuesday being market day for cattle, promptly on hand at 8 a. m. was he to be seen. Each week were to be found 8 or 10 head of fat cattle during the winter months, and 20 to 50 head of sheep during the spring and summer. The market was over by 11 a. m., and the bargain was consummated by a slap on the hand. I don't know the origin of the strange custom, but there were well-informed operators who clung to the belief that unless that particular form was observed no bargain was made. Friday was the market, and every farmer occupying a farm of any consequence was to be seen. Our particular prototype was of course on hand, and at each large hotel was provided a "market ordinary," at which such as I have been describing presided. At one of these I see my friend. He has been chairman of this especial weekly gathering for over 25 years. His word is law. A generous dinner is provided (as good as can be got now, for the art of dining properly was not originated with this generation), and afterwards a Farmers' Club holds sway; not by membership fees, not by resolution, or by constitution or by-laws, but by tradition and the feeling of freemasonry, as it were, amongst men who are all members of one large order. None but farmers attend, and they grade themselves at the various hotels according to their views and social standing. This club life is the essence of English agriculture. What we are here trying to produce by aid of paid speakers at our Farmers' Institutes, is accomplished in England by practical men conversing weekly upon the requirements of the industry; the values of store cattle and fat are compared, each little experiment is told, and after a certain hour the merchants and agents for cakes and artificial manures are admitted. But the man of whom I write is gone and the mold broken. Is it good for England? I can't say. That it is good for agriculture I must emphatically deny. It is he and his comrades that we have to thank for Shorthorns, Herefords, Angus and Galloways, Devons and Jerseys, sheep and swine, horses, both light and heavy. To him, then, let us pay a passing tribute, and join with me in singing one of his old songs:

"I come of a free and jovial race,
A country squire am I;
With a name that has never yet known disgrace,
And I'll tell you the reason why.
I'm a chip of a block of an ancient stock,
And am loyal, brave and true,
And am one of a race that can go the pace,
Altho' I am seventy-two."

CHORUS.

"Then cheer, boys, cheer, for an old true-blue:
He's one of a race that can go the pace,
Altho' he's seventy-two."

"No sluggard am I in my bed to lie,
I rise at early dawn;
Thro' the meadows I jog with my gun and my dog,
Or mount at the sound of the horn;
A seat in the saddle I still can keep,
With a Hee Tally Ho, Hee Ho,
For my limbs are strong and my wind is long,
Altho' I'm seventy-two."

CHORUS—"Then cheer, boys," etc.

"At Christmas time, when the bells they chime,
I've a welcome as well as a smile,
And a hearty good cheer for peasant or peer,
In a jolly old English style.
I'm fond of good sport, tho' nevertheless,
My passions I always subdue,
For it's only a fool who loves excess,
And he'll never reach seventy-two."

CHORUS—"Then cheer, boys," etc.

The Best Fruits of Agriculture.

"The occupation of farming should produce the best kind of people. It affords agreeable physical exercise; is carried on amid pure air and sunshine. As farmers understand more of the principles that underlie all the operations of the farm, they will have much more enjoyment in carrying on their work. The natural agricultural resources of Canada can be realized on with more advantage to the individual farmer when he co-operates with his neighbors and as far as practicable does his part in neighborhood organization for the production of things at the least possible expense. The co-operative principle as applied to cheese factories and creameries will doubtless be extended into other fields of agricultural effort." — PROF. JAS. W. ROBERTSON,
Dairy and Agricultural Commissioner.

Miss Canada Abroad;

OR,
JOHN BULL'S CHRISTMAS DINNER.
J. W. BENGOUGH, TORONTO, ONT.



The Star of the London Season, all knowing ones
agee,
Is John Bull's Western Daughter, who, at the
Jubilee,
Captured the gay old city with her beauty and her
grace,
And ever since, in British hearts, has held the
foremost place.

Not the young lady, mark you, whom Tennyson,
the Blest,
Referred to as J. Bull's "Gigantic Daughter of the
West";
But she whom Poet Kipling called "Our Lady of
the Snows,"
Alluding to her dazzling complexion, I suppose.

Miss Canada, in short. Well, London raved about
the girl,
And season after season, she led the dizzy whirl;
The press teemed with her praises, and every move
she made
Called forth admiring cheers,—she threw all rivals
in the shade.

And she enjoyed her triumph—what girl would not
be proud
To reign supreme in such a style o'er London's
surging crowd?
But yet she felt a yearning: tho' the acknowledged
belle,
She longed to have a chance to prove she was of
use as well.



"My face is *not* my fortune," she said to Mr. Bull,
"And if you'll let me have my way, I'll prove it to
the full!"
"Your way?" cried John. "Why, take it, of course,
my pretty dear,
Do anything you please, you know,—we're all your
servants here!"

'Twas close to Christmas: from the throng Miss
Canada withdrew,
And London was agog to know what 'twas she
meant to do,
But none found out till Christmas Day, when,
looking much at ease,



She stood and rang a bell and cried, "John! Come
to dinner, please!"



And Mr. Bull, with his good wife, Britannia,
his arm,

And all his little colonies—a most prodigious
swarm—
And men of state from foreign lands, and lords of
high degree,
And ladies too, went trooping in to see what they
would see.

Miss Canada, in apron white, and very neat attire,
Bade welcome to her honored guests, and much
they did admire
Her modest, wholesome, cheery ways,—and
whispers soon grew rife
Amidst the company, "By Jove! she'd make a
splendid wife!"

They entered and beheld a room that dazzled every
eye,
The floor of polished hardwood; bright chandeliers
on high;
Artistic furniture in place, rich and of lustrous
shine,
And all that heart could wish for in the decorative
line.

"All made in Canada, my friends," exclaimed the
hostess fair,
"Canadian forests grew the wood for table, side-
board, chair,
Floor, ceiling, wainscot,—timber wealth we have
in endless store
Throughout our half-a-continent from oceans'
shore to shore.

But, "Pray be seated, Mr. Bull," and all the guests
sat down
And had the grandest dinner that Christmas e'er
had known,
Served up by sweet Miss Canada and her provincial
force,
Who in neat waitress-costume brought it forth
course by course.



Miss Maritime first served the soup—a dainty
oyster stew
(Tho' there was bouillon, also, and clear consommé
too);
Then followed a procession of every varied dish
That cookery knows how to make of fine Canadian
fish.

And next came roasts—the Nor'-West girl, from
the wide ranches, bore
Prime beef, the "beat" of which John Bull had
never seen before;
And pork of splendid quality, and poultry of all
kinds,
Turkey and chicken, goose and duck,—for varied
gourmand minds.

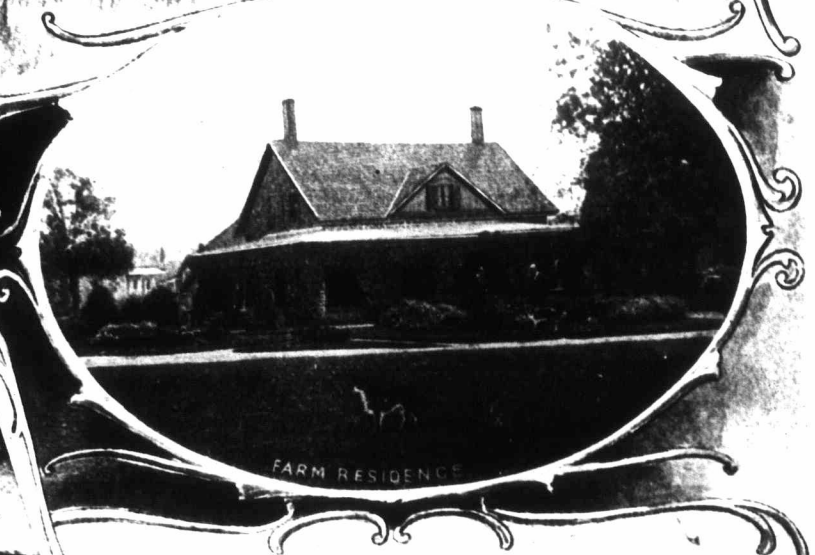
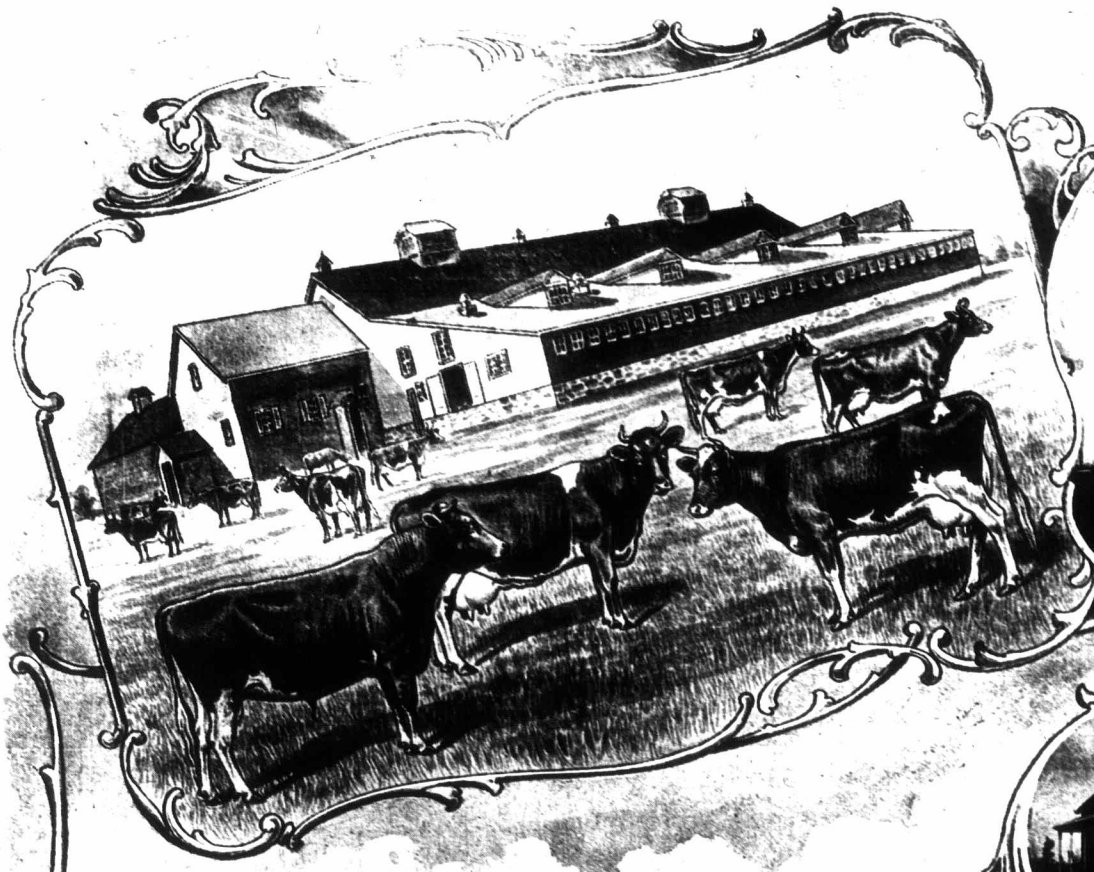
And vegetables—every sort, and each the very best,
Boiled, stewed, and pickled,—carried in by girls
from East and West;
With bread, rolls, cakes and pastry, and puddings,
in a shower,
All made from Manitoba wheat ground into match-
less flour.

And cheese and butter, best extant, and fruit the
best on earth,
Wound up the bill of fare. Quoth John, "I'm
known for ample girth,
But hold, I have my limits!" Cried everyone,
"Amen!
For such a Christmas dinner we've had we don't
know when!"

Miss Canada smiled proudly. "Then, please make
note," said she,
"The entire menu you've discussed I brought
across the sea;
I'm honored when you call me the gem of Britain's
crown,
But I am more than ornament; see, I can feed you,
John!"



John rose and bowed: his ample breast was trem-
bling with a flutterance;
He loosened his shirt and tried to speak, but was too
full for language!



ISABELLE GRANGE STOCK FARM PROPERTY OF MR. J. S. GREENSHIELDS, DANVILLE, QUEBEC, CANADA

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FARMER'S ADVOCATE

Isaleigh Grange.

"Behold, the hills and vales around
With lowing herds and flocks abound."

Beautiful for situation, nestling among the tree-clad hills in the Eastern Townships of the Province of Quebec, three miles from the pretty town of Danville, on the Grand Trunk Railway, ninety miles east of Montreal, is Isaleigh Grange, the fine stock and dairy farm of J. N. Greenshields, Esq., on which are kept grand herds of registered Ayrshire and Guernsey cattle and Yorkshire swine and a choice flock of Shropshire sheep. The farm comprises 800 acres, about one-half of which is well-protected sugar-maple forest, the other half being cleared and under a high state of cultivation, the soil being a rich clay loam, kept fertile by the application of large supplies of manure made on the farm by the feeding of stock and by plowing down clover. All the grain (which is mainly oats) grown is fed to the stock on the farm. Two hundred acres are generally in hay and pasture, and the balance in grain, roots, rape, and ensilage corn; about fifty acres of the latter being grown. Two large silos, with a joint capacity of 750 tons, are nearly filled, while a third one, of smaller size, is filled to be kept for summer feeding of the stock in the stables, and of the cows during the months when pastures fail. A complete creamery plant is in use, the cream separator and other machinery of the dairy and farm being run by the central steam engine. The farm buildings are among the most extensive we have seen anywhere, and are well arranged. The main cattle stable, an interior view of which is shown in our illustration, is one of the largest and most complete in the Dominion, accommodating in the stalls and boxes about one hundred head of cattle, old and young, and being well lighted by the numerous windows shown in the picture, and also well ventilated. Water, fresh and pure, flows through the building, and is available in every stall.

The dairy stock is composed entirely of registered Ayrshires and Guernseys, excellent herds of which have been maintained for many years, and which have been recently replenished by an importation of high-class animals of both breeds, selected by the capable farm superintendent, Mr. T. D. McCallum, from the best herds in Scotland and the Island of Guernsey. The Guernsey herd is headed by the two grand imported bulls, Adventurer, an old-time prizewinner, having won first at the English Royal Show and at the Toronto Industrial, and the newly imported yearling bull Masher 2nd (shown in the Guernsey group in the accompanying picture), winner of first honors at Toronto, Quebec, and Ottawa in 1895. Prominent among the matrons in the herd is the imported cow Princess May 11th (the central figure in the group), a prizewinner on the Island and first at the New England Exhibition, as well as at Toronto, Quebec, and Ottawa—one of the best cows of the breed, if not the very best ever brought to Canada. But, good as Princess May is, the judges at the Toronto Industrial evidently considered the two-year-old heifer Fresia, who came in the same importation, a better representative of all that is good in the breed, and not only awarded her first prize in her class, but the female championship of the breed. She certainly scores up to a high standard, and it would be difficult to suggest an improvement in her make-up. With such material to bank on, it is not surprising that to Isaleigh Grange went the first herd prize at the Toronto, Quebec, and Ottawa exhibitions, and championship for best female at each, as well as the gold medal for best exhibit in the class at the latter show. Of the six newly imported females, five have produced calves since their arrival at Isaleigh Grange (four of them being heifers), and the sixth will be due shortly. These, in addition to the formerly excellent collection, makes the Guernsey herd at Isaleigh Grange full fifty strong, and up to date in quality.

THE AYRSHIRE HERD

numbers nearly one hundred, and is headed by the well-known bull Matchless, probably the best son of that illustrious pair, imported Glencairn 3rd and imported Nellie Osborne, the latter having distinguished herself by winning first prize in the great aggregation of cows of this breed at the World's Fair at Chicago, and also the female championship of the breed, and having repeated the record since that date at the leading shows in Canada. Matchless is worthy of his parentage. He has grand indications of constitutional vigor and fine dairy form, and his progeny promises to be of first-class character, one of his sons having won the championship at the Maritime Provinces exhibitions in 1895. Of the imported females brought out by Mr. McCallum, the cow Nora of Fairfield Mains proved her claim to high rank by winning first class honors and sweepstakes the whole round of the leading exhibitions in Canada at which she was shown in 1895, in the strongest competition ever seen in America, and including the World's Fair winners. At the New England Fair she won first prize and sweepstakes in her class, and in the milking test for most milk and butter (Holsteins, Jerseys, and Guernseys competing) she stood second, giving 52 pounds per day of 4 per cent. milk on the fair ground—a great record under such conditions. Among the other imported cows is Gem of Castle Hill and Lady Bute of Mid Asrog, a first prize winner at Glasgow and runner-up in other leading shows in Scotland, her record including second prize in the same class at the World's Fair at Chicago.

The herd of Ayrshires, numbering about 100, is headed by the grand bull Matchless, imported from the

the largest good herd of the breed in the Dominion, the milking cows being notable for uniformity of excellence, and the young things exceedingly promising.

The flock of Shropshire sheep are all imported or bred from imported stock, and have been kept up-to-date by the use of only first-class imported sires. About 100 breeding ewes are usually kept. The unusual demand has reduced the number to 75 at present, but a grand lot of ewe lambs are coming on to fill up the ranks.

The herd of Yorkshire swine has long been known as one of the best in the country, and has kept up with the times, only choice selections being retained as breeders. A small but select herd of Berkshires is also kept.

A fine lot of young road horses and colts, sired by Thoroughbred stallions, are on the farm, and are of the right stamp for speed and endurance, combined with good looks.

Collie dogs, imported and bred from first-class imported stock, are among the specialties of the establishment. Taken all in all, Isaleigh Grange is one of the most interesting and one of the best-equipped stock farms in Canada.

A Canadian Production.

The present issue of the FARMER'S ADVOCATE closes the thirty-third year of its publication in the continuous service of agriculture. No more striking evidence of the progress of the Canadian farmer has ever appeared than the lifelike illustrations gracing this Christmas number, which are from actual photographs taken by our staff of artists. The engraving was all executed by the Toronto Engraving Company, and is certainly a tribute to the artistic ability and mechanical resources of that establishment. The white paper on which the issue is printed is the product of the E. B. Eddy Manufacturing Company, at Hall, P. Q.; the tinted paper of the cover being made by the firm of Ritchie & Ramsey, Toronto, whose mills are at Mimico, Ont. The paper is printed with new type, furnished by Miller & Richards, Toronto.



MR. JOHN MILLER, BROUGHAM, ONT.

Probably the oldest living importer of pure-bred stock to Canada.

and the admirable typography and the presswork of the number are equally excellent. Some idea of the magnitude of the edition may be gathered from the fact that the presses were kept running day and night for over two weeks (Sundays excepted) in printing the issue. The articles descriptive of the various farms in all the different Provinces of the Dominion were written by members of our editorial staff, who personally visited them to obtain the facts given regarding the character of the places, the methods of farming pursued, and the live stock reared. We are under obligations to the gifted contributors who have done so much to aid in providing a varied literary bill-of-fare for the delectation of our readers. We cherish the hope that the publication of this number will do something towards promoting a clearer and fuller recognition on the part of the public of the status of the Canadian farmer and the pre-eminent importance of his calling.

The Smithfield Centenary.

The Centenary Show of the Smithfield Club this year, under the presidency of H. R. H. the Prince of Wales, opened at the Royal Agricultural Hall, London, on December 5th, with a prize list of nearly £5,000. In Short-horns, Mr. C. H. Learner's heifer, Silence, won the championship; the Queen's heifer, Margaret, Shorthorn champion at Birmingham, being reserve. The Devon and Devon breed cups were won by the cow owned by Her Majesty the Queen, the cow, known as the Angus heifer, Judith, owned by the Duke of Devonshire, which was the Devon breed cup. The Devon breed cups were won by the cow, known as the Devon heifer, owned by the Duke of Devonshire. The Devon breed cups were won by the cow, known as the Devon heifer, owned by the Duke of Devonshire. The Devon breed cups were won by the cow, known as the Devon heifer, owned by the Duke of Devonshire.

Does Gardening Pay?

From Charles Dudley Warner's "My Summer in the Garden."

I select as a representative vegetable, in order to estimate the cost of gardening, the potato. In my statement, I shall not include the interest on the value of the land. I throw in the land because it would otherwise have stood idle! the thing generally raised on city land is taxes. I therefore make the following statement of the cost and income of my potato crop, a part of it estimated in connection with other garden labor. I have tried to make it so as to satisfy the income-tax collector:

Plowing.....	Do.	\$0 50
Seed.....	Do.	1 50
Manure.....	Do.	8 00
Assistance in planting and digging, 3 days.....	Do.	6 75
Labor of self in planting, hoeing, digging, picking up, 5 days at 17 cents.....	Do.	85
Total cost.....	\$17 60	
Two thousand five hundred mealy potatoes, at 2 cents.....	\$50 00	
Small potatoes given to neighbor's pig.....	50	
Total return.....	\$50 50	
Balance, profit in cellar.....	\$32 90	

Some of these items need explanation. I have charged nothing for my own time waiting for the potatoes to grow. My time in hoeing, fighting weeds, etc., is put in at five days; it may have been a little more. Nor have I put in anything for cooling drinks while hoeing. I leave this out from principle, because I always recommend water to others. I had some difficulty in fixing the rate of my own wages. It was the first time that I had an opportunity of paying what I thought labor was worth; and I determined to make a good thing of it for once. I figured it down to European prices, seventeen cents a day for unskilled labor. Of course I boarded myself. I ought to say that I fixed the wages after the work was done, or I might have been tempted to do as some masons did who worked for me at four dollars a day. They lay in the shade and slept the sleep of honest toil full half the time, at least all the time I was away. I have reason to believe that when the wages of mechanics are raised to eight and ten dollars a day, the workmen will not come at all; they will merely send their cards.

I do not see any possible fault in the above figures. I ought to say that I deferred putting a value on the potatoes until I had footed up the debit column. This is always the safest way to do. I had twenty-five bushels. I roughly estimated that there are one hundred good ones to the bushel. Making my own market-price, I asked two cents apiece for them. This I should have considered dirt cheap last June, when I was going down the rows with the hoe. If anyone thinks that two cents each is high, let him try to raise them.

Thorncliffe.

HOME OF MIKADO, BORDER RIFVER, OLIVER TWIST, AND DISTINCTION'S GOLDEN.

On the outskirts of North Toronto, four miles north-east of Union Station, and close by Leaside Junction, a station on the C. P. R., is located Thorncliffe, the magnificent stock farm of Mr. Robert Davies, of Toronto City, whose farm post-office is Todmorden. His son George, a young man of modest and courteous manner, a good judge of stock, with progressive ideas of farm stock management and a genuine love for rural life, is general superintendent of the establishment, which is admirably conducted, kept in excellent condition, and reflects credit on his management. The farm consists of 160 acres, about 300 acres of which is arable land, mainly of a rich clay loam, the balance being permanent pasture, composed of river bottom land and cliffs. The farm land is in a high state of cultivation, and very fertile from liberal applications of manure made by feeding stock on the farm and from the city stables, over 100 head of horses, principally Clydesdales and Thoroughbreds, together with a few Standard-breds and German Coachers, being kept on the farm, besides the large dairy herds of Ayrshire and Jersey cattle, a fine flock of Shropshire sheep, and a herd of Berkshire pigs. Immense crops of corn and roots are grown on the place, over 30 acres of the latter, mangolds, turnips and carrots, being cultivated this year, and yielding large crops notwithstanding the protracted drought and hot weather of the summer months. Fifty acres of first crop clover yielded 33 tons per acre, and the meadows of mixed clover and timothy 4 tons per acre. The fall wheat was not up to the usual standard on account of unfavorable conditions, but averaged 31 bushels and the oats 62 bushels, which for a dry season is a very fair result.

The Farm Buildings are on an extensive scale, commodious, convenient and well arranged, the main barn being a magnificent structure 160 feet long by 75 feet in width, with basement stables and root cellars the full size, and 50 feet high from basement floor to ridge of roof. The plan of the barn is an end-drive, which Mr. Davies decidedly prefers, the hay being elevated by means of a horse fork and the grain in slings. The capacity of this barn when scaffolded over the driveway is immense, and will probably never be taxed to its utmost. A portable engine is used for the purpose of washing, cutting straw and grading. Water is supplied to the stables by means of a pump and a tank of 20,000 gallons capacity, the tank being on a hillside, 200 feet high, and the pump for 15,000 bushels of grain is in the basement in the large

compartments. And an iron... square... answers its purpose well, except that in the corners the silage does not keep well, a defect which may be remedied to some extent by rounding out the corners.

The Horses.—Thorncliffe is famous as the home of the great Thoroughbred Stallion Mikado, portrayed in our illustration, winner of \$75,000 in races for his former owner before coming to Canada, and of numerous first prizes and championships in the hands of his present owner, having several times carried off the sweepstakes at Toronto Spring Show and the Industrial Exhibition, and obtained the same distinction at the New York Horse Show, and also at the great horse show at Chicago in 1897. Mikado comes of a line of winners, being a son of imported King Ernest, and a full brother of King-like, winner of the Futurity race the present year, a stake worth to his fortunate owner \$90,000. "Good wine needs no bush," and Mikado speaks for himself by his records, and his individuality. Among the other noted sires in the stud are imported Parisian, by Cherabert, who sired more sons who won more money for a greater number of years than any other in his day. Admiral, a brown son of St. Blaise, a sire who won distinction in his day, and sold for \$10,000, is another of this noted collection of high-class horses.

Clydesdales.—Thorncliffe has long been known for its magnificent Clydesdale horses, and never in

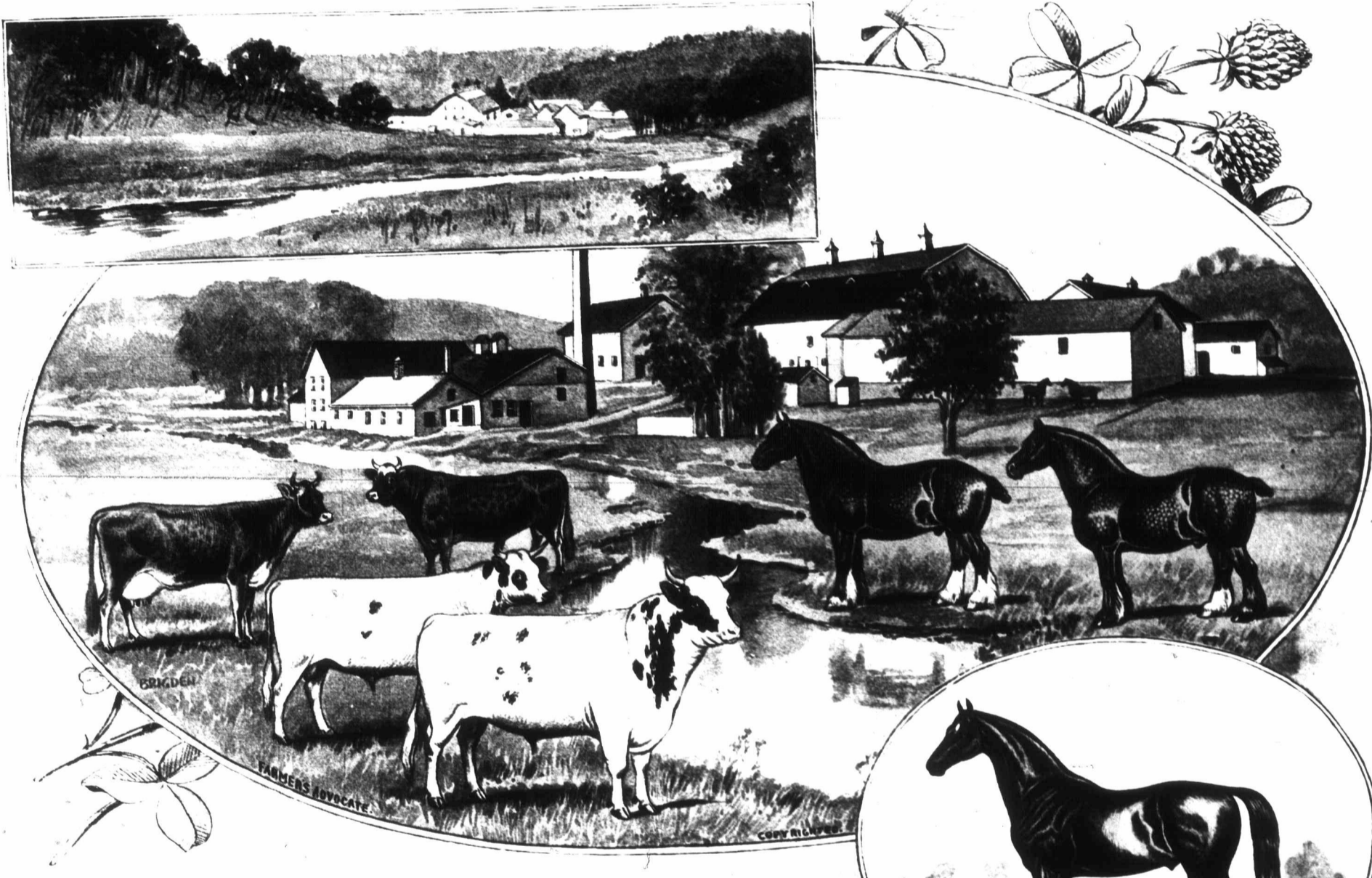
thick, blocky and well proportioned. He was also a prize-winner in his native land as a foal. Still another of McGregor's sons in this lot is Polonus, a big three-year-old, standing 17.2, and promising to develop into a very large horse. A promising gelding, by Baron's Pride, and having for his dam a daughter of Lord Eskine, was imported in 1888. He has the material from which to make a magnificent horse and only needs time to develop. King's Own, a five-year-old seal brown son of imp. Queen's Own and imp. Candour, by McGregor, won first at the Toronto Spring Show, '98, and was gold medallist at Ottawa, '97, having formerly won first at Toronto as a two-year-old. The limit of space forbids the mention of even the names of half a hundred brood mares, colts and fillies, among which is the first prize and sweepstakes mare, first prize yearling colt, three-year-old filly, spring foal, and mare with two of her produce at Toronto Industrial, '98, make up a galaxy of equines which only need to be seen to be appreciated by a lover of good horses.

The Jerseys are made up mainly of the imported animals, selected in person from noted herds in Scotland by Mr. Davies, Jr., in 1897. At the head of the harem stands Oliver Twist of Barcheskic, pictured in the forefront of the engraving, a typical Ayrshire, winner of first prize at the Western Fair at London, 1888, defeating the first prize winner at Toronto the previous week, a grand specimen of the breed, combining constitution and

with many good judges. Nita B. (pictured in the illustration, now in her fourth year, is an ideal dairy cow in conformation, with a model shaped udder, and stood first as a two-year-old in the competition at the Toronto Industrial Exhibition in 1897. Matland B. (the daughter of the last named, sired on the Island by Duke of Matland, inherits her mother's form and promises to be very rich in her milk secretions. Nicolet's B. is another of the imported cows, which in her three-year-old form gave five gallons of milk daily, testing 6.7, and is such a cow as to tempt to the breaking of the tenth commandment. These are samples of the Thorncliffe Jerseys, which constitute one of the best herds on the continent, the younger things growing up promising to equal if not excel their ancestors in beauty and usefulness. A select flock of fifty Shropshire ewes, bred direct from imported stock, is kept up to date by the use of first class imported sires. An excellent herd of Berkshires is also maintained on the farm.

Honor to the Pioneers.

We all join in paying honor to the memory of the men of undaunted courage who faced the toil and the privations incident to the early settlement of this country and laid the foundations of the comfortable homes which their children and grandchildren enjoy to-day. There is, perhaps, not the same



THORNCLIFFE STOCK FARM OF MR. ROBERT DAVIES, TORONTO, CANADA.

its history was it stronger in this line than at present. Probably nowhere on the continent can be found more first-class representatives of the breed in one establishment. Half a dozen high-class imported stallions, young and full of quality, measuring well up to the standard of first-class individual excellence and in breeding, stand at the head of the stud, while a grand collection of imported and home-bred mares grace the pastures and the stalls. Prominent among the imported horses is Border River (2300), standing first in the picture, a dark bay four-year-old son of Prince of Millfield and Connie Nairn, bred by Lord Polwarth, St. Boswells. He won the first prize and the championship of the breed at the Canadian Horse show of 1898, and has had a winning way from his colthood, having won numerous prizes in Scotland as a foal and stood first as a two-year-old at Toronto Industrial Exhibition, where the best dog congregate. Lyon McGregor, the second horse in the illustration, by the great McGregor, dam by Lord Eskine, was imported in 1857, and is a rich bay, three-year-old, standing 17.2 and weighing over a ton, with not a suspicion of coarseness, but lots of quality. He was a first prize winner in Scotland as a youngster, and won first at Ottawa in 1877, and first at Toronto Industrial, 1898. Tom McGregor, by the same famous sire, another three-year-old of the same type, won first prize at the Canadian Horse Show in 1888, and second at the Toronto Industrial in 1897, and is

quality in a high degree, and bred in the purple, as his name would indicate, for Barcheskic stands for all that is up to date in Ayrshires. Duke of York, the other bull in the picture, was the first prize yearling at the Toronto Industrial, and was imported with his dam, Clara of Badenwart, a Royal and Highland Society winner, who has given as high as 62 lbs. milk per day. Among the other imported cows is Jennie 14th of Barcheskic, with a record of 82 lbs. in a day and with model dairy conformation and milk vessel. Belle of Barcheskic, a four-year-old, from the same Scotch herd, when fresh gave four gallons per day and keeps up her flow for a long period. Such milk-making machinery as she carries and such a system of years is seldom seen even in the best of the breed. Time is called and we pass to a brief review of The Jerseys, which are also based on a recent importation of selected animals from the best herds on the Island, at the head of which stands the richly bred and typical bull, Distinction's Golden, shown in the engraving, a son of the noted Island-bred sire Golden Lad, whose sons and daughters have been more successful in winning prizes on the Island in late years than those of any other sire. Among the best of the imported cows is Cecelia Beck, winner of first prize and sweepstakes at the Western Fair at London in 1888, and second prize at the Toronto Industrial Exhibition, where she was the favorite

unanimity of sentiment in acknowledging the worth of the work of the early importers of pure bred stock, the impression seeming to have prevailed that the prices they received for their stock were such as to make their ventures profitable; but when we reflect upon the heavy losses often sustained in the case of sea voyages of eight to twelve weeks by sailing vessels, the high rates of freight and the limited market, it required no small amount of courage and enterprise to undertake the work, and its importance is manifest to-day, the revenue to our people from live stock and its products being larger by millions than from any other of our industries.

Brandon Farmers' Elevator.

Storage capacity 52,000 bushels, while as much as 175,000 bushels have been handled through it in a season. Owned by a joint stock company. President, Wm. Middleton; Vice-President, J. A. McKellar; Secretary-Treasurer, R. E. A. Leech; Directors, Henry Nichol, S. C. Doran, R. Reid, W. H. Dilman,

To Begin Well.

GOOD ADVICE TO NEW SETTLERS.

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

While a large proportion of our settlers succeed, it is a lamentable fact that too many are to a greater or less extent failures, and in a short time drift into the towns and villages to swell the already overcrowded ranks of laborers and tradesmen.

While it is not possible in a short article to enumerate all the requirements for a successful settler, yet it may be said that he should at least be industrious, sober, frugal, healthy and fairly strong, for although farming is not the slavish work of the early days, there is still considerable muscle required, especially during the busy seasons of the year. Perhaps the most indispensable requirement is a love for the work; with this and a willingness and ability to rough it for a few years the prospect for success is good.

BEST TIME TO VISIT THE COUNTRY.

Since the harvest excursions have been inaugurated, the question of the most suitable time to inspect this country has been very much simplified, for there is no more favorable time to see it than just before harvest, and young men with little means thus have an opportunity of seeing the country and selecting a home without any outlay whatever, the wages as harvest hands more than paying expenses.

THE SELECTION OF A FARM.

Where one man fails another often succeeds, and individual farmers have been equally successful on entirely different classes of land, yet there are some indispensable requisites in what may be termed a profitable homestead. Individual tastes should of course be considered, for unless the selection pleases, discontent and failure are sure to follow. Fortunately, the character of this Province is so varied that widely differing tastes can be suited. For one desiring a comparatively level, strong, deep and rich soil, the Red River Valley offers many advantages; the lover of clear rolling prairie will be pleased with Central and South-western Manitoba; while the large class who are never satisfied when located any distance from timber, can be suited in the bluffy country of Northern and North-western Manitoba. Wherever the location is made, care should be exercised that there is a considerable area of good land in one block, otherwise the settlement will be sparse, making it difficult to establish schools, churches, etc. Where good land is so abundant, inferior soil or subsoil should be avoided, leaving it for pasture.

From 20 years' experience, I consider a rich, black, sandy or clay loam on a rich but porous subsoil the best of wheat land, being early, productive and enduring. While the soil of scrub land may be good, and many excellent farms have been made from such land, it is tedious to break up, and not at all suitable to persons anxious for rapid progress. A small quantity of surface stone will prove useful for building purposes, and a location should not be discarded on that account, unless, of course, sufficiently numerous to entail a large amount of labor in their removal.

Good drainage is important, for unless the land dries up rapidly in spring, sowing will be delayed and the crop liable to injury by fall frosts. It is also found that badly drained land is unsuitable for cereal crops; the plants turn yellow and sickly, and weeds flourish. It is a favorable sign if the vegetation growing naturally on the land is of a mixed character, and composed largely of rose bushes and other upland plants. Any land producing sedges, or with its surface more or less covered with minute shells, should be looked upon with suspicion. While no large area of good land in the Province is likely to remain long without an outlet for its produce, it is unwise to locate far in advance of a railway. Much disappointment has been experienced in former years from this cause. Railroads on paper are notoriously unreliable, and should never be depended upon. There is abundant land in the Province within easy distance of a railway without running the risk of isolating one self for years.

THE FIELD.

In purchasing an outfit it is a good rule to confine the expenditure to actual necessities. Additional supplies can be procured from time to time as required, one dollar worth of experience being worth two without it, to be sure. The following will be required by all. A good pair of oxen, or mares, to be preferred where available, and a pair of horses when the land is heavy.

THE FIRST YEAR.

From the start a settler should endeavor to make all improvements on a regular plan or system. This will be greatly facilitated if the farm boundaries are marked out on the start, and all improvements laid out on parallel lines. An excellent plan is to break a furrow around the farm, which will prove useful as a guide when laying out future improvements. Shelter will also be required for man and beast. As it is important that no time should be lost during the breaking season, tem-

water should be secured, as springs usually run narrow veins here. The first failure to secure water should not discourage; but successive trials should be made before a desirable location is abandoned. A two-inch auger, fastened to an iron rod, is a quick way of sinking test holes.

An abundant supply of hay, cut when in bloom, properly cut and stacked, is an important part of the first year's work. Usually every settler underestimates the amount of hay required per head of stock, with the result that a further supply has to be purchased at high figures.

As soon as the breaking is thoroughly rotted it should be backset, turning an inch or two of additional soil. This should be well harrowed before winter, and on the average sandy loam soil this will be sufficient treatment, but on clay soils where the sod is very tough, a thorough disking before winter will add many bushels to future crops.

The first winter's work will consist in cutting an abundant supply of firewood, rails, building timber, etc., and as much as possible of the freighting should be done at this slack season of the year.

THE SECOND YEAR.

With our short seasons it is important that the grain be sown as early as it is possible to do it properly, and nothing should tempt the farmer to cultivate a larger area of wheat than can be sown in good season. Oats can be sown two weeks later than wheat, and barley a week later still. With the experience available, no one should now think of sowing with a broadcast machine. A drill will do better work, the returns are larger, and the crop matures several days earlier. Only clean, pure, sound seed should be used. This rule applies to all farms, but particularly to new homesteads, where the land is naturally clean, and when the settler has a reputation to make for his produce. Directly seeding is completed, the teams should be promptly started to break up additional land, so as to complete both breaking and backsetting before harvest. Fortunately, our usually bright, clear harvest weather permits of the grain being cut slightly on the green side. For that reason the harvest can be commenced early, and the crop secured without the necessity of hiring much additional help. I would impress on the intending settler the necessity of promptness in harvesting as in all other farm operations. There is a time when the different lines of work can be done to best advantage, and every effort should be made to do it at that time.

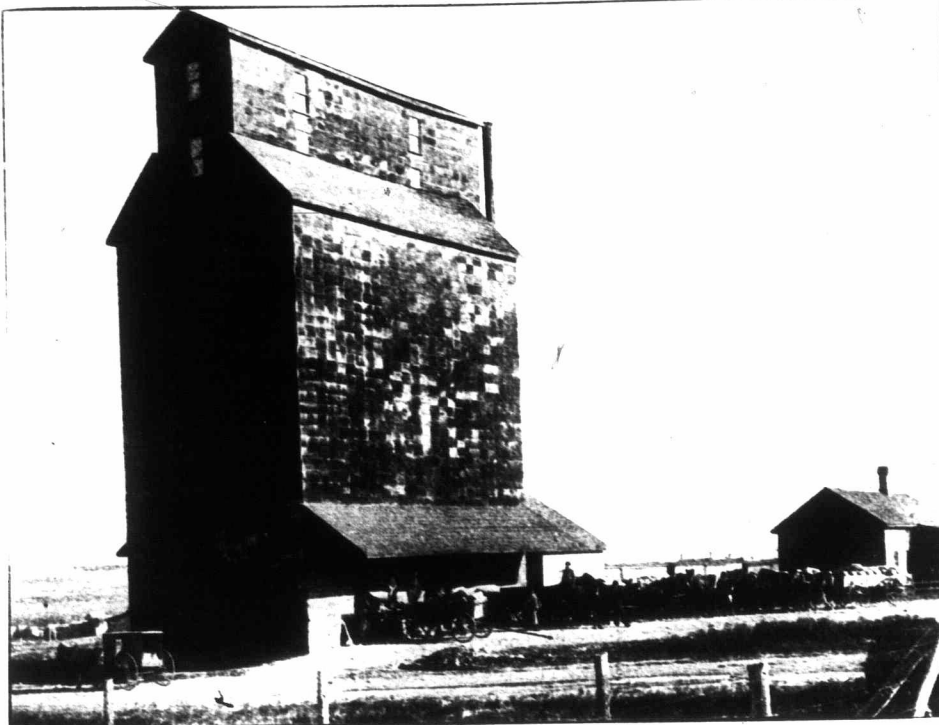
FUTURE OPERATIONS.

It is impossible to point out the best course for the settler to follow in every instance, but a few suggestions will perhaps prove useful. At the commencement some regular system should be kept in view, and a rotation of crops adopted. The very common plan of rushing from wheat to cattle, or cattle to hogs, etc., as the market price of the different commodities varies, is a fruitful cause of disappointment and failure. While it is advisable to grow as much as possible of the produce required for home consumption, it is generally well to make a specialty of one class of stock or produce, and by the excellence of the article establish a reputation in that particular line, with resultant profitable returns. Changes of plan should be resorted to as seldom as possible.

Perhaps the greatest defect in the character of the average Western farmer is a lack of thoroughness. It appears on every hand, and leads to endless loss and worry. A farm may have excellent soil, but the breaking is done so late that the crop is a failure; or the land may be well prepared, and for the sake of a few cents per acre poor seed is sown; or the seeding so late that half the crop is frozen; bluestoning is forgotten or improperly done, and the crop seriously injured.

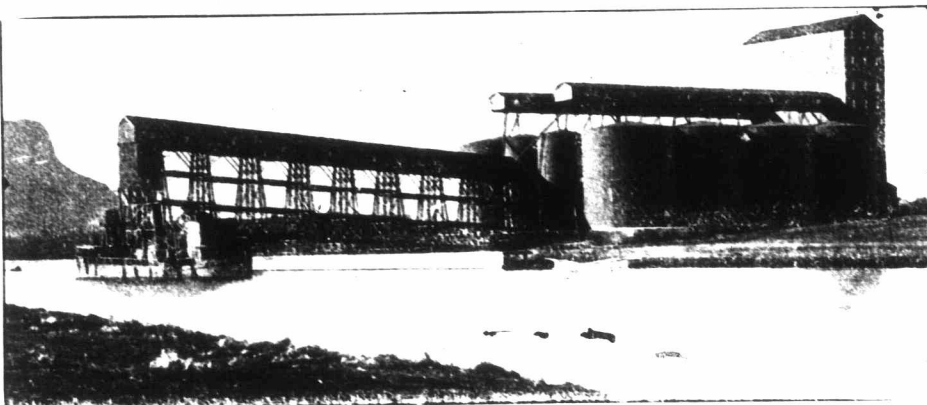
Handling Manitoba Wheat.

The illustrations upon this page afford an idea of how the vast wheat crops of Manitoba and the Northwest are transported eastward. After threshing, the bulk of the wheat passes into elevators such as the one at Brandon, from thence via the railway to the C. P. R. elevators at Fort William on Lake Superior, where we find located the new C. P. R. storage wheat elevators, which are made of boiler-plate iron and are practically indestructible. (Eight of these are in use, each having a capacity of 125,000 bushels each, and sixteen of these are under construction.) They can also be widened. A great variety of wheat is raised on the Great Lakes, and is shipped toward eastern ports, at which a special steamer, called the McDougall, is chartered. It has a total length of 200 feet and a depth 22 feet.

**THE BRANDON FARMERS' ELEVATOR.**

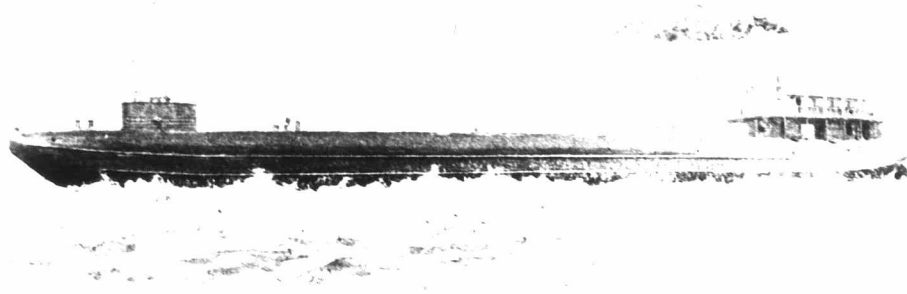
porary shelter only should be erected, and all permanent buildings deferred until late in the season. The most important work during the first season is that of breaking the virgin prairie, inasmuch as the crop of the following year depends on the quantity and thorough manner in which this work is done; no other work should be permitted to interfere with it. The breaking should be as thin as the evenness of the land will allow, and each day's work rolled as finished. All breaking should be finished by June 15th, and on stiff soil two weeks earlier will give even better satisfaction. When breaking, a garden

plot should not be overlooked. It should be long and narrow, so as to allow of as much horse work as possible. Between breaking and backsetting comes an interval which can be profitably utilized in erecting such buildings as are required for the first few years. Right here is where many newcomers make a serious mistake. Unless the family is large and money plentiful, expensive buildings should not be erected during the first few years, as the time available is short, and later on a better idea can be had of the

**NEW C. P. R. WHEAT-STORAGE TANKS AT FT. WILLIAM.**

particular line, with resultant profitable returns. Changes of plan should be resorted to as seldom as possible.

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**A WHEAT-CARRYING WHALBACK STEAMER.**

settler's requirements. Whatever buildings and improvements are undertaken, they should be considered as a part of a definite plan. The building site should, if possible, be high, and roads back from the main thoroughfare should be made, and should be as wide as possible. A good bull of the first class is a valuable asset of such a farm, and should be well cared for. The best of the wheat is raised in the West, and is shipped toward eastern ports, at which a special steamer, called the McDougall, is chartered. It has a total length of 200 feet and a depth 22 feet.



FARMERS ADVOCATE

STOCK FARM AND RESIDENCES OF H. CARGILL & SON, CARGILL, ONTARIO, CANADA.

A Bruce County Breeding Establishment.

"Our Lady of the Snows" had donned her new white winter garb a full fortnight in advance of the coming Christmastide on the occasion of our first visit to Hylhurst Farm, the home of Messrs. H. Cargill & Son, to view the new importation of twenty-one Scotch-bred Shorthorn cattle, which had safely reached their destination a few days previously, after successfully running the gauntlet of the quarantine station at Quebec. The ninety days' trip, including the detention required by the regulations to ensure a clean bill of health, had in nowise adversely affected their condition, which was said to be even better than when they went on board ship, which is no mean tribute to the cosmopolitan character of these cattle, which have proved able to adapt themselves to any climatic conditions and to make the best of the circumstances in which they are placed. The Canadian winter is, however, not so widely dissimilar to that of the north of Scotland, the native habitat of the Aberdeenshire Shorthorns, that they should feel out of their element here, and their contented look in the comfortable stables at Cargill is evidence that the immigrants feel quite at home in the new byre which had been prepared for their reception.

To one who had not seen or heard of it before, the establishment at Cargill would prove a genuine surprise, and the first and lasting impression on the mind of the visitor who may have heard of but not previously enjoyed the generous and kindly hospitality of Hylhurst, is that the half has never been told. The surprise is not, however, so much in this as in finding in a comparatively obscure country village, with a population of about 250 people, a home equal in elegance and appointments to the best of modern city mansions, including such luxuries as steam heating, electric lights, and a complete water service on every floor from a tank on a tower, filled by a windmill pump.

Situated in the fine agricultural county of Bruce, in the Province of Ontario, the east riding of which Mr. Henry Cargill has for many years represented in the Dominion Parliament, is Cargill, a station on the Hamilton & Southampton branch of the Grand Trunk Railway, and nine miles from the county town of Walkerton. Half a mile from the station are the homes of the Messrs. Cargill, pictured in the accompanying illustration, where on Hylhurst Farm for some twelve years a strong herd of richly-bred Shorthorns has been maintained, representatives of which, including several of the newly-imported animals, are portrayed in the picture. The Teeswater River, a pretty and swift-flowing stream, runs through the farm and the village, where the owners operate extensive flouring, lumber and planing mills, the sawlogs being floated down the river when the water is high in the spring from the 12,000 acres of timber lands owned by the firm a few miles further up the stream. The farm comprises about 450 acres of good land, on which large crops of grain, roots, ensilage corn and hay are grown, while 150 acres of rough pasture land a few miles off are utilized for summer pasturage of young stock.

The main barn, 100x72 feet, has basement stables the full size (with walls twelve feet high), well ventilated by six-inch tiles on the top of the walls, and liberally lighted by numerous large windows, the floor being paved with cement concrete. Two rows of stalls run the full length in the center, and fourteen roomy box stalls are arranged next the walls on either side. There is an annex 64x54 at one end of the barn for storage of roots, ensilage, and implements, and for covering the manure. The stables are supplied with water pumped by a windmill from the river to a large tank in the barn, from which it is conveyed to iron cups in each stall, the supply being regulated automatically by means of a float. The same service is used in the fields in summer. The buildings are furnished with electric light, generated by water power from the millrace, and it is the intention to put in a motor for running the farm machinery, and the steam power of the sawmill will be connected with the electric plant to guard against accident.

The *Shorthorn Herd* was founded some twelve years ago on the Rose of Strathallan family, descended from the well-known imported cow of that name, a prizewinner at the Highland Society's Show and at Provincial fairs, the high price of \$1,500 being paid for one of the cows, a daughter of the peerless Rose of Strathallan 2nd, a sweepstakes winner in the hands of the Sniders, of German Mills. Several representatives of this family are yet in the herd, and maintain the good characteristics of the tribe.

In 1885 the herd was strengthened by the purchase of six of the best of the imported Upper Mill and Collynie bred females at the dispersion sale of Mr. D. D. Wilson, of Seaforth, of which two were daughters of the celebrated Pride of the Morning, a sire of Royal winners, and others were by Standard Bearer, Sea King, and Gravesend, all noted sires of approved breeding. These cows have been regular breeders of good things, and have added immensely to the quality and character of the herd.

Among the high-class imported bulls which have been used in the herd, and which have left a grand impress, are Albert Victor, of the Kinellar Golden Drop family; Scaddan, from Collynie, by Vice Chancellor; Rantin Robin, whose dam was of the favorite Lancaster family, and sired by the famous Field Marshal, one of the best of the Sittyton sires; and last, but not least, Royal Member, the present head of the herd, whose portrait

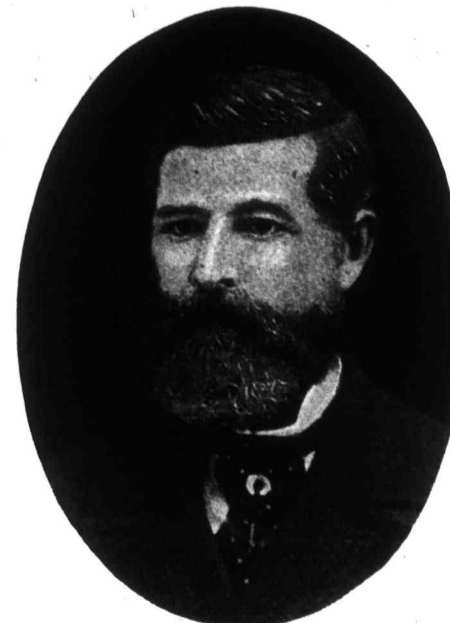
appears in the lower right corner of the picture. Bred by S. Campbell, Kinellar, sired by Royal James, and of the favorite Nonpareil tribe, he comes of one of the best of the old Sittyton families, and in individual excellence ranks among the best bulls in the Dominion to-day. Weighing well up to 3,000 pounds in his usual flesh, and carrying it comfortably on sound, short, straight legs, he combines size and substance with quality in high degree, his heart and flank girth being extraordinary, and his disposition quiet and placid, while he is active and useful as ever, and his progeny speak well for his potency as a sire, being uniformly of the approved type. In the summer of 1898 the junior member of the firm, Mr. W. D. Cargill, visited Scotland and made selection of thirteen females and eight bulls, rich in the blood of the best of the Cruickshank, Kinellar, and Colly-



THE LATE F. W. STONE, OF GUELPH, ONT.
An early importer and breeder.

nie herds, and these, added to the already strong herd at Cargill, makes it one of the most interesting collections of the breed in the Dominion, combining high-class individual merit with the best of breeding, all being of the thick-fleshed, early-maturing sort so much in favor at the present time.

Prominent among the newcomers is the gay-colored three-year-old cow Catalonia (bred by Mr. Longmore, of Rettie Banff), the central figure in the lower line in the picture, a cow of great substance and fine quality of hair and flesh, a prizewinner at home, and full of constitution. She has made a good start as a breeder, as her eleven-months daughter, Sultana (a handsome roan by Prince of Rettie), in the importation, proves. Castilla, a red yearling, standing in center of group, from the same herd and of the same family, was the champion female at the Aberdeen Show in 1898,



THE LATE SIMON BEATTIE.
A pioneer importer of pure-bred stock to Canada.

and is a model of the approved type, with grand back, brisket and flanks. Beauty 13th, by Lord Ythan, the roan three-year-old cow on the left, was bred by Mr. Mensor, Craigwillie, Huntly, and is of the approved type, blocky and well balanced, full in crops and well sprung in her ribs. She too has proved a good breeder, her yearling daughter, Beauty 16th, by Challenger, being full of promise and of the same pattern as her dam. The two roan yearling heifers in the rear, Gem of Ocean 8th and Pineapple 12th, are also daughters of Challenger, who has proved an exceptionally good sire. These are very perfect models of the breed, the former being the larger and higher type, and the latter bred in Sittyton blood, the latter yearling being lowset and an extra good handler. Lady 15th and Lady Mary 15th are also daughters of the same sire, and are by the noted

alike that one description answers for both. The first named was first in her class at Banchory show this year, and is in calf to Illustrious, while the second is in calf to Maximus, a Missie bull, a show bull and a winner. The cows shown in rear picture, by the riverside, are some of the imported matrons secured at the Wilson sale.

Of the bulls in the importation, Orange Duke is the rich roan two-year-old on the left (bred by the Duke of Richmond and Gordon), level in his lines, long in his quarters, and a grand handler. Diamond Jubilee, a red yearling standing in the rear, bred by Mr. Marr, Cairnbrogie, is a bull of fine character, large for his age, very straight on top and level in his quarters, and a show bull, having won prizes in his native land. Knuckle Duster, the roan yearling on the right, bred by Mr. Bruce, and sired by Waverly, at the head of Inverquhomery herd, and out of Agusta 42nd, Mr. Bruce's best strain of females, is an extra well balanced bull, true in all lines, with a grand head and full crops, and his pedigree is full of good things. He was first in his class at Ellon Show this year, though shown in very thin flesh. Five younger bulls, coming a year old soon, are an evenly good lot of the right stamp, and are bound to develop into useful animals, judging from their quality and breeding. The limit of space forbids individual mention of many more meritorious animals in this grand herd, which only needs to be seen to be acknowledged as in the front rank of the leading herds of the Dominion.

A small but select flock of Oxford Down sheep, bred straight from imported stock, is kept on the farm, and has proved so profitable that it is intended to increase the number. Standard-bred roadster horses have also been successfully raised at Hylhurst, and a grand lot of colts are now in training. The firm intends in the near future to add Clydesdales to the specialties of the establishment.

A Reminiscence.

BY WM. MILLER, LAKESIDE FARM, IOWA, U. S.

It seems the general experience of our kind, that after passing the middle stages of life we take more interest in looking backward over the past than looking forward, as far as the journey of life is concerned. With interest we wander through the gallery of memory, keeping clear and clean the pleasant pictures, the wise allowing the cobwebs and dust of time to obscure or hide those of a different nature. Under each of these hangs a little story which is pleasant to read; they seem to gain in clearness and in interest as we near the cradle. I cannot remember the time when I did not know big A, round O, and crooked S, whenever and wherever I met them. The other twenty-three capitals were mastered without any extraordinary effort, and by persistent help, I think without noticeable injury to the brain. Not so with the little common plebeian characters. The origin and author of the alphabet seems to be shrouded in almost impenetrable mystery, but we can find evidence giving it great antiquity. The Egyptians, Assyrians, Indians, Persians and Phœnicians all lay claim, and all alike, without much apparent foundation. The learned Brewster, after great research, favors the idea of its direct divine origin, as it seems to have come into existence like Adam—in perfect and complete form—a production too stupendous for a human mind at that stage of development. No doubt he is right, and the Deity handed to Adam the full set of capitals, and that shortly after the serpent produced the little brood, that, like sin, has come so much in use, demanding recognition at the very threshold of the temple of learning. I said I did not remember the time when I didn't know "big A," but I well remember the times without number that I got my head knocked when trying to learn little b and little d; but I cannot remember when I did learn them, as I am not sure about them yet. When you meet them first there is nothing but a little c between them—nothing to hinder them to jump backward and forward, changing places at will, and from their impish nature that is just what they did, for I have sat for hours and looked at them, and if you met one of them alone and called him d, he would just flop over and be b—that's the only way I can explain it. No doubt these same two characters have started many on vain ways, such as "pea under the thimble" and "three-card monte," etc.

The next picture, plain and clear, is a five-log-high little schoolhouse on a roadside at the corner of a wood, and not far from the heavy wood all round. It had a low door in one corner, a little window in each end, the sash of which was the only planed lumber in the concern. Here I was sent from home, after partially mastering the alphabet, to finish my education, where I graduated after a two-years' course. This was in a Scotch settlement, and they chose the teacher themselves. How they paid him I do not know, but he boarded around. He was a good little oldish Scotchman from the Cheviot Hills, a strict Presbyterian; and I believe if there had been a commandment saying "thou shalt not get drunk" Jimmy never would have. We learned the single catechism, Scripture paraphrases, and a lot of the Psalms of David in meter, who was the first man, the first woman, the strongest, the wisest, the most patient man; also all about the number of his oxen and his asses, and the names of his three daughters, Jemima, Keziah, and Karen-happuch. I liked Jemima the best, she was her tall and fair-haired and good-natured. She was my first love. Then in figures he led us through as far as the rule of three, which was no use going any farther, as we had no knowledge we could possibly need in

our business in after-life. I don't know whether he had ever traveled much in the land beyond, but we took him at his word, and left that seat of learning to toil in the fields and logging fallows of early Canadian industry.

I was not big enough to log, but was given every encouragement and opportunity to pick up chips and set fire to log heaps. In this picture I see a clear blue line. It is the spring creek in the edge of a wood, shady and cool. There are trout in it—beautiful speckled trout. I see a stout, chunky boy, nine or ten years old, leave the burning log piles and the unpicked-up chips and go for a drink at the spring that feeds the brook. He sees the trout, and from boulder to boulder down the stream he guddles, never catches. That is "me," and I didn't get back to the fallow till nearly sunset. Could you blame me? Some did, and I got into trouble. I have that bit of the picture all dusted over.

Next came logging bees, wood bees, potato bees, pine raisings, apple bees, quilting bees. I was too young and not over-ambitious to work then, but I remember the strength and prowess of the heroes who conquered poverty and the woody wilderness, making fine homes for themselves, and presenting their great Mother Country with her richest and most loyal colony.

Elections came next—Tory and Reformer. I was not old enough to vote; but I was sure I was a Tory—maybe because our folks were, but they generally got beaten—but considered the Reformers half Yankee or better. I did not know exactly what a Yankee was, but the name made a bad impression on my mind—something long and lean, partaking somewhat of the nature of the fox and monkey—cunning and mischief. I did not want to have anything to do with them.

and to a better understanding all that is needed. The wisdom of Victoria and her advisers will partly undo and atone for the folly of George III. and North, and these divided streams of the only real civilization will join together and sweep tyranny and oppression from our globe.

These are the signs of the times, and all are glad within the boundaries of each—excepting the professional Irish patriot, and I don't know what he is going to do about it.

Agricultural Experiments.

At the inauguration of the farm designed to illustrate experimentally the teaching imparted in the Agricultural Department of the North Wales University College, Bangor, Hon. Mr. Long, the British Minister of Agriculture, or President of the Board of Agriculture, as he is called, made the following observations, some of which have their practical application in Canada:

"For a considerable time, many of the agriculturists of the United Kingdom had looked with great suspicion, apprehension, and almost with misgiving and something akin to contempt upon the suggestion that agriculture could be aided by scientific methods, but that feeling had now, to a large extent, disappeared. It had been suggested that the work of experimental farming should be conducted by the Government, and it was remarked, with a sort of reproach, that in Great Britain successive governments had been almost indifferent to the claims of the agricultural community, and had sat idle while other countries were spending large sums

the one he had now the pleasure of declaring open, they were adopting the best means of fostering and strengthening their great natural industry, which, in that district especially, he hoped would prosper for years to come (cheers)."

Hillhurst.

THE HOME OF SENATOR COCHRANE AND SON.

Hillhurst is historic ground connecting the past with the present, and at its mention the mind of a stockman of the older school readily reverts to the palmy days of the sixties and the seventies, to the prominent part played by the senior Mr. Cochrane in the importation of high-class cattle, sheep, and swine, and to his colossal business operations during the boom period in the history of Shorthorns. That he was the principal figure in that great drama which astonished the live stock world will be cheerfully admitted by those conversant with the movement which commenced with his purchase from Captain Gunter, of Wetherby, England, in 1868, of the young cow Duchess 97th, at the record price, for a female Shorthorn, of 1,000 guineas, and the highest price ever paid for a Shorthorn by a single individual up to that time. It was, however, a safe investment, as her first calf, Duke of Hillhurst, sold for 800 guineas to Col. Kingscote, to return to England.

Mr. Cochrane's first importation was made in 1867, when he brought out the well-remembered and



HILLHURST, PROPERTY OF HON. M. H. COCHRANE & SON, HILLHURST, QUEBEC, CANADA.

Next came agricultural shows, in which figured such men as George Miller, of Markham; Wm. Miller, of Pickering (my father), and John, my brother—whose early importations and improvement of stock are historic; and those of Simon Beattie, perhaps the most brilliant of all; with John Snell, of Edmonton, and Frederick William Stone, of Guelph, that grand specimen of an English Tory. These, and men like these, made Canada what she is to-day—the pride of a great continent, comparatively few in number, but strong in morality and self-reliance, true to themselves, their country and their God. May the rising generations guard the sacred trusts.

Fate seems to be parting me from Canada; but she still holds my love and allegiance. I know the Yankee better than I did, and must say that he improves very much on acquaintance; so far, that the better you know him the better you like him, and if it was not ceasing to be a British subject I would become an American citizen. They seem to be realizing their responsibility as a great civilized nation, and beginning to help their mother in the work of Anglo-Saxon civilization, which has hitherto been left alone for her to do. Having made a bold and grand beginning, she will complete the work, bringing these two great nations together in sympathy

of money in experimental work. But a little consideration of this problem would satisfy all thoughtful people that the best policy was that which had been consistently maintained in this country.

There had been considerable progress in agricultural education in England during the past ten years. Up to 1887, practically nothing had been done in the direction of agricultural education. In 1887 the sum of £285,000 a year was devoted by the Government and County Council grants towards agricultural education, and he hoped that the next ten years would show a similar advance (applause). In making a suggestion or two for those who would be responsible for the conduct of the farm, it seemed that stock raising and breeding were good experiments to be made on farms of this kind. England and Wales-bred stock which could not be equalled in any other part of the world, and in that direction there was a splendid opening for the British farmer to improve his knowledge. Valuable work had been accomplished by private individuals in regard to the growing of crops, and what Sir John Lawes had proved with regard to wheat might be achieved in connection with stock. Never was it more necessary for men and women of all callings to give their entire thoughts to agricultural problems. It was the greatest industry in this and every other country. They drew their great natural resources from agriculture, and if that industry was allowed to go to the wall they would be removing a corner-stone of the nation's foundation (cheers). By the establishment of centers of education, such as

sensational cow Rosedale, which had won in England for Lady Pigot, by whom she was bred, in two years, upwards of 500 guineas in cash prizes, besides many cups, two of which were valued at 100 guineas each. In the same importation, besides a large consignment of sheep and swine, came the grand young bull Baron Booth of Lancaster, a fitting companion for Rosedale, and winner of the male championship at the Ontario Provincial Fair in that year.

In 1870, the importations to Hillhurst assumed immense proportions, no less than 40 head of Shorthorns being included, besides sheep and pigs, the consignment costing in all \$70,000.

Visitors to Hillhurst in those days will recall the grand cows Lady Grateful, sister to the inimitable Lady Fragrant, whose picture stands for a model; Queen of Diamonds, Star of Braithwaite, Weal Bliss, and many others of similar stamp. With these came the bulls Robert Napier and Royal Commander, son of the Royal champion, Commander-in-Chief, of mighty presence; and following these, The Doctor and Cherub, winners wherever they went, and made in a mould not unlike the favorite pattern of the present day.

In 1871, the two heifers, Duchesses of Hillhurst 1st and 2nd, were sold to Lord Dunmore for 2,500 guineas, the price paid for their dams the previous year. In 1872, 3rd Duke of Hillhurst was sold for \$5,000, and in the following year ten head were sold to one nobleman for \$50,000. In 1877, 32 head of Shorthorns were sent to England and sold at auction at Bowness for an average of £510 3s. 4d. It was at this sale that the 3rd and 5th Duchesses of Hillhurst

brought 4,100 and 4,300 guineas respectively, or about \$44,000 for the pair.

At Toronto, in 1875, at a sale held in conjunction with Simon Beattie and Wm. Miller, 3 females of Mr. Cochrane's sold for \$21,400, and 3 bulls for \$9,000, or \$30,850 for 6 animals. At this sale Airdrie Duchess 5th was sold for \$18,000, and 5th Duke of Hillhurst, a 3-months-old calf, for \$8,300. At another sale in Toronto in 1876, in connection with Simon Beattie and John Hope, 13 animals, the property of Messrs. Cochrane & Beattie, sold for an average of \$1,133.84. At this sale Airdrie Duchess 2nd brought \$21,000, and Airdrie Duchess 3rd, \$23,600.

From the six Duchesses purchased from Mr. Murray, of Wisconsin, namely, 10th Duchess of Airdrie and her five daughters, for which he paid \$30,000, Mr. Cochrane sold in six years \$180,000 worth of stock, and two of the family had died in the meantime. These look like fabulous figures, and the world may never see the record repeated, but it makes a man famous to have played such a part in such a drama, and it is not wonderful that, like the old soldier who shoulders his crutch and shows how fields were won, the mind of the man who acted the part should involuntarily turn to a recollection of its thrilling episodes, and that he find a real pleasure in repeating the story. Those were halcyon days, when the difficulty with a breeder was not to find buyers, but to hold what he did not wish to part with, the impertunity of those wanting stock being so great that the owner had to set his teeth when he said no, or he would soon have nothing left if he named a price.

THE HILLHURST OF TO-DAY.

Senator Cochrane is one of the very few level-headed men whose business sagacity carried them safely over and through the boom, and the secret, no doubt, lay in unloading before the bubble burst, for the inevitable reaction came, and collapse and failure was the fate of many who followed the ignis fatuus too far. The indomitable spirit of the man and his natural love for live stock still burned brightly, and Mr. Cochrane and his son, Mr. James A. Cochrane, who has inherited the same sentiment, turned their attention to other lines of stock as their principal interest, though still maintaining a small herd of Shorthorns, and in the eighties extensive importations were made of high-class Hereford and Aberdeen-Angus cattle, which were brought out to the leading exhibitions in the pink of condition, sweeping the prize lists and selling for good prices, several auction sales showing averages of \$400 to \$700. But some years ago the last of these was transferred to the extensive cattle ranch established in 1881 near the foothills of the Rockies, in Alberta, and which, under the management of a younger son, Mr. W. E. Cochrane, is paying even better dividends than the older Hillhurst.

THE HACKNEY STUD.

Ever alert, and reading between the lines the signs of the times, the men at the helm at Hillhurst were among the first to see the need and the demand for a handsome, high-stepping class of carriage horses in America, and having faith in the future of that demand, were not slow to back it by importing largely of the best that could be bought in England, the home of the Hackney. As a result the stalls and paddocks of Hillhurst are at present largely occupied by sires and dams of fashionable Hackney lineage, and by their offspring of various ages, strong in the best characteristics of the breed, the famous old Trifflits, Fireaway and Denmark blood predominating, the latter chiefly through the Royal blood of Garton Duke of Cannought, the most successful sire of harness horses in England, *Barthorpe Performer*, the leading sire at Hillhurst being the first of his get to cross the Atlantic. Size, nearly solid colors, length of neck and quarters, with perfect knee and hock action, seem to distinguish the get of the two great imported sires at the head of the stud, Hayton Shales and Barthorpe Performer. Mr. James A. Cochrane, who is a genuine lover of a good horse and an acknowledged expert judge, claims for his favorites, the Hackneys, both pure-bred and half-bred, the place of a general purpose horse and special adaptability for farm work on sandy loam soils and hilly country, on account of their activity, hardiness and level-headedness, being free from the nervous irritableness of most classes of light horses. The Scotch plowmen on the farm say they can do much more work with them than with Clydesdales, and we can testify to seeing a team of imported Hackney mares hauling heavy loads of grain up long hills, resting midway, and putting their shoulders to the load to start again as steadily as the heaviest teams would do. In many parts of Canada it is impracticable to produce the most valuable class of draft horses, while the carriage horse will do the farmer's work equally well, the best specimens being readily salable at good prices, and fitted for many more places in the hands of the wealthy classes.

A NEW IMPORTATION OF SHORTHORNS.

It is a significant circumstance that so soon after the turn of the tide in favor of Shorthorns, after the depression that prevailed for several years, we find a new importation of ten head of the old-time favorites, one bull and nine females, in quarantine at Quebec to replenish the useful herd of some fifty head already at Hillhurst. The newcomers were selected in England by the expert judge, Mr. John Thornton, chiefly from strong herds in Cumberland and Gloucestershire, noted for milking as well as for breeding qualities, a choice which would seem to indicate in this line also a preference for dual purpose animals.

THE SHROPSHIRE.

About 500 sheep are kept on the farm, about 150 of which are pure-bred Shropshires, imported and bred straight from imported stock, only first-class imported rams being used. The flock is strictly up-to-date, and has supplied many prizewinning show lots in recent years to breeders in the United States and the Provinces. A small flock of Dorset Horn sheep is kept, the balance of the flock being feeding sheep of various grades, which are fattened for the markets.

Hillhurst, as seen in the early days of October, the full foliage of its ample shade trees brilliantly tinted by the touch of the first frost, is the same pretty place which charmed us on the occasion of our first visit some thirty years ago. Nature has done much for this beautifully picturesque district, the Eastern Townships of the Province of Quebec, and Hillhurst, with its 1,000 broad acres of field and woodland, is delightfully located. The line of the Grand Trunk Railway, running from Montreal to Portland, passes through the farm, and Hillhurst station is less than a mile from the homestead, 1,000 feet above the sea, looking down on the fertile valley of the Coaticook River, which to the coming and departing visitors at Hillhurst farm seems to murmur,

"Men may come and men may go,
But I go on forever."

Our Export of Fine Fruits.

BY A. H. PETTIT.

In regard to our shipments of summer fruits in cold storage this season to the English market, I can only give probable results, account of sales not being to hand yet, but sufficient information has been gained to look forward with confidence that we can by wise selection, careful packing, and a better system of distribution in that market, place a large quantity to good advantage. Prices realized are not sufficiently remunerative when you take into consideration the care and labor bestowed; promptness must characterize every move. Fruit cannot be allowed to ripen on the trees before picking; packages cannot be allowed to stand in a warm atmosphere, allowing the ripening process to go on, but should at once be placed in cold storage, and from that moment until landed in the English mar-



A STRONG MOUNT.

MAJOR A. H. GRIESBACH AND SERGEANT-MAJOR J. T. FLINTOFF,
"G" DIVISION N.-W. M. P., FORT SASKATCHEWAN, N.-W. T.

ket the temperature should remain at, say 36 degrees, as near as possible. Some reports from the other side say peaches and tomatoes have been too cold, condition bad; but experience will in time regulate defects of this nature. Pears stand at the head of the list, arriving in good condition and realizing moderate prices. They were chiefly sold at Bristol, and if I understand correctly, it is the center of the fruit-growing district of England. Perhaps later on we may reach more desirable markets.

Another point of vital importance is the distribution. We are trying to place our summer fruits before the English consumer as widely as we possibly can in order to hear some expression of their appreciation of the quality of our fruits. Only small quantities have gone forward—one carload per week—and they sold under the hammer, and no doubt jobbers securing a large proportion under that system. I can well understand the prestige that would be given to this experimental work for experimental it is as yet if our fruits were placed in some of the leading fruit stores, where they might promptly reach the consuming classes who want the best in quality that can be obtained, and we Canadians cherish the opinion that Canadian fruit cannot be excelled in quality by any country. If there is one defect in our fruit for the foreign market it is its high quality, rendering it more delicate to transport. Later in the season we have that clear autumn sky and cool nights that give a bloom to our apples that speaks volumes for their high and long-keeping qualities.

Now, a Canadian fruit-grower's views on this subject would not be complete without mentioning the extravagant nature of the charges that between the orchard and the market are produced. Canadian farmers and fruit-growers are taxing their best judgment to lessen the cost of production by various methods; while our railways and express companies heavily subsidized by the people of this country, in many instances arrange to not only transport but ought to be sufficiently remunerative to the

performed, but the highest possible that the product will bear and not prohibit the export. And again, when the distribution begins, one becomes amazed at the various items of expense, together with the "slack," "wet," and waste that occur in the account of sales. One often feels thankful when he gets his hat back again. Reduced charges for transportation, a thorough method of ventilation on board ship to prevent the generation of heat that will be created in close quarters, causing the fruit to ripen too rapidly, and some more economical and thorough system of distribution would greatly increase the development of the industry to the advantage of all concerned.

Agricultural Exports from Toronto, Ont.

In the year 1897 there passed through Toronto market: Cattle, 138,156; sheep, 88,400; hogs, 217,705; being an increase over 1896 of 33,200 cattle, 23,061 hogs, and a decrease of 7,215 sheep. For the eleven months ending November 30th, 1898, the numbers were: Cattle, 138,579; sheep, 78,373; hogs, 276,839; being an increase of 423 cattle, a decrease of 10,097 sheep, and an increase of 59,094 hogs.

Over \$98,000 worth of goods passed through the customs house in Toronto in the first week of December: Bacon, \$60,000; apples, \$3,000; turkeys, \$10,000; clover seed, \$12,000; wheat, \$2,000; peas, \$1,000; dried apples, \$4,000; oatmeal, \$2,000; cattle, \$2,000; horses, \$1,000.

There was a falling off of imports as compared with November, 1897, while the exports rose from \$504,261 to \$790,021. The whole increase was due to the farm, the exports of agricultural products being more than doubled, and the exports of animals \$158,000 more than they were a year ago, \$60,000 hog products in the shape of bacon being consigned to the Old Country. This is a record for the Toronto customs house.

The Holly and the Christmas Tree.

In connection with the holly, which figures so conspicuously in all our Christmas decorations, we find a quaint old conceit chronicled—that every holly bough and lump of berries with which you adorn your house is an act of natural piety as well as beauty, and will in summer enable you to relish that green world of which you show yourself not unworthy. In Germany and Scandinavia the holly, or holy tree, is called "Christ's thorn," from its use in church decorations, and because it bears its berries at Christmastide. The loving sentiment imprisoned in the holly bough and translatable into every language, can hardly be more happily expressed than in Charles Mackay's verses, "Under the Holly Bough":

Ye who have scorned each other,
Or injured friend or brother,
In this fast-fading year;
Ye who by word or deed
Have made a kind heart bleed,
Come, gather here!
Let sinned against and sinner
Forget their strife's beginning,
And join in friendship now;
Be links no longer broken,
Be sweet forgiveness spoken,
Under the holly bough.

To Germany the civilized world is indebted for one of the most enjoyable of all Christmas delights, the Christmas tree. This custom was little known in England before the marriage of Queen Victoria, and was, we believe, introduced by the late Prince Consort. We call it a gift from Germany, and yet, behind the quaint figure of Kris Kringle, coming from the snowy woods, with the tree rising high above the genial shoulders, laden with gifts and glittering with lanterns, as he suddenly invades the lowly German cottage on kindly errand bent, we see the yet more ancient toy pine-tree, hung with *oscilla*, which boys and girls in ancient Rome looked for on the sixth and seventh days of the Saturnalia. But we who are not antiquaries are content to accept these pretty customs, come whence they may, and to improve on them if we can. A wide gulf is fixed between the Puritanic days, when Christmas was frowned upon as a remnant of evil superstition, and to-day, when nothing is too rare or good for the making of our homes bright and our sanctuaries beautiful in honor of the author of The Christian Feast.

The Family Failing.

Louisa is a charming girl, with whom I love to linger;
I'd give a fortnight of my life to kiss her little finger.
Her people are intensely dull, but highly scientific;
They go in for "collecting" with an ardour quite terrific.

Old pottery and china are her mother's special fancy;
Her father's simply mad on books that treat on necromancy;
Her aunt goes in for butterflies, her grandpapa for fiddles;
Her brothers hoard up autographs and postage stamps and riddles.

I used to think she had escaped the family infection,
But now I find it breaking out in quite a new direction.
For there she stands, with witching eyes and winsome artifices,
Beneath the friendly mistletoe, collecting heaps of kisses.

A Strong Mount.

The Northwest Mounted Police, as fine a body of men as the British red coat, are supplied with horses from Alberta ranches. The accompanying photograph, taken near Fort Saskatchewan, illustrates what beautiful, strong, and hardy stern-bred horses make.

German Agriculture Through Canadian Eyes.

BY PROF. A. E. SHUTTLEWORTH.

A line running from the Baltic Sea through the great commercial and political city of Berlin to Switzerland, crossed by a second running from Austria through the modern artistic city of Dresden to the north-east of Holland, would form a fairly well constructed Roman cross which, one may imagine, locates a somewhat irregularly oblong shaped portion of Europe, called Deutschland, or Germany. Its area is 208,258 English square miles, and its population not less than 52,279,915, or 251 souls per square mile. The natural increase in population is at the rate of 1 1/2% annually. Germany of to-day comprises, or, more properly speaking, was formed by the political union of some twenty-five states and Elsass-Lothringen, which union took place on the 16th April, 1871. Within this comparatively small country are found some 2,280 cities, twenty-one of which contain a population of over 100,000, and 61,000 landgemeinden or villages. The entire country is traversed by a network of railroads uniting all these cities and the greater number of the villages, and forming one great system of transportation. To any railroad station several trains run daily; therefore, should one miss his train, it is only necessary to wait for the next or even the next, for it is still possible to make connections and reach one's destination within the country that day. One may travel first, second, third or fourth class, according to his wealth and taste. Comparatively few travel first-class, more second, and the great public third-class. Arbeiters (laborers) and those whose circumstances compel them, go fourth class. In almost any direction one may see through the train windows a dorf or a stadl. The climate is much the same in all parts of Germany, and very regular, averaging in winter from 30° to 32°, and in summer from 61° to 64° Fahr.

Practically all available arable land has for many years been under cultivation, while the greater part of that which is high, rocky or unsuitable for farming is under forest culture. Consequently, the impression naturally prevails that the agricultural industry cannot be expanded. Agricultural schools, colleges, and experiment stations, in apparently sufficient numbers, have long since been established. Agricultural science is put into practice, and the soil thus intelligently cultivated is fertile and yields abundant crops. The agricultural industry, therefore, appears to have reached its maximum development, while the above institutions zealously carry on the combined work of scientific research and instruction. But, on the other hand, the manufacturing industry appears capable of great and almost indefinite expansion and development. Within the last ten years all available means have been employed towards advancing its interests, and with most satisfying results. Cities everywhere in Germany are growing at what appears to a Canadian an abnormal rate; but villages and country towns remain, so to speak, fixed as they were probably hundreds of years ago. However, one does not perceive, as in America, the country population flooding into the cities. The demand for farm laborers maintains a large country population. Upon my arrival in this country, the farmer was one of my most interesting studies. But I soon found that the Canadian expression, "the farm," has no meaning here. The Canadian farmer is an expression that has a meaning in Canada, but the German farmer is so indefinite that it is meaningless. To intelligently comprehend German farming and farmers, it is first necessary to classify and then study not the farmer, but the classes of farmers.

1. Grossgrundbesitzer (big landowners) are farmers owning from 1,000 to 80,000 acres. These are men among the best educated, most influential and respected citizens in Germany.

2. Rittergutsbesitzer are those who own one or more farms of from 500 to 1,500 acres each. Such a farm is called a rittergut (nobleman's estate), and is either managed by the owner and his bailiff (called inspector, amtman or verwalter), or let to a tenant (paechter). In olden times only noblemen were allowed to possess a rittergut, and with its possession belonged certain political rights and duties. Graf Schweinitz of Hausdorf, Rohnstock, Schlesien, is a rittergutsbesitzer who personally manages his farms. He is a true gentleman, an ideal farmer, and a nobleman. The accompanying photographs one from without the other from within the courtyard represent naturally the buildings of one of his farms.

3. Paechter (tenant farmers) are those who cultivate estates called domainen, the property of the state, and which are let for a term of from 15 to 20 years to the highest bidding paechter. Domainen are by no means small farms, but vary from 1,000 to 1,500 acres. Paechter are men of equally good education and of high social standing. They receive from the government degrees or titles according to the number of years since they have occupied domainen, and the degree of success with which they have managed these estates. The titles given are the following: Amtmann, Oberamtman, Amtrath, and Oeconomierath. A paechter is first made an amtman,

and he may obtain one title after the other till he is made an oeconomierath.

4. Bauern (peasants) own small farms of from 30 to 200 acres, and live together in villages or dorfs. To this class may be added kleinbauern (small farmers), who own probably one horse and a cow, and who live among the peasants. Peasants and small farmers do their own work, in which every member of the family shares. As a rule, small farmers are laborers who walk every morning into the nearest city to begin work at six o'clock in summer and at seven in winter, and return to their little homes (a distance of one to two miles) at night to sleep.

Everywhere throughout Germany one sees examples of fixed methods, customs, and habits. Perhaps it may be said that America too readily adopts new methods or changes; but it can more correctly be said that Germany is too slow in introducing and adopting modern ideas, which circumstance may be a partial necessity rather than a mistake. Two important features of distinction between German and Canadian agriculture, which may illustrate the above, are the employment in Canada of labor-saving machinery, and the employment in Germany of great numbers of cheap laborers. The German agriculturist apparently asks, not where can machinery to do this work be procured, but where can cheap labor be found? Circumstances affecting the financial interests of agriculturists the world over demand here, as elsewhere, greater efforts and economy. Take, for example, the case of Herr Oeconomierath Beseler, of Weender, Hannover, Germany, who is probably one of the best known and most successful farmers in Germany. He farms 1,250 acres, employs nine span of working horses, fourteen yoke of oxen, and between eighty-five and ninety-five hands. Of these hands forty-two to fifty are women, who have been brought from Poland, and who remain where can machinery to do this work be procured, but where can cheap labor be found? Circumstances affecting the financial interests of agriculturists the world over demand here, as elsewhere, greater efforts and economy. Take, for example, the case of Herr Oeconomierath Beseler, of Weender, Hannover, Germany, who is probably one of the best known and most successful farmers in Germany. He farms 1,250 acres, employs nine span of working horses, fourteen yoke of oxen, and between eighty-five and ninety-five hands. Of these hands forty-two to fifty are women, who have been brought from Poland, and who remain

and work upon the farm from 1st April till 1st December, when they are taken back. Many men from the same place, Switzerland or elsewhere, are also hired, as well as native laborers. These poor creatures, who know only the roughest, hardest life, work from five in the morning till seven at night, resting only half an hour in the forenoon and in the afternoon and one hour at noon. The women receive 1.10 marks (=about 27 cents) and the men 1.50 marks (=about 37 cents) a day. Each person receives in addition a few potatoes daily, and foreigners are paid ten marks towards their travelling expenses. They board themselves. This cheap labor may be defined, however, as the salvation of the grossgrundbesitzer, rittergutsbesitzer and paechter of Germany. Touching upon the financial conditions of German agriculturists, it may be said that while many are wealthy, agriculture to be profitable here must be conducted strictly upon a business, scientific and economic basis.

Our Scottish correspondent writes: "The period of fat stock shows is upon us, and to-morrow (Saturday, 26th Nov.) the Inverness and Birmingham events fall. These promise to be unusually interesting, and plenty of enthusiasm amongst breeders, especially of commercial cattle, will be the result. Norwich Show was held ten days ago and issued in a victory for Scotland—a cross-bred animal bred by Mr. John Ross, Meekle, Tarrel, Ross-shire, being champion. Mr. Ross was singularly fortunate in securing as his stud bull the Collynie sire Ringleader, but equal credit is perhaps due to the sire of his cross-bred cows—an A.-A. bull named Carol, whose dam was owned by Sir Thomas Gibson-Carmichael, Bart., M. P. Almost all of the prize animals bred by Mr. Ross from Ringleader are out of cows got by this black bull, and their dams again were the ordinary farm stock found in feeding districts—that is, what might be called unpedigreed Shorthorns. It thus appears that most of these so-called cross-bred cattle are really three parts bred Shorthorns. Without the A.-A. cross they could not have the quality and symmetry, but without the Shorthorn influence it is scarcely likely there would be the early ripening which is so pronounced a feature of these Tarrel cattle.

Necessity is the mother of invention, and a hungry Frenchman illustrates anew the wisdom of the old adage. He was in an English restaurant, and wanted eggs for breakfast, but had forgotten the English word. So he got round the difficulty in the following way:

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"A rooster, sir."
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COW STABLE. DWELLING. BARN. GRANARIES. BARN. HOMESTEAD AND GRAIN FIELD OF GRAF SCHWEINITZ, GERMANY.



GERMAN WOMEN LABORERS.

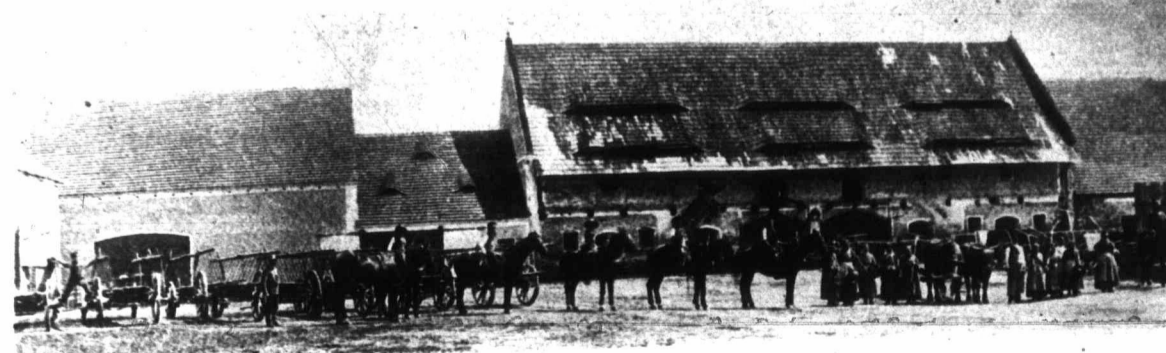
The wife and children work the little bit of land. Peasants owning 30 to 200 acres of land are people much of the same manners and customs as kleinbauern.

To which class does the Canadian farmer belong? Socially and intellectually he stands much above the German peasant; but, as well as managing, he does the greater part of the labor of the farm, and, therefore, does not correspond to a German grossgrundbesitzer, rittergutsbesitzer, nor paechter.

The opportunities for acquiring a scientific and practical agricultural education are excellent in Germany. There are four different classes of institutions, which time and space permit me only to mention.

- 1. Landwirtschaftliches Institute, which forms a part of several German universities.
- 2. Landwirtschaftsschulen (agricultural schools).
- 3. Landwirtschaftliche Winterschulen (agricultural winter schools).
- 4. Landwirtschaftliche Hochschulen (agricultural high school).

Connected with the first three classes of institutions are experimental fields and gardens, in which agricultural science is demonstrated, and in some instances practical instruction given.



INSIDE GRAF SCHWEINITZ'S BARN COURT.

Ordering Eggs Under Difficulties.

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Prairie Home Stock Farm.

The home of Manitoba's former Premier and Minister of Agriculture comprises some 1,000 acres of land in the immediate vicinity of Crystal City, on the Pembina Mountain branch of the Canadian Pacific, 130 miles south-west of Winnipeg, and within 10 or 12 miles of the international boundary line. The country is rolling prairie, well drained and bare of timber, which, however, is fairly abundant a few miles north along the Pembina River and in the country bordering on Rock Lake. Generally speaking, the soil is a strong clay, quite heavy in some sections, and underlying it at various depths is a deposit of slaty shale, in which very good water can be got at from 25 to 80 feet. The town is making substantial growth, many new buildings having been erected within the past year, and the amount of business done has more than doubled. As there is a great deal of excellent land still available for settlement in township 1, ranges 12 and 13, all of which is tributary to Crystal City, the business of the town must rapidly increase. There are now three grain elevators, a flour mill and a creamery. Farming in the district is by no means confined to wheat-growing; mixed farming being generally followed, attention being given to beef cattle, dairying and hog-raising, and large quantities of oats and coarse grains are annually grown. Timothy does remarkably well in some sections.

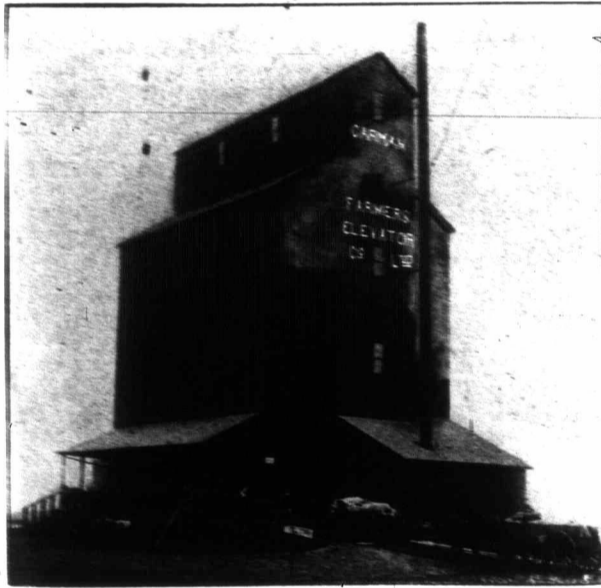
The farm which is immediately under review, that of the Hon. Thomas Greenway, comprises nearly 1,000 acres in the home farm, 600 of which are under cultivation, about half devoted to wheat and the balance to coarse grains and fodders. A hundred acres of breaking was done this year; it is found most satisfactory to break rather deep and work up the rotted sod with the disk harrow, back-setting after taking off one wheat crop. As bare summer-fallowing is liable to produce too rank and slow ripening a crop, barley is grown as a cleaning crop with better results. The land is manured, well plowed and thoroughly cultivated till several crops of weed seeds have been germinated and destroyed, then barley is sown, and an excellent crop always secured of both feed grain and straw, and the succeeding crop of wheat, while not so heavy as after bare fallow, seldom fails to yield well and ripen early. Every pound of manure produced on the farm is put out on the land with most satisfactory results. More attention is being given to growing cultivated grasses with a view to lengthening the pasture season at both ends, as well as to getting root fiber back into the soil of the older fields. Green-cut oat sheaves are largely used for the stock in addition to hay and straw.

Of the farm buildings, which have the appearance of a village in themselves, little need here be said to supplement what is so clearly portrayed in the handsome page illustration in this issue. The Premier's handsome white brick residence occupies a commanding eminence overlooking the town site, and is about a mile from the farm steadings. The ground surrounding the house is being tastefully laid out. At the back of the house is a small stable, 40x23, with 14-foot posts, and adjoining this is a very pretty poultry house, 40x20, divided into five pens, where breeding pens of Plymouth Rocks, Buff Cochins, Light Brahmas, White Wyandottes and Black Langshans are kept by some of the junior members of the family. The Bronze turkeys have a separate house at the rear. Of the farm buildings proper, the newly-erected horse barn to the extreme west is 60x32, with 14-foot posts on stone foundation, having a row of stalls down one side and loose boxes on the other, with large feed loft above. The other horse and cattle barn standing parallel has one row of horse stalls on the upper ground floor, and in the basement two rows of cattle and a row of small boxes for calves. At right angles to these buildings, and forming with them the north side of a square yard 100x60 feet, is a new piggery, 80 feet long by 32 wide, with 14-foot posts on stone foundation, built on the slope of the creek bank; two by six inch studs are used in the walls of this building, and the space between the sheeting filled in with mortar. An 8-foot passage runs through the center lengthwise, with eight 10x12 pens on each side. The floors and gutters are laid in cement throughout; the feeding troughs are also of cement. Elevated sleeping banks of plank are provided in each pen, and in the loft above bedding is stored. Both Yorkshires and Berkshires are kept, there being about 100 Yorkshires now in the pens, including 10 brood sows and two stock boars, and five Berkshire sows and a boar. The foundation stock has been purchased from the leading breeders of Ontario and Manitoba, and is added to from time to time. Both herds have established enviable records as prizewinners at the leading provincial shows.

A small flock of twenty choice Shropshire ewes is kept on the farm, all being in the pink of condition, with a lamb and a half each to their credit for the past season.

At Prairie Home Farm, however, interest centers chiefly in the Shorthorn herd, which now numbers between sixty and seventy head. *Advocate* readers have been kept well informed from time to time of the additions made to this herd, and it is only necessary here to name over a few of the most notable members, to show what kind of stuff Manager Yule has to "cull" with. First on the catalogue stands imp. Missie H2nd (well known in eastern showyards), a matron of immense scale, with a grand old-fashioned table back, deeply fleshed on ribs and loin. Daisy of Strathallan 12th, with her long string of showyard honors—a deep

red, and, apart from a little gaudiness about the rumps, a marvel of a Shorthorn: such a back and loin, such a spread of rib and fulness of girth and flank, such well-laid shoulders and such swelling bosom and neck veins, and in spite of all the wealth of flesh, a regular breeder. Her stall mate is the twice female champion of the Winnipeg Industrial, Gem of Athelstane, a heifer that, from her hooks forward, would be hard to beat in America. How hard it is to get perfection! In the adjoining stall stands another showing queen both in Ontario and Manitoba—the beautiful, level, thick-fleshed Frieda, by Abbotsford; and next to her the roan two-year-old Jubilee Queen (first as calf and again as yearling at our Industrial), lengthy, smooth, and full of flesh. Of the Village Blossoms, there is Village Flower, a noble big cow, and her daughter, Prairie Flower, by Abbotsford, the first prize calf at the Industrial; Gladness, a massive, thick-fleshed cow of the Canadian Duchess of Gloster family, and several of her progeny. The Lavenders are well represented by Lavender Queen, one of the best of the three great good ones by the Clipper bull Conqueror; the others being Roan Mary, out of imp. Lady Marjory, deservedly one of the chief favorites of the herd, and Starling, a granddaughter of imp. Northern Belle. And still there are many good ones: Laurel, by Prince Albert, one of the level, useful sort; Vanity, by Village Herp—a little patchy, maybe, but a breeder of good ones; Mina Lass, by imp. Golden Crown; Bridle Belle, by Earl of March; and Begonia, by imp. Grandeur. Then among the younger females one could not pass the sweet red two-year-old daughters of Scottish Knight, Violet, Laura, and Blossom, the Constance Cruickshanks topped heifer Eighth Countess of Maple Lodge, and a very promising dark roan heifer, Manitoba Bell, by a son of Abbotsford. Following these is a trio of nice roan calves by the stock bull Judge, out of Mina Lass, Roan Mary, and Crystal Beauty. The bulls in service are the 1895 Winnipeg sweepstakes bull Hillary—18971—, a fine, massive bull, rich in breeding and individuality, and the 1896 sweep-



CARMAN FARMERS' ELEVATOR.

stakes bull Judge—2319—, by imp. Royal Sailor, out of Mildred 4th by Hospodar (imp.), with Challenge—2333— the next sire in line. Judge was the first prize yearling at Toronto in 1897, and first two-year-old at Winnipeg in 1898. He possesses a beautiful head and fore end, with good length, remarkably strong, well-covered loin, long, level quarters, and well-packed thighs. He is strong in his individuality and rich in his breeding, and is proving a sure and impressive sire. As to the condition of the herd, what more need we say than that Manager James Yule is in charge. Throughout Canada Mr. Yule is known as a most skillful feeder and competent judge of Shorthorns.

A small Ayrshire herd is being established, with foundation females from Mr. McCormack's, of Rockton, and Surprise of Burnside—2007—in service. He is a son of imp. Glencairn III., out of the famous Nellie Osborne (imp.), the female champion at the World's Fair, and unbeaten through many a showyard struggle. Surprise headed the calf class at Toronto Industrial in '96 and the yearling class in '97, and at the Winnipeg Industrial in '98 was first prize two-year-old and sweepstakes bull any age. Needless to describe his quality, for he is all quality—an Ayrshire of the Ayrshires.

Carman Farmers' Elevator.

The Carman Farmers' Elevator Co. (limited) was organized in 1891, and began operations same year. The elevator has storage capacity of 60,000 bushels, divided into 46 bins, for the accommodation of farmers wishing to store grain; first class modern equipment throughout. From 100,000 to 350,000 bushels are handled each year, and it is expected this year will exceed any previous one. There is not a dollar of debt on the institution, and for the last four years an average dividend of 10% has been paid. Board of Directors: H. Arling, J. S. Clark, Alex. Morrison, Jas. W. Mann, F. D. Jones, and C. M. Jones. Secretary: Treasurer, J. S. Clark. Manager, A. W. Belding. District Agents, Elevators at Carman.

Beekeeping as a Branch of Canadian Agriculture.

Since the introduction of the honey-bee into the American continent from its native European home, the occupation of bee husbandry has developed from the keeping of a few swarms in straw skips or the old box hive to a branch of agriculture of great and growing importance. It was some three decades or more ago since the almost simultaneous invention of the modern movable frame hive took place in Germany and in the United States. In the old form of hive the comb was built in an irregular round mass, so to speak, which necessitated the destruction of the same in order to secure its contents. As this was done in the autumn, after the season's honey flow had passed, there was no advantage in preserving the swarm, the destruction of which was the easiest means of securing the stores. By this annual killing of a proportion of the colonies, and the loss of swarms during the summer seasons, an increase of colonies was not much thought of beyond what would supply the family with honey for their table. Following the introduction of the movable frame hive came a development of the apicultural industry, as it made possible the extraction of the combs without their destruction, and the preservation of the bees for the following season's work. The use of hive supers became possible, so that the lower or broad chamber could be left in the autumn sufficiently stored to carry the colony over the winter season. The result has been much larger profits to the intelligent and understanding beekeeper, though the probabilities of expensive blunders were much increased. That studious care and thoroughness was necessary to modern successful beekeeping has been too little observed, with the result that some have engaged in it only to fail and bring disfavor to the avocation. To such the old form of box hive, which required little attention is, perhaps, the best system to follow; that is, on the average farm where a little honey for family use is all that is desired.

The movable frame hive has brought in its train the extractor, the use of comb foundation, and the hundred and one advances whereby the season's product of the colony can be increased.

For a number of years the production of honey has been a fluctuating quantity largely through varying seasons, but it has made a steady increase. By public addresses and the agricultural press bee culture has become more generally understood and engaged in, until honey has become one of the valuable exportable products of Canada and its domestic use largely increased. By reason of the better understanding of the industry, and therefore a more careful manipulation in its prosecution, a gradually improving quality has accompanied the increase. It is also being put up in more attractive and suitable form for the market, which is doing its work in developing the demand. The season just passed has been generally good throughout Canada, which has held the price down rather lower than usual. While this is true, the business has not been less profitable because of the greater cheapening of production which has taken place.

It is encouraging to know that Canadian honey, like many of our other products, stands second to none in the world, which is bound to be recognized to our advantage in the markets of the world in the very near future. We have it that the Lord Mayor of Manchester, England, when he had submitted to him samples of Canadian honey, made the remark that "a country that is capable of producing such honey and some of the other agricultural products he had seen, must be a very desirable portion of the globe in which to pursue the calling of agriculture." Within the last few years shipments of Canadian honey have been made to England, and the price received has compared very favorably with the best Canadian wholesale market figures. The indications are at present that England will soon take a much larger quantity at advanced prices, but she will take only the best quality, and it should be sent in continuous supply the year round.

New Ontario Lands for Settlement.

The estimate of Canadian lands yet available and fit for agricultural settlement given elsewhere by the Dominion Statistician, Mr. George Johnston, applies to Manitoba and the great Northwest, and does not include much desirable territory to be found in Ontario and other Eastern Provinces. In Ontario, for example, leaving out of count areas now being lumbered, and which may be held for re-foresting under the Government's timber land policy, there are several large blocks of land such as that in the Rainy River country, where there are at least 1,000,000 acres. Some good authorities estimate the tract as very much larger, as it probably is. Then there is the Temiscamingue District, having 25 townships surveyed and five open to settlement. The Dryden District, in which is located the successful Wabigoon settlement, has 170,000 acres of arable land, and similar sections at Spanish River, etc. The Ontario Government sent a qualified investigator through the northern districts, and he estimates the available lands at 2,500,000 acres, but he does not include the large territory north of Sudbary that will some day be open. The Crown Land Surveyor, Mr. Niven, in going from Sudbary to the Dryden factory, went for 130 miles through a tract of land covered with forest, having all the appearance of being fit for agriculture. We are of opinion that the possibilities of agriculture, even in the province of Ontario, are as yet hardly

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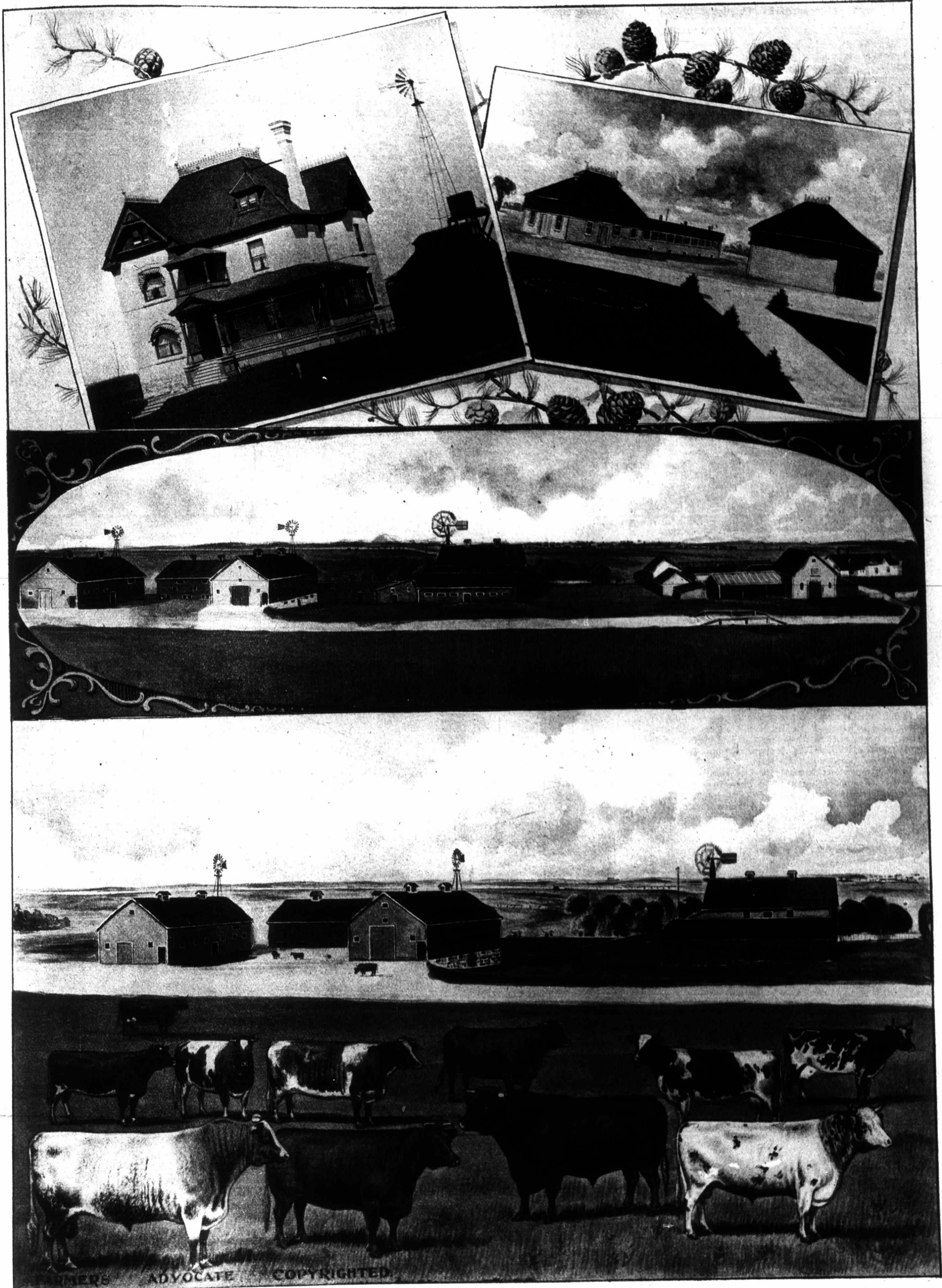
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THE HOME AND FARM OF HON. THOS. GREENWAY, CRYSTAL CITY, PREMIER AND MINISTER OF AGRICULTURE OF MANITOBA.

Dentonia Park.

A DAIRY, POULTRY, AND FISH FARM.

Mr. Walter E. H. Massey, President of the Massey-Harris Company, has established a stock farm at East Toronto (Coleman P. O.), about ten minutes' walk from the electric railway and of York station on the G. T. R. The farm comprises 230 acres of land, devoted to dairying, poultry-raising, and pisciculture. The front of the farm presents a parklike appearance, being broken and irregular in part, and embracing a pleasing variety of hill and vale, bluff and ravine, stream and pond, with a fine growth of evergreen and deciduous trees covering the uplands. The crops grown are such as are needed for the feeding of the animals, and are marketed in the form of stock and dairy produce, or of poultry, eggs, and fish, sold for breeding and for food.

The buildings, which appear in our illustration, are conveniently arranged, and have been planned with a view to tasteful appearance, economy of space, material and labor, convenience, healthfulness, and comfort. The main barn, 100 feet long by 42 in width and four stories high, with a one-story L, is built on a hillside, and the floor of the fourth story is little above the level of the ground where the fine residence stands. The ground floor is used for young stock and pigs, which consume the by-products from the dairy. The second floor is devoted to the dairy herd of registered Jerseys, and the working dairy, which is separated from the stables by the engine room and two sets of double doors. A direct connected engine and dynamo is used for lighting the premises and driving the farm machinery. The third story is occupied by the horses and carriages, the machinery and workshop, and the harness and herdsman's rooms; while the upper story is the barn proper, in which is stored the hay, grain and other fodder needed for the stock, and which is passed down to the stables on the different flats through chutes. The floors where the animals stand are all calked like the decks of a ship, and are perfectly water-tight. The basement floors are all laid in cement. An efficient system of ventilation is in operation, by means of revolving funnels on the roof for bringing in the fresh air, and air ducts to the cupolas for removing the vitiated atmosphere. The fresh air is distributed through pipes having openings in front of the mangers, and is diffused in plentiful supply in such a way as to avoid drafts. On the floor of the second story, convenient to the cattle, are the storage rooms for roots, and here are twin circular wooden silos, each twelve feet in diameter and thirty feet deep. Water in plentiful supply is found in the well under the basement, from which it is pumped by wind engine or the electric dynamo to a 5,000-gallon tank in the upper story, whence it is led in pipes through all the stables. Water is also forced by a hydraulic ram from springs in the ravine, at the rate of 250 to 500 gallons an hour, to a tank on a tower near by for fire protection. An overflow pipe connects with a large cistern of 10,000 gallons, which also collects the rain water from the barn, and is located in the bank west of the barn, from which the stables may be flushed and the same water utilized in irrigating the garden and the pasture plots near the barn.

Mr. Massey, attracted by the beauty and richness of Jersey cattle, chose this breed to be the workers in his dairy, and believing that the best were none too good for him, commissioned that expert judge, Mr. F. S. Peer, of Mount Morris, N. Y., to proceed to the Island of Jersey and to select the best that could be bought. In July, 1898, a dozen choice Jerseys were landed at Dentonia Park, selected from the best herds in their native land. As evidence of the superior character of the importation, it is only necessary to say that in their first public appearance in Canada (at the Toronto Industrial Exhibition), in competition with the best Canadian herds and also the best show herd in the United States, selections from the Dentonia Park herd won the grand herd prize for the best bull and four females of any age, and repeated the record with the same competition at the Western Fair at London the following week; the judges in each case being experts from the United States, Prof. Day, of the O. A. C., being associate judge at the Toronto meeting. At the head of this herd is the first prize imported bull, Lord of Dentonia, 501661, the two-year-old son of Clemenceau (a noted sire on the Island), and of Oleanaise 2nd, alias Dentonia Island Queen (included in this importation and now in the Dentonia Park herd), a model dairy cow, which won the certificate of merit in the butter test on the Island, and also holds the bronze medal for the largest quantity of butter produced in a given time. Phenomenon of Dentonia, another of the imported cows, was pronounced the grandest cow on the Island, and has a record of twenty-two quarts of milk in one day. Brilliant of Dentonia is a five-year-old cow of model dairy conformation and showing all indications of a strong constitution and great capacity. She won several prizes on the Island, including one of the Royal Jersey Society. Island Lady of Dentonia (with her first calf), a three-year-old, has shown immense udder development, and has ideal form blended with beauty and promise of usefulness.

These are but specimen numbers of a great collection, numbering about fifty in all, the original herd being made up of choice selections from some of the best herds in the Dominion, and bred from the best producing families of the Dentonia Park herd, founded on the bed rock of individual merit and of inherited dairy excellence. It is its place in the

front rank of the Jersey contingent of the grand army of milk and butter producers in America.

Mr. Massey is adding an extensive and excellent poultry branch. For this, four exceedingly well-planned houses are just at completion. These are mainly for the production of fresh eggs the year round and broilers in season. There are yet, however, to be added extensive houses for geese, ducks, and turkeys, which, when in full operation, will comprise one of the most extensive and complete poultry farms in Canada. The location of this department is some thirty rods north-west of the dairy barns, on a dry, loamy and gravelly elevation sloping to the south and east. The main building is 170 feet long by 16 feet wide, and divided into sixteen pens to accommodate 500 laying hens. The stock, meantime, comprises Brown and White Leghorns, Plymouth Rocks, and Light Brahmans. These pens are provided with basement scratching pens, which open into yards of about one-quarter acre each. These lead away from the building in fan shape, and are divided by wire fences, along which are planted grape vines, while each yard has a row or more of fruit trees. At the end of this large building is a four-story compartment, 25 feet square. The ground flat contains a root house and



FIRST HOUSE IN MOOSOMIN, ASSA, N.-W. T., 1881.

a department for killing and dressing birds for market. The second flat, on a level with the hens, is provided with feed, water, a heater, and feed-mixing troughs. The grain storage, grain and bone grinders, clover cutter, meat cutter, and root pulper are on the third flat. These machines are all run by windmill power. The fourth and top flat is fitted up as the pigeon loft, in which Tumblers and other fancy breeds will be kept. The poultry department will be in charge of an expert, who will aim for specific results. The layers for the fresh egg trade will not be mated, but those from which broilers are to be produced will be bred only to the best procurable males. In connection with this latter branch an incubator room, 14x16 feet, is fitted up beneath the office, and a brooder house, 100 feet long by 14 feet wide, the latter heated by a hot water system, which affords top heat. The pens and yards of this house are of various sizes, to suit the birds of different ages. There is also an isolation pen for experimental work, sick fowls, or other emergency cases. There are already on the farm nice flocks of Embden geese, Pekin ducks, and Bronze turkeys; but these will be increased by



STREET CORNER IN MOOSOMIN, N.-W. T., 1898.

the best obtainable additions as soon as the pens are finished.

In the valley below, a chain of trout ponds are providing a deal of sport, as well as a toothsome addition to the domestic bill of fare, besides considerable revenue. These are fed from copious, never-failing springs having their source near the head pond. At the mouth of the upper pond are a number of pens separated by wire netting, in which the fry are kept. They contained some thirty thousand to forty thousand at the time of our visit, on the 21st November, which will soon be transferred to the first pond, then containing the yearling fish. These latter had made extraordinary growth, some of which were claimed by Mr. Steen, the overseer, to weigh about half a pound each. The two-year-old fish in the second pond will, after being spawned, be transferred to the third, which is ten feet deep and is used for fishing in the proper season. The spawning is done artificially in November. The large fish are kept in tanks, and driven into narrow channels, where they are caught by dip nets. The fish are then sold individually and spawned, and the young are mixed and placed in the ponds. The fish are kept in troughs one foot

flows in the hatchery. They take about 120 days to hatch, when they are placed in larger tanks within the same building and kept there till spring weather allows them to be planted in outdoor cases. Last year over four hundred thousand eggs were taken. As large if not a larger number will be hatched the coming year. Eggs, fry, and market trout are regularly sold in season. The principal food used for the fish is fresh beef livers, ground in a sausage mill, but snails and other shell fish which multiply in the ponds also provide food. Snugly nestled between two pretty hills, these miniature lakes, artificial though they are, add a distinctively picturesque effect to the general beauty of Dentonia Park landscape. Visitors are admitted to the farm and buildings on weekdays, and it is Mr. Massey's expressed desire that the experiments and operations carried on at Dentonia shall stimulate agricultural pursuits along better lines, and that in this way his farm may become in a sense a public benefit.

The Cattle Trade of Manitoba and the Northwest Territories.

The season of 1898 has been an important one in the cattle interests of Manitoba and the N.-W. T. Not only is the trade in pure-bred stock, both male and female, making very rapid advancement, particularly in the beef breeds, but there has been an increase in the number of cattle exported, in spite of the very heavy shipment of stocker cattle that went out of the country in 1897. We have not been able at this date to get the exact returns for the number of stocker cattle shipped into the United States from Manitoba points for 1898, but it will be in the neighborhood of 17,000 or 18,000 head. Many of these are calves of decidedly inferior quality, picked up in the dairy districts, where little attention is given to the beef qualities of the stock. The man who can make any profit from feeding a skim milk scrub calf is welcome to it. Of course, there have been numbers of good cattle go out, and in losing these before they are finished the country is certainly the poorer. The quality of the cattle exported this year has been fairly well up in average, but anyone visiting the stockyards when the shipments are going through cannot but be impressed with the importance of using pure-bred sires. The difference between the stock produced from well-bred sires of the beef breeds and those from grade or scrub stock is marked as plainly as if ear-tagged. We are inclined to think that buyers do not make the best use of their opportunity of impressing this fact upon farmers and ranchers. There is too much indiscriminate buying and not enough difference made in favor of the well-bred steer.

The weather during the shipping season was the worst ever experienced—October being particularly bad. This, together with the disappointing markets in the Old Country, must have tended to shave down the profits in the export business to a pretty fine thing. The number of cattle handled by our leading export firms are given in the following letters. Besides these, there were several thousand head handled by individual shippers, which would run the total exports from Manitoba and the N.-W. T. into the neighborhood of 35,000 head.

To the Editor FARMER'S ADVOCATE:

The number of cattle shipped by us to Liverpool this year is 3,753 head, and to Glasgow, 253 head; London, 17 head. We did not go in for shipping numbers, but have the credit from all in the trade, and especially the salesmen in England, for having shipped extra good quality cattle, and by doing so have held up the reputation of the Manitoba and Western cattle in the home markets. We loaded the steamship Irishman this week with 500 head of choice cattle from Castleberry and Russell districts. This ship carried the largest cargo ever carried out of Montreal, viz., 1,000 head of cattle.

H. A. MULLINS.

To the Editor FARMER'S ADVOCATE:

The number of cattle shipped, slaughtered, and turned back to feed by our firm is as follows. I will give you the number shipped from this country, and Ontario and Chicago. About 30,000 of our total shipments were shipped from Montreal, balance from St. John, Portland and Boston:

Export cattle from Manitoba and N.-W. T.	27,000
Ontario and Chicago	10,000
Butcher cattle slaughtered in Winnipeg	4,000
Stockers shipped west and sold in Winnipeg	1,000
Stockers shipped west and sold south	5,000
Stockers shipped west and held over outside the number held from last season	14,000
	67,000

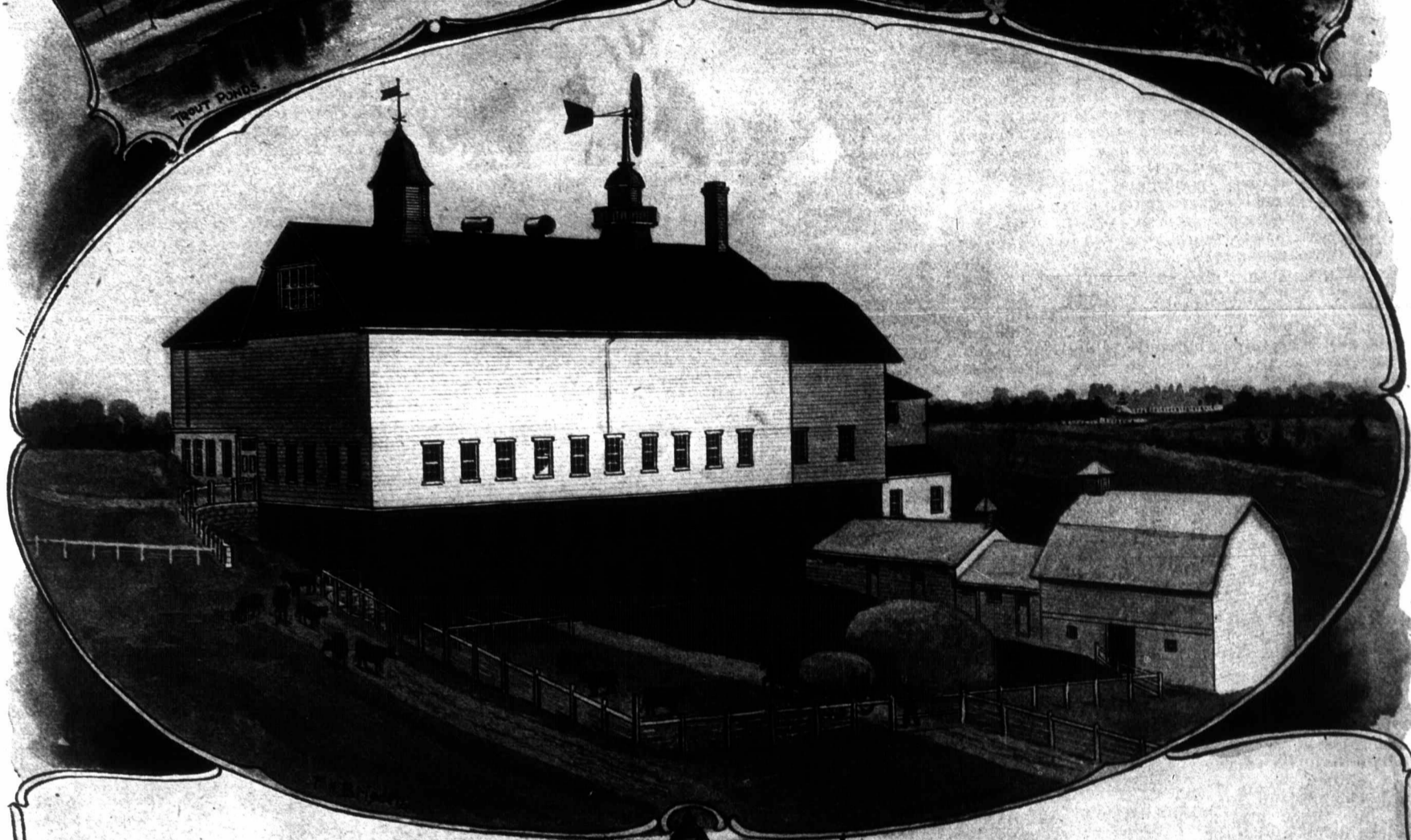
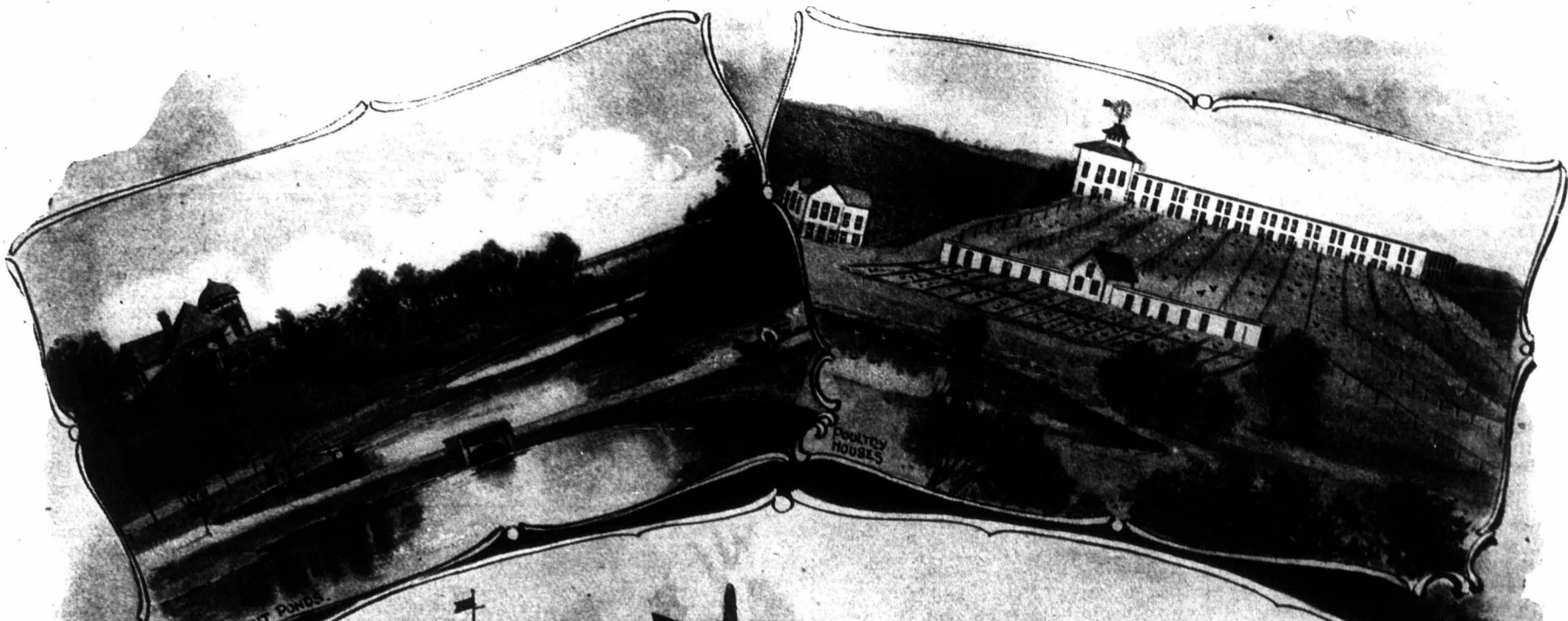
67,000 head of cattle handled in 1898.

GORDON & IRONSIDE.

The Town of Moosomin.

Nothing could better serve to illustrate at a glance the substantial growth of the agricultural West than the accompanying views of Moosomin in 1881 and 1898. Of course, other towns differently situated could have been used to show much greater development, but Moosomin is a fair average of hundreds of Western towns dependent upon the farming country, where prosperity is the result of the farming community is simply

of our old subscribers to send us one of our subscribers when renewing their subscription, and thus benefit all concerned.



GLIMPSES OF DENTONIA PARK FARM, NEAR TORONTO, ONT., PROPERTY OF MR. WALTER E. H. MASSEY.

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The Ontario Provincial Fat Stock and Dairy Show.

The winter show held in the City of Brantford, Nov. 30th to Dec. 2nd, was the most successful event of the kind ever held up to that time in America. The number of entries exceeded those of any former fat stock show held in Canada, and the quality of the stock shown was of a higher standard, judged from the standpoint of a breeder or a butcher. From year to year our stockmen bring out for exhibition a larger proportion of animals conforming to the type and carrying the quality of flesh which best meets the requirements of our best markets. The result is a measure of uniformity in size, quality and finish which does credit to the intelligence and skill of our stockmen, and we gladly give them in this connection the honor due to those who have done well. The attendance of visitors was considerably larger than at any former meeting of the Association. The holding of the annual meetings of two of the American Sheep Breeders' Associations in Brantford on the days of the show brought a number of the leading breeders from the United States, who were delighted and profited by what they saw and heard. It is, we think, a pardonable pride we indulge when we express gratification at the admission of representative stockmen from a country whose people are known, as a rule, to have "a good conceit of themselves," that in the matter of stock shows Canada "takes the cake." The officers and committeemen having charge of the arrangements for the show deserve unstinted praise for the satisfactory manner in which it was conducted, and the local committee of Brantford men who co-operated with them proved themselves worthy of all praise for the willing and hearty work they did in helping to make the show a success.

The judges were well chosen, and did honest, faithful and efficient work. We may well congratulate ourselves on being able to secure the services of judges who know the best type of animals, and who have the courage and independence to "hew to the line, let the chips fall where they may." These men do grand work in raising the standard of quality in our stock, and are real educators in this line. The admitted success of these shows along practical lines is clearly due to the fact that intelligent, practical breeders and feeders are at the helm on the Board of Management. The judges of the cattle classes were Thos. Crawford, M. P. P., Toronto; James Smith, Brantford; and T. G. Collwill, Whitby, Ont.

THE CATTLE.

As the prize list is published in full in this issue, we review only the leading features of the show.

A large majority of the cattle shown were, as usual, Shorthorns and their grades, but there was a considerable representation of Galloways, Polled Angus, and Devons; and though only two Herefords were shown, they were, as usual, good ones—thick-fleshed, smooth, and full of good quality, one of them winning easily first place in her class, in competition with Polled Angus as well as Herefords.

The Shorthorn class was headed by three grand white steers, under three years and over two, which were awarded the three prizes, the first going to Lord Minto, owned by Matt. Wilson, of Fergus, and sired by Sittyton Chief, a bull of Cruickshank breeding, bred by Jas. I. Davidson, and got by imp. Hospodar. Lord Minto was certainly the best finished bullock in the show, combining weight and quality with smoothness in a high degree, and from the start was considered a candidate for the championship, with the odds in his favor. J. R. Snyder, Humber, showed the second and third prize steers, both bred by J. M. Gardhouse, Highfield, the second prize going to Highfield Rover, a steer of fine type, with a grand back, smoothly turned, and carrying a high-class quality of flesh, and only needed a couple of hundred pounds more of it to make him a strong claimant for the highest place. Here, again, blood tells: Sired by the imp. Collynie-bred Guardsman, and out of a daughter of imp. Verbena, he is almost full brother in blood to Saint Valentine, the great American show bull, whose dam was one of the first prize herd, open to all beef breeds, at the World's Columbian Exhibition and could hardly fail to be an exceptionally good individual. His stall mate, Windham, by the same sire, and out of Rose's Fancy, traces to imported Margaret, a first prize winner at the Provincial Fair forty years ago, and which sold for \$750 at Mr. Stone's sale in 1856. Windham is much like his half-brother in contour and quality, and we do not remember ever having seen a better trio of registered steers in competition.

H. Smith, of Hay, had the first prize one-year-old steer in his white Free Trade, by Abbottsford—a good sort, deep-bodied and well-fleshed, and one that will probably come again, carrying more of the same quality. Oke & Sons, Alvinston, won first in the section for steers under a year with

Scottish Leader, and the same firm had the first prize cow over three years in Red Rose, by Roy Vincent.

One of the very best things in the Shorthorn class, and, indeed, in the whole show, was Fried & Sons' first prize registered two-year-old heifer, Roan Lilly, by Lord Abbott, a son of the famous imported Indian Chief. She is low-down, broad set, and smoothly fleshed, with wonderful chest, crops and heart-girth, and is full of quality from stem to stern. Oke & Sons' first prize yearling heifer is also exceedingly well developed for her age, and measures up to a high standard.

Herefords and Polled Angus showed together in one class. In the section for two-year-olds, John Brown, of Galt, won first money with Fairy 2nd, a Hereford heifer of grand character, well finished, and furnished with high-priced flesh, being exceedingly thick on her loins and ribs, smoothly turned, and of excellent quality. In the section for yearlings a remarkable steer was shown by Walter Hall, Washington—a Polled Angus named Robin, and a model butcher's beast, blocky, thick-fleshed, and full of the best kind of flesh. He should fill the bill for the greatest amount of high-class meat in the smallest superficies.

Galloways and Devons were grouped together, Col. D. McCrae, Guelph, showing the former most largely, and R. R. Rudd, Eden Mills, the latter, the Devons winning first and second in class for steers or heifers two and under three years. T. Lloyd Jones, Burford, had the first prize yearling heifer, Blanche of the Oaks, a Galloway of typical character, symmetrical and well-fleshed, and covered with a beautiful coat of lustrous, curly hair. Mr. McCrae came to the front in calves under a year with Rance 13th, a beautiful heifer; and W. J. Rudd got into first place in the section for cows over three years with his grand cow Maude, winner of numerous honors in other contests.

Grades and Crosses.—This is always one of the most interesting classes in a fat stock show, and the present was no exception. In the section for two-year-old steers was found one of the most interesting numbers in the catalogue in Perfection, a rich roan, bred, owned and exhibited by John

for this competition, only about half that number pulled out, and though fully one-half of these were good enough to rank in first-class company in any country, it soon became apparent that the contest was narrowed down to two steers. These were Matt. Wilson's registered Shorthorn Lord Minto and John Campbell's grade Shorthorn Perfection. The jury weighed the evidence carefully, and held a protracted consultation, but there was no disposition on the part of the interested onlookers to gamble on the verdict. If a vote of the breeders had been taken, we fancy it is probable that the white steer would have won, but the majority of judges evidently viewed the question from a consumer's standpoint—which was quite right, according to the rules of the show—and so Perfection was declared the champion of 1898.

SHEEP.

The exhibit of sheep seems to have reached a place where we might almost say there is little room for improvement, as for a number of years the same exhibitors, with a few exceptions, come out to try conclusions. Among these are undoubtedly the best breeders and feeders in Canada, who possess the ambition to hold acquired ground or to reach a higher standing, so that those who visit the Provincial Fat Stock Show enjoy the privilege of seeing the best specimens of the best breeds of sheep represented in Canada brought out in perfection of form. Owing to the absence of a few customary exhibitors, viz., the late J. G. Snell and Messrs. Rutherford, the entry fell from 292 in 1897 to 275 the present year. The number of sheep shown, however, was perhaps nearer the entries made than at any previous Provincial Fat Stock Show, as it was the rare exception to find an entry missing from the ring. In most classes there appears to be unanimity in regard to what constitutes the ideal type for today's requirements, the less numerous reared and breeding characteristics, the less numerous reared sorts going on in the right direction. As indicating early-maturing qualities, a pair of not overly fat Dorset March lambs were noted weighing from 150 to 160 lb., and Suffolk May lambs that had not been rushed weighing from 117 to 125 lb. In breed type and fitting the grades and crosses were a strong class also. The judges were: For Cotswolds, Hardy Shore, Glanworth, and Jas. Gaunt, St. Helen's, Ont.; Lincolns and Leicesters, E. Parkinson, Eramosa, and Jas. Gaunt, St. Helen's; Oxfords, Geo. McKerrow, Sussex, Wis., and Professor Curtiss, Iowa Agricultural College; Shropshires and Southdowns, Hy. Arkell, Teeswater, and J. C. Duncan, Lewiston, N. Y.; Dorset Horns, Hampshires and Suffolks, Messrs. Duncan and Arkell; grades and crosses, Hardy Shore and Hy. Arkell. In the sweepstakes competition for best sheep of the show the one-judge system was introduced. The judge was Mr.



RANGE CATTLE, SOUTHERN ALBERTA, CANADIAN NORTHWEST.

Campbell, of Woodville, sired by a white son of Old Indian Chief and of Gerlaugh's Sun Ray. With his strong, straight back and loin, well sprung ribs, long, level quarters, and freedom from the least suspicion of paunchiness, he presented a model for a butcher's beast—one that would be sure to kill out a high percentage of first-class meat and a minimum of offal, though from a breeder's standpoint he is a little too far from the ground, or in other words, has too much daylight under him. James Leask, of Greenbank, had a right good one for second place in the roan Jack, by Moneyfuffel Lad, the great champion bull, now owned by Captain Robson, of Ilderton. He has a grandly fleshed back, well-arched ribs, packed with firm flesh, and is a typical Booth bullock, with very little waste about him. Walter Robson & Son, Ayr, furnished the third prize winner in a Hereford grade of fine form and quality. Leask had a good one for first place in the section for yearling steers—another son of the sweepstakes bull Moneyfuffel Lad, who was also the sire of the first prize steer under a year, Clinker, a red, and a rattling good one, true in his lines, full in all parts, and of excellent quality. It is probable that he has an interesting future before him.

Jas. Bowman, Guelph, found the first prize cow in his grade Angus, a lengthy, smooth, well-fleshed animal. Two-year-old heifers made a capital show, and Leask's Lady a clear winner. She is one of the best of the year, wonderful in her depth and rotundity, smooth and firm in her flesh. She makes a model to go by, and can hardly be improved on. The same owner had a choice winner in the yearling class in the roan free-martin, Susan, yet another of the get of Moneyfuffel Lad, who is proving a sire of winners in a field where none but the best can win.

THE CHAMPIONSHIP.

The sensation of this department of the show was, as usual, the contest for the championship, when all the first prize animals in each class came into competition. Seldom, if ever, in the history of these shows in Canada has a strong list of contestants entered for the coveted honor, and on this occasion. While there were twenty-one animals in the various classes, and there

Jas. Tolton, of Walkerton, and his decision seemed to give general satisfaction. He is not only a fair-minded judge, but his favorite breed is the Oxford, which stands perhaps nearest of any midway between the long-wools and medium-wools. The line of competitors included many of the first prize winners in the show, which, in a sense, made the contest a battle of the breeds, as each breed represented had well-nigh a model specimen of its sort. As was the case in several former years, a South-down (yearling ewe) captured the trophy. In regard to his decision in the ewe lamb section of the Oxford Down class, Judge McKerrow, of Wisconsin, introduced an innovation by stating to the audience the reasons for the decision. First had been given to a strong, muttony, well-covered entry, and second to a lamb nearer the Shrop. type. Mr. McKerrow explained that a typical Oxford would have been about midway between the two, but the lambs in the section appearing to hold that position were weak in one or more points. The size and color of ear, carriage of head, and strength, form of leg, character of fleece and skin were discussed and compared in the sheep drawn up. The extraordinary demands upon our space in this Christmas issue of the FARMER'S ADVOCATE prevent our reviewing in detail the various classes, but the winnings are all recorded in the complete prize list published elsewhere.

THE SWINE.

This department of the show increases in interest year by year as a result of the expanding market for Canadian bacon and the discussion which has taken place in regard to quality of product required. It is in this department that the greatest increase of entries has been made, totalling 338 this year, or over 100 in advance of last year and nearly 200 in excess of those of 1896, when the number was 150. The most noticeable feature of the swine show as compared with that of former years is the absence of big fat hogs, while medium-sized, young and fleshy pigs prevail and predominate. The Association has wisely limited the age of the oldest in their prize list to six months, while the bulk of the best prizes are offered for those under 9 months, liberal special prizes being offered for pigs of each breed of the weight and quality required by the export bacon trade, with the understanding that large and keen competition has

been stimulated, and in all the various distinct improvement is notable as a consequence of intelligent selection in breeding and care in the feeding and treatment of the animals. The judges, too, have been wisely chosen and have done good service in setting the standard of type, not by a slavish following of the advice of the packers, but with a view to profitable production as well as a nearer approach to the required type. Many of the cross-bred pigs shown were admirable specimens of the bacon hog, though we must say that quite as large a proportion of the pure-breds, in our judgment, measured up to quite as high a standard in that regard. The competition was close and keen in nearly every class, and especially so in the grade classes and in those for bacon hogs, where all breeds and crosses came in competition. These were judged by a committee of pork-packers, as were also the carcasses of those which were entered for the slaughter contest, which was a new feature and one of the most interesting in the whole show. The judges had the dressed carcasses split in halves and hung up in the exhibition hall, and the judges explained to a deeply interested audience the reasons for their decisions, pointing out the merits of the approved product and the faults of that which was not up to the mark, and answering questions put to them by the farmers present. We hope to see this feature of our fat stock shows, the slaughter test, extended to the sheep and cattle classes in future, as it is only by this means that correct results can be obtained. A full report of the prize list will be found in another column. The judges in the classes for Chester Whites, G. B. Hood and C. W. Yapp; Poland-Chinas, Duroc-Jerseys, and grades, G. B. Hood and D. DeCourcey; for Berkshires, Yorkshires, Essex and Suffolks, and Tamworths, Messrs. Thos. Teasdale and W. H. Jones. For the bacon sections, Messrs. Jas. Leach, of the Wm. Davies Packing Co., Toronto; Chester Fearman, Hamilton; and W. Britton, Ingersoll.

In the class for four export bacon hogs, grades or crosses, 1st went to a Tamworth cross, 2nd to a Tamworth-Duroc cross, and 3rd to a Tamworth-Berkshire cross. In four export bacon hogs, any breed or grade, Yorkshires took 1st and 2nd, and Tamworths 3rd. In the class for two best bacon hogs (killed and dressed at show), 18 were killed. Pairs of Tamworth grades took 1st, 2nd and 3rd; highly commended going to a Berkshire grade and commended to a Yorkshire. The special sweepstakes prize for the best animal in the swine department was awarded to George Green, Fairview, for a Berkshire sow under nine months, the judges being Messrs. DeCourcey, Teasdale, and Hood.

FORTY-EIGHT HOURS' DAIRY TEST.

The dairy test, the results of which are summarized in the following table, was conducted by Professor G. E. Day, of the Ontario Agricultural College, assisted by Mr. A. C. Wilson, also of that institution. The cows were milked out clean on the evening of Nov. 29th, the test commencing the next morning. The exhibitors were allowed the privilege of milking their cows twice or three times in twenty-four hours, and the latter privilege was taken advantage of with about half the cows. Those milked twice a day were milked at six and six, and the three milkings at five, one and nine o'clock. The following table shows, in pounds, each cow's forty-eight hours' product of fat, solids not fat, and total points, according to the note below the table:

Awards.	Name of cow.	Breed.	Owner.	Address.	lbs. fat not fat.	Total points.
First	Jubilee Julian	Shorthorn, over 36 mths	H. K. Fairbairn	Thedford	7.751	101.784
Second	Bella Gwynne	" "	Jno. Kelly	Shakespeare	4.966	72.269
First	Matilda 9th	" under 36 mths	Thos. Russell & Son	Exeter	3.501	52.244
Second	Gracie Gwynne	" "	Jno. Kelly	Shakespeare	3.454	50.416
First	Nelly Grey	Ayrshire, over 36 mths	N. Dymont	Clappison's	5.543	93.312
Second	Briery Banks Cora	" "	W. M. & J. C. Smith	Fairfield Plains	6.290	91.940
Third	Dolly Duchess	" "	J. R. Alexander	Brantford	5.301	89.824
Fourth	Dunoon	" under 36 mths	W. M. & J. C. Smith	Fairfield Plains	4.474	69.596
First	Fanny of Fairfield	" "	J. McCormick & Son	Rockton	5.667	73.588
Second	Primrose 9th	" "	N. Dymont	"	5.383	71.572
Third	Pearl of Hickory Hill	" "	W. M. & J. C. Smith	Currie's	4.676	67.744
Fourth	Gurta 21	" "	A. & G. Rice	"	2.933	43.692
First	Calamity Jane	Holstein, over 36 mths	"	"	13.675	163.52
Second	Lady Pietertje's Konigen	" "	"	"	9.981	122.584
Third	Winnie R	" "	"	"	9.059	109.516
Fourth	Daisy Texel 2nd	" under 36 mths	"	"	11.567	141.168
First	Dewdrop Clothilde	" "	"	"	6.270	81.94
Second	Daisy Texel 3rd	" "	"	"	6.426	81.004
Third	Daisy of Clandeboye	" "	"	"	4.574	68.365
Fourth	Rhoda	" "	"	"	5.723	94.912
First	Colonia	Jersey, over 36 mths	W. J. Elliott	New Durham	5.498	83.592
Second	Ruby Cecile	" "	B. H. Bull & Son	Brampton	3.930	76.04
Third	Bettina of Brampton	" "	"	"	5.425	82.5
Fourth	Minett of Brampton	" under 36 mths	"	"	4.032	70.608
First	Kathline of Brampton	" "	W. J. Elliott	Dereham Centre	4.401	70.263
Second	Maid of Burford	" "	Wm. Butler & Son	"	3.082	70.008
Third	Tamarina	Guernsey, over 36 mths	"	"	2.933	70.892
Fourth	Lady Tuke	" under 36 mths	"	"	2.004	63.536
First	Daisy Rose of Sunny Spring	Grade, over 36 mths	F. Martindale	York	2.426	68.924
Second	Lady Cleveland	" "	H. McDougall	Guelph	9.376	111.574
Third	Utopia	" "	J. R. Alexander	Brantford	8.547	107.408
Fourth	Flora	" "	W. J. Thompson	Rockton	7.495	95.224
First	Rockton Lass	" under 36 mths	B. H. Bull & Son	Rockton	5.426	89.463
Second	Daisy	" "	W. J. Thompson	"	7.857	121.408
Third	Daisy Rose	" "	A. & G. Rice	"	3.249	82.876
Fourth	Calamity Jane	Holstein	"	"	3.340	78.78
First	Daisy Texel 2nd	" "	"	"	"	"
Second	Daisy Pietertje's Konigen	" "	"	"	"	"

*Sweepstakes—Best pure-bred dairy cow.
Most valuable exhibit of dairy cows—A. & G. Rice, Currie's.
NOTE.—The age of dairy cattle was computed to the 1st of August, and the awards were made by the following scale:
10 points for constitution and conformation.
20 points for each pound of fat.
4 points for each pound of solids (not fat).
1 point for each 10 days in milk after the first 30 days (limit, 30 points).

Guelph Fat Stock Show.

The seventeenth annual exhibition of the Guelph Fat Stock Show was held in the Royal City on December 6th, 7th and 8th. On the evening of the 6th the directors sent a cable message to Mr. Powell, Secretary of the Smithfield Fat Stock Show, the great English exhibition, congratulating the show upon reaching the 100th year of its existence. The message reached Smithfield during the progress of the banquet held in honor of the event. The message was as follows: "To Powell, London West: 'The Guelph Fat Stock Club send congratulations on your centenary anniversary.'"

The following answer was received from the Prince of Wales, President of the Smithfield Show: "To the Fat Stock Club, Guelph, Canada: 'The President and the members of the Smithfield Club, in meeting assembled, return thanks for your kind congratulations on a centenary anniversary. (Signed) Albert Edward.'"

The energetic President, Directors, and Secretary had worked hard to ensure a successful exhibition, and their efforts were well rewarded, for in nearly every department there was a full list of entries which were a credit to Guelph and to the Province of Ontario. The swine department was not so strong as it might have been, but was nevertheless fairly filled with pigs of good type. There was an unfortunate clashing of dates with Woodstock show, which kept away some exhibitors who would otherwise have been present.

CATTLE.

Pure-bred cattle of all breeds showed together. There were six two-year-old steers out, three being Shorthorns, two Herefords, and one a Devon. Matt. Wilson's Lord Minto, a white, who distinguished himself at Brantford, won first prize again here. Oke & Sons' Walter made a good second, with a Hereford from the Stone Estate third. Yearling steers were five in number, four of them being white. H. Smith's Brantford prizewinner again scored first, with Messrs. Watt's two entries second and third, all being whites, and good ones. Rudd's Devon came out ahead for cows three years



A HAPPY TRIO.

Miss Ethel Ganton and a pair of the favorites of her father, Mr. D. G. Ganton, Saurin, Ont., Canada.

old and over, a red of Oke's coming next in order, and McDougall's Angus, another Brantford winner, third. D. McCrae showed a couple of Galloways in this section, one of which, College Brighteyes, was a beautiful picture—round as a barrel. J. Brown

had a capital two-year-old Hereford heifer, of H. D. Smith's blood, which secured the red ticket, Oke and Rudd being second and third respectively. Oke had the only two entries for yearling heifers.

Grades were a strong lot. John Campbell's sweepstakes winner, Perfection, carried first honors in the two-year-old steer section, followed by Jas. Leask's roan and Mr. Wilson's son of Sailor Chief. Leask won both the red and blue tickets for yearlings, with J. Campbell's entry third, thus following the Brantford decisions. Leask had a capital three-year-old heifer, the only representative in that section. Mr. Wilson's thick-fleshed roan came to the front in the two-year-old heifer class, Wm. Argo's Hereford being second and Thos. Lyons' white third. For yearling heifers Leask's twin could not be denied first place. Campbell had a good one, with a very nice top and back, which came second, and Oke's entry was third. The Dominion Shorthorn Breeders' Association's prize of \$25 for the best registered Shorthorn steer of any age was won by Mr. Wilson's Lord Minto, and the similar prize for grade Shorthorns by Campbell's Perfection.

There were a number of classes limited to exhibitors from certain local townships and counties, and there was also a proviso that the exhibitors, and in some cases the animals, should not have won prizes at previous fat stock shows. Several of the winners won in competition here in the open classes as well. For the Township of Eramosa, Wm. Argo and Thos. Scott were the successful exhibitors; for Puslinch, Jas. Scott; for Guelph Township, J. McGill and Alf. Hales; for Waterloo County, J. Brown and W. Cowan; for Wellington County, J. & W. B. Watt. For the best pair of export cattle over 1,200 pounds, limited to Waterloo County, J. W. Brown had the only entry. In the open class for export pairs, Bowman deservedly won with a splendid grade Polled Angus heifer and a pure-bred steer. T. Russell's pair, one of which was second at Brantford in its class, came next, and F. W. Oke's pair third. A. Hales won first for pair of butchers' cattle with a nice pair of twins by a Polled Angus bull, out of a grade Shorthorn cow. Oke was second and third. Wm. Argo won the special for Herefords, given by the Stone Estate.

The sweepstakes for the best fat animal in the Show created a good deal of interest. Ranged up before the judges were three Shorthorns and Short-horn grades, a Polled Angus, a Hereford, and a Devon. They included Wilson's steer, Campbell's steer, Leask's heifer, and Bowman's heifer. After carefully looking over the animals, the judges placed the ribbon on Wilson's steer, thus reversing the Brantford award. There was a second sweepstakes for the best animal of any age or breed, bred and fed by exhibitor. This prize, a valuable cup given by Mr. Holliday, went to Oke & Sons' roan steer Walter. John Campbell's Perfection made very strong running, and was a favorite with not a few. The cup has to be won two years in succession by a different animal before it becomes the property of the exhibitor. J. S. Pearce's special for fat calf went to Jas. Leask's handsome red, and that for yearling steer or heifer to T. Russell's dark roan.

A feature in the cattle department was the large number of white animals (ten in all) present. They were twice paraded together in the ring, and created great interest. A. Rawlings, Forest, and W. Crealock, Toronto, judged the cattle.

SHEEP.

There was a very good local entry of sheep, especially in the lamb sections. Leicesters, Cotswolds, and Lincolns had to show in one class. Orr & Lilloco were to the front in pairs of wethers over and under the year. Whitelaw Bros. had the best pair of ewe lambs, with Orr & Lilloco second. L. Parkinson and G. & R. Laird also won prizes. R. Gibson, T. C. Douglas, J. Campbell, Smith Evans, W. J. Rudd, W. Murphy, and R. Moody were all prizewinners in class 17, for any other pure breed besides those first mentioned. In grades, John Campbell, Jas. Armstrong, and L. Parkinson were strongest, being closely pressed, however, by Gibson, Orr & Lilloco, and others. Jas. Hume had the heaviest sheep in the show, which scaled 302 pounds. T. C. Douglas won for yearling wether, and L. Parkinson for yearling ewe. Several of the exhibitors above mentioned also won in the local classes. John Kelly and Jas. Hales were the judges.

SWINE.

Yorkshires, Tamworths, and Berkshires, and their grades, were the only kind shown, Tamworth blood largely predominating. H. Dedels won several prizes with Yorkshires, T. A. Cox, D. Barbaree, and A. J. Watson with Berks., and Geo. North with Tamworths. R. Agnew had the heaviest sow or barrow, and also won the sweepstakes for barrows. Wm. Buck, Thos. Lush, and T. A. Cox were prizewinners in grades. G. B. Hood's Yorkshires captured the packers' prize for pair of singers between 160 and 200 pounds, with Oke's and Argo's Tamworth grades second and third. For four singers between 180 and 200 pounds, the order was G. Barber's Tamworths, Dedel's Yorkshires, and Oke's Tamworth grades.

POULTRY.

There was a fine display of live poultry. The exhibits numbered about 1,200, besides fifty exhibits of dressed birds.

Ontario Fruit Growers' Association.

SPECIALLY REPORTED.

The thirty-eighth annual meeting of this Association was held in St. Catharines, Ont., on Dec. 1st and 2nd. As this is the first time for a good many years that the meetings have been held in a section of the country so devoted to fruit as is the Niagara peninsula, an unusually wide interest was taken in the proceedings. Amongst other prominent people present were: Dr. Saunders, Dr. Fletcher and Mr. W. T. Macoun, from Ottawa; Mr. Brodie, of Montreal; Professor C. C. James, of Toronto; Dr. Mills and Professor Hutt, of Guelph; besides the officers of the Association and a large number of representative fruit-growers.

The President, Mr. W. E. Wellington, in his annual address, congratulated the Society on the progress made and expressed satisfaction at the present status of the Association. There were now 4,151 members, an increase of about 1,000 from the previous year. A balance in hand existed of \$784.96. No fewer than 36 horticultural societies were in affiliation with the Provincial Society. Much good work had been accomplished during the past year, notably in the San José scale matter, and that of the export of tender fruits to Great Britain. Both the Hon. Sydney Fisher and the Provincial Government had responded generously and with vigor when appealed to. The fruit experiment stations were now doing excellent work, and the Secretary, Mr. L. Woolverton, was gradually preparing a descriptive book which would deal with all Ontario fruits, and doubtless be of great value to fruit-growers generally.

Dr. Mills, speaking on "Horticulture at Guelph," stated that in spite of the unfavorable climatic conditions they were extending their horticultural department, and had now a considerable orchard of pears, plums, cherries, and even a few peaches. During the past year they had tested over 200 varieties of strawberries, 39 of raspberries, besides currants, gooseberries, and a large variety of flowers. They were also giving far more prominence to horticulture in the lecture room. In vigorous and emphatic tones Dr. Mills then pointed out to the fruit-growers that while all work of this kind was undoubtedly good, and as necessary as it was good, yet the important problem now before the Association was the market problem. Good fruit was now grown, but when a full crop of any particular fruit occurred, glutted markets and profitless returns to the grower resulted. "I tell you, gentlemen," said the speaker in ringing tones, "the Association has not yet done what it should do in this direction: the finding of markets, and the cheap and safe transportation of your fruits, these are the things that demand your instant attention, and your best energies."

Mr. W. T. Macoun, Dominion Horticulturist, read an exhaustive paper detailing the experience at the Central Experimental Farm with Russian fruits. More than 200 varieties of apples, pears, plums and cherries had been planted in 1888. Blight and the severe winter of 1896 had been destructive to a great many of the trees, but later plantings were more successful. A good many of the apple trees had borne, but as a rule the fruit was of a poor quality, and the speaker would not advise planting the Russian apples where other varieties would succeed. What pears had fruited were inferior in quality, becoming soft and mealy on ripening. The results with the Russian plums were equally unsatisfactory. With cherries, however, the case was different. If grafted on hardy stock these Russian cherries were likely to prove a valuable acquisition to the colder districts of Canada. As a general rule they bore well, the fruit being excellent for canning and preserving purposes, and if suitable varieties were planted the season would extend from the middle of June to the end of July. Some of the best were Amarelle Hativ, Shadow Amarelle, Ostheim, Brunseler Braun, Bessarabian, and the dwarf Koslov Morello. In discussion, Mr. Brodie thought two Russian apples were worthy of cultivation. The one was "Golden White," a fall apple not unlike the Northern Spy, and "Regel," which he considered the only good Russian winter apple.

The address by Professor C. C. James, on the "Export of Fruit Pulp," was followed with the closest attention. The possibility of exporting our fruit in a cheaper form and with profitable results ensured a good lively discussion of this paper.

Fruit pulp, it should be explained, is made by the fresh fruit being placed, without the addition of sugar, into large vessels, usually of copper, heated up to a certain temperature, and then hermetically sealed. Such pulp will keep two years without deterioration, and is bought extensively by the great jam manufacturing firms in England. There is a shrinkage of about 15% in converting the raw fruit into pulp. Apricot and raspberry pulp are chiefly in demand. About 1,000 tons of the former were imported last year, chiefly from France, California, and Australia.

Mr. James had made enquiries as to the demand for grape pulp, and read letters from many of the English jam firms on the subject. They were uniformly discouraging in tenor. As to raspberry pulp, England drew a large part of her supply from Tasmania. The price ranged from £20 to £25 a ton; this of course was the long ton, 2,240 lbs.

The discussion which followed brought out the following points: When raspberry pulp was higher than £28 a ton the jam manufacturers practically wouldn't buy. At £40 a ton the price would be equivalent to 5c. per box for the grower; at £20 a ton, the grower, on account of the heaviness of the expenses, would get nothing. "Can Canada do business at £25 a ton?" said Professor Robertson. It was generally conceded that she couldn't. A number asked why we couldn't make jam here and send it across to our English cousins. It was pointed out, however, by Mr. Boulter, of Picton, and by Professor Robertson, that such a plan must result in loss, inasmuch as sugar was so much cheaper there than here.

"Prospects for Export of Tender Fruits" was the title of an address by Professor Robertson, an address which was anticipated more eagerly by the practical fruit-growers than any other on the programme. In some respects the results of the address were as discouraging as those of the fruit pulp question, but there is room for hope in one or two directions. The speaker, in propounding the question, "Can the Canadian grower export his fruit to England profitably?" said it depended more on the man than on the business, whether success was achieved or not. It was the man who studied thoroughly the conditions imposed by British consumers that was likely to succeed. In a general market such as that, staples would in the long run be most profitable. Apples, and even pears, which were used to a considerable extent for cooking, were more in the nature of staples, while grapes, which were used entirely for dessert, would necessarily find a more limited market. Their experience this year confirmed that of 1897, that, first of all, the British buyer demands sound fruit, then he values keeping qualities, next in estimation comes appearance, and lastly flavor. In years to come doubtless the English buyers would look more for special varieties, but meanwhile, if we are ever to get Canadian fruit regularly on that market, these two things are especially requisite,—that the fruit should be sound, and that it should be capable of being kept for some time after arrival. It is precisely these two qualities that have obtained for the inferior Californian product a better price than our own fruit brought. All fruit forwarded this year was forwarded in light cases, 22 in. by 11 in., and 4 in. deep, well ventilated, and holding from 24 to 30 lbs. of fruit, each speci-

horticultural possibilities in that climate. The production of a few crab apples was a considerable feat. Some berries were grown, but for various reasons there could never be a big supply. The United States supplied four-fifths of the fruit used. British Columbia could compete with Ontario in some lines, but we had the advantage as regards distance, and should secure the larger share of the trade. He believed the 25-pound Californian crate was the ideal package for that market; and careful packing and grading were essential to success.

"Results of Spraying in 1898," by Mr. W. M. Orr, gave rise to an interesting discussion, partaken in by Dr. Fletcher, Mr. Brodie, Mr. Tweedle, and others. The consensus of opinion was overwhelmingly in favor of frequent and thorough spraying, the figures adduced in some instances being of the most convincing character.

Mr. E. H. Wartman, of Kingston, spoke on "Grading Fruit for Size," showing the great importance of a uniform sample, and exhibited to the members present a "grader" of his own design.

Mr. A. McNeil, in an address on "Co-operation in Fruit Selling," illustrated in a happy way the evils attendant on the present haphazard methods, and put in a forcible plea for combination on the growers' part.

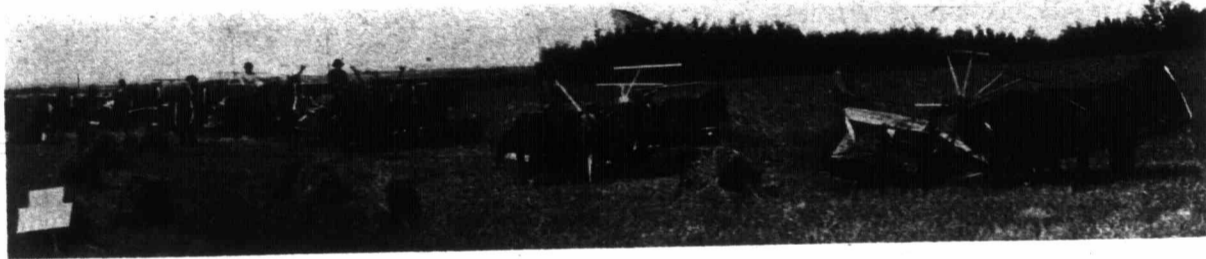
Mr. Armstrong, of Queenston, spoke on the pruning of peach trees. He "thinned out" for the first five years or so, and "shortened in" as the trees got older. With the aid of a couple of peach trees and a pruning knife, the speaker illustrated his remarks.

A suggestive paper on "Frauds in Fruit at Fairs" was read by Mr. A. M. Smith. "The Peach Borer" was handled by Mr. M. Burrell, who briefly gave the life history of the insect, describing it technically, and gave results of experiments against its attacks with washes, etc.

Mr. F. G. H. Pattison read a paper on "Is Fruit-growing Conducive to Morality," and Mr. E. Morden dealt with "The Future Fruit-grower." Three very interesting addresses on floriculture were those by Mr. Gammage, on "House Plants"; by Mr. W. T. Macoun, on "Hardy Perennials"; and on "Horticultural Work at the Central Farm," by Dr. Saunders. Lack of space prevents our dealing with those at present.

The officers elected for 1899 were: President, W. E. Wellington; Vice-President, W. M. Orr; Sec.-Treas., L. Woolverton. Directors: W. A. Whitney, G. Nicol, W. Boulter, Th. Beal, E. C. Beman, M. Pettitt, A. M. Smith, J. S. Scarf, J. I. Graham, T. H. Race, A. McNeil, and G. C. Caston. Auditors: A. H. Pettitt and Geo. E. Fisher.

The Association will meet next year at Whitby.



HARVEST SCENE AT LORD BRASSEY'S FARM, INDIAN HEAD, N.-W. T.

men of which was wrapped in tissue paper. There were sent 324 cases of peaches, about 2,000 of pears, 428 of tomatoes, 41 of grapes, and a few plums and quinces. As to peaches, one small shipment netted \$1.50 a case, but most resulted in a loss. It seems impossible to find exactly the right time to pick the fruit for export. On arrival, some were rotten, some immature and tasteless, some excellent. No fault could be found with the cold storage; the fruit was well cooled before starting, and kept in a suitable temperature during the voyage. During a very hot spell the peaches ripened so quickly on the trees that it became a matter of great difficulty to get them at the right stage. If too ripe they rotted, and if too green they were tasteless and worthless. With pears greater success had been attained. The average net price to the grower was 73c. per case, equivalent to 67c. a basket. This year the pears were somewhat small, and on arrival had to compete with an immense number of French pears, so that the results were decidedly encouraging. Plums were too ripe on arrival, and as England herself produced a large quantity, Canada could only hope for a remunerative price when the English crop failed. Grapes, though getting to the market in good condition, failed to obtain profitable prices. Those sent were the black and red varieties of Rogers and other good sorts. One lot sent to Glasgow netted 84c. for 17 pounds, but the average price was very low. There was still a strong prejudice against the flavor of the grapes, and vast quantities of Spanish grapes were sold very cheaply there. With reference to tomatoes, Prof. Robertson said results were somewhat disappointing. On the whole the shipments entailed a loss. On being taken out of cold storage the tomatoes seemed to collapse, few keeping more than a day or two. The low temperature does not sufficiently retard the maturing process in the case of the tomato, and most of them were too ripe on arrival. A large proportion of the tomatoes for England came from the Canary Islands; they were placed on deck in ventilated boxes and packed in cork dust. Something of this kind might be done with the Canadian product. Cold storage at all events, did not suit the tomato. On the whole, success seemed doubtful, as far as the export of peaches and tomatoes was concerned, but the prospect for pears was hopeful. Dr. Saunders, in his address on "Manitoba and the Northwest Territories as markets for Ontario and British Columbia fruits," dealt exhaustively with geographical features of the country, particularly in relation to the fruit trade. He gave an interesting description

Dec. 5th and 6th, unfortunately encountered very un congenial weather, a heavy snowstorm making the country roads almost impassable, which prevented many local would-be exhibitors from bringing out their animals. The number of entries was therefore small, but superior quality marked the exhibit in many of the sections. In the classes for cattle and sheep there appeared a number of the prize-winners of the previous week's Provincial contest at Brantford. The steer championship was keenly contested for by Messrs. Robson's two-year-old Hereford grade and Mr. Hall's yearling Angus son of Lucetius. The former claimed the victory. The female sweepstakes went to Messrs. Fried's two-year-old Roan Lily, that won first in the Short-horn class at Brantford. She also secured the championship of the show, which entitled her owners to the special silver challenge cup, which had to be won twice by the same exhibitor before it became his property. In 1896 it was won by Mr. Donaldson, and in '97 by Messrs. Fried, to whom it now belongs. Mr. Donaldson had forward a grand six-year-old cow, upon which he received first award in the cow class. The cattle were judged by Jas. Smith, Brantford, and Stephen Williams, Hamilton.

The classification of sheep allowed all long-wooled breeds to show together, as did also the medium wools. The exhibitors in the former class were: Orr & Lillieco, Galt; John Park & Son, Burgessville; Geo. Allen, Oriel; and John Smith, Beachville; who divided the honors. In medium-wools, Messrs. J. H. Jull, Mt. Vernon, and W. H. Beattie, Wilton Grove, met with their well-fitted Oxford and Shrop. flocks and divided honors. Orr & Lillieco were decided to have shown the best pen of four wether lambs, and John Park & Son the best fat sheep, also the best fat lamb. The judges were Wm. Brown, Delaware, and M. Minton, Brantford. The swine exhibit was very limited. Mr. J. E. Brethour had forward a nice pair of bacon York-shires, and won for the second time the challenge cup which he very generously agreed to allow to be competed for another year rather than claim it without competition. Mr. Donaldson had in six sows, as did also Mr. Hunsley, of Beachville. A very creditable exhibit of dressed poultry was made by H. J. Woodrow, Burgessville, Ont., who filled all the sections with exceedingly praiseworthy fowls, and dressed to the Queen's taste. In the exhibition there were 33-pound geese, 30-pound turkeys, and ducks, and 6-pound chickens. Messrs. G. H. Gause, Derham, and G. N. Harris, Rogers, were the pigs and poultry.

Oxford Stock Show.

The Oxford County Fat Stock Club, which held its fourteenth annual show at Woodstock, Ont., on

Alva, the Farm Home of the Dominion Minister of Agriculture.

In Brome County, the constituency he represents in the Federal Parliament, and nearly equidistant from Knowlton and Foster stations on the Canada Pacific Railway, about three miles from either, and seventy miles east of the City of Montreal, is the farm of the Hon. Sydney Fisher, Minister of Agriculture for the Dominion, situated in the rich and fruitful section of the Province of Quebec familiarly known as the Eastern Townships. The property borders on Brome Lake, a pretty sheet of water about five miles long by three miles wide, surrounded for the most part by densely wooded hills, the full foliage of the trees, evergreen and deciduous, the latter brilliantly tinted by the touch of the autumn frosts, as seen in the sunlight of an early October day, giving the lake the appearance of a gem in an emerald and crimson setting. On a point of the farm overlooking the lake and commanding a charming view of picturesque landscape is located the spacious and substantial residence and the well-kept grounds and lawn sloping gently to the pebbly beach. Shelter belts of wide-spreading spruce, pine and other evergreen trees, planted many years ago by the hands of the owner, afford protection from the north and western winds, while here and there are openings giving glimpses of the shining and sometimes surging surface of the

wooden silo, the Minister claiming to have been the first to build a wooden silo in Canada, and one of the first to build a silo of any kind.

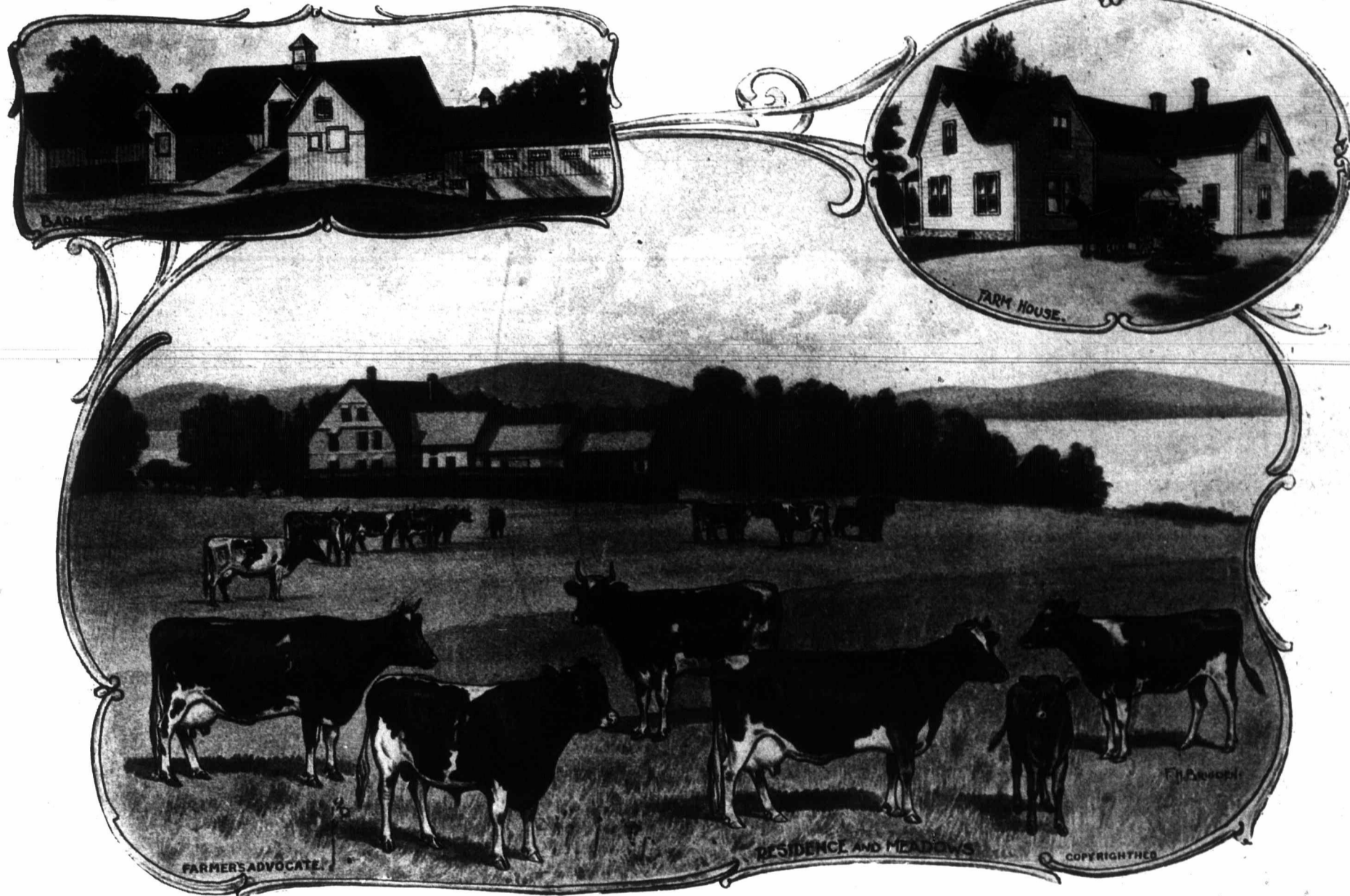
The rotation of crops followed is a short one, and consists in plowing sod in fall for oats and peas, followed by corn and roots. Next year oats seeded down with clover and timothy, alsike and red-top. Hay is cut for two years, and the sod plowed down for grain crop again. Pastures only on rough land, and on aftermath of meadow the year before being plowed down. Sheep are kept for the double purpose of growing mutton and clearing the pasture land of weeds and briars, and Mr. Fisher highly approves of sheep for the latter purpose while land is in stump, and believes the farmers of the Province might profitably keep many more sheep than they do.

THE FARM BUILDINGS.

though erected many years ago, and not as pretentious as some of more recent erection illustrated in this issue, are neat in appearance, commodious, well-arranged and up-to-date in appointments, being well ventilated, lighted by electricity from the village plant, the walls kept whitewashed, and water conveyed in pipes from springs on the hillside to troughs before the animals, and is on tap in every department. The basement cattle stable has stalls for 50 head, besides a number of roomy box stalls and wide passages. Cattle are fed in winter, morning and

market, which is good. The stock to be wintered will consist of 50 head of cattle, seven horses, 20 sheep, and about 30 head of pigs are fed off. About a carload in all of bran, oil cake and cotton-seed meal will be purchased, and to offset this there is on hand 20 tons of hay more than can be consumed, and which may be sold if the price justifies it. In so far as we have described it, this is an ordinary stock and dairy farm, carried on without any extravagant expenditure, and made to pay its own way under methods which the average farmer of moderate means may well adopt. The Minister, however, figures also in the list of breeders of pure-bred stock, the principal stock feature of the farm being the excellent collection of registered Guernsey cattle kept at Alva, numbering some forty head in all, at the head of which is the grand young bull, Golden Lad, imported with his dam, Cora Hayes, the rich and deep-milking cow selected by Mr. Robertson for the Experimental Farm at Nappan, N. S., last year.

A useful herd of these rich butter-producing cows, with their quiet dispositions and great capacity for converting provender into a salable product in concentrated form and at fair profit, constitute the working dairy herd on the farm, the surplus of their offspring being in increasing demand at good prices. A handsome lot of heifers, principally sired by Nereus, the former head of the herd, winner of first prize at Toronto and Ottawa,



THE FARM HOME OF HON. SYDNEY FISHER, DOMINION MINISTER OF AGRICULTURE, KNOWLTON, QUEBEC, CANADA.

little lake. Neatly-trimmed hedges of spruce and hemlock, the most perfect we have ever seen, set off the grounds and screen the well-cultivated and fruitful garden and orchard and the outbuildings in the rear. The farmhouse and barns, etc., are a little back near the highroad. The farm, which now embraces 400 acres, was purchased in 1873, being then in a rough and neglected state, largely overgrown with second-growth timber, and the ambitious young owner, fresh from college, having graduated from Cambridge University, and choosing farming as his vocation, selected the site for his homestead, and with his own hands assisted in clearing the stumps from the land which now forms the lovely lawn by the lakeside, as well as from most of the portions of the farm now under cultivation. About 200 acres are yet in woodland, and over 100 acres in rough pasture, partly too stony for profitable farming, and the balance still studded with stumps, the woods having been only reaped in recent years. Sixty-five acres of strong clay lands are in meadow and crop, the principal grain crop being oats. Some peas are grown, but a considerable extent of the farm, lying too low for successful tile drainage, is used mainly for meadow and oats, the uplands being devoted to roots and ensilage corn, some seven acres of the latter being grown each year. This year about 100 tons of well-cared corn was harvested, and is preserved in a

evening, a mixture of ensilage and the hay of poorer quality passed through the cutter. The grain fed is added to this. At noon a feed of best quality hay, uncut. All straw for bedding is passed through the straw cutter, except that for box stalls. The litter from the horse stable is thrown into a manure shed situated between the horse and cattle stables, where all is kept under cover, the pigs being allowed to work it over for exercise, when it is mixed with the manure from the cattle stables and pig-gery, the whole being hauled to the fields and spread upon the fall-plowed land for corn and roots, except when snow is too deep, when it is piled in the field, to be distributed when the snow is gone. A cream separator, driven by tread power, is used at one end of the stable, the cream and the parts of separator coming in contact with milk being taken to the dairy building, which is kept strictly clean and sweet. The milk is fed to calves and pigs, and the butter, put up in prints or in small paper pails of three pounds, is sold to patrons in Montreal at a few cents above market price.

A few good breeding sows, Chester Whites, are kept, and the pigs are cheaply raised in summer, pasturing on a mixture of oats, tares and clover until the last six weeks before marketing, when they are fed ground oats and shorts, with a few whole peas, when they lay on flesh rapidly, and make a very satisfactory product for the local

1897, and first prize and sweepstakes at the New Brunswick and Nova Scotia Provincial Exhibitions, 1898, will soon increase the numbers and the milking capacities of the herd. A few good grade dairy heifers are purchased in the fall to assist in consuming the fodder on hand, and are sold in the spring at a profit when about coming into use as milkers. The whole herd has been tested twice a year for several years back with tuberculin, and are all sound. No animal is brought in except after test. Mr. Fisher is thoroughly practical in his views and methods of farming, giving personal attention, in so far as his public duties permit, to every detail of the management of the farm and stock, and has a genuine liking for the study and practice of agriculture on his own farm, while his experience as a practical farmer and stock breeder has given him a thorough knowledge of the difficulties and disabilities which his fellow farmers have had to contend with, and a real interest in seeking to accomplish their removal. In this he has been eminently successful, as evidenced by the abolition of the irksome cattle quarantine between Canada and the United States, which has resulted in an immense increase in our cattle trade, the securing of the application of the tuberculin test in Great Britain in the case of cattle purchased for importation to Canada, thus facilitating the introduction of much-needed new blood to our herds of pure-bred

cattle, and the further provision of cold storage in the transportation of perishable products of the farm, such as cheese, butter, fruit, and poultry, whereby they may be placed upon the English markets in the best condition to command the best price. Mr. Fisher has also given considerable attention to the Canadian experimental farm system, the work of which he claims to have a practical and continued bearing upon the problems that confront the farmer and upon these well-recognized conditions under which permanent success may be assured.

Maple Shade Farm.

THE HOME OF HON. JOHN DRYDEN.

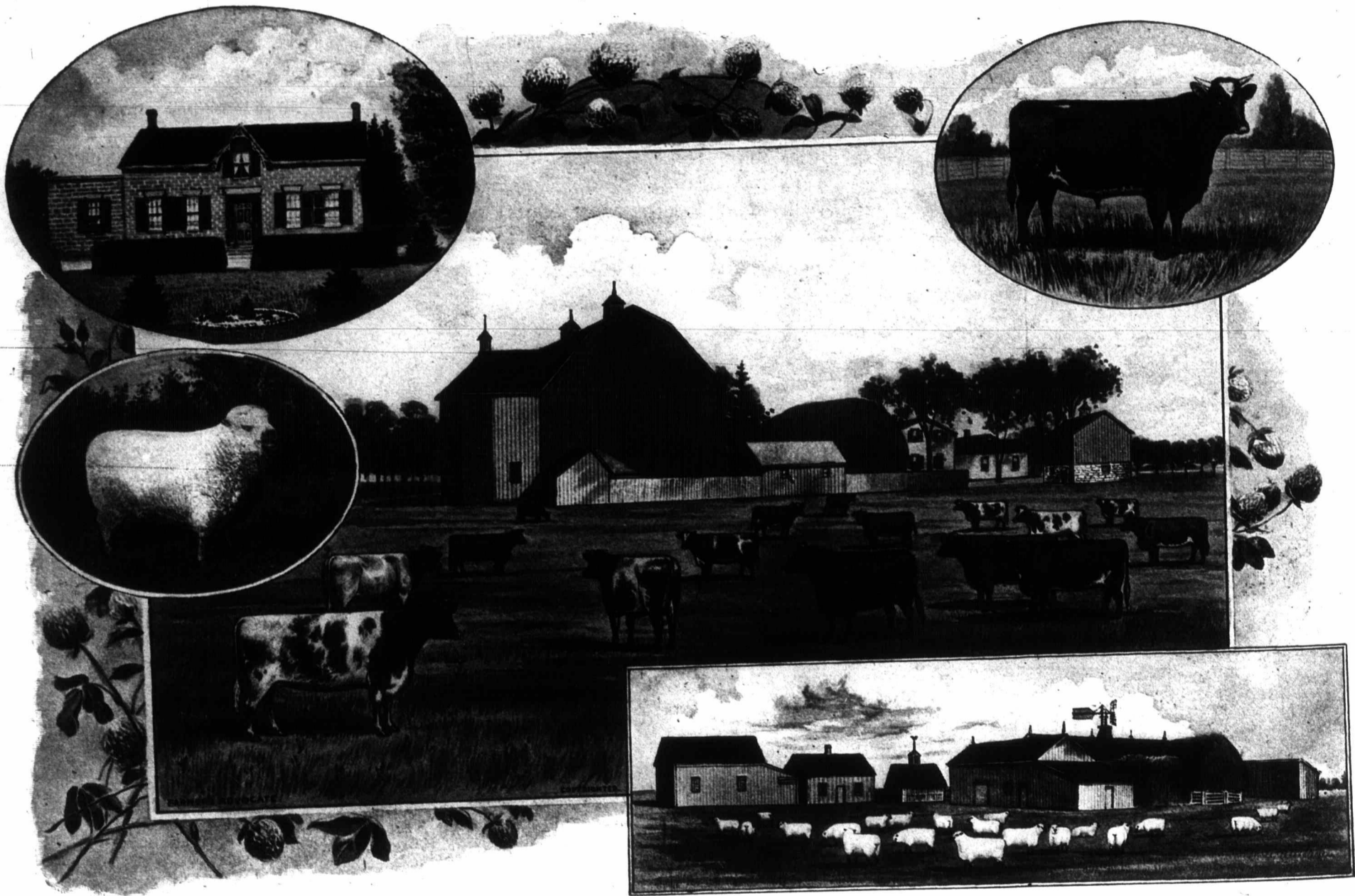
That a view of the farm of the Minister of Agriculture for the fair Province of Ontario should occupy a place among the best in Canada, as presented in these pages, is peculiarly fitting. The far-seeing shrewdness of Squire James Dryden led him to settle in a choice district of one of the best counties in Canada at a time when there was little to help one to decide but the general "lay" of the land and the character of the forest growth. That was in the early thirties, long before his son, the present Minister of Agriculture, was born. With that indomitable perseverance which characterized the pioneers from the Old Land, a beautiful homestead

maintaining the land in good condition, both chemically and mechanically. Corn-growing has found favor at "Maple Shade," and each year magnificent crops are reared and preserved in two large silos, one of which, built in '97, is octagonal and of cement concrete. One is also pleased to notice the protected areas of bush from the tramping and browsing of live stock and the woodman's axe, which commends itself to more general practice. The orchards are well kept and the productive vegetable and small-fruit gardens laid out so as to be tilled by horse cultivation.

"Maple Shade" has some specialties along the line of live stock, in which the proprietor takes peculiar interest. The greater of these is perhaps the right good herd of Shorthorn cattle. In Mr. Dryden's early days his fancy was pleased when his father purchased a two-year-old Shorthorn heifer from the Hon. John Simpson, in 1865, and in the following year a cow with heifer calf at foot were added to the nucleus of the herd. Five years later the herd of Amos Cruickshank, Sittyton, Scotland, was personally visited by Mr. John Dryden, when the famous bull, Stanley, and the three-year-old cow, Mimulus, by the celebrated Champion of England, and the yearling heifer, Queen of Beauty, were selected and brought to "Maple Shade." Wisdom was indeed shown in this selection, as the cow Mimulus proved one of the best

and yearlings. These were all of Cruickshank breeding and type. We believe good judgment has been shown in the selection of the Duthie-bred yearling, Collynie Archer, just arrived from Scotland. He is a showy red fellow, a son of the famous bull, Scottish Archer, whose calves have brought such enormous prices during the last year. He is from Mr. Mann's Missie family, his pedigree being the same as Marengo, the Royal champion of 1888, and was sold as a calf at auction for \$950. Mr. Dryden regards the securing of this bull as a very desirable purchase, and looks for exceedingly good results.

Such a farm as we have under consideration would be incomplete without a flock of sheep, which indeed it supports in a form becoming a shepherd's care. Cotswolds were, previous to the eighties, Mr. Dryden's favorites, but in 1881 a start was made to establish a Shropshire flock, which was augmented the following year when the proprietor, accompanied by the late H. H. Spencer, visited England, each selecting some sixty head from the best flocks in Britain. Since that time regular importations have been made from the flocks of Bowen Jones, Mansel, Buttar, Bird, Fowler, Thomas, and others. All through these years a constant culling has been practiced in the breeding flock, and only choice rams of celebrated families used. It is sufficient to refer simply to the present stock ram to indicate the character of breeding followed. His



THE HOME OF HON. JOHN DRYDEN, MINISTER OF AGRICULTURE FOR ONTARIO, AT BROOKLIN, ONTARIO, CANADA.

soon rose from the little better than trackless forest. A public servant whose effort was to promote the best interests of the young country, and a thoroughly honorable gentleman, as well as a wise farmer, his son, John, acquired a fortunate inheritance by nature and by bequest. Since the present owner became its proprietor the farm has been augmented by about half its present area, and its thrifty condition bears indubitable impress of the thorough-going methods of a progressive farmer and stock breeder, characteristics of the man in all his relations. "Maple Shade," suitably named from the numerous lanes bordered with beautiful emblematic trees, embracing some 420 acres of land, is a model farm in many respects. Its rich, early, friable soil, sufficiently undulating to please the eye and provide ample drainage, is fenced and built upon becoming its natural features. The fields are of suitable size, systematically laid out, underdrained where necessary and cultivated after a four-years rotation with a view principally for the most profitable support of the valuable herds and flocks finding their home there. Being peculiarly adapted to fall wheat, this is the only grain crop grown for sale, and of this a considerable breadth is sown each year, which not only returns a direct revenue but has a distinctive value in working out the favored rotation, in providing liberal crops of straw for bedding and assisting in securing clover catches of great value for fodder and

dams of the breed, producing as she did Royal Duke of Gloucester, used in the Sittyton herd, and the great sire and show bull Barnpton Hero, used so profitably by Messrs. Watt Bros., of Salem, Ont. To these females and their produce were added animals of similar character as opportunities presented themselves, and in 1887 a bold stroke was made when the entire herd of Edward Cruickshank, of Lethenty, Scotland, comprising thirty females, twenty-one of which being directly descended from Sittyton stock, were secured and added to the herd. These included members of such tribes as Victorias, Secrets, Bra- with Buds, Lavenders, Orange Blossoms and Venuses, some of which are yet represented in the herd. The bulls with this importation were Patriot and Sussex, each of which left their impress on the generations following. Before these, however, should not be forgotten Royal Barnpton, Lord Glamis, and Vensgarth, the names of which enter into the pedigrees of many a good one of the present day. Red Emperor, too, was used for a season, and it was only the tempting offer of \$1,000 that took him from the farm at two years of age. Following Patriot and Sussex came Color Guard, purchased from the herd of Col. Harris; then Cornish Game of March, by Barnpton Hero, and Royal Beauty, dam was sired by the best son of Barnpton Hero, the last named being the sire of the present

breeder was A. E. Mansel, who has probably won more prizes at the English Royal than any other breeder of recent years. The ram is Bonny Royal, out of fourteen of whose immediate male ancestors eight have been Royal winners, three of which were his sire, grandsire, and the sire of his dam. He is a model Shrop, not overly large, but aristocratic in bearing, colored and covered just right. It is not strange, then, that his daughters of '98 possess a family resemblance, as pretty and uniform as one ever sees. A rare good bunch of vigorous lambs foraged the clover fields during the past autumn.

Remembering the multiplying public duties devolving upon Mr. Dryden in his parliamentary life, it could have been only by the most strict adherence to a well-grounded and wise principle that his flocks and herds exhibit such uniformity of type and excellence of individuals. Mr. Dryden's motto, "The greatest quantity of the best quality," has indeed borne fruit in the herds and flocks of "Maple Shade."

Banana Farming.

Banana farming is an easy way to make a living in Queensland, Australia. There are now 5,000 acres under cultivation, and the product in 1897 was about 7,000,000 bunches. They are picked when green.

Agriculture in the Public Schools of Manitoba.

BY REV. DR. BRYCE.

The experiment of introducing the teaching of agriculture into our public schools has been watched with interest by all educationists. Some five years ago the Legislature gave directions to the Advisory Board of the Province to have this done. It had not, up to that time, been successfully done in Canada. The problem is not to have classes in the principles of agriculture and the sciences on which it rests introduced into intermediate schools, collegiate institutes or even an agricultural college, but to have systematic and compulsory teaching of this subject in all of our public schools.

The Advisory Board came to the conclusion that children of eleven years of age might profitably study plant life, and thus lead up to the more specific study of agriculture. A few persons failed to see the advantage of it. They seemed to think that this plan was simply to add another "ology" and to miss the mark entirely. Despite the doubtfulness of some, the Advisory Board went on with its plan. A book called "Our Canadian Prairies" was prepared and authorized. This book gave a description of a number of the common plants of Manitoba, contained selections for Arbor Day, and had directions for the examination of the ordinary plants. Along with this a portfolio of Manitoba plants was prepared, containing thirty well-known plants and ten noxious weeds. This portfolio contained colored plates of the forty plants. These were from water-color paintings by a clever Winnipeg artist, and were printed in colors by Messrs. Marcus Ward & Co., of Belfast, Ireland.

This portfolio, which has had a very warm reception, is a real work of art. It was provided for the schools by the Department of Education.

The result of the introduction of the text-book, the study of the portfolio, the compulsory study of both on the ordinary school curriculum, and the examination on these, as well as the compulsory examination for teachers on practical botany, has resulted in a remarkable revival of nature study in the schools. From all parts of the Province come accounts of the general study of plants in the schools, and of the greatest interest prevailing among the pupils on the flora of the country.

Prof. Fletcher, of Ottawa Experimental Farm, informed the writer that during this last summer he had visited a number of the public schools in different parts of the Province, and seeing flowers in most cases lying on the desks, he had held them up before the pupils and was surprised to find the pupils well acquainted with them, able to give their proper names and much valuable information about them. This study has also been helped by the care taken by the Department in holding Institutes for the teachers dealing with this subject, and by the greater attention paid in the normal schools to nature study.

In addition to this work, the Advisory Board agreed to carry on in the next grades of the public schools systematic teaching in the principles of agriculture. Believing that nothing real could be done without some practical knowledge of chemical processes, steps were taken to have forty fundamental experiments taught in all the public schools. The utter absence of apparatus in the schools was a serious obstacle to this. It was necessary to obtain a small cabinet at a moderate price to be introduced into each school for the use of the teacher. A number of would-be wise people criticised somewhat the "chemical boxes," but their criticisms soon recoiled on their own heads. In many schools the chemical experiments were popular with the pupils and their value recognized. Teachers' conventions have desired to have the cabinets refilled and have shown great interest in them. The result has been an increased knowledge in many localities quite surprising. These experiments are required for teachers' examinations, and the writer can testify as an examiner that from all parts of the Province candidates come fairly able not only to explain, but themselves to perform the experiments.

In addition, the Advisory Board prepared and authorized a second text-book, known as "Prairie Agriculture." This book, the use of which is compulsory in all the schools, was prepared by experts, and embraces information as to the processes of scientific agriculture, the management of the different crops, the facts of breeding farm animals, the description of hurtful insects, of birds, and many matters connected with farm life.

For an agricultural country, both in its towns and country places, it is hard to see how a more useful and at the same time better training subject

could be introduced to the notice of the children of the Province. Every means has been taken to instruct and interest the teachers, and it must be said the teachers have shown a commendable desire to carry out the desires of the Advisory Board.

The increasing value of land, the influx of a larger population, the greater comfort of the farmers' homes, the feeling that farming is becoming a more profitable and more honorable occupation, are calling attention to the farmer's life, and there can be no doubt that the continued effort to keep this subject before the children of the schools will be beneficial and tend towards fulfilling the purpose of the Legislature in its resolution adopted at the beginning of this movement.

The Wonders of Natural Gas.

ITS USE ON THE FARM.

BY FRED PHENNINGSBORG, KENT CO., ONT.

Toward the end of 1893, the interest of the people of Ridgetown and the surrounding district was aroused by the discovery of natural gas on the premises of Mr. Henry Porter. Previous to this time natural gas had been utilized by one Mr. Mead, of Harwich township, but as few realized its value, the people of Howard and Ridgetown were doubtful as to whether it was really a substitute for coal and wood as a fuel until they were brought face to face with it as used by Mr. Porter. During the winter of 1894, one of my neighbors, Mr. Lloyd, a man of rather a speculative turn, ventured to drill a well on his farm, and was successful in securing a flow of gas with a pressure of some forty-five pounds. Mr. Lloyd used the gas as a substitute for wood for fuel, and for kerosene for light, and declared that it had no equal. Seeing the real value of the newly discovered substance for fuel, and having no wood on my farm, in the spring of 1894 I secured the services of Mr. Henry Snider, a man

It is the housewife's friend. Go to almost any home in Howard on churning day and see how the poor woman, perhaps with a child on one arm, tugs and pulls at the dash churn, trying by main strength to knock the butter out of the cream, and when you have satisfied yourself that that is the best way of making butter come to my home and see the modern method of making the covering for your bread. You will see my wife engaged in her dining or sitting room, while out in the milk-shed she has her servant—not a being of flesh and blood, but an inanimate fluid, bubbling up through the cream (being conveyed into the bottom of the churn through a pipe and then opening into several perforated branches) and converting it into firm, yellow, palatable butter. Even during the hot summer season, when other women's butter is, unless ice is used, about as soft as the buttermilk left in the churn, my wife's butter is too hard to mix. This may seem incredible to some people but I would say that natural gas, on issuing from its subterranean source, has a temperature measuring some 30 degrees Fahr. [NOTE.—Another novel use made of natural gas is to attach a small steam whistle to a gas pipe, say in rear of house, and by simply pulling a string a signal is given for dinner that can be heard all over the farm.]

It may be objected that this gas, of which people generally hear so much and see so little, has some defects, among which is its odor, which is disagreeable and which would taint butter; also, that the gas formed when burning would blacken silverware. These objections are only true with regard to rock gas, but they are false when charged against the gas in this vicinity, as it has no odor and will not tarnish silver.

Mr. Rowe, of Harwich township, the owner of one of the largest brick and tile yards in Western Ontario, has for several years used gas for burning in his kilns, and the results have proved satisfactory—partly because a very great heat can be obtained in

a short time, and partly because it is much cheaper than wood, and does not have to be cut. As for accidents with gas, I have heard of several, but in each case they were caused by carelessness. I have used it for about four years and a half, and have never had an accident, so it is clear that it is not very dangerous if properly handled.

Natural gas seems to exist here and there all through Kent and Essex counties. Everyone is not fortunate enough to get it, but while drilling for water, Mr. Snider and others say they very frequently find traces of gas. I could not give an exact idea of the parts where gas is found, but roughly speaking, would say along the Ontario shore of Lake Erie and in the above-named counties.



HOME OF JOHANNES EMARSSON, ICELANDIC PIONEER, LOGBERG, ASSA., N.-W. T.

skilled in drilling both gas and water wells. After a few days' labor we secured a flow of gas having a pressure of some fifty pounds. In the fall another well equal to mine was sunk by my neighbor, Mr. Jas. Serson. Several other farmers in the vicinity tried their fortune, but their efforts were fruitless.

The cost of drilling and fitting a gas well depends greatly on the material used. A well cased with 2½-inch pipe will cost about two-thirds of one cased with 3½-inch pipe. The cost of drilling, generally speaking, is \$6 a day, and the pipe for the well costs from 12 to 24 cents a foot, while that used in conveying the gas to the place of use costs from 4 to 6 cents a foot. Burners for stoves are worth \$1, and lamps cost from \$3 to \$15. Taking everything into consideration, and equipping a house with four stoves and four lights, the total expense might be covered with \$100. This may seem a large sum to expend in search of fuel, but when we consider its advantages the thought of expense vanishes, never to arise again.

One of the first advantages of natural gas is its usefulness as fuel. Think of having a beautiful red flame tinged with blue without carrying in wood or carrying out ashes! Also think of having your house the same temperature during the winter by the manipulation of a simple brass or iron valve, and then ask yourself the question, Where is the fuel that can be compared with this colorless, odorless, and combustible gas? Water boils in three minutes after the fire is lighted.

For lighting purposes, natural gas rivals very closely, if it does not surpass, electricity. With one burner placed in the center of any common sized room, a person can see to read in any corner. Nor is its use confined to the house or shop. It may be used in the street, and if we wish to see a town beautifully lighted let us visit Kingsville or Walkerville, lighted exclusively with natural gas.

for the *Century Magazine*, in which he says: Among the first things to impress a stranger are the horses. Descended from horses brought from Mexico, they have become much smaller, while they are also much more shapely. In fact, I have never seen a better looking breed. There is nothing of the pony about their shape, though in size they range between forty-eight and fifty-two inches. At first it looked absurd to see them ridden by big men, whose stirrups hung down to the horses' knees, but I soon found out that they easily carried a rider weighing 200 pounds. The foreigners have a jockey club which holds two meetings a year at the beautiful turf track at Santa Mesa. To avoid sharp practice, members of the club only are eligible to ride. This necessitates a scale of weights, starting at 132 pounds, and rising up to 164 pounds. It demonstrates the speed and strength of the miniature horses that a mile has been run in two minutes and ten seconds by a pony carrying 150 pounds. Only stallions are used. Mares cannot even be brought into the city. Nobody walks—everybody rides; and on any special festivals thousands of carriages fill the streets. I doubt if there is a city in the world that can turn out half the number of private vehicles in proportion to the population.

"Raider" writes the *Scottish Farmer* as follows: "A friend of mine the other day met a German, who gave the following account of himself: Age, 53; married 32 years ago; wife has had 24 children—18 boys and 6 girls; has 3 daughters married; eldest daughter been married 11 years, has 8 children. Altogether the German has 14 grandchildren. Malthus would despair of this gentleman. He takes the cake."

The Horses of Manitoba.

Mr. Wallace Cummings writes of "Life in Manitoba."

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The Dominion Experimental Farms.

The system of experimental farms organized and established by the Dominion Government some twelve years ago was designed to embrace investigations relating to the chief departments of agriculture, and to cover a very comprehensive field, extending from the Atlantic Ocean to the Pacific. Considering the magnitude of the scheme and the difficulties incident to the prosecution of work of this nature, it has been developed with infinite care in its details, the foundations have been laid broad and deep for future advances, and the splendid condition of the farms is evidence in one direction alone of what has been accomplished. Some idea of the extent of the work may be gathered when the area of the farms is considered, viz.: The Central Farm at Ottawa (which, besides being the headquarters, serves specially for Ontario and Quebec Provinces)—500 acres; the Maritime Provinces Farm at Nappan, N. S.—310 acres; the Manitoba Farm at Brandon—670 acres; the Northwest Territories Farm at Indian Head—680 acres; and the British Columbia Farm at Agassiz—300 acres valley land and 800 mountain; making a grand total of 3,200 acres. The work on these farms in connection with grain culture, horticulture, arboriculture, clover and grass culture, stands out pre-eminent. The selection of locations for the different stations, being naturally made with a view to convenience of access rather than to suitability of soil and environment, necessarily led in some cases to the selection of lands that were far from being equal to the average of farming lands in the different sections where they were established, which, while affording the opportunity of demonstrating the possibility, by good management, of achieving results in spite of adverse conditions, proved a considerable drawback to making a good showing in the first years of their history. This was particularly true of the site selected for the central station, which was a hungry, light soil, within three miles of the Capitol buildings at Ottawa, which was taken up in a very much neglected condition by Dr. Wm. Saunders, who was appointed to the position of director at the inception, a position he has held continuously to the present time. Horticulture, arboriculture and good general farm methods were particularly needed in order to give the place a proper appearance. The extensive system of tree-planting followed has been eminently successful, and in connection with a judicious system of rotation of crops and of feeding the land, the once wilderness of drifting sand has been made to blossom as the rose. It is indeed a great object lesson to the country. When, in addition to this, the long and extended record of careful experimental work is considered, it could not but afford the Director and staff genuine pleasure and satisfaction in the retrospect to see such great improvement in the general appearance and condition of the farm. We give below and on the following pages detailed descriptions, together with a complete series of illustrations, which will afford the reader a graphic idea of the plan and purpose of the entire Experimental Farm system.

The Work of Director and Agriculturist.

The progress of agriculture throughout Canada has been greatly stimulated by the results obtained from the useful lines of work carried on at the Experimental Farms. Among the more important of these at the Central Farm are the tests which have been conducted for the past four years with special reference to increasing the product and improving the quality of the more important farm crops, and those which have been carried on for ten years past to gain information as to the effect of many different fertilizers and combinations of fertilizers on the growth of wheat, oats, barley, corn, and roots.

Clover Culture. A third course of experiments also deserve special mention, because of their wide bearing on profitable farming. These are the tests which have been made in growing different quantities and varieties of clover with grain and plowing the crop under late in the autumn or in the following spring. The best results have been had by sowing ten pounds of common red clover per acre. The experience of several years has shown that clover can be sown with advantage with wheat, barley or oats; that when so sown it does not lessen the crop of grain, and after this is cut the clover grows rapidly and stores up in its tissues a large quantity of nitrogen, one of the most valuable and expensive of fertilizers, a considerable part of which is taken

from the air. The clover also serves as a catch crop, absorbing and appropriating the fertilizers brought down by the rain during late summer and autumn. The thick mat of clover produced checks the growth of weeds. Clover has also another advantage over other green crops for plowing under, by reason of its extensive and deep root system, which penetrates to depths in the soil and subsoil which few other plants can reach, and brings from these lower strata additional stores of plant food. By the middle of October the clover usually covers the ground with a thick growth varying from six to twelve inches high, which, when plowed under, adds much to the fertility of the land; it also improves the texture of the soil, making it more retentive of moisture, thus giving more favorable conditions for subsequent plant growth. The experiments tried have shown that



HEDGES AT INDIAN HEAD EXPERIMENTAL FARM.

the weight of clover leaves, stems and roots which can thus be produced by the latter part of October will run from six to eight tons per acre, and chemical analyses have proven that each ton of this material will add to the soil almost as much nitrogen as one and one-half tons of barnyard manure. From experiments conducted in 1898 it has been demonstrated that land on which clover has thus been grown gives a larger crop of grain than adjoining land on which there has been no clover but which has otherwise received similar treatment. The oat crop was found to be thus increased, the gain varying from seven to nineteen bushels per acre, according to the quality of the soil. Where cattle are available the clover can be economically pastured in the autumn and the uncut portions plowed under at the close of the season; or if the land is to be devoted the following year to corn or potatoes, the clover is allowed to grow until about the 20th of May



HOME OF SKULI SIGFUSSON, LUNDAR, MANITOBA, PROSPEROUS ICELANDIC FARMER.

following, when the weight of tops and roots will have materially increased. Since the clover seed can be sown with the grain without extra labor, the cost of growing this crop is only that of the seed, which is about 80 or 90 cents per acre. The benefits which have attended the growing of clover on the Experimental Farms should lead to its general use for the improvement of land. Many varieties of cereals have been brought to the other countries for trial, and many others have been produced at the Experimental Farms by cross fertilization and selection. In conducting the various tests of this kind, the endeavor has been made to produce the best progeny the good qualities of which can be perpetuated, especially with the view of increasing the yield and bringing about early ripening. In some cases eight years more than 700 new varieties of plants have been produced, and when tested, all those which have been discarded; but

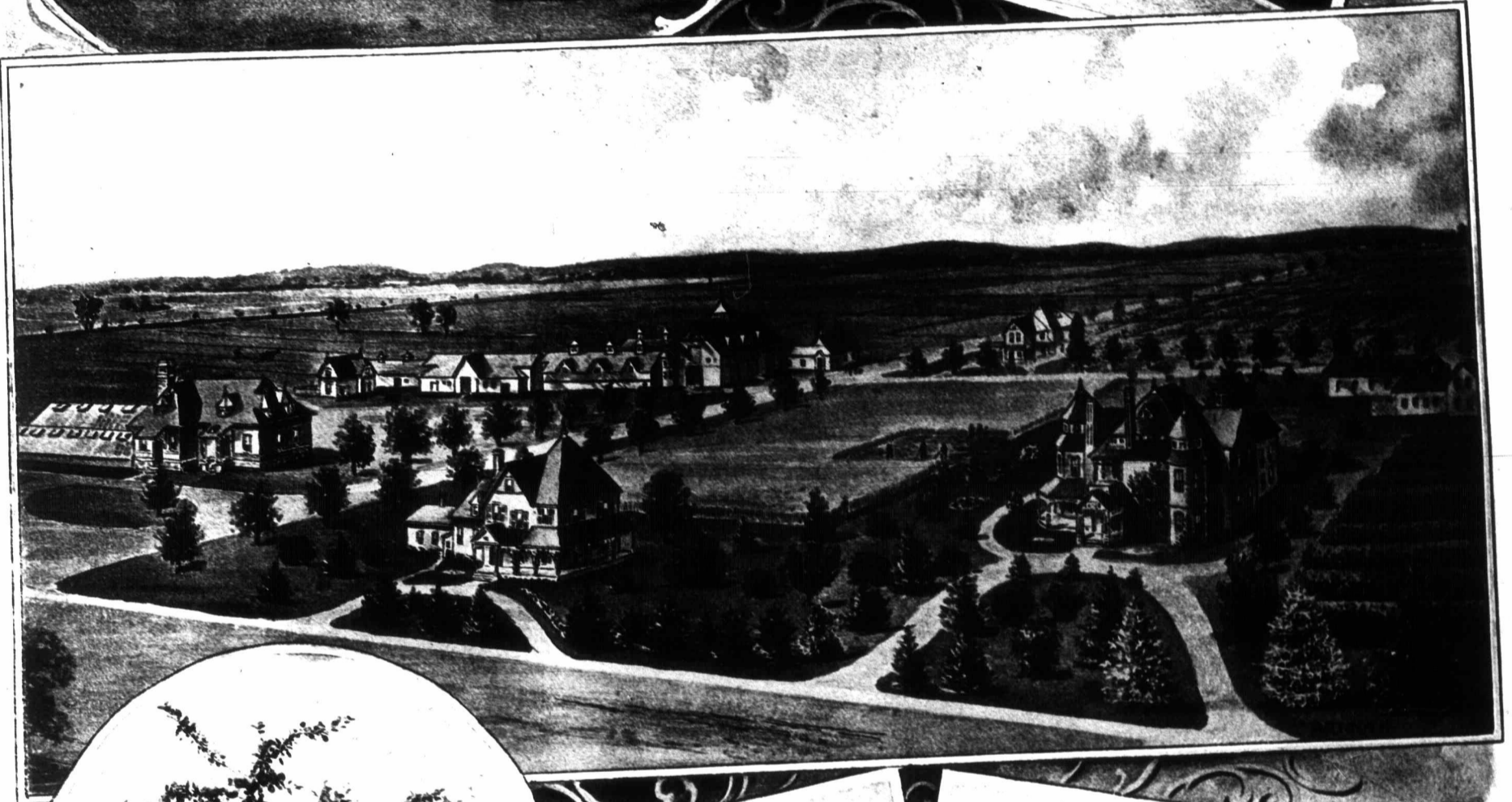
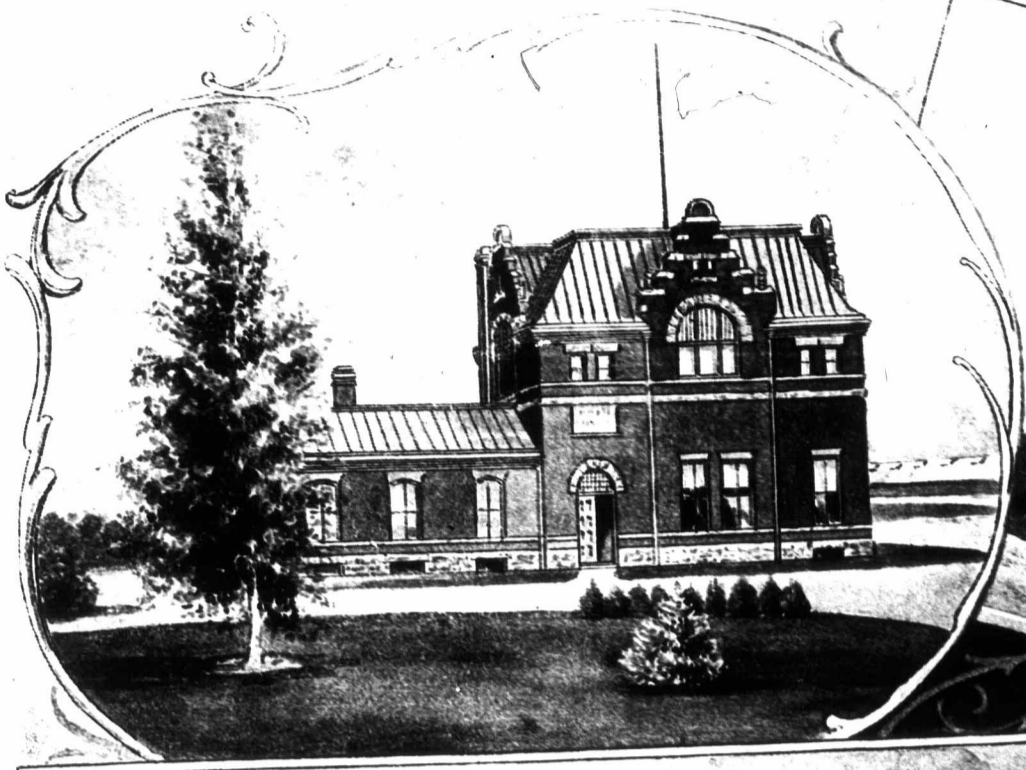
158 of these new sorts, consisting of 71 of wheat, 11 of barley, 14 of oats, and 38 of peas. A few of these of special promise are being grown in a larger way with the object of introducing them more rapidly into general cultivation. The cross-bred sorts, with some of the best of the more newly imported varieties, are distributed every year among farmers for test, three pounds of one sort only being sent to each applicant. Such samples, when properly cared for, usually produce from one to three bushels the first year, and by the end of the second year the crop will generally furnish the careful grower with sufficient seed to sow a considerable acreage. Since the establishment of the Experimental Farms, samples of grain have been thus supplied to about 180,000 applicants. As a result, many farmers in different parts of the Dominion are now cultivating some of these varieties, which, as they prove

superior, gradually replace less productive sorts, thus improving the character and quality of the grain produced in Canada and helping to make farming more profitable.

These, with some other lines of work, have been conducted from the outset under the personal supervision of the director, Dr. Wm. Saunders, and since the retirement of Prof. Robertson, in January, 1896, from the position of Agriculturist, the experimental work formerly carried on by him with cattle and swine has been assumed and continued by the Director. Since that time a large number of experiments have been made to ascertain the relative value and economy of using different sorts of fodder mixtures and grain for the production of beef and pork, and conclusions of much practical value have been reached, the details of which are published from time to time. The annual reports, etc., are supplied without charge to those applying for them. In addition, much information is given to the farmers of Canada by correspondence conducted by the officers of the Experimental Farms. For several years past the number of letters received at the Central Farm has averaged more than 25,000 annually; a large number is also received by the superintendents of the branch farms. The officers in charge of all divisions of the work are always pleased to give information to all who seek it, and in this way, and through special articles on various topics published in our columns, the cause of agriculture has been furthered.

The Horticultural Department

includes the orchards, vineyard, small fruits, vegetables, tobacco, forest belts, and arboretum, this being in charge of Mr. W. T. Maroun, Horticulturist, who also devotes his attention to the study of plant diseases. There are about 46 acres in the orchard enclosure, in which are being tested about 600 varieties of apples, of which 130 are Russian; 60 varieties of pears, 130 varieties of plums, and 50 varieties of cherries. The small-fruits plantations are also here, in which are 200 varieties of strawberries, 60 of currants, 128 of raspberries, and 121 of gooseberries. In a vineyard of about two acres 150 varieties of grapes are being tested. The principal objects in view in growing these fruits are to determine the hardiness and most prolific varieties under various methods of cultivation and with different fertilizers. New varieties are originated by cross fertilization and from seedlings. A special feature of the work this year was the testing of nearly 1,000 varieties of vegetables, among these being 140 varieties of potatoes, 108 varieties of tomatoes, and 100 varieties of peas. Corn, beans, carrots, turnips, beets, celery, cabbage, etc., were also grown. There were 75 varieties of tobacco tested this year, notes being taken on their earliness and the weight of crop of the different sorts ascertained. The forest belts, of about 21 acres, contain most of the timber trees, from which useful information is being gained as to the methods of planting and growth of the trees. About 25 acres are devoted to the arboretum, in which more than 2,000 species of trees and shrubs from many parts of the world are grouped in their several families, and varieties of perennial plants and flowers are also shown. The Horticulturist also examines and tests specimens of new fruits sent to him at the meetings of fruit-growers



FARMERS ADVOCATE COPYRIGHTED

CENTRAL EXPERIMENTAL FARM AT OTTAWA, ONTARIO, CANADA.

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throughout the country, where the work in progress in his department is discussed and the results of experiments given.

The Division of Entomology and Botany has been, ever since the establishment of the Experimental Farm system, in charge of Dr. James Fletcher, who since 1892 has been assisted by Mr. J. A. Guignard. Both of these gentlemen are enthusiasts in their work, and a vast amount of useful information has been published and sent out by them for the benefit of the farmers of Canada, particularly with regard to the most commonly occurring pests of the farm and garden. Investigations have been carried on to discover the most effective remedies for the various insect enemies which from year to year levy so heavy a tax upon all crops that are grown, and many valuable articles have appeared in the columns of the FARMER'S ADVOCATE upon this important subject, prepared expressly for us by the Entomologist, who recognized that by being published in our columns the farmers of the country would be effectively reached. The apiary at the Experimental Farm, although under the direct management of Mr. John Fixter, the farm foreman, is naturally attached to this division. A class of work which has been of much value is the testing of a large number of grasses and fodder plants, special attention being given to those which are natives of Canada. One of the results of this work has been the introduction of Awnless Brome

soils of the Dominion have been made, so that now there is on record a considerable amount of data on this important question. Of late years attention has especially been paid to the estimation of available plant food in soils, a matter of considerable moment in determining a soil's deficiencies. Much analytical work has also been accomplished in connection with Canadian fodders, feed stuffs, and fertilizers. The feeding values of most of our native and introduced grasses, of Indian corn in various stages of growth, of milling products, etc., have been ascertained, and the data so obtained are all available to farmers, stockmen, and dairymen. The naturally-occurring fertilizers of the Dominion—muck, marl, tidal deposits, seaweed, etc.—have also been investigated and valuable information of their properties published. Dairy products, spraying mixtures, insecticides, farm well-waters, and a host of other matters connected with farming have all come under examination. The work done in connection with farm water supplies is one of great importance, and no doubt will be most instrumental in bringing about a much-needed reform, for polluted water on farms is altogether too prevalent.

The Poultry Department.

The poultry department, under the direction of Mr. A. G. Gilbert, is composed of three buildings of about 100 feet in length and from 14 to 18 feet in width, with passageway 4 feet wide. The buildings are divided into pens of different sizes,

operation and giving the best results with the least attention.

6. The penning up and fattening of thorough breeds and ordinary barnyard chickens to determine which are the most rapid flesh-formers on the least quantity of food.

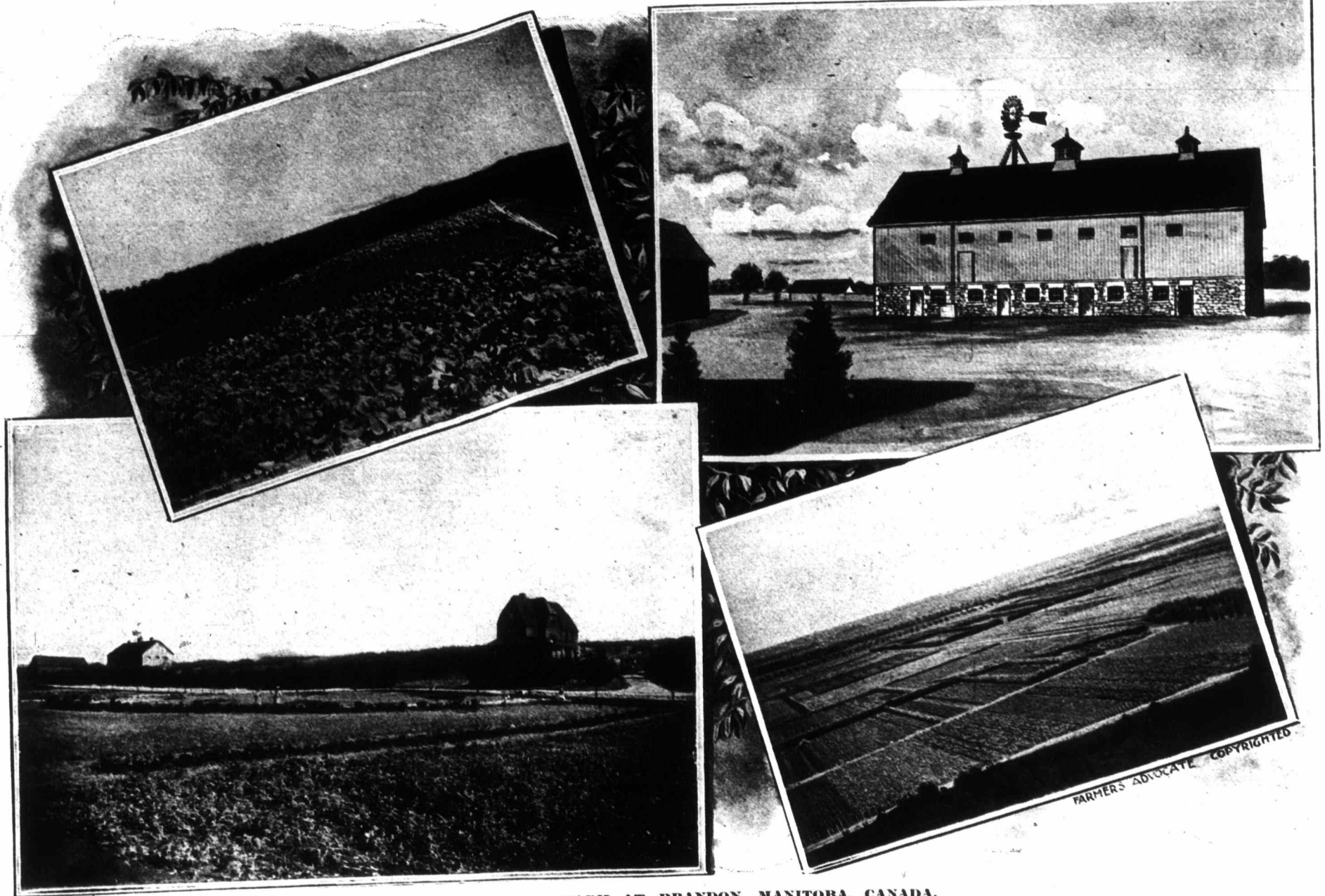
7. The trial of pullets, and one-, two- and three-year-old hens, to obtain satisfactory data as to which lay the most eggs at the time eggs are most valuable.

8. And other experimental work, the necessity for which makes itself felt from time to time.

The experiments of last year were conducted with 157 hens and 63 pullets. A certain number of male birds are kept for breeders. The young male birds to spare are sold in the fall season. Eggs for hatching are also sold in the spring. The results of the experimental work as far as conducted may be had in the reports issued every year. So far the experience gained goes to show that for the farmer Plymouth Rocks, Wyandottes, and Brahmas make the best layers and flesh-formers; while Andalusians, Leghorns, and Minorcas will yield the most eggs, but are not as good flesh-formers.

Brandon Experimental Farm.

The Experimental Farm for the Province of Manitoba was selected in 1882. The services of Mr. S. A. Bedford, whose long experience as farmer, land guide, and colonization agent had given him a very



EXPERIMENTAL FARM AT BRANDON, MANITOBA, CANADA.

grass, which is now one of the greatest boons to farmers in the Western Provinces. The division is also largely used as a source of reference by scientific students, who continually send in large numbers of insects and plants to be named. Special efforts have been made, not only in the reports and bulletins, but in the large correspondence of this division, to avoid as much as possible scientific or technical expressions. Among recent subjects studied, mention may be made of the San José scale in Ontario, Rocky Mountain locusts in Manitoba, the carrot fly in New Brunswick, wheat insects in Prince Edward Island and the Prairie Provinces, and fruit insects in British Columbia.

The Chemical Division.

Chemistry is chief among those sciences from which the farmer learns the why and wherefore of his work. By stating and explaining the requirements of our stock and crops, it enables us to farm intelligently and economically. The field for chemical work in agriculture is a wide one, for there is scarcely a question in farming that chemistry does not throw some light upon. This being so, we can only in the present article indicate the nature of some of the more important investigations carried out in the farm laboratories at Ottawa, under the capable direction of Mr. Frank T. Shutt, the chemist of the staff. Many analyses of virgin

with outside runs of same width, and from 24 to 48 feet in depth. These runs open again into small fields in rear of the buildings. The newly-hatched chickens are placed, with the mother hens, in small coops, which are arranged in fields in front of the buildings. The inside pens have all modern floors, which have been found the best, and each one contains platform and roost, nests, dust bath, narrow trough (33 inches wide) fastened to side of the pens for feeding of mash and cut bones, drinking fountain, and small box (divided) for grit and oyster shells. The runs outside are provided with grass, gravel and sand.

The experimental work is conducted with the object of:

1. Obtaining new-laid eggs in winter in as great number as possible at the least cost.

2. The use of such rations as will be most effective, cheapest, and most convenient to the farmer.

3. The hatching and rearing, by hens, of chickens of different breeds, so as to learn which are the hardiest, make the most rapid growth, the best flesh-formers, and the earliest layers.

4. The crossing of different breeds of chickens, with the same object as described in the foregoing.

5. The trial of different sorts of manure, in the view of finding out which is the best.

full knowledge of the country, were called into requisition in locating the farm, and he has ably filled the position of superintendent ever since its establishment. It is doubtful if a better selection could have been made, when all the purposes of the farm are taken into consideration. The farm comprises a section of land, 640 acres, adjoining the City of Brandon, on the north side of the Assiniboine River, on the main line of the Canadian Pacific, and about the center of the great wheat-producing portion of the Province. The prevailing climatic conditions do not render the work of the farm as useful, perhaps, to the eastern and northern districts, but no location could better serve, in every detail, the whole Province. Many people not thoroughly acquainted with the farm are not aware of the variety of soil and conditions that obtain. Of the lower lands in the river valley there is about 150 acres of heavy, stiff, clay soil, 100 acres of which is under cultivation. This land is as heavy as any Red River Valley lands. Another 100 acres in cultivation, a little higher up is of rich black sandy loam, very fertile in character and well adapted for experimental work. Still higher up, another 100 acres of gravelly loam is cultivated. This is on the top of the hill which rises on the bank of the wide valley of the Assiniboine, and runs through the farm and

approaching the buildings are some four miles in length, lined on both sides with rows of trees, mostly native maple, now from four to nine years of age, and all making rapid growth. Along the main avenue a half mile of native spruce trees add greatly to the appearance of the farm, and serve to show every visitor the possibilities with this beautiful native evergreen. In small edges there are some fifty varieties of trees and shrubs under test, and about three acres devoted to forest trees, which Superintendent Bedford places in the following order according to their usefulness and general adaptability: Elm, ash, maple, cottonwood (all natives), and the Russian poplars.

The lesson above all others taught is that of thoroughness in every department of farm work—plowing, harrowing, seeding—every detail being done with the most thorough care and at just the proper time. The best methods of summer-fallowing in order to conserve moisture and eradicate weeds is constantly under experiment, and the results kept before the public. The benefit of using absolutely pure, clean seed, is well illustrated from year to year, and fields of our standard varieties, grown from hand-picked seed, has a wonderful effect in stimulating the demand for pure seed grains. The foolishness of using seed unsound or of low germinating power is also constantly emphasized, and the demonstrations of the efficacy of bluestone as a

nurse crop the root growth has seldom been more than two inches.

Corn has been grown with gratifying success; an average of twenty-one tons of green corn to the acre has been reached, and ensilage of good quality made every year. Early-maturing varieties—North Dakota Flint and Canada Yellow corns—are the best; frequent and thorough surface cultivation is absolutely essential. Best ensilage results when corn is wilted a week from cutting to putting it into silo. Where there is no silo it can be saved satisfactorily by stacking in alternate layers with straw. It has also been shown that peas can be successfully grown as a farm crop. They require heavy soil, early and thick sowing, from 2½ for small and 3 for large varieties. Mixed with two pecks of oats, they may be cut with a binder and harvested from stooks. Yields as high as 68 bushels per acre have been reaped, 59 bushels per acre being the highest this year.

The most important lesson in connection with root-growing taught by the experiments made on this farm is the importance of early seeding. Several plots of mangels have yielded over 2,000 bushels per acre this season. In vegetables the tests are being found very reliable and helpful to the farmers of Western Manitoba. In fruit-growing the small fruits all do well, and the utter uselessness of importing apple or other large fruit trees from east

Experimental Farm for British Columbia.

The object of the Experimental Farms in each Province is to first test those methods of farming and those agricultural products that from the nature of the climate and conditions would naturally be the agricultural staples and serve the interest of farmers by advancing this interest in every way practicable, and at the same time feel cautiously in every direction where there is a chance to diversify the farm products, either for commercial purposes or to widen the farmers' bill of fare for his own table. In our Pacific Coast Province, west of the Cascades, fruit-growing has, perhaps, the most promise of profit, and the object in this line on this farm, which is situated at Agassiz, seventy miles east of Vancouver, on the line of the C. P. R., and under the superintendence of Mr. Thos. A. Sharpe, was to secure from every quarter varieties of fruit to test under ordinary farm conditions, feeling certain that in this way those varieties of fruits best suited for the climate and for market requirements, and at the same time profitable to the grower, would be found. For example, the list of apples is now nearly one thousand. Many of these have only been received as scions, and of course have not fruited, but of the considerable number fruited, some varieties have been found that are of sufficient promise to warrant recommending them to planters.



EXPERIMENTAL FARM AT AGASSIZ, BRITISH COLUMBIA, CANADA.

preventive of smut have done much towards checking the ravages of this destroying fungi.

From year to year careful tests are made with an average of about 30 varieties of wheat, 60 of oats, 20 of two-rowed and a like number of six-rowed barleys, and about 35 of peas. There is nothing yet, however, that Mr. Bedford can recommend for general sowing superior to the standard Red Fife wheat, which this year averaged 37 bushels per acre; Banner oats, 106 bushels per acre this year; and Odessa and Mensury barley, about 55 bushels per acre; and quantities of these varieties, absolutely pure, have been distributed as largely as possible among the farmers. The big average yields obtained on these farms year after year is substantial evidence of the superior cultivation given.

The growing of grasses has, ever since the establishment of the farm, received a very great deal of attention; and apart from assisting in the introduction of the *Bromus inermis*, native rye (*Agropyrum tenerum*), and native Lyme (*Elymus americanus*) grasses, it has been demonstrated that a much better catch of grass may be secured by seeding without nurse crops. After years of failure, several of the clovers have, for the last few years, given satisfactory results, which Mr. Bedford attributes mainly to seeding *without nurse crop*, thus enabling the plants to make good roots to withstand the first winter. Red clover sown alone has made from six to nine inches of root by winter, while with

of the Great Lakes has been repeatedly proven. In forest trees and ornamental shrubs, over 200 varieties have been found perfectly hardy, and each year the list is being added to. This is also true of the perennial flowering plants.

This is the only farm in Western Canada where tile draining has been attempted. Some 4,000 feet of mains, with 1,000 feet of branches, serve to reclaim about 15 acres of land near the foot of the hills. As there are no springs along the course of the drains, they work perfectly, as there is no flow of water during the winter months.

About the superintendent's house an arboretum has been set out, in which are many varieties of trees and shrubs. There are also grass plots and beautiful beds of annuals and perennials. The barn, which is 111x50, with 10-foot stone foundation, accommodates 40 cattle and 12 horses, also root cellar and silos. The superstructure, with 16-foot posts, furnishes room for fodder and feed granaries. The storehouse is 72x28 or 16-foot posts. In this are implements, and carriage house, sample and store rooms. Abundance of excellent water is obtained from wells on the high land above the buildings. The live stock consists of work horses, and a few specimens of Shorthorns, Ayrshires, Holsteins, and a Guernsey bull; Berkshire and Tamworth swine, and several breeds of poultry. Some useful tests have been made in cattle feeding, with such feeds as are available to the average farmer.

The same may be said of plums, and perhaps of pears, but in the latter case longer time is needed before one could speak with certainty, for not only vigor and productiveness in the tree and fine appearance and quality in the fruit are required, but to be of most value as a variety, it must also be a good shipper, and to determine all these points requires time, and until all these points are definitely settled, it is not wise to recommend a variety for extensive planting, nor would careful nurserymen care to propagate a stock for sale.

On this farm attention has also been paid to testing numbers of the principal varieties of grains and roots with satisfactory results, but owing to the fact that nine years ago almost all of this farm was almost wild land, and to the area needed for fruit plantations, it has not been practicable to devote very large areas of land to these branches of farming; but for determining comparative values, small areas answer fairly well in testing a large number of varieties of grains. About one-third of the farm is valley, and the balance mountain land, a great deal of the latter being planted with the best and most valuable of Eastern hardwood trees. Orchards have not only been established on the valley lands of the farm, but on the bench lands on the mountain sides at altitudes varying from 150 to 1,050 feet. Our artists in the picturesque engraving given elsewhere have afforded the reader a very good conception of the farm and its main purpose.

Indian Head Experimental Farm.

At an altitude of 1,924 feet above the sea level, on a bare, open plain, many miles from timber, is located the 682 acres which compose the Dominion Experimental Farm for the Northwest Territories. Indian Head is on the main line of our great transcontinental highway, something over 300 miles westward from Winnipeg. Previous to its acquirement by the Government it had all been under cultivation as a portion of the celebrated Bell Farm. Mr. Angus MacKay, who has been superintendent of the Farm since its establishment, had previous to his appointment farmed for several years in the neighborhood. As an experimental farm for the wheat-growing sections of the Territories the site was well chosen. Two coulees drain the Farm, and from reservoirs formed by dams across one of these the water supply of the Farm is obtained. The soil, with the exception of 100 acres of heavy clay, is a very uniform, rich, black sandy loam with clay subsoil. Upon the Government taking possession, attention was immediately given to tree-planting, but at first without very marked success. Within the last five or six years, however, the development along this line has been most marked, and where ten years ago not a vestige of a tree could be seen, to-day there are in all some fifty acres of strong, vigorous growing shelter and ornamental trees, distributed in plots of from one to twelve acres on different parts of the Farm, and in addition some ten miles of roads lined on both

followed by frequent surface cultivation to destroy germinated weed seeds and keep a perfect soil mulch on the surface, gave best results, but as the root fiber became worn out of the soil this system tended very much to cause soil-drifting. As seeding-down is not yet practical on the large scale on which farming is carried on in the wheat areas of the West, this plan of fallowing is being modified to suit these conditions, and now the first plowing is a shallow one, followed as before by frequent surface cultivation, continued till the season of growth is past; then the land is plowed again deeply, and the subsoil thus brought to the surface does not mellow enough to drift. Of course, weed seeds may thus be brought to the surface to grow with the crop, but these may be held in check by the harrow and weeder after the crop has been sown. Mr. MacKay recommends summer-fallowing one-third of the land each year and taking off two wheat crops, the second without plowing, simply burning off the stubble and drilling in the seed.

Red Fife still holds supremacy over the forty varieties of wheat under test from year to year. Wellman's Fife (practically the same thing) ranks well up, as does Redfern and White Fife; while the Dominion Experimental Farm hybrids, Preston and Stanley, keep well up in yield and quality. Out of sixty varieties of oats, none rank higher for general utility than the Banner, which has averaged close up to one hundred bushels per year. The Abundance stands next, perhaps, both being first-

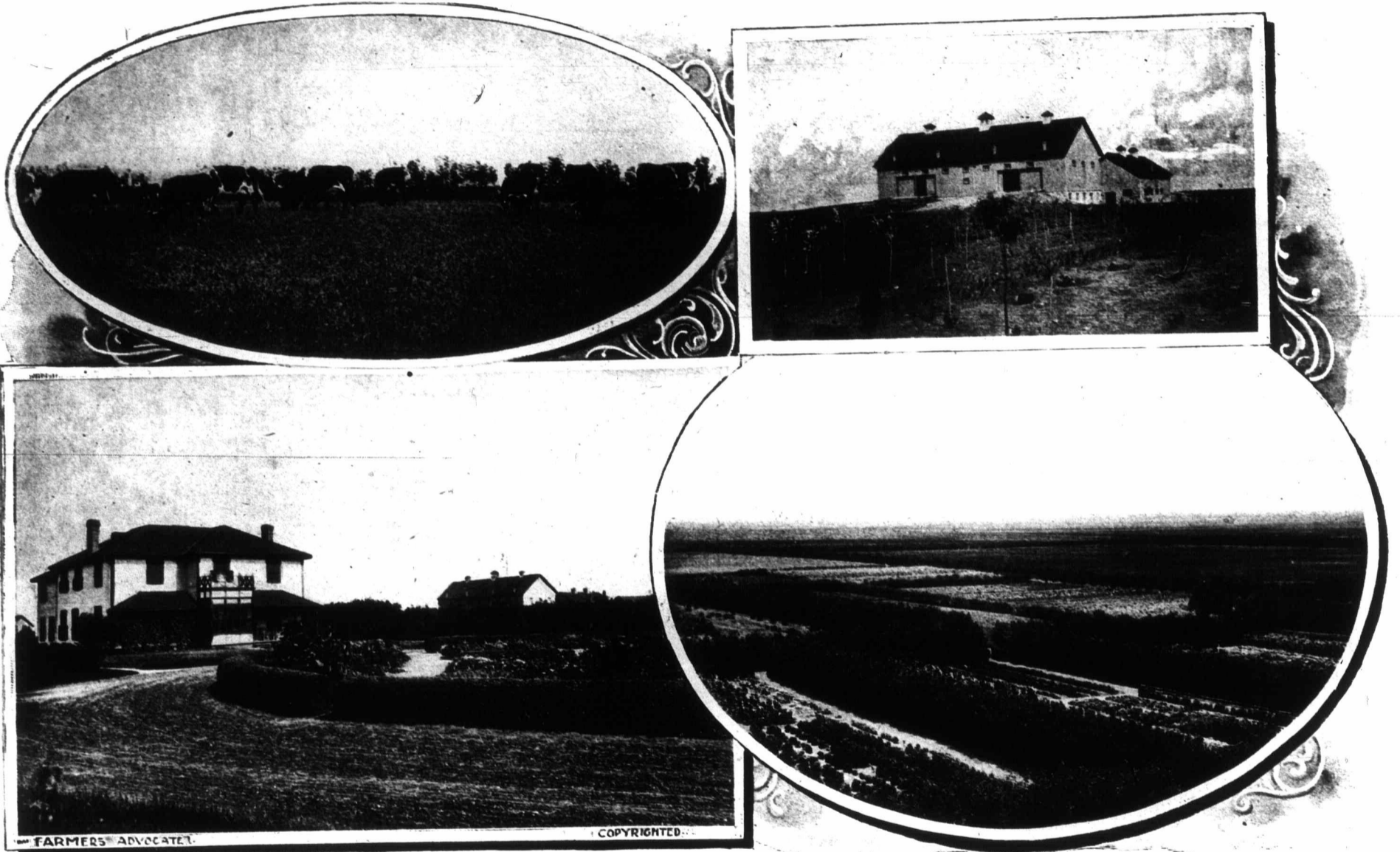
and Shorthorn grades. Other breeds are represented by an Ayrshire bull and a couple of Holsteins. A few good horses have been raised on the farm, and in the swine pens are some good Tamworths, Berkshires, and Yorkshires. As on the Brandon Farm, no sheep are kept. Several breeds of fowls are represented in the poultry house.

No one can visit these experimental farms of the West and not rise to a higher estimation of the possibilities of home-making on the prairies. None can measure the influence for good that these well-tilled farms, dotted with beautiful clumps of forest and ornamental trees, have upon the settler of the bare prairies.

Sheep Ranching in Alberta.

To the Editor FARMER'S ADVOCATE:

SIR,—The Canada Land and Ranch Co.'s sheep ranch is situated one mile from Swift Current, on the banks of the Swift Current Creek, where they have very extensive buildings and corrals. They have one of the finest shearing sheds in Canada, built on the Australian principle, with accommodation for fifteen shearers, who can on an average shear from twelve hundred to fifteen hundred sheep a day, weather permitting. This season the company have built a cement dipper, 65 feet in length, six feet deep, 22 inches wide, in which from 3,000 to 4,000 sheep can be dipped in ten hours. The company are wintering 13,000 sheep; 5,000 are breeding ewes, balance are cast ewes, yearlings and



EXPERIMENTAL FARM AT INDIAN HEAD, ASSINIBOIA, N.-W. T., CANADA.

sides with avenue trees or hedges. The success of tree-growing depends, as pointed out by Mr. MacKay, upon summer-fallowing the land previous to planting, and subsequent thorough and frequent surface cultivation in order to keep down weeds and grass and to retain moisture in the soil. For general planting Mr. MacKay recommends: Native maple (box elder), as being most readily obtained and easily started, even where there is no shelter; the native white ash, for purposes of utility; the elm (native), for avenue and permanent planting; cottonwood, for quick growing in avenues or elsewhere; and the native poplar. Of the shrubs and ornamentals, the Caragana and honeysuckle stand at the head of the list, with the Asiatic maple (*Acer ginnala*) the choice for low-growing, ornamental hedges. The list of trees and shrubs that have been found perfectly hardy now numbers upwards of 200 varieties; of course, it should always be borne in mind that most of these are only hardy grown in the shelter of other more hardy trees.

In addition to demonstrating the possibilities of tree culture on the high, bare prairies of what has been termed the semi-arid districts of the Central West, it has also been shown that by a proper system of cultivation wheat can be grown successfully, almost regardless of the rainfall for any one season. That system consists of bare summer-fallowing, so performed as to conserve the moisture of two seasons for the growing of the one crop. At first, one deep plowing in the early part of the season,

class milling oats. Of early varieties suitable for Northern Alberta, the Welcome, Winter Gray, Early Gothland and White Russian will likely be found most suitable. Of six-rowed barleys, the Odessa has been the best and most regular in yield; and the Canadian Thorpe the best all-round two-rowed, being stiff in straw and fairly early; but for general cultivation none excel the Odessa. Peas have been fairly tested, and, while they yield largely, are not likely to be generally grown under existing conditions. Some of the Experimental Farm hybrids head the list, but of the varieties to be had on the market, Prince Albert and Crown are the best small, with Pride and Mummy about the best large peas. Spring rye has been found a most useful fodder crop, yields two cuttings if sown early, and is absolutely proof against summer frosts. Success has not yet been achieved in growing corn or any of the millets. Grasses, however, have been grown with marked success. The introduction of Bromegrass is due in a large measure to the work done on this farm. It is now considered one of the best and most serviceable grasses for the West. Native rye grass (*Agropyrum tenerum*) is also a most useful variety, yielding heavy crops of hay. While several of the clovers have lived through the past two winters, nothing much can be said of them as yet. Very little success can be reported from this farm with fruits, except the small fruits. Roots and vegetables do well and receive due attention. In the stock barns are some fair specimens of Shorthorn

lamb. Nothing but pure-bred Oxford Down rams are used. These are purchased from the best breeders, near Guelph, Ont. The wethers are sold at two years old, at an average weight of 140 pounds after 21 hours' fasting on the cars. They find a ready market in British Columbia at three and a half cents live weight (freight paid). Several carloads have been sold to butchers in Vancouver. This company also takes every precaution against hard winters. They have on hand at present, by careful measurement, 970 tons of hay, all well stacked near the winter sheds and well fenced. Each shepherd has charge of from 2,000 to 2,200 sheep, and during stormy weather has a helper to feed, etc. The coyotes are sometimes troublesome, but each shepherd is supplied with two deer-hounds, and they generally make short work of the coyotes.

Ranching in Western Canada is one of the best paying businesses an experienced man can invest in. One great drawback to this country is that there are too many inexperienced men start ranching—men that know nothing about caring for stock and providing for winter, and the consequences are they lose their stock, leave the country and tell their friends the country is no good.

W. ALEXANDER, Manager.

The cattle shown in upper left-hand corner of Indian Head Ex. Farm engraving are grazing on some grass pasture.

Experimental Farm for the Maritime Provinces.

The most easterly of the series of experimental farms established by the Dominion Government is that for the Maritime Provinces, situated at Nappan, Nova Scotia, near the dividing line between that Province and New Brunswick. A very faithful picture of the superintendent's residence and the farm buildings is given in our pages. The selection of the farm was evidently not especially fortunate, the soil being naturally poorer than the average of the district, and its form inconvenient for the measurement of fields, being cut up by the high-road and the railway, making fields irregular in shape. The farm comprises 310 acres, and is devoted mainly to dairying and the growing of roots and fodder crops. Useful experiments have been conducted in underdraining both upland and marsh lands, and the result has shown a marked improvement in crops. Experiments are also being conducted in the feeding of cattle for the production of milk and beef, and in the fattening of swine. Orchards have been established and plantations made of ornamental trees and shrubs; the fruits under test now numbering nearly 300 varieties, and the ornamental trees and shrubs include about 280 varieties. The station is now under the efficient superintendence of Mr. R. Robertson, formerly a successful farmer and breeder of Ayrshire cattle at

and typical Guernsey and Ayrshire bulls are having a good influence in the improvement of the herd; and amongst the best of the Guernsey cows is Cora Hayes, portrayed in the accompanying engraving; a cow of great constitution and capacity, and of good dairy form, her udder being large and well formed, and her teats well set. The milk is taken to the creamery, where the cream is separated, and the skim milk returned for calves and hogs, of the latter of which a limited number are kept, of Berkshires, Tamworths and crosses; in the feeding of which interesting experiments are being conducted, with a view of determining the cost of producing pork and the relative difference in cost of production in the case of pigs of different breeds. Mr. Robertson also purposes conducting experiments this winter in feeding steers of different breeds and grades, as well as a few scrubs, the experiments to be dual in nature, testing comparative gain in weight and cost of production, and also to determine comparative profit of feeding beef cattle as compared with dairy cows, the report of which will be looked for with interest.

Ramshackle Farmin'.

[From "The Girl at Cobhurst," by Frank Stockton.]
"Kerridge or no kerridge," said Mike, the cross-bred colored-Irish hired man, "the're good 'nough quality for me, and I reckon I know what quality is."

himself as a farm manager, and on this point his feelings were very sensitive. As was usual with him when he lost his temper, he got up without a word and went out.

"Bedad," said Molly, looking round her, "I wouldn't have said that to him if I'd seed there wasn't no kindlin' sphlit."

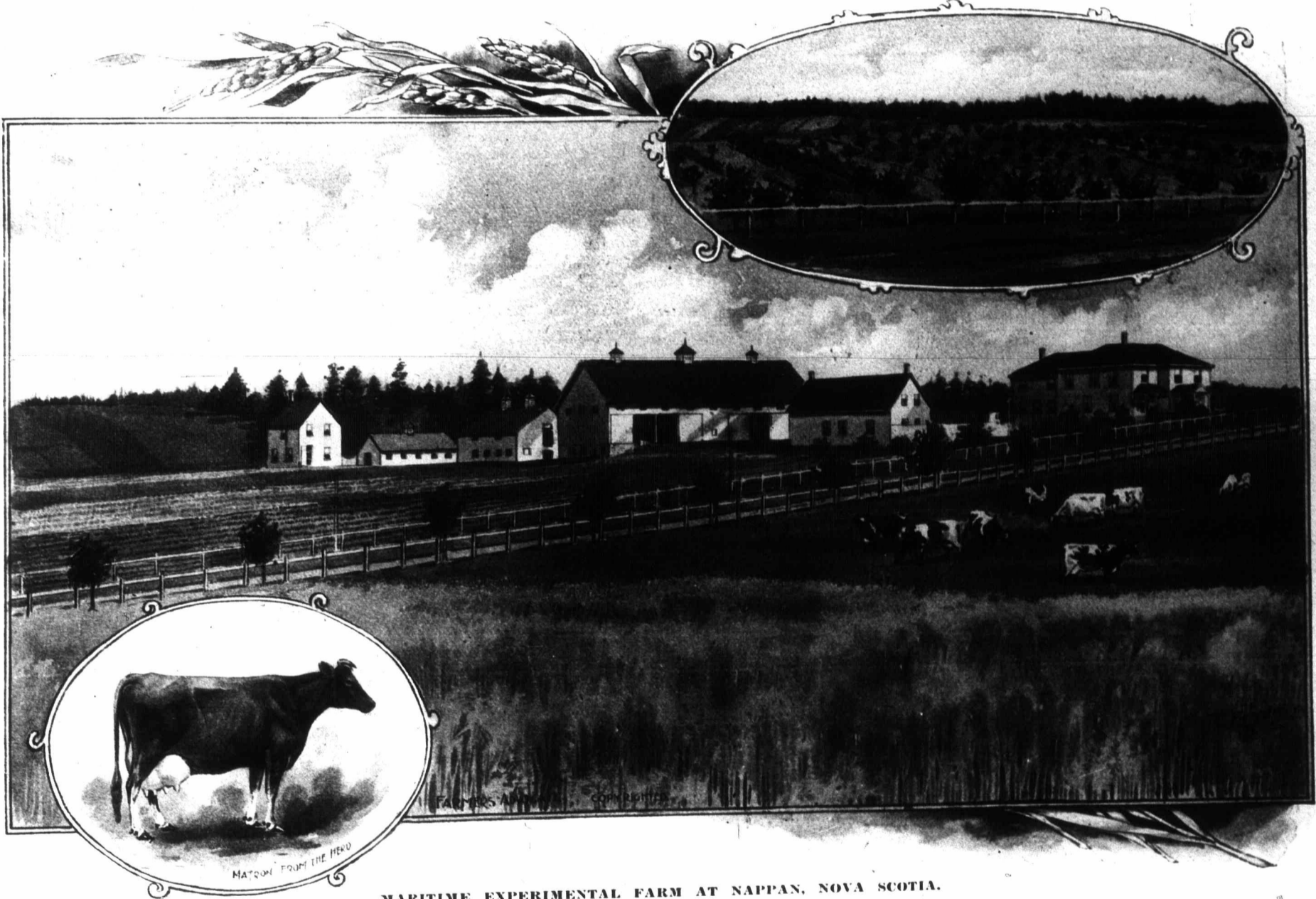
"Are you lookin' for any of the folks?"

"Oh—no, no," said La Fleur (the diplomatic French cook from Dr. Tollbridge's, who came to visit them). "I am just walking about to see a little of this beautiful place. You don't mind that, do you, Michael? You keep everything in such nice order. I haven't seen your garden, but I know it is a fine one because I saw some of the vegetables that came out of it."

Mike grinned. "I reckon it ain't the same kind of a garden that you've been used to, mum. I've heard that you cooked for Queen Victoria."

"Oh—no, no," said La Fleur, dropping her head on one side so that her smile made a slight angle with the horizon, "I never cooked for the Queen, no indeed; but I have lived with high families—lords, ladies, and ambassadors—and I don't remember that any of them had better potatoes than I saw to-day. Is this a large farm, Michael?"

"It's considerable over a hundred acres, though I don't know 'xactly how much. Not what you'd call big and not what you'd call little."



MARITIME EXPERIMENTAL FARM AT NAPPAN, NOVA SCOTIA.

Compton, Quebec, who is doing good work in the handling of both stock and crops; and the horticultural department is under the care of Mr. W. S. Blair. By the liberal application of manure and the plowing in of clover a considerable portion of the farm has been brought into very productive condition, and yields excellent crops of roots and ensilage corn, some of the trial plots of the latter yielding at the rate of 20 tons per acre, and a field of crop being estimated at 15 tons per acre. A field of clover the past season yielded 3 1/2 tons per acre the first cutting, and a second crop, equal to one ton per acre, was plowed down as a fertilizer. Some of the trial plots of potatoes the past season yielded at the rate of from 300 to 420 bushels per acre, and the crops of mangels and turnips were fully up to the standard of first-class.

The dairy herd composed of pure-bred registered Guernseys, Ayrshires, and Holsteins, and selected grade cows of good dairy type, are doing good work, as shown by the published statement of the record of 26 cows for the six months, November 28th, 1897, to May 28th, 1898, a number of them having made, according to the Babcock test, equal to 200 to 272 pounds better in that time, which, at the price received for the output of the creamery where the milk was tested, gave these cows a credit of \$45 to \$65, and a profit of from \$10 to \$17 each over cost of feed consumed. Excellent

They ain't got much money, that's sure; but there's lots of quality that ain't got money, and he's got sense and that's better than money. When he first come here, I jes goes to him, and ses I, 'How's you going to run this farm, sir—ramshackle or regular?' He looked at me kinder bothered, and then I 'splained, 'Well, said he, 'reg'lar will cost more money than I've got, and I guess we'll have to run it ramshackle.' That's what we did, and we're gittin' along fust-rate. He works and I works, and what we ain't got no time to do we let stan' jes' thar till we git time to 'tend to it. That's ramshackle. We don't spend no time on fancy fixin's, and not much money on nothin'."

"That's jes' what I've been thinkin' meself," said Molly Tooney, the new hired girl. "I don't see no signs of money being spint on this place nathur for one thing or anuther."

"You don't always have to spend money, to get craps," said Mike. "Look at our corn and pertaters. They is fust-rate, and when we sends our craps to market there won't be so much to take for 'spenses out of what we git."

"Craps!" said Molly with a sneer. "If you hauls your weeds to market it'll take more wagons than you can hire in this country, and thim's the only craps my oi has lit on yit."

This made Mike angry. He was in general a good-natured man, but he had a high opinion of

"But you grow beautiful crops on it, I don't doubt," remarked La Fleur.

"Can't say about that," said Mike, shaking his head a little. "I 'spects we'll git good 'nough craps for what we do for 'em. This ain't the kind of farm your lords and ladies has got. It's ramshackle, you know."

"Ramshackle?" repeated La Fleur. "Is that a sort of sheep farm?"

Mike grinned. "Law, no; we ain't got no sheep, and I'm glad of it. Ramshackle farmin' means takin' things as you find 'em an' makin' 'em do, an' what you git you've got; but with 'tother kind of farmin' most time what you git you have to pay out, and then you ain't got nuthin'."

This was more than La Fleur could comprehend, but she inferred in a general way that Mr. Haverley's farm was a profitable one, but she was not certain.

It was a case of assault by a husband on a wife, and the solicitor for the complainant said to her, "And now, Mrs. Sullivan, will you be kind enough to tell the court whether your husband was in the habit of striking you with impunity?" "With what, sor?" "With impunity!" "Faix, he was, sir, now and thin," said the witness, "but he struck me oftener wid his fisht."

"Neidpath."

"Tween the gloaming and the mirk,
When the kye come hame."

Neidpath Farm, named after a Scottish castle near the birthplace of its widely-known founder, the Hon. Thomas Ballantyne, is represented by a view of the resident portion of it in the accompanying illustration. It is situated near the City of Stratford, in the County of Perth, Ontario, and it is specially devoted to the support and production of the "bonny" class of animals gracing the foreground. Neidpath well represents the better class of Canadian farms, of which it is typical. The two hundred acres of rich clay loam, divided in the center lengthwise by a spring brook running south, to which the even halves of the farm gently slope, affording ideal drainage by a thorough system of tiling, leaves little to be desired as an ideal home of the fashionably bred high-class herd of Ayrshires to be found upon it.

The farm is divided into the convenient sized fields of about twenty acres each, separated formerly by board fences, which are now giving place to the modern wire structures. The system of farming practiced is of a mixed character, and conducted in the following rotation: Two crops of hay, peas, and pasture, fall wheat, roots, and corn, and oats seeded to timothy and clover. The fall wheat is also seeded with red clover, to be plowed down for corn in the fall or following spring. The producing power of

tives of that family, which was dispersed in 1895, along with the herd of some forty individuals, could be found. This dispersion, it will be remembered, was one of the most hopeful indications of a rise in the tide of Shorthorn affairs, it being the first good sale of its character for a number of years. The Shorthorn dispersion was to give place to the present herd of Ayrshires, which breed Mr. Ballantyne had long fancied as being most suited to his taste, and to the general utility of the Canadian farmer. His wisdom also directed him in deciding that the two-hundred-acre farm was not large enough to accommodate more than one breed of cattle to their advantage and his success as a breeder of the highest ideals. In 1893, while in Scotland, he selected five females and a bull from the herd of Robt. Wallace, Auchinbrain, Mauchlin, Ayrshire, noted particularly for the heavy milk-producing capacity of its females. The heifers were all in calf when imported, and fortunately produced female offspring, which very soon developed into a good-sized herd. Three cows were added from the herd of Messrs. David Morton & Sons, of Hamilton, Ont., at the time of their dispersion sale. The only other introduction has been the present typical dairy-formed three-year-old bull, Craigielea of Auchinbrain—1661—(3302). One has to see him in motion and handle him to at all adequately appreciate his superior individuality. The brightness of his eye, depth of forehead and thickness through the heart, fineness of shoulder, sprightly activity, rich,

ment, fitted with silo, root house, passages, forty single stalls, and eleven 12x12 foot box stalls, is modern in every particular. The floors and mangers are of cement concrete, and each stall is furnished with a Woodward iron basin, connected with an automatic watering system, supplied from a spring well operated by a windmill.

Some attention is also given at Neidpath to the rearing of bacon pigs, for which a new piggery, shown to the right in the farm buildings, has been built. It is 40x60 feet, and is modernly fitted with cement floors and troughs, and is well lighted and ventilated. Heretofore the pigs fed have been largely purchased, but now a number of Berkshire sows have been secured to breed from, which will be mated with a Tamworth sire.

Getting at First Causes.

The professor of natural science in a well-known college was recently discussing in a lesson the process of fertilizing plants by means of insects carrying pollen from one blossom to another.

In order to amuse the class, he extended Darwin's ingenious illustration used in the Origin of Species about the connection between cats and clover, and said that old maids were really the ultimate cause of it all. The attention of his hearers was more than aroused as he proceeded.



NEIDPATH STOCK FARM, PROPERTY OF MR. W. W. BALLANTYNE, STRATFORD, ONTARIO, CANADA.

the soil is well evidenced in the fact that the 1897 crops of fall wheat averaged well-nigh fifty bushels per acre. Usually from twelve to fourteen acres of corn are grown, as much as possible of which is preserved in the cement concrete silo, of some one hundred and twenty-five tons capacity. Five acres of mangels and one of turnips are also grown for the succulent portion of the winter fodder. It is the intention of Mr. W. W. Ballantyne, the son, now owner of the farm, to build a silo of smaller capacity for summer feeding, as he has found great advantage in feeding silage for two seasons to his milking cows, even when on good pasture.

This property was first taken hold of by the Hon. Mr. Ballantyne in 1880, who found it in a dirty and poor condition after a continued series of short leases. For a number of years it was devoted to the feeding of steers for the British market, which, with thorough cultivation, fencing, drainage, etc., soon built it up to a fertile state.

In 1884 the foundation of the Neidpath herd of Shorthorns was laid by an importation of six heifers and two bulls from the herds of Marr and Duthie, of Scotland. The animals comprised principally those of the Missie family, which has for many years been justly popular; so much so, indeed, that recently letters have been received from prominent American breeders, enquiring where representa-

silky skin, and highly nervous organization are among his strong points. His dam was purchased by his breeder, Mr. Wallace, to breed a bull for his own herd, and is considered one of the best cows in Scotland. It may be remarked by some that he is not of the fashionable almost white color, but Mr. Ballantyne considers good individuality, combined with heavy producing ancestry, of much greater moment. This bull was just once shown in Canada, at Toronto, in 1897, as a two-year-old, when he won first award, at which exhibition the herd made a notable record in winning first on herd of calves under a year, first on bull calf, second on heifer calf under one year, and first on heifer calf under six months, and a number of other important prizes. The herd, now comprising some twenty females, might have been much larger except for the numerous sales that are continually being made to the United States and various parts of Canada. Among the leading matrons in the herd is imported Daisy of Auchinbrain, standing in the group. In her only Canadian showing competition she tied the world-famed Nellie Osborne, to which the first award was finally given.

The housing quarters of the herd have been fitted up with convenience and comfort worthy of their inhabitants. The main barn, 64x100 feet, having a well-lighted and well-ventilated

"The bumblebees carry the pollen," he declared: "the field mice destroy the nests of the bumblebees; therefore it is quite evident that the more field mice there are in any neighborhood, the fewer the bumblebees, and the less pollen variation of plants. But cats devour field mice, and old maids protect cats. Therefore, the more old maids, the more cats; the fewer field mice, the more bumblebees."

"Hence," was the professor's triumphant conclusion, "old maids are the cause of variety in plants."

At this point a fashionable young freshman, with a single eyeglass and a general appearance indicating that he was got up regardless of expense, arose and asked:

"I sa-a-y, professah, what is the cause—ah of old maids—don't you know?"

"Perhaps Miss Brown" (a quick-witted member of the class) "can tell you," suggested the professor.

"Dudes!" said Miss Brown sharply, and without a moment's hesitation.

A Scotch preacher, who found his congregation going to sleep one Sunday before he had fairly begun, suddenly stopped: "Brethren, it's nae fair; gie'n ye a chance. Wait till a' get along, and then I am nae worth listening to, gang to sleep, and I'll gang before a' get commenced, then ye'll see."

Hereford Stock Farm.

A CUMBERLAND COUNTY, NOVA SCOTIA, HERD OF "WHITE-FACES."

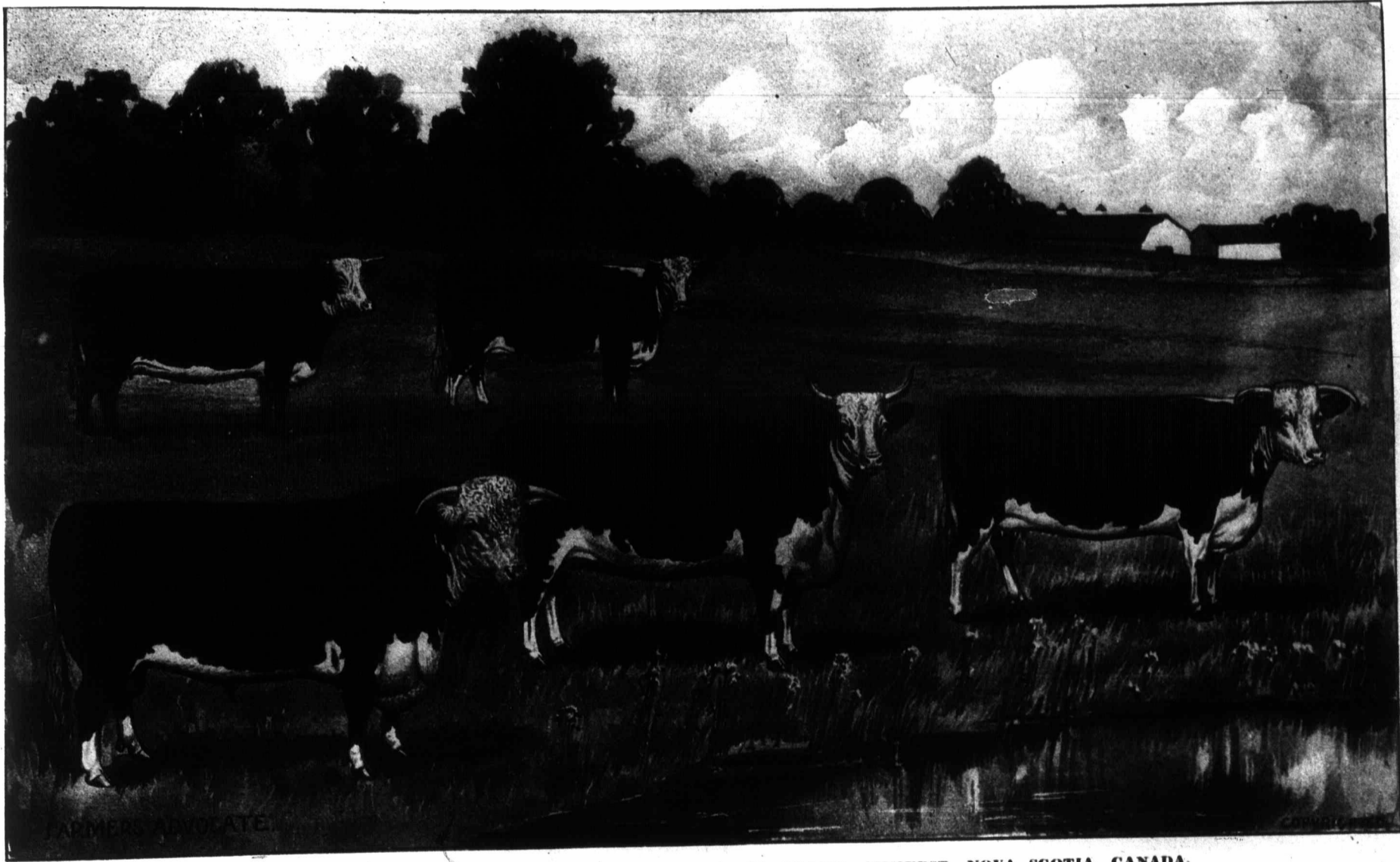
Mr. W. W. Black, who champions Hereford cattle in the Maritime Provinces, has his home in the pretty and thriving town of Amherst, in the Province of Nova Scotia, situated on the transcontinental line of the Canadian Pacific Railway and on the Intercolonial Railway system as well. This town is the center of considerable manufacturing industries, and is noted for the excellence of its public schools and academies, which have turned out many able men who have filled prominent positions of public trust, and is beautiful for situation, overlooking Sackville harbor and the New Brunswick boundary line. The family is one of the oldest and most prominent in the district, and the owner of Hereford Stock Farm is a son of the Hon. T. R. Black, a member of the Provincial Cabinet, who has taken a deep interest in the advancement of agriculture and stock-raising in the Province. In the last decade dairying has received much attention, and made gratifying progress in the Maritime Provinces, with the result that beef cattle were neglected to such an extent that the anomaly existed of butchers and dealers shipping carloads of beef cattle from the Western Provinces to eastern cities to supply the regular demand for beef for the necessities of the people of those centers, a state of things which for absurdity ranks with the shipping of coals to Newcastle, as it is well-

and to British Columbia, the transportation problem so far as registered stock is concerned having been so satisfactorily arranged that distance is no longer a serious bar to trade. About a year ago Mr. Black, in his search for a sire worthy of the character of his herd, succeeded in purchasing at a long price the "Corrector" bull, Sir Horace 63088, portrayed in our illustration of Mr. Black's show herd for 1898, which won the first herd prize at the New Brunswick and Nova Scotia Provincial Exhibitions, as well as the male and female championships of the breed. Sir Horace, winner of first prize and sweepstakes as best bull of the breed, any age, at the above shows, had won first-class honors in 1897 at the Toronto, London, Montreal and Ottawa Exhibitions, and is confidently believed to be unexcelled by any bull of the breed in America to-day, judged from the standpoint of a breeder. He is a perfect model of the modern type of beef bulls, being lengthy, lowset, thick-fleshed, smoothly turned and thickly covered with high-class flesh evenly distributed over all his parts, and weighing 1,900 lbs. in his three-year-old form, while he shows in a high degree the quality known among breeders as character, which stamps an animal as a prince among his peers, and as one calculated to impress his image on his offspring, which is plainly seen in his sons and daughters, which are uniformly full of quality and finish. Sir Horace's individual excellence is no accident, but is based on the bedrock of inheritance through a long line of prizewinning ancestors, his sire, Corrector, himself a champion,

"Annandale."

AN IDEAL CANADIAN DAIRY FARM.

For a considerable distance on either side of the dividing line between the counties of Oxford and Norfolk, Ont., and extending east and west from where the town of Tilsonburg now stands, the country was some fifty-two years ago a magnificent forest of high-class white pine. It was on a tributary of Otter Creek that Mr. E. D. Tillson, along with a cousin, built a small sawmill, largely with their own hands. The cash capital of the two hopefuls to commence with was something less than one hundred dollars, and when the mill was finished a debt for the labor of a carpenter for framing the mill had to be settled by making him an equal partner in the enterprise. At this time Mr. Tillson's father, after whom the town is named, conducted a larger sawmill on Otter Creek proper, which after a time was taken over by E. D., who was soon in conduct of a very large lumbering business. This, it must be remembered, was long before the days of railroads in Western Ontario, which necessitated teaming the output of the mill to Port Burwell on Lake Erie, some sixteen miles to the south. The quality of the lumber was prime, and the price received for it from dealers across the lake was very satisfactory; so much so, indeed, that considerable money was made during those years. As time went on, however, sawmillers from Lockport, Tonawanda, and other American lumbering centers on Lake Erie came in and bought up



A MARITIME HERD OF HEREFORDS, OWNED BY W. W. BLACK, AMHERST, NOVA SCOTIA, CANADA.

known that Nova Scotia farms produce in profusion all the foods necessary for feeding and fattening cattle. Mr. W. W. Black, seeing the necessity for increased attention to beef-raising in the Eastern Provinces, some five years ago determined to embark in an enterprise calculated to demonstrate the possibility of producing the necessary supply for the home demand, as well as to share in the export trade which would seem to be at least as readily available to the farmers down by the sea as to those a thousand miles further from the ports of shipment. For this purpose he decided, after careful consideration, to invest in Hereford cattle, as, in his judgment, combining the qualities of hardiness, robustness, early maturity and the ability to rapidly improve the beef-producing characteristics of common cattle or of other breeds on which they may be crossed, and the results have fully realized his predictions, which were founded on observation of what he had seen in sections where these cattle had obtained. In 1895 a carload of registered Herefords were selected from the best herds in Ontario and Quebec, most of them being in-calf cows, which have bred regularly since, and increased the herd at a very gratifying rate, till now Mr. Black has the largest as well as the best herd of Herefords in the Maritime Provinces, and their merit are becoming so generally recognized that the demand for them is not confined to the Eastern Provinces, but has extended to the Northwest-ern ranching districts

being the sire of a long list of prizewinners in the Western States, including Sir Bredwell, the male champion of the breed at the Trans-Mississippi Exhibition at Omaha, in Oct., 18'8, while his dam had for her sire Horatius 7163, a bull of such pronounced merit that he was secured in 1884 by Her Majesty's agent to head the famous herd at Windsor. Mated with Sir Horace such cows as Starlight, Lillian, Barbara 3rd and Lady Frances, represented in the illustration, and a score or more others of uniform excellence in the herd, the character of the collection will no doubt be well maintained, and the commendable enterprise and public spirit of the genial and popular proprietor will be rewarded with the success he so well deserves.

To-day.

In the calendars of greatness
Are but nobly spent to-days;
For to-morrow brings no laurels,
And the waiting win no bays.
To the poet comes the vision,
To the painter comes the dream;
But only in the present
Can he shape the golden theme.
The statesman never falters
With the time to do at hand,
And the warrior never slumbers
When the trumpets rouse the land;
The sailor spreads his canvas
When the wind blows out to sea,
And to-day is turned the furrow
For the harvest yet to be.

P. McArthur, Appin, Ont., in *New York Independent*.

thousands of acres of the choicest pine along the river, cut the logs, deposited them at the water's edge, and during the spring freshets river-drove them down to the lake and conducted them in booms or rafts to their various mills across the lake. So extensively was this carried on prior to 1867 that it seemed a few years more would see the end of the best class of pine timber in that section. Mr. Tillson, recognizing this, secured several thousand acres of standing forest, that his own mills might be kept going, which they were until a very few years ago, when the present oat, pea and flouring mills gradually took their place. By this time Tilsonburg had grown to be a thriving village, and a level portion of the cleared land immediately joining the burg to the east became an eyesore to its owner, Mr. Tillson, on account of the overgrowth of weeds and underbrush, which led him to put a quantity of it under cultivation, which would, besides clearing it up, grow hay and oats to support his mill teams. A few years of this cropping convinced the proprietor that sandy land would not produce profitable crops without manure, and the keeping of cattle suggested itself as a solution to the difficulty. Without much hesitation, steer raising and feeding was entered into and a beautiful herd of Short horns established. All went well while beef sold alive at or near six cents per pound, but the gradually lowering price directed Mr. Tillson's attention towards dairying, which could not be profitably done with the beef-

bred herd of cows, and a Holstein bull was introduced. This was about twelve years ago, when the present extraordinary dairy herd was commenced. Up till the year 1893 a steady improvement in the herd was effected by good general methods of selection of cows, intelligent care, and the introduction of five pure-bred Holstein heifers; but at this period a great advance was commenced by the erection of the palatial white brick barn and the creamery fitted with cream separator, Babcock tester, and modern churns. The cows were at this time commenced to be subjected to the scrutinizing light of the milk weigh-scales and fat test, and an intelligent weeding-out process begun. The result has been that the herd of 55 cows averaged last year 10,424 pounds of milk, containing an average of 3.55 per cent. fat, making 418 pounds of butter. The best cow, a Holstein-Shorthorn grade descended from the famous Shorthorn herd, gave last year 17,731 pounds of milk, and those that produce less than 6,000 pounds in a year are discarded and replaced by daughters of the best cows. It is the intention to raise the standard to 7,000 pounds in a very short time. While the herd must be considered a superior dairy one, the general-purpose enthusiast will be gratified to know that it has claims to his fancy, as many of the steer calves are sold for beef at two years old weighing upwards of 1,400 pounds each, the average of last year's lot being 1,425 pounds.

It may be remarked that personal supervision is given to the needs of each cow, so that she is fed

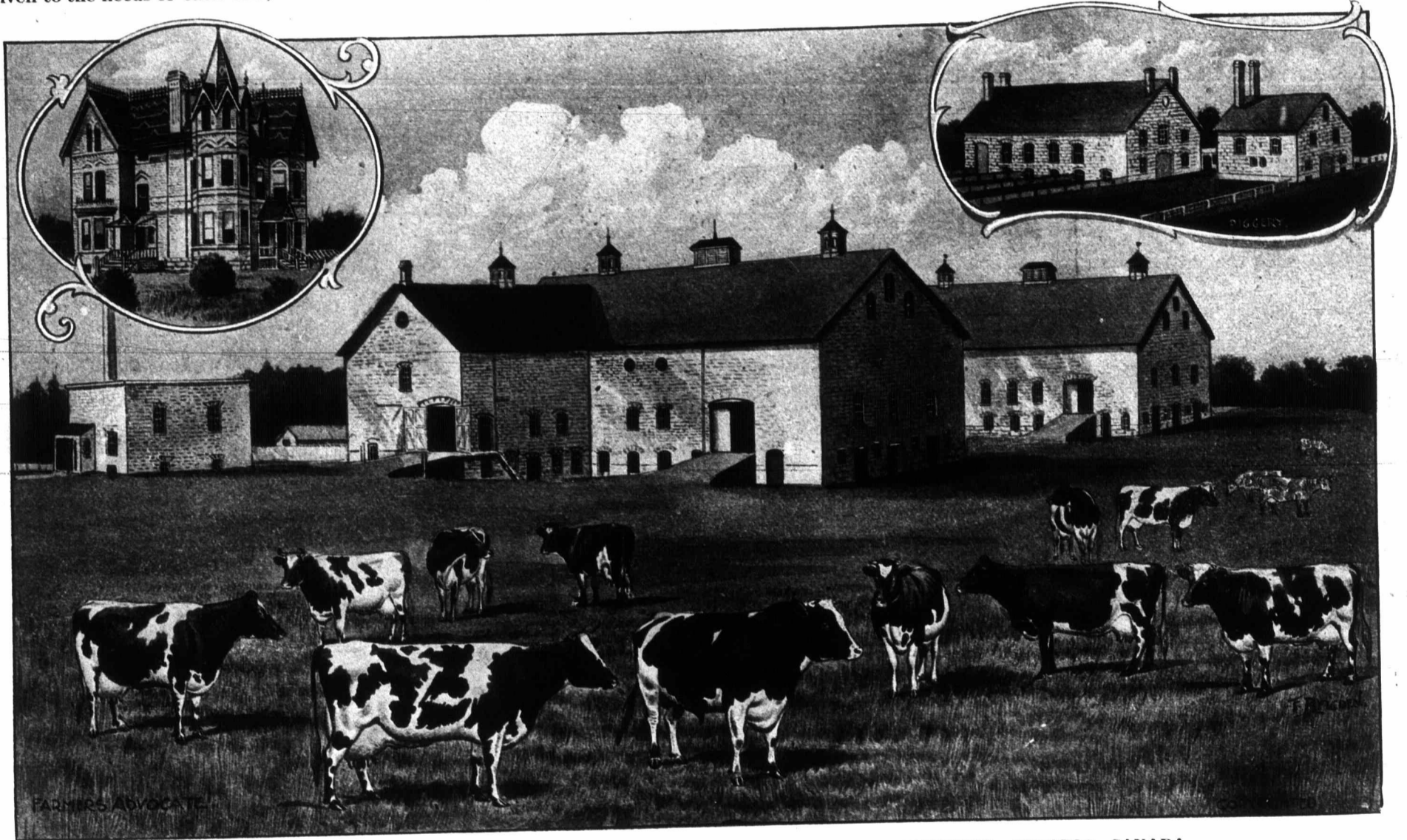
hundred acres of rough pasture land which provides summer feed for much of the stock. The farm proper is divided into fields of about sixteen acres each, formerly fenced with boards, but now wire structures are taking their place. Each field is easy of access by neatly-kept thirty-foot lanes almost completely overarched with beautiful maples. Each field, as well as each building, is furnished with spring water, supplied in pipes from the head of the farm, from which it has ample fall. Some fifty acres of the farm are also laid with irrigation pipes, supplied from the tower tank, filled by steam and water pressure pumps. The farm is conducted on a three-course system of clover, corn and roots, and a cereal crop seeded down. From forty-five to fifty acres of corn are usually grown for the five brick silos, having a joint capacity of 1,000 tons, indicated by actual weight. About ten acres of cob corn are grown for hog feed and for seed. The richness of the land, which is rather light sand, but made fertile by the constant manuring, can be told by stating that the average fall wheat crop in 1897 was 37½ bushels per acre, the best field going 50 bushels.

It is Mr. Tillson's constant endeavor to improve and go forward, and to this end experiments are constantly under way to find out better methods in farming, feeding and breeding. All improvements and new buildings are made with permanency, good taste and convenience in view, and reasonable expense is never allowed to prevent the carrying out of a desired purpose. Mr. Tillson has a general

the town, is Pine Grove Stock Farm, of 900 acres, on which are maintained high-class studs of horses—Thoroughbred, Hackney and Clydesdale, a splendid herd of Shorthorn cattle, and a fine flock of Shropshire sheep. The greater part of this farm is comparatively new, a considerable portion of it having been only in recent years cleared of the pine forest, rapid progress having been made in its improvement, the usual course of waiting for the decay of the stumps being departed from and the clearing process facilitated by the use of dynamite, which rends the stumps into fragments, leaving them in favorable condition for piling and burning. The soil, which is naturally a rich clay loam, has been maintained in a highly fertile condition by the application, where needed, of liberal supplies of manure made from feeding a large herd of cattle, and from the mill stables, where some 500 horses are fed and produces heavy crops of grain, roots, corn, and clover, the latter crop thriving remarkably on this farm, as in the valley generally, holding the ground for four or five years and yielding abundantly of hay and pasture. Twenty-five acres of roots and 35 acres of ensilage corn were cultivated in the season of 1898, the latter producing heavily of well-matured ears and filling the four large silos.

THE BUILDINGS,

which are extensive and substantial, are admirably planned and arranged for economy of time and labor in feeding and attending the stock, all the feed—ensilage, roots, cut hay or straw, and meal—



A GLIMPSE OF ANNANDALE, THE DAIRY FARM OF E. D. TILLSON, TILSONBURG, ONTARIO, CANADA.

and cared for as best suits her. As has been previously pointed out in the FARMER'S ADVOCATE, butter dairying is the sort practiced, and to this the same thoroughness is exercised as in the case of the cows. The quality of the butter is best indicated by referring to the fact that 2½c. per pound is received for all they can make, and much of it is taken by Port Hope Trinity College School and Toronto Trinity College. A good local milk and cream trade is also enjoyed.

In connection with the dairy, hog-raising is wisely associated. Some thirty brood sows are kept, from which 350 to 400 pigs per year are turned off at bacon weights. For these there is provided the new piggery shown in the engraving and described in Feb. 15th, 1898, FARMER'S ADVOCATE. Besides this, there are some eight acres of enclosed yards separated by wire fences and supplied with movable 8x8 feet sleeping-pens. The sows are of mixed breeding, and the boar used is an improved Yorkshire. The young pigs are kept growing till about five months old on skim milk, shorts, bran, green food and very little corn meal. Stronger feeding is then gradually commenced and continued till they weigh about 180 pounds at about seven months old. During the summer months green alfalfa is liberally used, mangels being fed in the winter season.

The farm of 300 acres of cultivated land slopes gently to the south, about fifteen feet to one hundred rods, giving ample fall to the thorough system of tile draining. There are also several

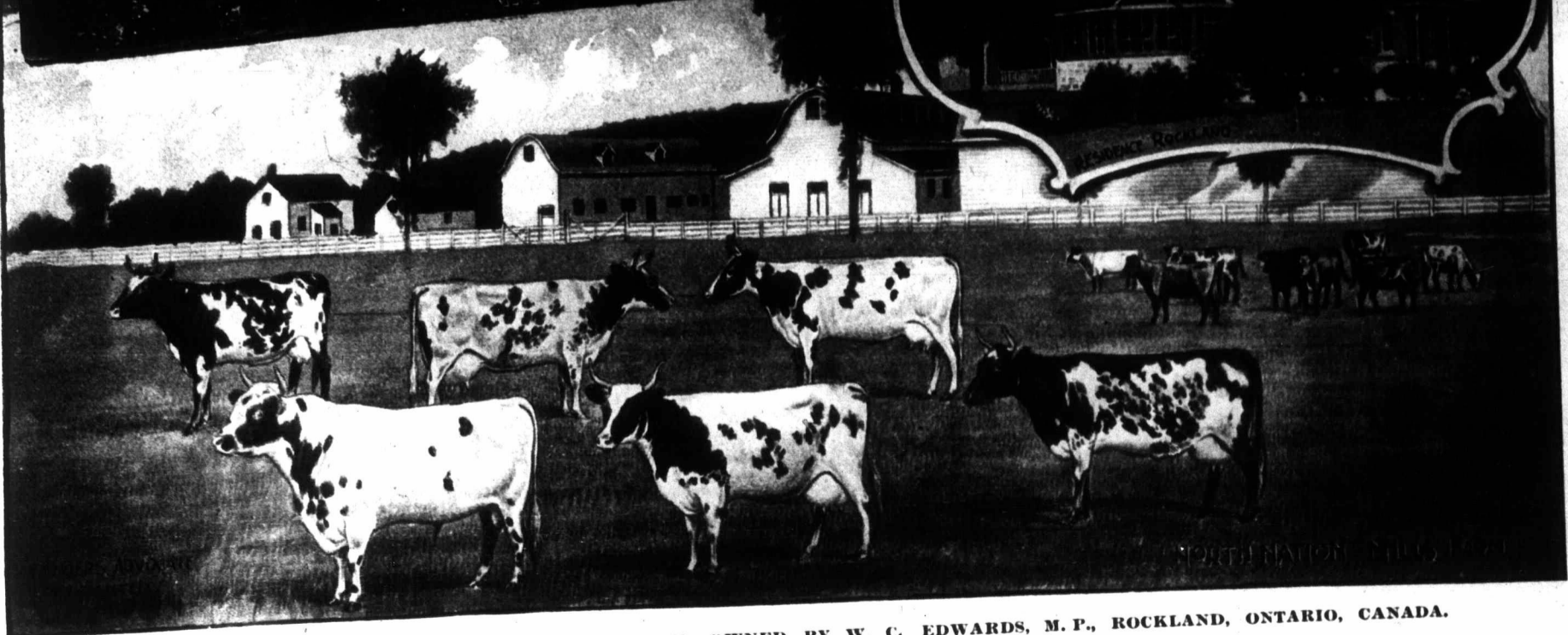
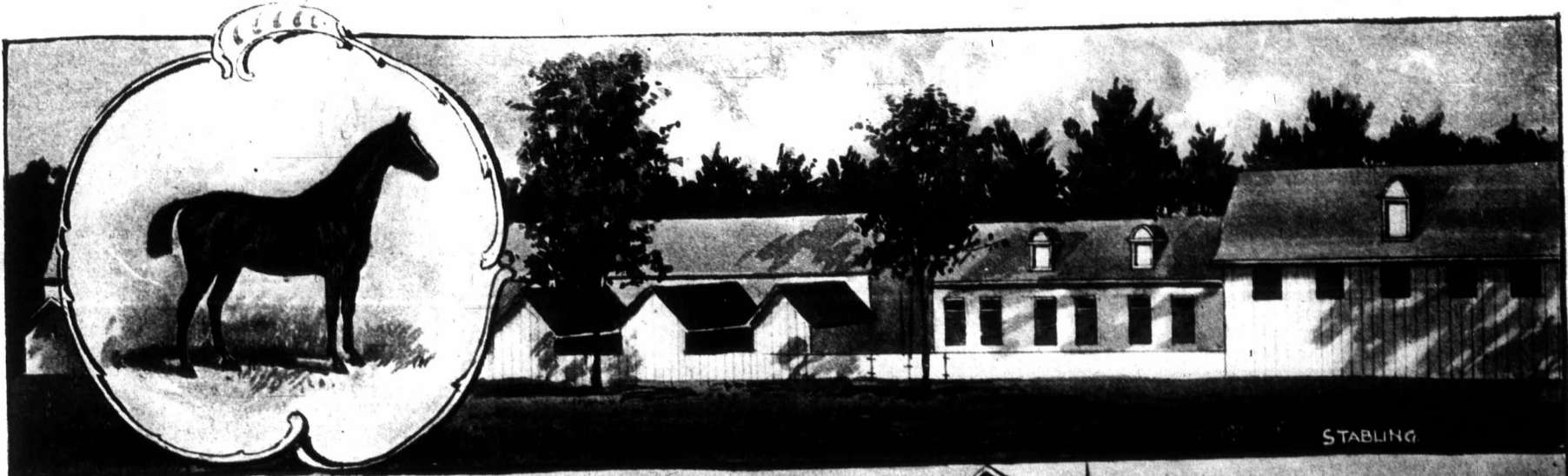
oversight of all departments of the farm, as well as his several large mills, but the detail of the farming, feeding and creamery work is supervised by the farm manager, John D. MacLeay, who takes a deep interest in the welfare of every department of Annandale Farm.

Pine Grove and Laurentian Stock Farms.

At Rockland, Ontario, a thriving town with a population of 3,000, in the Ottawa Valley, twenty-five miles east from the Capital, is the home of Mr. W. C. Edwards, M. P., one of the busiest business men in the Dominion, being extensively engaged in lumbering and mercantile operations as well as in farming and stock-breeding. A broad-minded, public-spirited man, he has taken a deep interest in the welfare of his fellow-citizens in his town and county, and especially in the line of introducing improved stock among the farmers, many of whom have availed themselves of the opportunity to improve the character of their farm animals, to their manifest advantage and the general good. At Rockland Mr. Edwards operates a mammoth sawmill, one of the largest and best equipped in the Ottawa Valley, which is famous for such gigantic enterprises. In this mill, which is only one of a series numbering a score or more of similar establishments operated by the company of which Mr. Edwards is the head, some 800 men are employed in sawing and handling logs and lumber to the value of many millions of feet annually; and here, to

being convenient and converging towards one point, the mixing room, which is at the end of the barn where the approach is, it being an end-drive barn. The idea of economy of labor, of time and material has evidently been dominant in the mind of the owner and has been successfully realized in the plans and architecture of the buildings and in the methods of conducting the farm work generally, and is especially exemplified in the arrangements for threshing, which, together with cutting the threshed straw and grinding the grain into meal, is operated by a force of only three men, the unthreshed grain being brought to the separator by means of the horse fork and slings, the straw passing direct from the separator to the straw cutter, and the grain passing down through a chute to the grinder in the basement or carried by elevators to the bins if required.

The cattle stables for the breeding herd, commodious, comfortable, light, and well-ventilated, having cement floors, and supplied with water automatically in each stable from a large cistern filled from the roofs and by a windmill, are so arranged that all feed from the mixing-room is carried on a car down the passages in front of the animals. A considerable portion of the stable formerly used for lying cattle stalls has recently been changed into many stalls for single cows or for a cow and her calf, according to the owner's idea that liberty of movement is conducive to the best health and condition of the milking stock, and this principle has proved successful in Mr. Edwards' experience in fat-



THE PINE GROVE AND LAURENTIAN STOCK FARMS, OWNED BY W. C. EDWARDS, M.P., ROCKLAND, ONTARIO, CANADA.

tening export steers, for which purpose two large stone sheds have been used, some thirty or forty dehorned steers being fed, running loose, their feed troughs being lined around the sides of the building and suspended by ropes running through pulleys by which the troughs are raised as the manure accumulates and the cattle rise higher. Straw for bedding is kept in the loft, whence it is conveniently distributed, and the manure in these sheds, tramped solidly, being practically hermetically sealed, is safely kept in the sheds till the following autumn, when it is applied to the land. One of these sheds is to be used the present winter for the accommodation of breeding mares, a large number of which are kept and which will run together loose, securing the liberty and exercise needed for best results.

The sheep pens are another commendable feature of the buildings, being planned by the owner with a view to affording the necessary exercise for the healthy condition of the animals, the main building being designed for sleeping apartments, while narrow roofed wings with feeding racks and troughs in them run out from the main building across the yards and dividing them, the covered passage over the racks being used for feeding hay brought from the loft over the main building. The breeding ewes are allowed, besides their yards, the free run in winter of the extensive natural pine grove surrounding the farm buildings and serving an admirable purpose in affording protection from the winter winds, besides being a thing of beauty.

THE SHORTHORN HERD.

The leading stock feature at Pine Grove is the noted herd of Shorthorns, numbering at present

1898, also bred at Upper Mill, and bought for the veteran breeder, Mr. Duthie, of Collynie, at \$1,735 in round figures, the dam of Marquis of Zenda being Missie 123rd, from whose tribe came Marengo, the male champion of the breed at the Royal Show of 1896, and whose sire was William of Orange, of imperishable memory. Another useful and well-bred stock bull in use is the four-year-old Scottish Pride = 20839 =, bred by Mr. Duthie, imported in dam, sired by Pride of Morning (64546), and out of Missie 142nd, by Sea King, of the same family extraction as Marquis of Zenda, but of widely different blood lines through the list of sires shown in his pedigree. British Knight = 25206 =, a handsome roan two-year-old son of imported Knight of St. John and Bessie of Rockland, is also in use, and coming from such illustrious parentage should prove a potent sire of good things. Mated with such a class of cows as grace the pastures and stalls of Pine Grove, we should expect the high character of the herd to be well maintained, and the young things coming on afford ample evidence of progressive breeding.

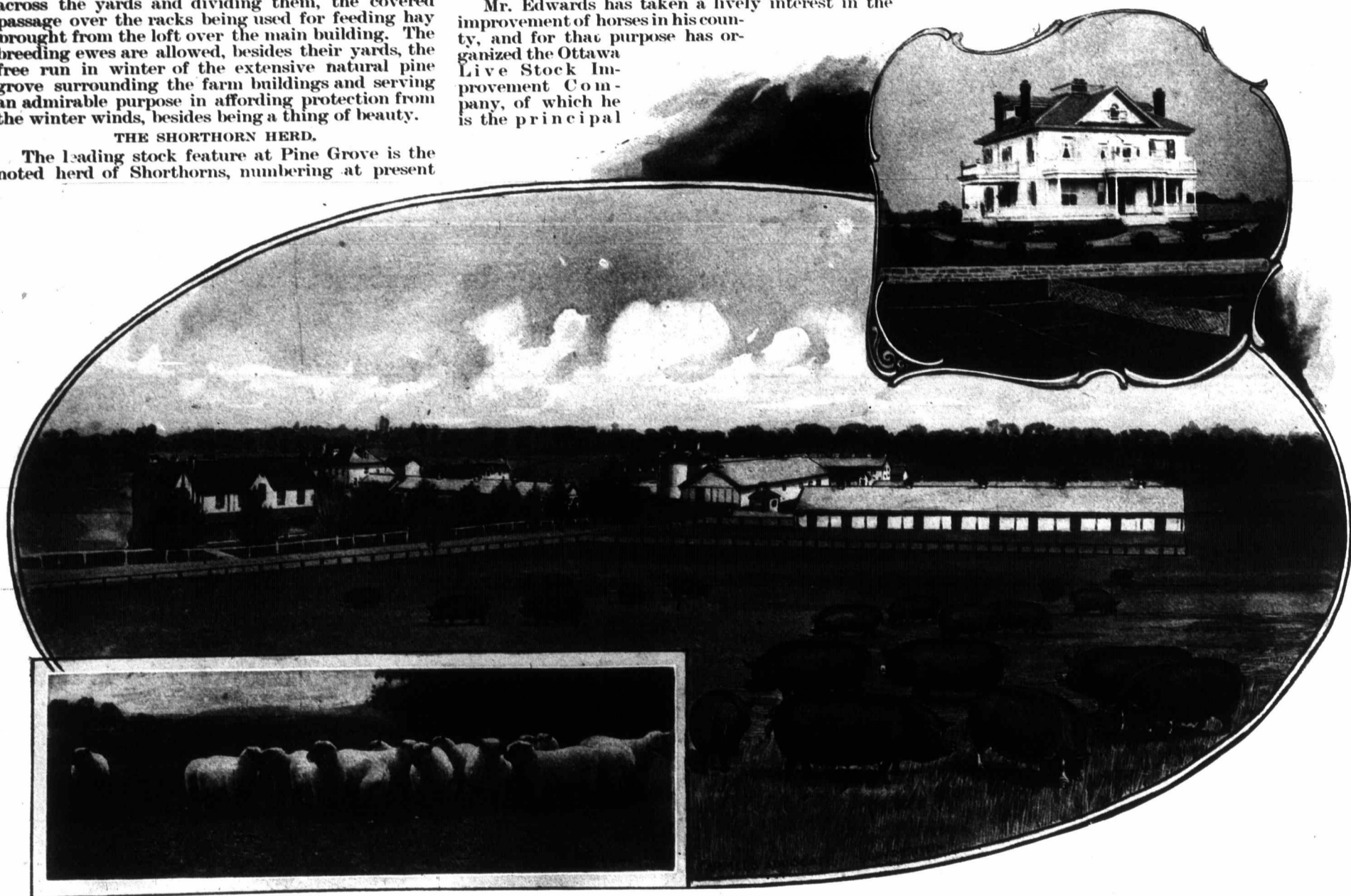
THE HORSES.

Mr. Edwards has taken a lively interest in the improvement of horses in his county, and for that purpose has organized the Ottawa Live Stock Improvement Company, of which he is the principal

branches of the establishment, keeping in the best of health, breeding regularly and raising satisfactory crops of lambs, which have been readily sold at good paying prices for exportation to the United States for breeding purposes, a percentage finding buyers in the county and in other sections of the provinces.

LAURENTIAN DAIRY FARM.

Besides the Pine Grove Farm at Rockland, Mr. Edwards has a well-appointed 300-acre dairy farm at North Nation Mills, on the Quebec side of the Ottawa River, ten miles east of Rockland, under the intelligent superintendence of Mr. A. E. Schryer, on which excellent herds of Ayrshire and Jersey cattle are bred and kept, 50 to 70 cows being milked and a very complete creamery plant operated, the power used to run the cream separator and churn being an oil engine which does its work satisfactorily. The butter is made up in half-pound prints and sold by yearly contract to principal hotels in the city at a uniform price considerably above market quotations, and calves are being successfully fed on the separated milk, a part of which is also devoted



BOW PARK FARM, BRANTFORD, ONTARIO, CANADA.

but sixty head, having been reduced by numerous sales made within the last year, among which was a carload to Hon. Thos. Greenway, Premier of Manitoba, some of which were prizewinners in his herd at the Winnipeg Exhibition last summer. The herd, which has been built up in the last ten or twelve years from a strong foundation of high-class individual animals, imported and Canadian-bred, of the most approved type—robust, thick-fleshed and symmetrical—has made a very creditable record in the show ring whenever selections have been shown, winning repeatedly the highest herd prize at the Great Central Exhibition at Ottawa, and in 1895, the only year in which they entered the competition for the herd prize at the Toronto Industrial Exhibition, were successful in winning the highest honors in a well-filled class, including first prize for herd, and the female championship with the famous home-bred cow, Bessie of Rockland, the herd being headed by imported Knight of St. John = 17102 =, a bull of fine character, which left a grand impress on his stock. The principal families represented in the herd are the Cruickshank, Clippers, Violets, Lancasters, Rosebuds and Minas, with Scotch-topped Young Marys, Symes and Lady Edens, from the latter of which some of the best show animals in the herd have been bred. The chief stock bull at the present time is imported Marquis of Zenda = 20963 =, a rich roan, coming two in February next, a model bull of the breed, symmetrical, strong in constitutional vigor, thick-fleshed and full of quality and character, as one would expect from his breeding in the herd of the late Mr. W. S. Marr, of Upper Mill, Aberdeenshire, being sired by Wanderer (6038), and, hence, half-brother to Scottish Champion, the highest priced bull at the Tillycairn sale in October,

factor, and the purpose of which is the introduction of high-class sires, whose services are held at a moderate figure to induce the farmers to breed the class of horses demanded by the market. The splendid Thoroughbred stallions, June Day and Sleight of Hand, are being kept for breeding carriage horses and hunters, the former horse having many excellent colts to his credit at Pine Grove, large enough and full of style and action, while Sleight of Hand has proved a phenomenal sire of singularly attractive colts, creating quite a sensation at the Ottawa Exhibition this year, not only winning first prize in his class, but also the sweepstakes for best stallion any age, and the two special gold medals for the best stallion and three of his offspring, and for the best stallion over two years old. A fine class of mares of the carriage class is kept, and their produce from the sires named promise to grow into just such horses as are needed for heavy harness work and for hunters and cavalry mounts, for which good prices are readily assured. An excellent Hackney stallion has been added to the stud, and the imported Clydesdale, Lifeguard [1891], winner of first prize at Montreal as a two-year-old and as a three-year-old, and first in all ages at Montreal Exhibition, winning a cup valued at \$60 and a clock valued at \$50, given by the Clydesdale Association of Canada for the best stallion of any age, is doing excellent service in improving the heavy draft stock of the county.

THE SHROPSHIRE.

About 150 registered Shropshire sheep are kept on the farm, which are all bred direct from imported stock, high-class sires having invariably been used, and the flock has proved one of the most profitable

to feeding young pigs, of which very large and profitable herds of Berkshires and Tamworths are kept, crosses between these herds producing very satisfactory feeding hogs. A very complete and attractive set of farm buildings have replaced those destroyed by fire some three years ago, the same general plan and arrangements for convenience of feeding being adopted as at the Rockland farm, the power for driving the farm machinery being a 15-horse-power engine, all the feed being concentrated at one point for convenience of feeding, and the stables well arranged for comfort and health. In construction the buildings have some peculiar features, the style of the roofs being especially notable, being oval in shape, and the buildings entirely without beams, braces or purlines (which greatly facilitates filling them and allows settling of contents unimpeded), and having neither a mortise nor a tenon in their whole construction. The rafters of the barn proper, which is an end-drive, and 42 feet wide, are 27 feet long and each built of 3x6 inch plank sawed oval, in two parts, and spiked together, making each rafter 6x6 inches when finished. The barn has two lines of horse-fork track running the entire length and about 10 feet apart, the floor space from side to side being filled in cross sections with horse fork and slings, the same being used to bring the grain to the threshing machine.

THE DAIRY HERD.

Eighty head of registered Ayrshires—one of the largest and best herds in the Dominion—are found here, being of uniform type, well up to the standard of excellence, and bred and selected for usefulness. A number of registered cows being large producers, and many of the year-old daughters of Cyclone,

the previous stock bull, giving as high as 35 to 37 pounds of milk daily, while the yearlings and younger things, by Tam Glen 2nd, the present sire, show fine quality and conformation, and promise to eclipse their dams in dairy work. The Jerseys are headed by the richly-bred Fawn's Son 2nd of St. Anne's 47349, of pure St. Lambert lineage and fine dairy points; while many of the matrons are deep milkers and rich producers, and the heifers growing up show great promise for usefulness. North Nation Mills is a station on the Canadian Pacific Railway, 81 miles from Montreal and 36 miles from Ottawa. Rockland is reached in summer by steamer from Montreal and Ottawa, and the year round by the Canadian Pacific Railway and the Canada Atlantic, the latter making connections with the Grand Trunk at Coteau Junction.

Historic Bow Park Farm.

This ideal stock farm, consisting of 960 acres of fertile soil, is perhaps more widely known than any farm in America. Three miles from the City of Brantford, Ontario, nearly surrounded by a bend of the Grand River; studded with beautiful maple, oak, walnut, and other nut-bearing trees, bountifully supplied with numberless springs of clear water, with a warm soil where grasses and clovers luxuriate, lies this veritable stockman's paradise. In some

to 20 acres rape, and generally 40 to 50 acres is used for experimenting with different kinds of forage and fodder crops. Clovers grow abundantly, the crop of hay averaging about 500 tons per year. Alfalfa is very highly spoken of by the president, and a larger acreage is being seeded down to it each year. The soil seems to be especially adapted to the growth of all kinds of clover, is naturally rich and is becoming more fertile year by year owing to the great number of cattle being kept on the farm.

BUILDINGS.

The dairy cattle are housed in two brick buildings 175 feet in length. These buildings are fitted up with automatic water boxes; a steel hay fork track is used for carrying the manure trucks, and a driveway down the center from which the cattle are fed. The horse stable is another brick building 160 feet long. These buildings are all well lighted and ventilated; whitewash, sunlight and fresh air are to be found here in abundance. The main building is also a brick building 175x45, with an L 110x35, in which the grinders, crushers, granary and cutting boxes and feed-mixing rooms are to be found. We next come to the piggery, 280 feet long by about 30 broad, with a driveway from end to end. This building is raised two feet higher at one end so that all the liquid manure may run to a large tank at the lower end; pens are on each side of this driveway. This piggery is a model of cleanliness. Next we come to a large stock barn, also 280 feet long by about 40 broad, with a driveway from end to end and box stalls arranged on either side for young stock. There is storage capacity overhead for about 350 tons of hay. The next building is also 280 feet long, with a driveway from end to end, but with enclosed box stalls on one side only. This is used for brood sows. In

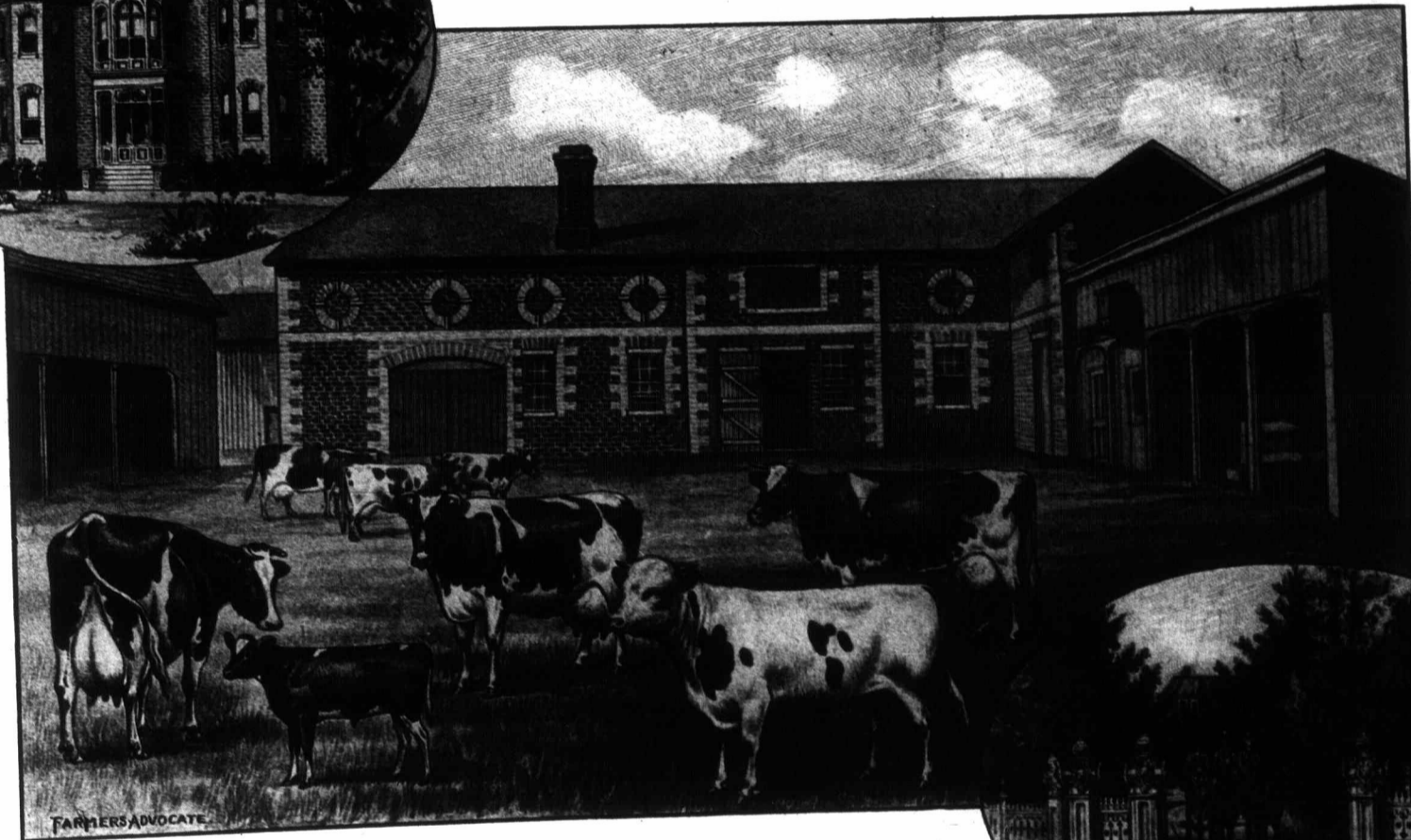
Gem Holstein Herd.

IN THE MILKY WAY.

Mr. Charles S. Ellis and Mr. Wm. G. Ellis are the members of the firm of Ellis Bros., Bedford Park, Ontario, breeders and owners of the Gem Herd of Holstein cattle. Mr. Wm. G. Ellis is president of the Holstein-Friesian Association of Canada and a member of the Special Cattle Committee of the Toronto Industrial Exhibition Board. Bedford Park is situated about three miles north of the City of Toronto, on Yonge street, and a line of electric railway passes the gate. The Bedford Park farm consists of one hundred acres, and the herd at present of twenty-five head, all thoroughbreds. The herd has been selected and bred for quality, as it is used to produce cream to supply one of Toronto's largest catering businesses, which must have the best that can be had, and of all the cream that they receive, the Holstein seems preferable, being so much smoother and so much easier worked.

A De Laval cream separator is used, and in this way the warm skim milk goes to the calves, which are fed on this, with oil cake, crushed oats, bran and sweet hay until they are one year old. This feeding produces rapid growth, and the young stock of the Gem Herd is remarkable for development and constitution.

The herd bull, in the frontispiece of the illustration, is Homestead De Kol Belle Boy, of the world-renowned De Kol family, the most wonderful producing Holstein tribe ever known. This young bull was selected from among all the known American bulls, and the Messrs. Ellis selected him as the best, and they have no reason to regret their choice.



GEM HOLSTEIN HERD, PROPERTY OF ELLIS BROS., BEDFORD PARK, ONT., CANADA.

sense this is an historic place. The writer well remembers admiring a pair of portly prizewinning Bow Park Shorthorns being shown at the Provincial Fair in 1857. At this time the farm was owned by Mr. R. R. Bown; later on it was purchased by the late Hon. George Brown, from which time it became famous for its Shorthorn cattle. Great sales from time to time were held, which brought buyers from all parts of America and Europe. The fabulous prices realized for the cattle reared on Bow Park made one wonder where the money came from. Small fortunes were frequently the price of a single animal. During the early eighties the Messrs. Nelson, of Edinburgh, became interested with Mr. Brown, and a company was formed under the name of the Canada West Live Stock Association. After the death of Mr. Brown the Messrs. Nelson carried it on under the able superintendence of that past-master in the art of feeding and fitting cattle for the showing, the late Mr. John Hope. Towards the latter end of 1893 Messrs. Shuttleworth & Harris purchased the farm from the Messrs. Nelsons, shortly after forming what is now the Bow Park Co. (Limited). Under the president, Mr. J. M. Shuttleworth, many varied improvements have been made, necessitated by a change from a purely stock farm to a dairy and stock farm combined. A perfect system of waterworks have been laid, so that every stock barn is amply supplied with artesian spring water. A system of steam heating is just being completed, which will heat the large new building lately erected for the men's use, and drive the dairy machinery, as well as heat the president's new house.

The four-year crop rotation is followed; about 125 to 150 acres of corn is grown annually, 80 to 100 acres wheat, 100 to 125 of oats, 50 to 60 of barley, 60 to 70 of peas, 40 to 50 of mangels and sugar beets, 15

rear of this is a sheep shed, and a large hay-stack roof which covers about 500 tons of hay. Two immense silos, with a capacity of 600 tons each, completes the central stock buildings. A very large brick building has been built for the accommodation of the men. This building is modelled on the up-to-date hotel plan. Wash rooms, bath room, smoking room, reading room, and every comfort is provided. This accommodates 40 to 45 men.

The stock comprises some 130 to 140 dairy cows, and about 60 to 70 young ones coming on to take their places in due time. The herd is headed by Prince Frank - 33972 - A. J. C. C., and Nell's John Bull - 21921 - A. J. C. C., both well-known prize-winners. Some 100 odd Shropshire sheep that would bring credit to any breeder are kept. Berk shire pigs of the true bacon type are here "galore," something like 600 are now on the place. All sires are chosen for the desired result, length and depth, the best young stock being sold for breeding purposes, and the balance fed for the packing-house.

The aim of the president is to market all the produce of the farm right on the spot, nothing leaving the farm, except wheat, which is exchanged for bran, shorts and different concentrated feeding stuffs, only dairy products and finished live stock being sold. This means that the soil will year by year increase in fertility.

The management of this extensive establishment reflects great credit upon the superintendent, Mr. Fred Anstee, whose position is one of responsibility. The work is well systematized, and every department of the farm, as well as all the stock, is in first-class condition.

Inherited characteristics are sure to crop out sooner or later.

He is only a yearling, but his owners think him the coming bull of this country. He certainly is richly endowed, and in breeding, in constitutional vigor, in dairy form, quality and color of skin and softness of hair, ranks among the very best of the breed and is worthy of his phenomenal ancestry. This bull was purchased to crown the already splendid herd with the very best that could be produced, as the standard of quality stands first with the Gem Holstein Herd, and is that by which the owners are desirous it shall be judged. Their late stock bull, Sir Ruby Mascot, was one of the most meritorious Holstein bulls that has figured in this country. His dam, Princess Lida the 4th, is the large Holstein cow that stands showing her magnificent udder with bull calf by her side in the picture.

Princess Lida 4th is one of the largest Holstein cows in Canada, and is perfectly proportioned; in fact, is a model Holstein cow. This year, at Toronto Industrial Exhibition, she took second in the dairy test. She has given over seven gallons of milk per day at two milkings; she has left the showing with both red and blue cards, according to the whim of the judges. The cow just behind Homestead De Kol Belle Boy is Rideau Gretqui, another of the grand old type of imported Holsteins, weighing 1,800 lbs., and producing an average of six gallons per day for six months straightaway after calving. Rideau Gretqui also took second money in the dairy test at Toronto Industrial Exhibition. This is the type of Holstein that fills the pockets of dairymen. This cow's grandam, old Ethelka, gave over 108 lbs.

milk in one day. Some of the other cows in this truly first-class dairy herd are:

Rideau Dellah, who belongs to the great Jamaica family. Her grandam gave over 110 lbs. milk in one day.

Maud Tensen, who stood in the prize herd at the World's Fair, Chicago, and has a record of 18 lbs. 7 ozs. butter in one week, is a highly-prized member of the herd. She is a daughter of the great silver medal cow Cornelia Tensen, an ideal dairy cow of the highest type.

Clarabell Sjut, who was first prize two-year-old at the World's Columbian Exhibition, and a first prize winner at Toronto Industrial Exhibition, has given her owners over 1,500 gallons of milk and two calves in one year. For the first six months, January to July, on ordinary herd feed gave an average of over six gallons per day of 3.6% milk, and is one of the grandest of the long list of cows which have made the breed famous as milk producers.

Lutske 3rd. This, the old "grandmamma" of the herd, is truly a wonderful cow. Her milk-vein structure is magnificent, covering large territory and showing plainly down to the very ends of her teats. She is now eighteen years old and is a regular breeder, and at fourteen years old gave over five gallons of milk per day in two milkings. This is a cow of wonderful constitution, capacity and endurance.

Ruby Gretqui, as a three-year-old, has given over five gallons per day. She is a daughter of Rideau Gretqui, mentioned before, showing that with

Trout Creek Stock Farm.

Six miles from the City of Hamilton, Ontario, on the road leading to Guelph, is situated the fine farm of Mr. W. D. Flatt, on which is maintained a high-class herd of registered Shorthorn cattle. The farm—which was originally the home of the owner's boyhood, from which he went out at the age of 16 to seek his fortune successfully in the lumbering business, which he followed for some 20 years—embraces 125 acres of rich clay loam soil, which is kept in a high state of cultivation, and its fertility maintained by the growth of clover for feed and for green manuring and by liberal applications of stable manure, made by feeding cattle on the place. Hay, wheat and oats are the principal crops grown. As a proof of the fertility of the farm, it is only necessary to state that in the season of 1898, in addition to pasturing about 40 head of cattle and the farm horses, 1,000 bushels of wheat were harvested, the variety known as Dawson's Golden Chaff yielding an average of 42 bushels per acre, and the Genesee Giant 36 bushels; 800 bushels of oats were grown, of the Siberian variety, averaging 63 bushels per acre; 60 tons of hay were stored; 7 acres of fodder corn and 8 acres of roots were cultivated; and 4 acres of mixed tares, oats and peas were grown for green feed during the summer months. These facts speak strongly in favor of a little farm well tilled, and yet we have a suspicion that the owner is ambitious for a little more elbow-room, to the attainment of which the environment at present is not favor-

of cattle, old and young, besides the stabling for the farm horses at one end of the basement of the barn. A square silo, 12x12 and 30 feet deep, with inside corners rounded, is filled for the first time with well-matured corn ensilage this year, from which a large amount of rich fodder is anticipated. The horse fork and slings used for elevating hay and grain to the mows in the barn have proved entirely satisfactory as a labor-saving expedient. A commodious, comfortable and picturesque piggery, built of stone, with cement concrete floors and troughs, is the home of select specimens of Berkshires, Tamworths, and Yorkshires.

THE SHORTHORNS.

The leading feature in the operations at Trout Creek Farm is the fine herd of Shorthorn cattle, which are the pride of the owner, and justly so, as they have been selected and bred with care and good judgment, high-class individual merit by inheritance being the standard by which the herd has been established and maintained. The stock bull at the head of the herd is imported Golden Fame =29056= (represented in our engraving), of the Golden Drop family, bred at Kinellar, Aberdeenshire, Scotland, and purchased at the long price of \$720 at the auction sale at which he was the favorite of twelve imported bulls selected by one of the best judges in Canada. Golden Fame was sired by Emancipator (65417), and out of Golden Drop 10th, by Sittytton Sort (64417), and is a smooth, even-fleshed bull of fine character and quality. Representatives



SHORTHORNS AT TROUT CREEK FARM, OWNED BY W. D. FLATT, HAMILTON, ONTARIO, CANADA.

Holsteins like produces like or better as long as you use the best bull that money can buy.

Sherwood Clover, another splendid Holstein cow with a perfect shaped udder and very soft skin and hair, is out of the grand old Barrington cow Amin. Sherwood is a splendid milker, giving over 12,000 lbs. milk between calvings.

Lady Amethyst, another Gem daughter of Maud Tensen, is an exact counterpart of her dam, and promises to maintain the character of the family for high-class dairy work.

Nellie Garnet, another daughter of Clarabell Sjut, as a three-year-old has given over six gallons in one day in two milkings, and her owners think will prove to be equal in producing quality to her mother, who is half-sister to Baron Witzide, the silver medal bull at Toronto Industrial Exhibition, 1897.

In the herd are some splendid young bulls and heifers from these grand cows. One especially deserving mention is the young bull calf shown in the picture along with his dam, Princess Lida 4th. This calf is sired by Baron Witzide, and the youngster promises to develop into a magnificent bull, and his breeding, combined with his individual excellence, should place him at the head of some good herd.

He was a Limerick man, and he was summoned at the Petty Sessions for the non-payment of the rent of his cottage. Said he, "Yer Worship, sixpence a week is too much rent entirely for the little cabin. Come down, Your Honor, off the Bench there, an' go in yourself, an' if an ass can turn in it, I'll be confint to pay the full sixpence a week."

able; but if the herd increases as it has been doing, it will probably be necessary either to board some around the district or, what is perhaps better, extend the soiling system in summer by feeding more in the stables, a system which will probably be more generally practiced in this country as intensive farming grows in favor, a system which, more than any other, serves to enrich the farm by increasing and concentrating the manure supply.

Trout Creek, a never-failing stream, fed by springs and fertile in the production of speckled beauties of the finny tribe, furnishes an appropriate name for the farm and supplies the pastures with pure water, while a good well at the barn provides a full supply for the stabled stock, being pumped by a windmill to a tank in the barn, from which it is conveyed by pipes to covered troughs in front of the mangers, a trapdoor in each stall being opened at intervals so that the cattle may drink as they stand in their stalls. The same windmill furnishes power for grinding grain, cutting straw, pulping roots, etc.

THE FARM BUILDINGS

are well located, substantial, neatly finished, and present a pleasing appearance, indicative of thrift and comfort. The main barn, which is 80x60 feet, with basement stables and root cellars, has two driveways from side entrances, 20-foot corner posts, and a neatly-turned "hip" roof, on the ridge of which are two neat cupolas and the 16-foot geared windmill in center. The basement stables beneath this building, and those in the two annexes running out from it at each end, all having cement floors, provide comfortable accommodation for about 100 head

of most of the leading families of the breed are included in the herd, including Roses of Strathallan, Missies, Crimson Flowers, Roan Bettys, Minas, Jilts, Miss Symes, Roan Duchesses, and many other standard sorts, all being of good size, thick-fleshed, early-maturing, and many of the cows being excellent milkers, as indicated by their shapely udders and the splendid condition of the calves they are nursing. Portraits of several of these cows are in our illustration.

While Mr. Flatt has not made a practice of exhibiting his stock at the fairs, he has succeeded in securing many of the prize-winners and their descendants, and his herd has been drawn upon by many breeders who are exhibitors at leading State and Provincial fairs, a young bull selected from his herd winning 1st prize at the Winnipeg Industrial Fair, 1898, and heading the 1st prize herd under two years old, owned by Hon. Thos. Greenway, Premier of the Province.

We hail with satisfaction the entrance of enterprising men of means like Mr. Flatt into the ranks of breeders of improved stock, and are confident they could not direct their energies to any work better calculated to help to build up our country on the solid basis of high-class farming and the improvement of stock.

Lookin' for Trouble.

of which the session is this: "A good deal more than half of a woman's troubles commence when a woman crosses his path. It is right—that a woman's a heap to blame, but it has been lookin' fur trouble just the same."

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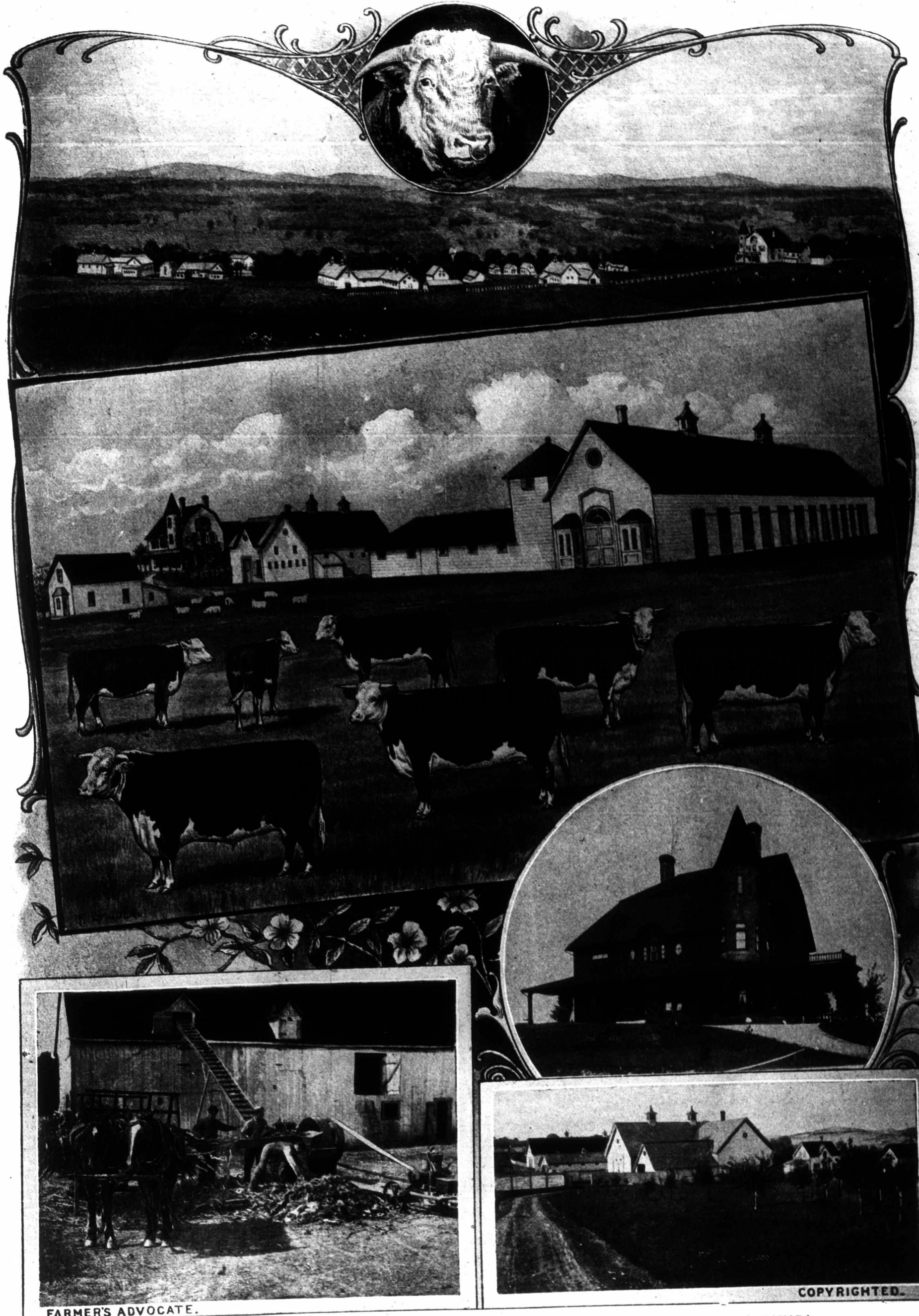


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FARMER'S ADVOCATE.

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THE HOME AND HEREFORDS OF MR. H. D. SMITH. OF INGLESIDE FARM, COMPTON, QUEBEC, CANADA.

"Ingleside," Headquarters for Herefords.

Only those who have had the good fortune to travel through, or, better still, to tarry for a time in those beautiful farming districts of the Province of Quebec known as the Eastern Townships can fully appreciate their importance as an agricultural and stock-raising region. Broad and gently undulating pasture fields, covered with thick carpets of grass, studded with wide-spreading shade trees, and traversed by babbling brooks, provide a pastoral paradise which amply accounts for the robust representatives of the herds and flocks of high-class cattle, sheep and other stock hailing from those townships and taking prominent positions in the competitive contests at the annual exhibitions in the provinces east and west. Full fields of fodder corn and roots, and ricks of hay standing like sentinels on the plains, provide winter provender, and serve to emphasize the fact that in these districts stock-raising is rightly regarded as the sheet anchor of successful farming.

Situated in this section, about 100 miles east of Montreal, and three miles from Compton station on the Grand Trunk Railway, is "Ingleside," the fine farm and home of Mr. H. D. Smith, and headquarters for Hereford cattle in Canada. The farm comprises 900 acres, about 300 of which are under cultivation, the remainder being pasture and woodland. The soil is a rich clay loam and the land lies for the most part high and dry, sloping gently from the highway to the rear of the farm, and affording from the homestead a clear view of all the cultivated portion, as well as of the "salt lick" at the head of the hill, where the cattle come from the permanent pastures, making a pretty picture with their clean white faces at sunset. The dwelling house, which is large, roomy, handsomely designed, light and cheerful, and provided with every modern requisite for healthfulness, comfort and convenience, as well as with the old-fashioned "ingle" or hearth, with its wide-open fireplace and crane, standing on an elevation about equidistant from the highway and the barns, is surrounded by well-kept lawns and evergreen hedges, and commands a magnificent view of landscape scenery, extensive and varied, including the New Hampshire Hills and the White Mountains of Vermont in the dim distance.

The water supply for the house, cottages and farm buildings is from springs in the hillside, conveyed in iron pipes to the house and farm buildings. There is running water in the troughs in front of the cattle in the stables, and it is on tap wherever required in all the buildings. A fifteen-horse-power steam engine drives the heavier machinery on the farm, either directly or by means of an electric dynamo, and at the same time devotes its surplus energy to the work of generating electricity, which is utilized by means of a storage battery, from which in the interval power is obtained for running the lighter machinery and supplying the one hundred incandescent lights in the house and out-buildings, by which the men in the barns are enabled to put in a full day's work independent of the sunlight. Mr. Smith is satisfied there is economy in the use of the storage battery in his case, where a large amount of heavy work such as grinding grain and wood sawing with the engine is necessarily performed, and where much power would be wasted if not utilized in the manner indicated; especially where the buildings are detached and spread over a range of a quarter of a mile, as they are at Ingleside, being on an average some 1,200 feet apart, the object being to reduce to a minimum the risk of all being destroyed in case of an outbreak of fire.

To give the dimensions of all the farm buildings would be difficult and superfluous, but some idea of their extent may be formed from the statement that the main breeding cattle barn, or school, as it is called, is 150x36 feet, with its annex and piggery 250 feet long. The buildings are in five or six sections, the cattle buildings being in three sub-sections—breeding, feeding, and dairy—each department being conducted with a view to profitable production.

A complete telephone service connects the house and office with the farm buildings, the village and station and the outer world.

The principal crops grown on the farm are hay, roots, ensilage corn, oats, barley, and mixed grain for grinding for feed, and all these crops are fed to stock on the farm and the produce sold on foot or in the form of cream sent to the butter factory on the Provincial Farm near the village of Compton. The general stock kept numbers sixteen horses, about 100 head of cattle, 120 sheep—Shropshires and high grades—the latter being gradually worked off with a view to a full flock of thoroughbreds, and in summer an average of about 70 pigs, principally Tamworths and their crosses with Berkshires, for feeding, a few pure-bred Berkshire sows also being kept. Mr. Smith considers the profit in pigs lies in their consumption of the cheap and rough feed on the farm, such as the by-products of the dairy, clover and mixed green feed, sowing beans and roots.

full feeding of rich and concentrated food being given only during the finishing period, the last few weeks before marketing, the pigs being sold at six to seven months old, weighing from 180 to 225 pounds, dressed weight.

For the dairy herd, strong, vigorous, heavy-milking grade cows are selected, and their calves, sired by high-class Hereford bulls, are nursed by grade Hereford cows, each cow suckling one of these calves in addition to her own, except in the case of heifers with their first calf, which raise only their own, the calves being kept in roomy box stalls and let with the cows morning and evening. The calves are early trained to eat bran and ground meal.

The cows are bred to produce their calves, as a rule, in the months of November, December and January, and the calves are suckled till seven to nine months old, when they are weaned, the cows being given a rest of two to three months before coming in again, which brings them in good condition before their next calves are born. The best of



A CREAMERY AT MOOSOMIN, ASSINIBOIA, N.-W.T., CANADA.

the heifers so raised are retained in the herd as breeders, the steers and plainer heifers being generously fed and kept going on, and being well bred and of the early-maturing sort, are at 22 to 26 months old readily sold as export cattle, weighing from 1,250 to 1,300 pounds without forcing, being plump, thick-fleshed, finished butchers' beasts, some of the best bred going up to 1,600 pounds under favorable circumstances at 26 months.

In winter the skim milk from the dairy is mostly used to raise calves, and in summer the skim milk is found to be more profitably used in raising pigs, there being no better food for producing the flesh which makes the highest quality of bacon, and no season of the year when pork can be produced so cheaply, hence no better market for that class of milk.

Mr. Smith finds it more satisfactory to breed his feeding cattle than to buy, owing to the difficulty in finding the class that meets the demand of the market and makes a satisfactory return for the feed they consume, while cattle bred to a beef type, and of the thrifty and early-maturing sort, pay better



BLACK CREEK CHEESE AND BUTTER FACTORY, PROPERTY OF HON. THOMAS BALLANTYNE & SONS.

for what they eat and always find ready sale at the best prices current.

THE HEREFORD HERD THE PRIDE OF THE OWNER.

While the owner of "Ingleside" is doing good work in furnishing object lessons to the farmers of his district of the improvement in the quality of cattle from the use of pure-bred sires of the beef breeds, and of the Hereford breed especially, and while the system now practiced on the farm has proved profitable, no attempt is made to conceal the fact that the ambition of Mr. Smith is by patient plodding to increase the numbers of the herd of pedigreed animals, which are the pride of the place, till they displace the grade stock. This object has been delayed by the birth of an undue proportion of bull calves, which, however, are paying properly, the demand for them being brisk at an average price of about \$150 each at 10 to 12 months, and by the offer of tempting prices for an occasional female, which is parted with regretfully.

The Ingleside herd of Herefords, established in 1889 by the purchase of five head, now numbers sixty registered animals, two-thirds of which were bred on the farm, new blood being regularly introduced by the purchase of first-class sires, and also by the importation in 1897 of eight choice young cows selected in person from the leading herds in England. The record of representative animals of the herd at the leading shows in Canada in the last nine years has been a proud one, having won for four years in succession the 1st and 2nd herd prizes and the male and female championship of the breed in contests open to the world, and always against strong competition, a record probably unparalleled by any breeder of any breed where competition has existed. That the herd is being kept up-to-date is evidenced by its winning both 1st and 2nd herd prizes at the leading shows—Toronto, London, Ottawa, and Montreal—since 1895, and championships at each during same period.

The character of the sires used in the herd in the last five years is further evidence of its being kept up to the times. The elegant "Corrector" bull, Sir Horace, of the most approved type and breeding, having been used for three seasons and having left a grand lot of young things, full of quality and constitutional vigor and true to type, is followed by the "Eureka" bull, Mark Hanna, No. 74230, by Eureka 58549, a son of Kansas Lad 30832, of world-wide fame. At Mr. Armour's sale, in October last, three "Kansas Lad" bulls averaged \$791.65. Mark Hanna won first prize in his class all around the circuit of the leading shows in 1898, and is a model bull of the beef type, weighing 1,200 pounds at fifteen months in moderate condition. The space at our disposal forbids special mention of individual females in a herd of uniform excellence and truthness to type—healthy, vigorous, and prolific—and richly bred in the blood of a long line of noted ancestors, and we can only briefly express our admiration for the prepotency of Hereford sires, as evidenced in the splendid specimens of feeding cattle on the farm, of various ages, from calves to two-year-olds, and having two to four crosses of Hereford blood, each cross showing a distinct improvement, till in the third and fourth generation they show all the appearance and character of a thoroughbred, while in most cases the first or second cross produces a kindly feeder and a model carcass of high-class beef. The owner of Ingleside is fortunate in the possession of an ideal home and herd, and his natural love for farm life and good stock eminently fit him for the good work in which he is engaged—that of elevating the standard of farm stock in Canada.

Cheese and Butter Making at "Black Creek" Factory.

Black Creek cheese factory was not the first institution of its kind built in Canada, but the lot on which it stands was the site of the earliest constructed in Perth County, and was started but a very short time after the factory system took form in this present great cheese-producing country. It was in 1867 that the present proprietor, Hon. Thos. Ballantyne, erected the original Black Creek factory. Here he made his acquaintance with the industry by manufacturing Cheddars with his own hands. True, his factory was alone for some years, but after a time one factory after another went up until this form of dairying became one of the strong arms of agriculture in that section. About 1870 considerable cheese was being made, and Mr. Ballantyne gradually turned his attention towards the commercial aspect of the industry. The development of the factory system went forward from this time by leaps and bounds, until in 1874 it was found necessary to take up residence in the town of Stratford, in order to give his almost undivided attention to cheese exporting, which has steadily grown until for a number of years past himself and two sons (Thomas and Robert) have found their time fully occupied with the trade in one or other of its forms. During these

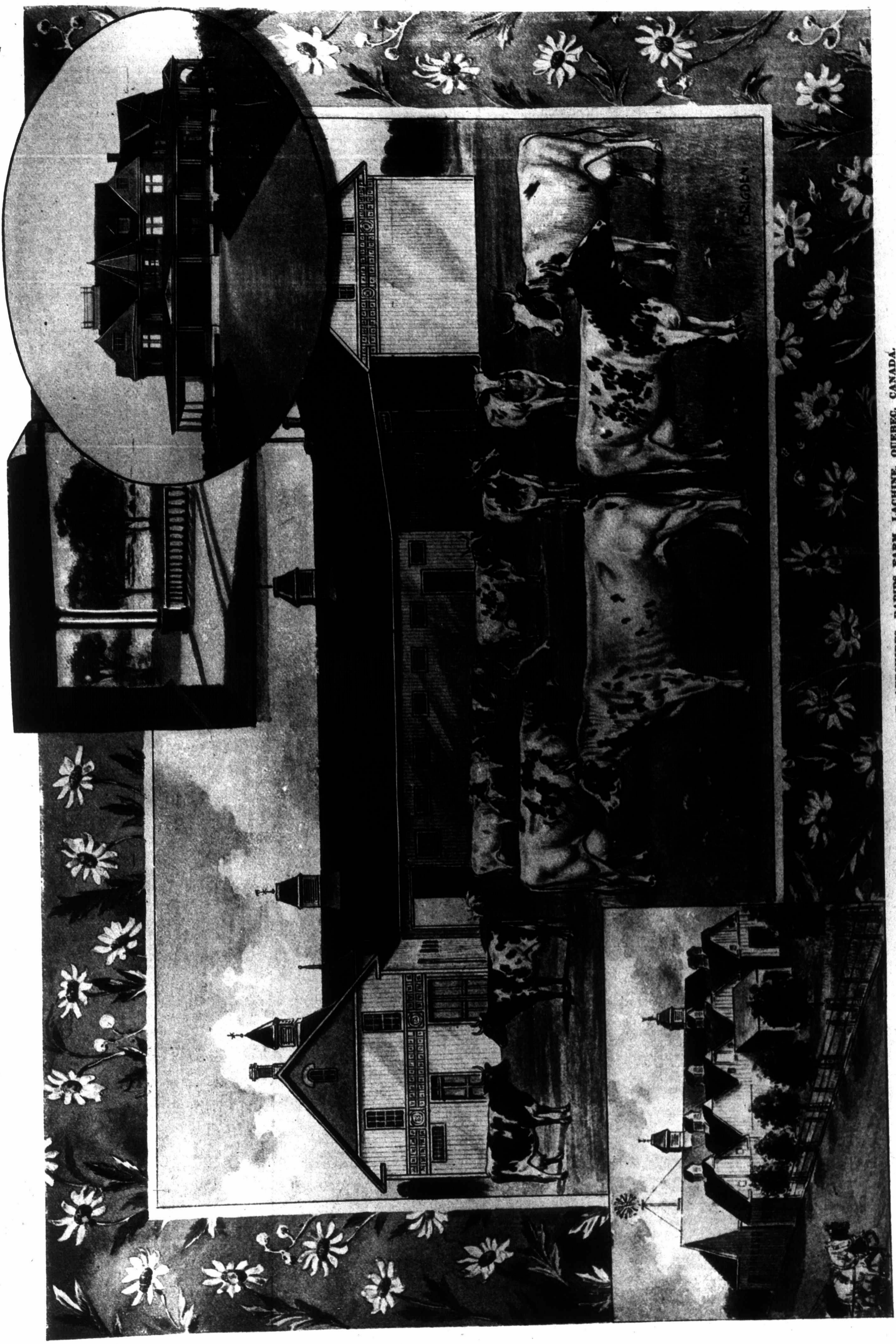
years, however, Black Creek factory has not been given over to other hands, but continued to be managed under its owner's oversight, always with the best procurable men in charge. The thoroughness characterizing its conduct proved a valuable object lesson to surrounding factorymen, who recognized the profit of such a course. The original wooden structure was in 1883 superseded by the present modern brick building. The factory proper (to the right in the illustration) is 125 feet long by 35 feet wide, and divided into a cheesemaking room, a buttermaking department for operation in the winter months, an office, and the engine room. The external speaks for itself in the illustration, while the inside is quite in keeping in every particular, being designed for convenience and a fit place for the manufacture of the delicate food product made up. The floors and five or six feet of a manscoting are of cement, which are kept thoroughly cleaned. The woodwork is all tastily painted each spring, and maintained in fresh

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MR. W. W. OGILVIE'S IMPORTED HERD OF AYRSHIRES, RAPIDS FARM, LACHINE, QUEBEC, CANADA.

natty appearance. The unusual but praiseworthy custom of keeping a few pots of blooming flowers in the windows effects a finish that denotes becoming taste. Not only is the factory thus rendered a pleasant and suitable place for the purpose intended, but it has a pronounced tendency towards keeping the patrons particular in caring for their milk.

The curing room (the building to the left in the illustration) is 38x70 feet, and is made as perfect as possible. The walls being of brick, with air space, are practically insulated, so that the temperature is easily controlled. The green shutters on the windows serve to exclude the heat of the summer sun, and provision is made inside for cooling with ice racks and warming with a furnace. The windows are numerous and large.

The creamery portion occupies about one-quarter of the factory building, and was first put in operation the winter following the erection of the factory. It is run from November 1st to May 1st of each year, and each winter sees an increase in its output. The patrons are rapidly falling in with year-round dairying, and are tending towards having their cows come fresh in the fall, and allowing them only about two months' rest before calving.

It is long since Hon. Mr. Ballantyne recognized the evils of allowing whey to be carried home in the milk cans. To prevent this, it is all fed at the factory to the 500 to 600 hogs fattened each summer in the roomy pens several hundred feet to the north-

"Rapids Farm,"

HOME OF A HIGH-CLASS HERD OF IMPORTED
AYRSHIRES.

Immediately opposite the far-famed Lachine Rapids, on the River St. Lawrence, a drive of some seven miles west of Montreal City, over one of the best roads in Canada, is the beautifully-situated and well-equipped farm, elegant and spacious summer residence, fine farm buildings, and high-class herd of imported Ayrshire cattle belonging to Mr. W. W. Ogilvie, of Montreal, president of the great flour-milling and wheat-dealing company having headquarters in that city and numerous branches throughout the great North-western Provinces and States.

The farm of 250 acres of strong clay loam was taken in hand five years ago in a very rough and neglected condition, full of noxious weeds, with tumble-down stone fences, fields of many shapes and sizes, and with boulders in profusion cropping up, to the peril of the plow and the plowman, while not a decent building was on the place. A wonderful transformation has been wrought in the meantime. A magnificent set of new buildings now adorn the farm; a model road of broken stone, finished with fine gravel and perfectly graded, runs from front to rear, dividing it fair in the center, and uniform square fields of ten to twelve acres, enclosed with neat woven wire fences, and red painted

painted, and the slate roofs surmounted by many cupolas connecting with the ventilators from the stables. There are no basements, a feature the absence of which is noticeable in the buildings of most of the principal stock-breeders in the Province, the opinion being held that wooden walls are drier and warmer than stone, and that stables high and dry above ground are more readily ventilated and more conducive to healthfulness of the animals. All the stable floors are on a level with that of the main barn, from which half a dozen annexes radiate, the feed being conveyed to each by way of broad passages. The main byre has a capacity for fifty stalls in double stalls, and about twenty-five smaller stalls are provided in one of the annexes for tying younger cattle, while numerous roomy box stalls for bulls and calves, and larger sheds for mares and colts and idle horses, together with the main horse stable with many stalls, the floors in most of them being of cement concrete, make up one of the most complete sets of farm buildings in Canada. The water supply for the stock is procured from the river by means of a large windmill, by which it is pumped into an immense tank in the barn and conveyed in pipes to troughs, and is avail-



SUMMER HILL STOCK FARM, PROPERTY OF D. C. FLATT, MILLGROVE, ONTARIO, CANADA.

east of the factory, on much lower ground. The whey is fed sweet, along with a light ration of peas, shorts and bran. It is the practice of the proprietor to inform his patrons of the output of the factory and other facts by an annual report at the end of the making season. The 1897 report of the cheese factory shows the following facts: Milk received, 4,005,553 lbs., from which 372,119½ lbs. of cheese were made, which sold for \$33,441.19, an average of 8.987 cents per pound. The average quantity of milk per pound of cheese was 10.76 pounds. The report of the creamery for the winter of 1897-8 shows that 1,175,188 pounds of milk were received, from which was made 52,973 pounds of butter, which sold for \$10,155.70. After deducting all charges, the patrons received in November 16.02 cents per pound for butter; in December, 15.68; January, 16.03; February, 16.53; March, 16.33, and in April, 15.30 cents per pound. The average pounds of milk per pound of butter was 22.62, and average number of pounds of butter to pound of fat was 1.182.

We have at Black Creek one of the best if not the best cheese and butter factory in Canada, which it is hoped will be imitated in very many sections where modern ideas are too slowly introduced.

Kind Neighbor (accompanied by a large mastiff, to a little girl very much afraid of him): "He's a good dog; he never hurts any one. Don't you see how he's wagging his tail?" Little Girl (still shrinking back): "Yes, I see; but that isn't the end I'm afraid of."

gates open out from each side of the wide lane. The stones have been buried out of sight in the road and in constructing mains for the thorough system of drainage which has been carried out, one hundred and seventy-five acres having been underlaid with tile at a uniform distance of twenty-five feet apart and an average depth of three feet. Hay, oats, and roots are the principal crops grown, fifteen to twenty acres of mangels and carrots being cultivated each year. Bran and other millfeed is freely purchased for the dairy herd, on the assumption that good cows pay a fair profit over the cost of the feed they consume, milk and butter being supplied to special patrons in the city at prices considerably higher than market quotations. Clover plays a prominent part in the rotation both as a feeding crop and a fertilizer of the soil, while vetches and mixed green feed for soiling is largely grown.

The dwelling house, a magnificent structure, with a great number of large and well-lighted rooms, and with broad verandas and balconies overlooking the river and the rapids, and commanding an extensive view of beautiful and varied scenery, including water and woods, hills and islands, is the summer resort of the family and many friends, and has the virtue of being a comfortably cool retreat in the hottest days of the summer solstice, balmy breezes from the rapids fanning the face by the means of a real perpetual motion. The farm buildings are on an extensive scale, and present a very pleasing exterior appearance, being of uniform height, neatly finished and

able in all the buildings where required, the house being supplied, by means of a hot-air engine in the basement, through the same pipes.

THE HERD OF AYRSHIRES.

For the first three years dual herds of beef and dairy breeds of cattle were kept on the farm, but last year the owner resolved to "rid the ranch" of all these and indulge his fancy for a first-class herd of Ayrshires, and to this end his farm manager, Mr. Robert Hunter, a critical judge and a man of sterling character, was deputed to search Scotland for the best that could be procured, and in March, 1898, he landed at Quebec with twenty-four choice young cows in calf, and the grand young bull Comrade of Garlaff, in his two-year-old form, a portrait of whom, with those of a group of the cows which were imported with him, appears in our illustration of the farm steading in this issue, and which are fair representatives of the herd, which easily ranks as one of the very best on the continent, and notably embraces a larger number of first-class imported cows than any other. Comrade was bred by Mr. Wardrope, of Garlaff, and sired by Blood Forever of Wyndholm, dam, Concert 3rd, of Garlaff, and is a typical dairy bull, showing strongly the best characteristics of the breed, standing on short legs, and has large heart-girth, fine withers, a long yet muscular neck, handsome head, and excellent milking qualities. Among the best of the imported cows is the three-year-old Faultless Beauty of Wyndholm, true to her name, bred by Robert

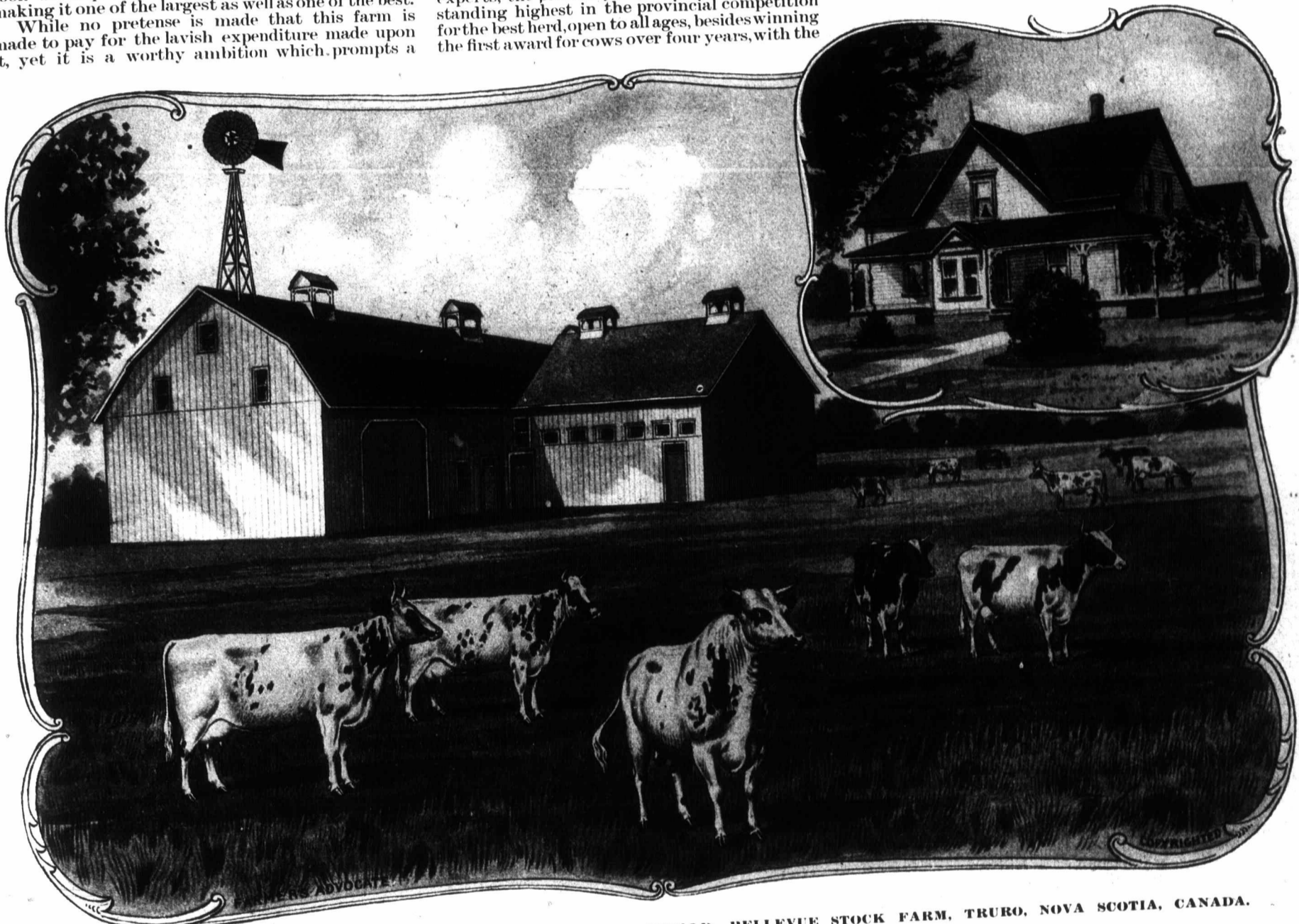
Osborne, breeder of the famous Nelly Osborne, and winner in the Old Land, with her stable mate, Gerina of Wyndholm, as a pair at Ayr, Kilmarnock, and Glasgow, in 1897, also second at the Royal Show of that year as a two-year-old is a faultless young cow, making a fine show of udder and having true dairy conformation. Mayflower of Drumsue is a big, strong cow, bred by Mr. Winter, of Drumsue, a persistent milker of great capacity, and Countess of Drumsue, a three-year-old from the same herd, is of similar type, and promises well for a worker in the dairy. Edith of Lessnessock, in her three-year-old form, is lowset, deep ribbed, and of handsome modern type, and is rightly reckoned one of the best of the bunch. Minnie of Lessnessock, from the same herd, is much like her mate in all useful points, while Kirstie and Topper of Drumdown are a pair from one herd showing similarity of type, and that a good one; while the four-year-old Ida of Garlaiff, from the same herd as Comrade, and the three-year-old Lilly of Gateside, are milky-looking and models of the breed, the dam of Ida having an unbeaten record as a show cow. These, with their offspring, a grand lot of young things, practically imported and of uniform type, showing, as do their dams, strong breed character and constitution, will soon develop into working members of the herd, making it one of the largest as well as one of the best. While no pretense is made that this farm is made to pay for the lavish expenditure made upon it, yet it is a worthy ambition which prompts a

claimed marsh meadow land protected by dikes from the overflow of the river, or arm of the sea, when the tides rise and back up into the basin. These lands are exceedingly fertile, being composed of alluvial deposit, and respond to cultivation with generous crops of grain and roots, though they are generally devoted mainly to growing hay, and are pastured to a limited extent during the fall months. A fine field of roots (turnips and mangels) which challenged our admiration for its clean cultivation and the richness of its promise has, we are advised, yielded a crop averaging over one thousand bushels per acre, with no other fertilizer than a liberal dressing of barnyard manure.

The farm steading presents a fine appearance, the main barn being 150 feet long by 46 feet wide, with basement stables and root cellars occupying the entire space, the structure being neatly finished and brightly painted. The cattle stables are high, well lighted and ventilated, and the floors are of concrete cement. A windmill pump supplies water in every department, and the arrangements for feeding are convenient. High-class herds of Short-horn and Ayrshire cattle are maintained as the main features of the farm, and representatives of each took prominent places in the showing at the Provincial Exhibition at Halifax, judged by eminent experts, the present year, the Bellevue Shorthorns standing highest in the provincial competition for the best herd, open to all ages, besides winning the first award for cows over four years, with the

Swine Raising at Summer Hill Farm.

High and picturesquely situated on the mountain overlooking the beautiful Burlington Bay and City of Hamilton, some five miles to the west is Summer Hill Stock Farm. Beautiful because of its outlook, poetically attractive in its tree-dotted, undulating landscape, and desirable for its rich loam soil, the proprietor, Mr. D. C. Flatt, is to be congratulated on his selection when he became the owner, a few years ago, on his retiring from a profitable but very busy life as a lumberman. As yet, the 125 acres composing the farm is not what Mr. Flatt has designed for it, but towards this end a decidedly advanced step was taken when the provision for his live stock was made last year. The external neatness, as shown in the engraving, is a faithful index to the internal plan and fittings. The main barn, 50x80 feet, on 9-foot stone walls supporting the superstructure, having 20-foot posts, forms comfortable and sanitary quarters for twenty odd head of dairy cows, the farm teams, and the crops which are grown to feed them. A portion of the basement is set apart for sugar beets, which are grown to great perfection. These are very highly prized for hog feeding, which is the principal industry of the farm. The basement is perfectly floored with Portland cement, sloped and guttered so as to be conven-



AN ACADIAN HERD OF AYRSHIRES, OWNED BY C. A. ARCHIBALD, BELLEVUE STOCK FARM, TRURO, NOVA SCOTIA, CANADA.

man of means to devote a portion of it to the purpose of encouraging the leading industry of the country, and in no better way can such men serve their country and prove its benefactors than by bringing into it high-class stock, the blood of which, being disseminated, proves like the little leaven which in time leavens the whole lump, bringing the benefits of good blood within the reach of others who, but for such enterprise, could not so readily avail themselves of it.

"Bellevue," an Acadian Stock Farm.

True to its name is the fine stock farm of C. A. Archibald, situated in the suburbs of Nova Scotia, fifty miles west of the seaport city of Halifax, on the short line of the Canada Pacific Railway from Montreal to the former port. The residence and farm buildings, occupying elevated ground on the upland portion of the farm, command an extensive view of the diked meadow lands of the Onslow Valley and of the higher lying farms in the distance with their neat white homesteads contrasting pleasantly with the deep green of the pastures and the autumnal foliage of the forest trees as seen on a bright September day. The farm comprises 175 acres, one hundred of which is upland and broken pasture-land, and seventy-five rich re-

beautiful Blush, a model of the breed, and also for three-year-old cows with Duchess, a doughty daughter of the famous imported Indian Chief, sire of scores of winners in all the leading shows east and west. Many of the best families of Short-horns are represented in the herd, and they show uniformity of type, excellent quality and great constitutional vigor. A selection from the herd of Ayrshires which is illustrated in the sketch of the homestead in this issue was singularly successful in winning high-class honors at the Halifax Exhibition, opening to the Maritime Provinces, capturing the first prize award for cows with Dolly, a model dairy cow in conformation and breed type, also first prize for the three-year-old cow and two-year-old heifer, the female championship of the breed (with Dolly), the first prize for bull over three years old, and finally the first herd prize for the best four animals of the breed, of any age, one bull and four females, a run of success which rarely falls to one man's lot in such keen competition, and which speaks well for the character of the herd, as it is cheerfully conceded they won on the solid basis of superior merit. The laird of Bellevue is nothing if not ambitious and enterprising, and being genial and sociable in disposition, taking defeat with equanimity when it comes, and wearing his honors modestly when won, we predict for him a brilliant future in the field of his chosen vocation.

iently kept dry and clean. The stables throughout are fitted with a watering system, supplied by the windmill to protected troughs in front of the animals, enabling them to drink at will. Ample light and ventilation were not overlooked, while convenience in feeding leaves little to be desired in caring for the animals.

When the farm was taken hold of, Mr. Flatt readily saw that stock-raising was to be the chief dependence, and in conjunction with his dairying, hog-raising suggested itself as suited to go hand-in-hand. To this end the demands of the trade were considered, and the production of bacon pigs was the outcome. Various pure breeds and crosses were tried, and are still on the farm—over a hundred animals in all; but the peculiar suitability of the Improved Yorkshire to the object in view has decided the proprietor in confining his attention entirely to this breed. In doing this, wisdom has been shown in selecting only the best procurable foundation stock, a few of which are honestly portrayed in the foreground of the illustration. The stock boar, Look-Me-Over, sired by Hackett 3rd, proved himself invincible at the leading exhibitions the past fall, by standing unbeaten after the keen competition of the Toronto Industrial, Ottawa Central, and a large number of lesser shows. At twenty months old he weighed some 700 pounds, and is decidedly of the bacon type. One of the late

female additions to the herd is the imported Royal Duchess 2nd—3057—, winner of first premium at the 1898 Royal Show at Birmingham, Eng. She was bred by T. J. Davis, Radcliffe College, Leicester; was farrowed in January of the present year, and ranks as one of the very best of the breed. The remainder of the Yorkshire herd includes fifteen of the most typical and best young sows it was possible to secure.

Ample provision has been made for the comfort of the swine in the two new piggeries erected in 1897 and 1898. The stone building, with straw and feed loft above, is 30x50 feet inside, and divided by a passage down the center. There are five pens on one side and four on the other, allowing space for the stairway, feed-mixing trough, and cooking furnace. It is floored with cement, and provided with plank-floored sleeping places, which are kept deeply bedded with wheat straw. Like the barn basement, it is well lighted and ventilated and furnished with a never-failing spring water supply. The building is situated on a dry knoll, from which there is excellent drainage, so that there is never a sign of dampness noticed. In addition to the stone piggery, which was built in 1897, a new frame brood pen was put up the past summer. This is 20x40 feet, and divided into three compartments, with passage on one side. The walls are double lined with inch pine, and tar paper between, making it suitable for sows farrowing in cold weather.

The rotation of cropping practiced is a four-course system, with clover a principal crop, but roots and fall wheat do exceedingly well and work well into the system of providing fodder and bedding for the stock. Not only are heavy crops of clover cured for the cows, but fields of it are plowed down as green manure. It is safe to predict that if Mr. Flatt's energy and practical ideas have their sway, not only one of the prettiest but one of the most productive Canadian farms will soon be found at Summer Hill, on Hamilton Mountain.

Manitoba Native Plums.

Herewith is presented a pretty view of a family-gathering picking plums in a natural grove on the farm of Mr. D. R. Roddick, near Brandon Hills, Manitoba, who has the following good word to say regarding this native fruit: "There are several varieties of native plums about here. One variety is small, woody and acrid, and of very little use. Another variety is large, round, red, and of fine flavor. The third variety is oval shaped, large, and mauve-colored. This is also an excellent variety. These plum trees grow in abundance on the banks of the Little Souris River, which winds along the northern side of the Brandon Hills. They can be found for a distance of about four miles, and the farmers on whose property they grow value them highly. They do not bear many in some years, as the spring frosts injure the blossoms, but they bear more or less every year. During the past season they bore abundantly. I sold and gave away ten barrels of them, and had plenty for my own use. I have never transplanted or cultivated any of them, but some have done so with advantage, as cultivation improves their size. They are quite easily raised, and I think are destined to become a leading fruit in this country."

The Shepherd's Calendar.

BY J. M'CAIG.

"When the sheep are in the fauld and the kye at hame."

The picturesque aspects of the shepherd's life are wanting in America. The age is a commercial age, and adventurous colonists find that our cheap and fertile lands lend themselves readily to rapid production. The desire for the bettering of one's condition is intensified by the ease of moneymaking in a new country. Besides, in the settled parts of Canada mixed farming pays best, so shepherding in its purity is at an end. Sheep are only one factor among a great number that take up the attention and labor of the farmer, and this condition of divided attention is naturally followed by lack of interest with regard to sheep. It is impossible to develop the poetic side when the bare essentials alone are attended to, and these only in hurried and intermittent efforts. The sum total of the ordinary farmer's acquaintance with his flock in summer-time is comprehended in the performance of docking and turning out to grass, a day's washing, a day's shearing, bringing in the sheep to sell the lambs to the butcher, turning in the lord of the flock in autumn, and the salting of the flock more or less regularly—generally less. Though winter involves six months of artificial feeding, the attention given to the flock consists of throwing them a couple of feeds a day, while other stock takes up nine-tenths of the farmer's attention.

The business of shepherding in the Old Land involves practically living with the flock, especially

in the uplands and mountain districts. The whole round of interests of the shepherd are confined to the flock. At the same time the work is leisurely. Leisure and poetry are indissociable; hence we find the poetic side of the shepherd's life manifest in these conditions, as in the case of the Ettrick Shepherd. The simplicity of pastoral life is always attractive to poets. Of the shepherd Blake sings:

"How sweet is the shepherd's sweet lot!
From the morn to the evening he strays;
He shall follow his sheep all the day,
And his tongue shall be filled with praise.

"For he hears the lambs' innocent call,
And he hears the ewes' tender reply;
He is watchful while they are in peace,
For they know when their shepherd is nigh."

No phase or season of the shepherd's annual round has failed to inspire the poets, from their going afield in the spring to their folding in the blasts of winter. We may begin with Cowper:

"The sheepfold here
Pours out its fleecy tenants o'er the glebe.
At first, progressive as a stream, they seek
The middle field; but, scattered by degrees,
Each to his choice, soon whiten all the field."

The frolicking lambs are pleasing to the shepherd as they show the best symptoms of good health. The most casual and indifferent spectator takes pleasure in the sight.

"Say, ye that know, ye who have felt and seen
Spring's morning smiles, and soul enlivening green;
Say, did you give the thrilling transport way?
Did your eye brighten when young lambs at play,
Leaped o'er your path with animated pride,
Or gazed in merry clusters by your side?"



MANITOBA NATIVE PLUMS.

"A few begin a short but vigorous race,
And indolence abashed soon flies the place;
Thus challenged forth, see thither, one by one,
From every side assembling playmates run;
A thousand wily antics mark their stay,
A starting crowd impatient of delay.

"Like the fond dove from fearful prison freed,
Each seems to say, 'Come, let us try our speed.'
Away they scour, impetuous, ardent, strong,
The green turf trembling as they bound along;
Adown the slope, then up the hillock climb,
Where every mole-hill is a bed of thyme.

"There panting stop, yet scarcely can refrain;
No: ere this strong solicitude subside,
A bird, a leaf will set them off again;
Or if a gale with strength unusual blow,
Scattering the wild-briar roses into snow,
Their little limbs increasing efforts try,
Like the torn flower the fair assemblage fly."

A valuable lesson in providing for orphan youngsters may be taught in rhyme, though the cheating of the ewe is not one that would seem to lend itself readily to poetry.

"Her tender offspring dead, the dam aloud
Calls, and runs wild amidst the unconscious crowd;
And orphan'd sucklings raise the piteous cry:
No wool to warm them, no defender nigh,
And must her streaming milk then flow in vain?
Must unregarded innocence complain?
No: ere this strong solicitude subside,
Maternal fondness may be fresh applied,
And the adopted stripling still may find
A parent most assiduously kind.
For this he's doomed disguised a while to range
(For fraud or force must work the wished-for change).
For this his predecessor's skin he wears,
Till cheated into tenderness and cares,
The unsuspecting dam contented grown,
Cherish and guard the fondling as her own."

Macaulay's lay of Horatius contains the following lines, very terse and appropriate on the subject of sheep-washing, and indicating likewise its antiquity,

as we cannot doubt the accuracy of his classical learning:

"This year young boys in Umbro
Shall plunge the struggling sheep."

Following is a more extended and very real picture of the same operation:

"First, however,
Drive the double fold upon the brim,
Of a clear river, gently drive the flock,
And plunge them one by one into the flood.
Plunged in the flood not long the struggler sinks
With his white flakes that glisten through the tide:
The sturdy rustic in the middle wave
Awaits to seize him rising; one arm bears
His lifted head above the limpid stream;
While the full clammy fleece the other laves
Around, laborious, with repeated toil;
And then resigns him to the sunny bank,
Where bleating loud he shakes his dripping locks."

The picture of the women shearing on the lawns must have been picturesque. The women would probably be more humane than many men, judging by some of the work of the latter. An old writer says: "A good shepherd shears his flock, not flays them." The subject of shearing has suggested some very expressive metaphors. Says Talleyrand: "Society is divided into two classes, the shearers and the shorn; we should always be with the former against the latter." Another writer says: "Many go out for wool and come home shorn themselves."

We know nothing of the practice of smearing in this country. It consists of the application of a mixture of tar and butter, chiefly on the back, as a protection against rain and snow. The Scotch song, "The Tarry Woo," originated from the treatment of the wool after shearing, made necessary from its being smeared. No artificial shelter except an enclosure of earthen walls is provided in the mountains. On this account shepherds have hardships. They may have to crouch within these shelters for days, with no society but that of the faithful collie and the starving flock. No artificial food is provided either, so the shepherd has to leave his cottage, rain or shine.

"Oft he looks forth and hopes in vain
The blast may sink in mellowing rain;
Till, dark above and white below,
Decided drives the flaky snow,
And forth the hardy swain must go,
Long, with dejected look and whine,
To leave the hearth his dogs repine;
Whistling and cheering them to aid,
Around his back he wreaths his plaid;
His flock he gathers, and he guides
To open downs and mountain sides,
Where fiercest though the tempest blow,
Least deeply lies the drifted snow."

We cannot lose sight of the faithful companion of the Highland shepherd in fair weather and foul—the faithful collie. A man may lose faith in friend after friend, but the dog stands the highest example of unswerving fidelity, and loves man for himself alone.

"The poor dog! in life the firmest friend,
The first to welcome; foremost to defend;
Whose honest heart is all his master's own—
Who labors, fights, lives, breathes for him alone."

The Arcadian shepherds held the belief that dogs have a future world. The Indian holds the same belief.

"Lo! the poor Indian with untutored mind
Sees God in clouds, and hears him in the
wind,
And thinks, admitted to that equal sky,
His faithful dog shall bear him company."

A shepherd in the Grampian hills was in the habit of taking out with him a little son four years of age to make the boy hardy. He left the lad at the foot of a hill while he went to the peak to look about at his flocks, and told him not to stir from the place. A heavy fog came on just as he reached the crest, and the shepherd missed his way and did not find the child that day. The dog was also missing. On reaching home the shepherd learned that the dog had been home, had got food, and had gone away again. The search continued for several days, during which time the dog visited the cottage several times. Finally the shepherd followed the collie and reached a spot near a cataract not far from where the child had been left. The dog sprang down the precipice and disappeared into a large open cave. The shepherd followed with difficulty, and near the entrance of the cave beheld his young son eating the cake which the dog had just brought him, while the faithful guardian sat on his haunches in front of the boy and watched him devour the biscuit with the satisfied complacency these animals show after work well done.

Why it Was Closed.

An honest countryman, anxious to explore the wonders of the British Museum, obtained a special holiday a short time since. Accordingly, taking with him a couple of friends, he presented himself at the door for admittance. "No admittance to-day, sir," said the keeper. "But I must come in. I've a holiday on purpose." "No matter. This is a close day, and the museum is shut." "What!" said John. "Ain't this public property?" "Yes; but one of the mummies died a few days ago, and we are going to bury him." "Oh, in that case we won't mind," said John in a hushed voice. So he retired.



Christmastide.

- 'A Merry Christmas!' How the old words waken
A thrill and throb for many a Christmas fled...

HARRIET KENDALL.

AN AMERICAN GIRL IN LONDON.

BY SARA JEANNETTE DUNCAN.

(Continued from page 567.)

VII.

'If I only had my own house in Portman Street,' Lady Torquillin remarked next day, when we were having our tea in her flat...

What were you given a forehead for, if you were not intended to show it? I fancy I see Sir Hector, when he was alive, allowing me to wear a fringe...

'Hear-r-r-r!' as high as he could reach, turning up his eyes a good deal, as if he were in pain. And for the time it was not necessary to talk. When he had finished, Miss Fortescue asked me if it was not delightful, and I said it was—did she know the gentleman's name?...

[TO BE CONTINUED.]



A Christmas Acrostic.

Fancy! children, it's Christmas again!
And Santa must work with might and main,
Fumbling about through snowstorm and rain,
Much he cares for the heaviest drift!
Enters the house so silent and swift,
Runs to each stocking and drops a gift,
Surely he knows what the children lack—

A doll, a sleigh, or a jumping-jack,
Dozens of them he has in his sack,
Vexed is he if the children awake—
Out of his pack he drops toys and cake,
Climbs to the roof while they shiver and shake,
And in a flash he is out of sight,
Tearing about the whole of the night,
Eager and swift as a bird in its flight.

—COUSIN DOROTHY.

Sly Old Santa Claus.

"What a dear, dear little girl!" said Miss Bond in a "coaxy" voice, holding out her arms. "Won't she come here and kiss me?"

"She's a boy!" cried Tommy, the elder brother, quickly. "She isn't a girl."

Miss Bond was very sorry for her mistake; and well she might be, for Tommy looked deeply offended. People were always taking pretty little Bobby with the long fair ringlets for his sister, and Tommy's patience was nearly worn out.

To make matters worse, Bobby, who was quite lacking in dignity, had already gone to Miss Bond and was sitting in her lap. It had never been possible to make him feel the impropriety of wearing long hair, the deep disgrace of allowing himself to be held in arms and kissed—"just like a girl!" Indeed, in his ignorance he did not know but girls are every bit as good as boys.

"Where is your mamma?" asked the lady. "I've brought home that little rig I was making for her little boy. Was it for you, I wonder?" looking at Tommy.

Little rig. What could she mean?

"O, my knickerbockers!" cried Tommy. You ought to have heard his shout as he seized the bundle done up in a shawl-strap which Miss Bond had set on the floor. You ought to have seen him run with it to his mother. I fear he had no more dignity than Bobby, who ran after him, exclaiming:

"Let me see the nig-boxes! Let me see the nig-boxes!"

When Tommy next appeared to view he was arrayed in his first suit—blue jacket and blue knickerbockers. He had worn them an hour, but in that time he seemed to have grown older and taller and wiser. He was wise enough now to be Bobby's father, almost.

"Isn't it beautiful? Don't the buttons shine?" breathed Tommy, joyfully, thinking all the while what a pity it was that there was no one to see him but "that baby of a Bobby." It was only two days before Christmas and everybody else was busy.

"Ain't they beautiful? Why don't you speak?" "Booful" echoed poor Bobby, swallowing the lump of envy which rose in his throat.

"I'll be velly good," thought the brave baby, comforting himself, "and that'll make me grow big, and then I'll have some nig-boxes to!"

Tiring a little of admiring the splendor which did not belong to him, Bobby turned to the window to rest his eyes by looking out.

It was not a very pleasant day. The wind was raw and there were a few snowflakes sailing in the air.

"Will Sandy Claw go ridin' in the weather?" asked Bobby, anxiously.

"You mean, will Santa Claus come if it snows? I s'pose that's what you mean. A boy three years old ought to talk better'n you do," returned Tommy reproachfully.

Bobby scorned the correction. Little cared he what havoc he made with the English language if people only answered his questions.

"I said, will Sandy Claw come in the weather? Say, will he?"

"Yes, I s'pose so. He won't mind weather and snow and such things," said Tommy, rather faintly, as if he was not quite sure of it after all.

Bobby clapped his hands and laughed till his ringlets danced a jig on the back of his frock.

"I said I guess and s'pose; I didn't say certain sure, Bobby."

The ringlets ceased to dance, and little Bobby turned round such a distressed face that Tommy hastened to kiss him and add, "O, he'll come fast enough! He's awful tough."

"Did you ever seen him, Tommy?"

"N-o-o-o. What a goosie you are, Bob! Why, he comes in the night when I'm asleep. But I've seen his picture, though, lots of times."

"Let me see his picture?"

Tommy searched a while in a box on a high

bracket, and finally produced a gaily-painted Christmas card.

It represented Santa Claus driving six prancing reindeer over the roof of a house.

"There you see he has a jacket on like mine, Bobby, only his is all fur. The snow can't hurt him any."

Bobby was satisfied that it couldn't. "Those horses are called deers," said Tommy instructively. "That the untamest one there," pointing to the reindeer whose feet rose highest in the air.

"Pretty deers," murmured Bobby. "Trees on their heads."

"Poh, Bobby, those are only hookers; same as cows have."

The little brother looked doubtful. "Yes, Bobby, the same as cows have—only not a bit like 'em."

"Where are they goin'? Those deers!"

"They are running on top of the house."

"Why! Who put 'em up there?"

"O, Santa Claus. He can do 'most anything. It does seem queer, though," mused Tommy, in whose mind a slight doubt had been rising of late regarding the merry saint with the white beard. What if he should turn out only a make-believe after all, like grandpa's scarecrow out in the corn-

"Between Two Thieves."

'Tis Christmas Day! The children sing
And dance with eager joy.
What treasures did Kris Kringle bring
To this small girl and boy!

Why "Marie has a lamb" of course—
You see it standing there—
And Louis has a rocking-horse,
So big 't would make you stare.

Poor Dinah's arms are both pulled out—
It's tea-time now, you know—
But don't think that makes Marie pout,
Her dolls are often so.



Poor child, she wants her bread and milk,
But Louis dips his spoon.
While Kitty's paws are soft as silk,
There will be trouble soon.

Dear baby sits "between two thieves"
And struggles for her share,
While Louis *more than* his receives,
It surely isn't fair!

Won't someone to the rescue run,
Take Kitty-cat away,
And give that boy a currant bun?
You know it's Christmas Day.

D. F.

field. But he would not speak this doubt to Bobby; it was too dreadful.

But Tommy's face grew sober. In spite of his great joy in the knickerbockers, it grew very sober indeed. A new and dread alarm had seized him. He slipped out of the parlor and ran into the kitchen to Maggie, who was making mince pies. "O, Maggie," said he in a choked voice, "don't you know the men have just painted our house!"

"Well, yes, to be sure, little General; and a pretty color it is, too; all like coffee and cream."

"But Maggie—O Maggie—Santa Claus thinks it's white! 'Twas white last year, and I'm afraid he'll drive right by."

"Maggie might have laughed; but she was a kind soul, and seeing that this was a real distress to Tommy, she said soothingly at the same time giving him a handful of raisins.

"Never you fret about that, little General; Santa Claus is rale quick-witted. He'll find you if you'd painted up and gone to South Ameriky! Didn't you never hear about his eyes? It's just like an owl's eyes they are; made so as to see in the night."

Tommy's heart bounded for joy.

"Will he come certain true and not miss?"

"Yes; as true as your name is General Timmyus Hay. So now chare up and be off with ye. De! Maggie, iver tell ye a lie?"

Tommy was supremely happy for the rest of the day; but at teatime his father, in admiring the

knickerbockers, made an unfortunate remark, which threw the little fellow into another alarm.

"Your new suit is wonderful to behold, Tommy. Walk off and let me get a good view. Why, it makes quite a little dude of you, my son! *You don't look like the same boy!*"

A sudden cloud darkened Tommy's face, though no one perceived it. The moment tea was over he took his mother to one side and said earnestly:

"Mamma, Santa Claus always used to know me. I sent him my photograph last Christmas up the chimney; don't you remember?"

"Certainly, my dear."

"But I didn't have these clothes then,"—with an affectionate glance at his knees. "Don't you know what papa said just now? 'I don't look like the same boy!' Has Santa Claus got owl's eyes? Will he know me, do you s'pose?"

In his eagerness Tommy was twisting his mother's hand like a door-knob; and she smiled on him roguishly as she replied:

"Why, child, he knows good boys, if they are wrapped up in rabbit-skins! It's his *business* to know good boys."

"O!" said Tommy with a sigh of relief. That settled the question, for wasn't he a good boy? Well, I should think so, indeed!

The next night was the very "night before Christmas." The two little brothers usually had a frolic at bedtime; but that evening Tommy said rather sternly to Bobby, who was preparing to play "lion":

"Don't make such a racket, I want to talk.—Mamma!"

"Well, dear."

She was hanging up the beloved new suit in the closet at the foot of the bed.

"Mamma, won't you please leave the closet door open? And leave the gas burning?"

"What for, my child! You don't want to look at your clothes in the night? O fie!"

"Well," said Tommy, blushing a little, "I wanted Santa Claus to look at 'em too, you know."

Mrs. Hay laughed outright.

"Well, I'll empty the knickerbocker pockets at any rate," said she, turning them wrong-side outward and pouring their contents into her sewing-apron. Where had Tommy found such heaps of things to tuck into those pockets in two short days?

"And mamma, I s'pect if Santa Claus comes, you'd better put up a big stocking—bigger than papa's—O, a great big grandpa stocking; don't you?"

"I'll see about it," said Mrs. Hay.

After the dear little boys had said their prayers and were fairly in bed, she kissed them both a dozen times over—Oh, if they could only have guessed how she loved them—and said:

"Now good night. And when you are fast asleep, I'll bring in *something* to hold all your presents. It will have to be pretty big, I know."

"Time to get up, Tommy! Dark's gone down into a hole in the ground."

"O my!" cried Tommy, springing out of bed. "Where's Santa Claus? I didn't catch him!"

But for all that Santa had been there.

It was not a minute before the house was ringing with shouts of joy. Santa Claus had been there—Oh, yes. He had espied the house with his owl's eyes, for all the new paint. He had remembered Tommy, although Tommy "didn't look like the same boy." He had come fearlessly down the chimney, though he must have been made of something as elastic as India rubber, or he couldn't have got through. He had come down and filled that big clothes-basket, and heaped it up till it fairly ran over.

What had he brought? Well, he must have been listening a whole year at the keyholes, for he had brought everything Tommy and Bobby had ever spoken or even thought of wanting. There was a drum, for one thing, and a horn, and ever so many other instruments that "make a lovely noise." There were blocks with pictures, and pictures without blocks. There was one steam-engine, one pop-gun, one rocking-chair. There were boxes full of candy, boxes full of nuts, and boxes full of cake that was full of nuts—besides being frosted. There was a jack-in-the-box, too, that set Bobby laughing. There was a sled named "Here-I-Go"; and a kitten named "Dandelion," because it was so yellow. Only the kitten wasn't in the basket exactly; in fact, it was found in the kitchen after breakfast, lapping milk. There were mittens, and caps, and comforters, though the boys hardly looked at them; and books just running over with the funniest stories and pictures.

"Well, if you want the whole list of presents, you'll have to go to somebody with a longer memory than mine, or a longer sheet of paper. There wasn't a thing you could think of, that two little boys could possible want, that wasn't to be found in Mrs. Hay's clothes-basket, or on the table against the chamber wall.

It was the happiest Christmas the children had ever spent. Oh, by far the happiest. Their souls were growing larger every year; and the larger the soul is the more happiness it can hold, don't you know?

Only there was one thing that vexed "General

Thomas" a little all day - whenever he thought about it.

"Sly old Santa Claus! I didn't catch him after all. I heard him coming with the sleigh-bells, but I was sleepy, and I thought I wouldn't wake up. But I tell you, mamma, I'll catch him next year; see? I don't!"

"Me too!" echoed Bobby, with his mouth full of walnut cake.

"The Honeymoon."

I wonder how many thousand-million-billion (we won't go any farther) such scenes as this have been enacted? Perhaps formerly there were more of them than we have now - for now we live in a rapid age and our young couples don't care about honeymooning in quaint cottages or country inns, as of old. Oh, no! That is altogether too slow now that hotels fairly bristle all over the world. Fancy a bride going over to her bridegroom and pouring out his tea in a big public dining-room, and thus encountering the barely suppressed smiles of the guests (so-called) and the broad grins of the waiters! Of course, they can have a private sitting-room - but that costs a lot of extra money which these "newly-weds" want for sight-seeing. I am speaking of the general run of young couples - not of those wealthy ones who can have anything they choose.

Well, this couple is of the old school, evidently, and is in the delightful midst of a real home honeymoon of the good old sort. I daresay some relative has lent them a pretty cottage.

Now, just look at him. If she were as careless as to where her eyes rested as he, his fingers would get nicely scalded! You see, he is doing what a great many good men and true do - leaving a great deal to his wife to look after! She is trying to seem unconscious of his ardent gaze - at all events, until she has poured out his tea. When it is poured out, however, I will venture a considerable wager that it will be allowed to get cold, for he will then curve in that arm (already around her pretty waist) - and perhaps even draw her onto his knee - and then they'll converse awhile! I have heard of such things.

What a pretty dress is hers, and what a swell tie is his!

There does not seem to be much to eat on the table - but we can suppose this to be merely afternoon tea - or perhaps they do not require much substantial food just yet!

It is a pretty scene, though, and these two look very, very happy. I hope their "Honeymoon" (typical of others) may last them through their lives.

Empty Stockings.

Oh, mothers in homes that are happy Where Christmas comes laden with cheer, Where the children are dreaming already Of the merriest day in the year.

As you gather your darlings around you And tell them the "story of old," Remember the homes that are dreary! Remember the hearts that are cold!

And thanking the love that has dowered you With all that is dearest and best, Give freely, that from your abundance Some bare little life may be blessed!

Oh, go where the stockings hang empty, Where Christmas is naught but a name, And give - for the love of the Christ child! 'Twas to seek such as these that He came.

Little Boy Blue.

[The following is a copy of a little poem by the late Eugene Field. It makes a pretty recitative piece for children and should be committed to memory by each of the little ones, in the home or school.]

The little toy dog is covered with dust, But sturdy and stanch he stands; And the little toy soldier is red with rust, And his musket molds in his hands. Time was when the little toy dog was new, And the soldier was passing fair, And that was the time when our Little Boy Blue Kissed them and put them there.

"Now don't you go 'till I come," he said, "And don't you make any noise." So toddling off to his trundle bed, He dreamt of the pretty toys, And as he was dreaming an angel song Awakened our Little Boy Blue, Oh! the years are many, the years are long, But the little toy friends are true.

Aye! faithful to Little Boy Blue they stand, Each in the same old place, Awaiting the touch of a little hand, The smile of a little face, And they wonder, as waiting these long years through, In the dust of that little chair, What has become of our Little Boy Blue, Since he kissed them and put them there.

"So you want to be my son-in-law, do you?" asked the old man, with as much fierceness as he could assume. "Well," said the young man, "I don't want to, but I suppose I'll have to be if I marry your daughter." - Tu-Bits.

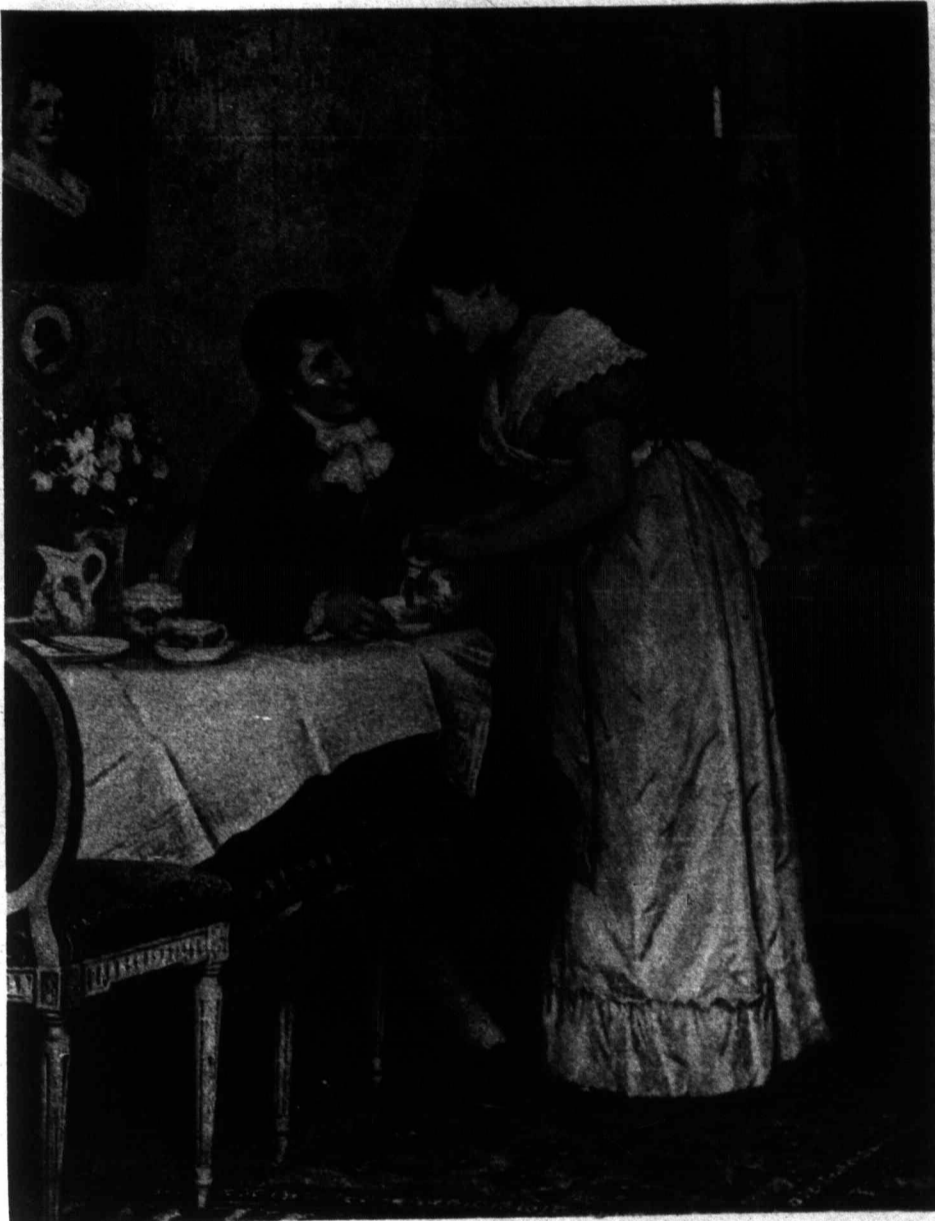
A Christmas Dream.

'Twas last Christmas Day: and I'm sorry to say, With some friends I consented to dine; And I came home to bed with a horrible head, And a wonderful nightmare was mine. I dreamt that I sailed in a vessel that hailed From the cape that is called "Commodore," With a cargo of shells, caramels and church bells, And a dozen pianos or more.

We'd of passengers plenty - some seven-and-twenty, And all of them wore evening dress; We'd a clown and a peer, and one gondolier, And sixteen M. P.'s, more or less. I noticed the captain was constantly wrapt in An eider-down down to his feet, Though he did not require warm attire, for a fire At the masthead was causing great heat.

At last, sailing still, we passed close to Belleville, And soon we dropped anchor off York, Where we shipped some French beans, fifteen sewing machines, Some thimbles and Mexican pork. Off we started again, but it came on to rain, So we lay off the coast of B. C., As the crew and the skipper all played "Hunt the Slipper," While the passengers joined in a spree.

When off the Klondike, the ship changed to a bike, And gaily we rode to Juneau; But, getting off soon, we engaged a balloon, Which was starting just then for Embro. I thought it looked soft to sail up aloft, So I jumped - but I fell on the floor, And I mournfully said, as I crawled back to bed, "I will dine out at Christmas no more."



"THE HONEYMOON."

Agriculture in Our Bible and Bible Times.

BY THE REV. W. A. BURMAN.

We would call our readers' attention to an especially attractive series of articles which will commence in our January issue and extend through the year in twelve numbers.

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Conductor - "What has happened? Why did you pull the bell-cord?" Passenger - "My wife's hat fell out of the window."

An old lady was telling her grandchildren about some trouble in Scotland, in the course of which the chief of her clan was beheaded. "It was nae great thing of a head, to be sure," said the good old lady, "but it was a sad loss to him."

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,

According to an old Greek myth, one of the most ancient of the divinities was the god Saturn or Chronos. The name Chronos signifies time. His elder brother Titan yielded his own right to his kingdom to the younger brother Saturn on condition that he should destroy all his male children. Conformably to this agreement, Saturn devaloured his sons whenever they were born. He was frequently represented as an old, bent man, with a long beard and a large pair of wings: he carried a scythe in his hands to imply that he presided over the times and seasons, and under this form he was called Chronos or Time.

Now, all this is a kind of allegory. The meaning of Chronos' destroying his children at their birth is this - Time sees all things produced and all things finished. The scythe in his hands was the symbol of destruction and his wings the emblem of speed. Such was the old Greek god Saturn or Chronos.

We nineteenth-century people may compare this story of Chronos or Time with the present day, and what do we find? The same thing going on still - Time passing swiftly and carrying us along with it, never stopping for a moment - never resting - always moving on, on, on - and as he passes, how many come and go! We are never stationary - we too must go on continually. Some come for a short season, some for a longer time, but all of us must go sooner or later - we cannot help ourselves. So let us see to it that we try to go on in the right way.

And here we are looking forward once again to the old, old Christmas time. How quickly the seasons revolve! Ere long we hope to be wishing each other "A Merry Christmas," and giving and receiving loving remembrances at that glad time. Christmas! - what a beautiful word! The very name makes us feel kindly towards everyone. It is the season for forgiving wrongs and forgetting them. Everybody seems to start afresh with the secret resolution, "I shall try to do better and to be better before another Christmas comes round."

I presume that all my nieces are busy preparing for Christmas, getting their gifts ready so as to make others happy. How many times have you planned and re-planned what you will do for this one and for that one - what mother would like, and what would just suit father? Is it not hard to decide all the little things, but is it not also a delightful task? And how often have you almost "given away" the whole secret! It is constantly in your mind and so is very near your lips, and perhaps you have to check yourself in the middle of a speech.

Do you not think, my dear nieces, that it is very much nicer to make something yourself than to buy a gift? One's personality seems to go into a homemade present so much. Our good Queen Victoria never accepts any Christmas gifts from her grandchildren if they are not made by themselves; consequently all the fingers are busy beforehand, and then on Christmas morning there is a huge pile of presents awaiting the royal grandmother - from finely-finished drawings and musical compositions in manuscript from the older princesses down to the little kettle-

holders and woolen scarfs made by the wee princesses who are still in the nursery. All these gifts are laid out in what is called the "Indian room," and are examined by Her Majesty after breakfast. On that day, too, the Queen gives herself up to amuse the children who are visiting her then. With her, as with us all, it is the home day, and all the family circle who can, spend the 25th of December with the Queen. She delights to look again and again at the children's presents and to tell them stories, particularly fairy tales, and so she makes the little folks happy on Christmas Day. And here, I think, we should all do well to imitate the Queen. It is not her own happiness she seeks on that day, but she spends the whole time in giving pleasure to others. This is by far the best way, and will most assuredly bring happiness home to ourselves. We can all do that - try to make someone else happy. Is there a sick one beside us, or a poor one or a lonely one or a cross-tempered one? Try just for once to bring a ray of happiness to that one. It is not always easy to do this, but make the attempt at least. It will bring its own reward. "A kind action is never lost, for angel hands are quick to carry it to the Eternal Father; but on earth many a kind action, many a brave deed, goes unrewarded, even unrecognized; and why? Because the bravest deeds, the kindest actions, are done silently, cheerfully, unostentatiously." But what does it matter?

We do not look for gratitude or praise—our motive is something higher than that.

We must not make the common mistake of imagining that to give we must be rich. It is not the money value of our gift that counts—it is the love which we show and which we put into it that tells. Some gifts are beyond value, and cannot be purchased. Many a rich old lady would willingly part with some of her wealth if only she could have love instead. It is not money in itself which brings happiness—it is love in the home. Many a home is a poor one financially; but may be a thousand times happier than the palace of a millionaire. So do not despair, girls, and say "I'll give it up" because you have not much to give. Give your little gifts with all the love of your heart, and I can assure you they will be thoroughly appreciated.

Did you read in the issue of Nov. 1st how you may earn a little money? Just look again at page 523. I am sure that many of my nieces are hard at work doing what they can, showing our valuable ADVOCATE to neighbors and trying to persuade them to join the ranks of subscribers. And just think of it, girls—25 cents to yourself for each new name, and for those 7 workers who can hand in the largest list of new names, 7 additional cash prizes, and handsome ones too! You have till Dec. 31st to work, but begin now, those who have not already begun. Read that interesting item again, and do your best. Wishing you all success, and a "Merry Christmas," I am—

MINNIE MAY.

Recipes.

SCOTCH BROTH.

Two pounds of the scraggy part of a neck of mutton. Cut the meat from the bones, and cut off all the fat. Then cut meat into small pieces and put into soup pot with one large slice of turnip, two of carrot, one onion, and a stock of celery, all cut fine, half a cup of barley and three pints of cold water. Simmer gently two hours. On to the bones put one pint of water; simmer two hours, and strain upon the soup. Cook a tablespoonful of flour and one of butter together until perfectly smooth; stir into soup, and add a teaspoonful of chopped parsley. Season with salt and pepper.

BOILED TURKEY WITH CELERY.

Chop half a head of celery very fine. Mix with it one quart of bread crumbs, two scant tablespoonfuls of salt, half a teaspoonful of pepper, two heaping tablespoonfuls of butter and two eggs. Stuff the turkey with this; sew up and truss. Wring a large square of white cotton cloth out of cold water, and dredge it thickly with flour. Pin the turkey in this, and plunge into boiling water. Let it boil rapidly for fifteen minutes; then set back where it will simmer. Allow three hours for a turkey weighing nine pounds, and twelve minutes for every additional pound. Serve with celery sauce. The stuffing may be made the same as above, only substitute oysters for celery, and serve with oyster sauce.

The First Skate of the Season.

Over the icy tide they glide
(I'm sorry for those who don't);
Here and there the ice will bear,
Though here and there it won't.
Hark! a crash! too thin, too thin,
Tab and his wife are in, are in;
Water over the nose and chin!
But Puffy's pluck and Gippy's rope
Each ready aid extends.
They cheer with golden words of hope
Their poor unlucky friends.
Hark! a shout—"Ah! now they're out!"
Full praise the deed deserves,
For when another's in distress
True courage never swerves.

John Lea.

Mrs. Barber—"Give me tin cents wort' of ham."
Grocer—"Sugar-cured, madam?" Mrs. Barber—"No, I want some that has never been dizazed."

His Wife—"You would not have half the nervousness you do if you would give up smoking."
Himself—"Oh, I couldn't live without my pipe."
His Wife—"Yes, you could." You told Millie Perry you could not live without her—before you met me."

The Two Little Stockings.

Two little stockings hung side by side,
Close to the fireplace, broad and wide.
"Two?" said Saint Nick, as down he came,
Loaded with toys and many a game.
"Ho! Ho!" said he, with a laugh of fun,
"I'll have no cheating, my pretty one;
I know who dwells in this house, my dear:
There is only one little girl lives here."
So he crept up close to the chimney-place
And measured a sock with a sober face.
Just then a wee little note fell out.
"Aha! what's this?" said he in surprise;
And he pushed his specks up close to his eyes
And read the address, in a child's rough plan
"Dear Saint Nicholas," so it began,
"The other stocking you see on the wall
Is hung for a child named Clara Hall.
She's a poor little girl, but very good,
So I thought, perhaps, you kindly would
Fill her stocking too to-night.
And help to make her Christmas bright.
If you've not enough for both stockings there
Please put all in Clara's, I shall not care."
Saint Nicholas brushed a tear from his eye,
"God bless you, darling," he said with a sigh;
Then softly he blew through the chimney high.
A note, like a bird when it soars on high,
Then down came two of the funniest mortals
That ever were seen this side of earth's portals.
"Hurry up," said Saint Nick, "and nicely prepare
All a little girl wants where money is rare."
Then, oh, what a scene there was in that room!
Away went the elfs, but down from the gloom
Of the sooty old chimney came tumbling low
A child's whole wardrobe, from head to toe.
How Santa Claus laughed, as he gathered them in
And fastened each one to the sock with a pin!
When all the warm clothes were fastened on,
And both little socks were filled and done,
Then Santa Claus tucked a toy here and there,
And hurried away to the frosty air,
Saying, "God pity the poor and bless the dear child
Who pities them too on this night so wild." —Selected.

Christmas Eve.

The land in hopeless darkness lay
As crush'd 'neath Herod's ruthless sway
There broke no gleam of coming light
O'er far off Hebron's snowy height.

While still o'er heathen lands afar
There roll'd the tide of ceaseless war,
And grief, and poverty and pain
Flow'd darkly, sadly in its train.

And all the world so seeming fair
Lay caused in deep and dark despair,
For faith in God at last was dead,
And hope from human hearts had fled.

But in that hour of deepest gloom,
The arm of God itself made room
For faith and hope anew to flow
And end this reign of darkening woe.

For 'mid the silent stars one night
There broke a strange and startling light,
On shepherds watching late and lone,
From mountain side and craggy stone.

And like sweet music heard afar,
'Neath silent moon and gleaming star
They came on their enraptured ear
The angel voices loud and clear.

And far o'er Bethlehem's sleeping plains
There stole the enraptured strains
Of peace on earth, good-will to men,
For God has come to them again.

And all the fields and mountains high,
Re-echo from the far-off sky,
The angels high uplifting strain,
With glory as its loud refrain.

And through the ages rolling by,
Since first was heard that gladdening cry,
That glory swells o'er land and sea,
The joy of all eternity.

—John Langtry.

The Christmas Spirit.

There is one way in which the Christmas spirit should show its power. It should reveal itself in our personal lives. What Christ is to us, we ought, in our little human measure, to be to others. Xmas means love. Christ came to our world to pour divine kindness on weary, needy, perishing human lives. The Christmas spirit truly in our hearts should send us out on the same mission. There is need everywhere for love's ministry. Hearts are breaking with sorrow, men are bowing under burdens too heavy for them, duty is too large, the battles are too hard. One of the saddest things about life

is, that with so much power to help others by kindness of word and kindness of act, many of us pass through the world in silence or with folded hands.

"What silence we keep, year after year,
With those who are most dear to us and near!
We live beside each other day by day,
And speak of myriad things, but seldom say
The full, sweet word that lies, just in our reach,
Beneath the commonplace of common speech.

"Then out of sight and out of reach they go—
These close, familiar friends who loved us so;
And sitting in the shadow they have left,
Alone, with loneliness and sore bereft,
We think with vain regret of some kind word
That once we might have said, and they have heard."

Surely we would learn the true Christmas lesson of gentle, thoughtful kindness to those we love, and to all we meet in life's busy ways; and should show the kindness while their tired feet walk in life's toilsome ways, not waiting to bring flowers for their coffins, or to speak words of cheer when their ears are closed and their hearts are stilled, and it is too late to give them comfort and joy.

Thus the true Christmas spirit in our hearts will work out in transfigured life and in Christly ministry. It will lead to the brightening of one little spot at least on this big earth. There are a few people whom God calls to do great things for Him, but the best thing most of us can do in this world is to live out a real, simple, consecrated life in our allotted place. Thus in our little lives we shall repeat the life of Christ. We shall bring men some feeble reflection of His life and His love, and doing, in our poor way, a few of the beautiful things He would do if He were here.



"THE FIRST SKATE OF THE SEASON."

THE QUIET HOUR.

"The Song the Angels Sing."

It came upon the midnight clear,
That glorious song of old,
From angels bending near the earth
To touch their harps of gold:
"Peace on the earth, good-will to men,
From Heaven's all-gracious King!"
The world in solemn stillness lay
To hear the angels sing.

Still through the cloven skies they come
With peaceful wings unfurled;
And still their heavenly music floats
O'er all the weary world,
Above its sad and lowly plains
They bend on hovering wing,
And ever o'er its Babel sounds
The blessed angels sing.

But with the woes of sin and strife
The world has suffered long;
Beneath the angel strain have rolled
Two thousand years of wrong;
And man, at war with man, hears not
The love song which they bring,
O hush the noise, ye men of strife,
And hear the angels sing!

And ye, beneath life's crushing load,
Whose forms are bending low,
Who toil along the climbing way
With painful steps and slow,
Look now! for glad and golden hours
Come swiftly on the wing;
O rest beside the weary road,
And hear the angels sing!

For lo! the days are hastening on,
By prophet-bards foretold,
When with the ever-during years
Comes around the age of gold,
When peace shall over all the earth
Its ancient splendors bring,
And the whole world give back the song
Which now the angels sing.

Oak Park Farm.

Centrally located in one of the choicest sections of the southern portion of Ontario Province, about 30 miles north from Lake Erie and the same distance west of Burlington Bay, on Lake Ontario, is situated Capt. D. Milloy's "Oak Park Farm," views of which appear in this issue. Its 540 picturesque and fertile acres were once the property of the late Hon. David Christie, whose noted Shorthorn herd will be remembered by our older readers. The western boundary is marked by the historic Grand River, gracefully skirted by a belt of natural forest growth in which the herds and flocks take refuge from the flies and heat of summer. Adjoining the river is an 80-acre area of excellent pasture, just such a combination as a stock farm needs. There are also about 215 acres of land seeded to grass—clover and timothy—the former predominating. This condition has for years been maintained. By nature, the land is a deep, rich clay loam on a natural self-draining subsoil. Since Capt. Milloy assumed the proprietorship its original value and beauty has been greatly enhanced. From the first a stock farm was the end in view, and ever since the introduction of the present Shorthorn herd, some fifteen years ago, there has been an almost continuous series of improvements, in which utility and good appearance have been the prime factors. The fields of from 16 to 50 acres have been recently separated by

Regarding the herds and flock, individuals of which are portrayed in the engraving, the handsome Shropshire flock of 51 breeding ewes happily grazing in the broad natural pastures inspired many an enthusiastic impulse in the minds of visitors during the past season. Typical in color and covering, uniform in contour and expression, and withal presenting perfection of vigor, they are a credit to the excellent English flocks from which they sprung. During the mating season, a choice member of Messrs. Phinn's flock received the preference, from his good pedigree, individual excellence and prepotency, as indicated by the pretty group of some 40 lambs, male and female.

Shorthorns, perhaps to a greater extent, claim attention at Oak Park. Among those appearing in the foreground of the illustration, and which well represent the herd, are: Cleopatra 5th, by War Eagle, and bred by John I. Hobson; Elvira 22nd, by Royal Saxon, and bred by C. M. Simmons; Daisy of Strathallan 16th, by Barimpton, also bred by C. M. Simmons; Jolly Jilt, by Royal Saxon, and bred by S. J. Pearson; and the stock bull, Arthur, by War Eagle, and bred by Mr. Hobson. With a few exceptions, the members of the entire herd are of red color, and are in perfection of breeding, flesh and vigor, presenting to a visitor in the light, neatly-kept basement an indication of thoroughness and wise oversight.

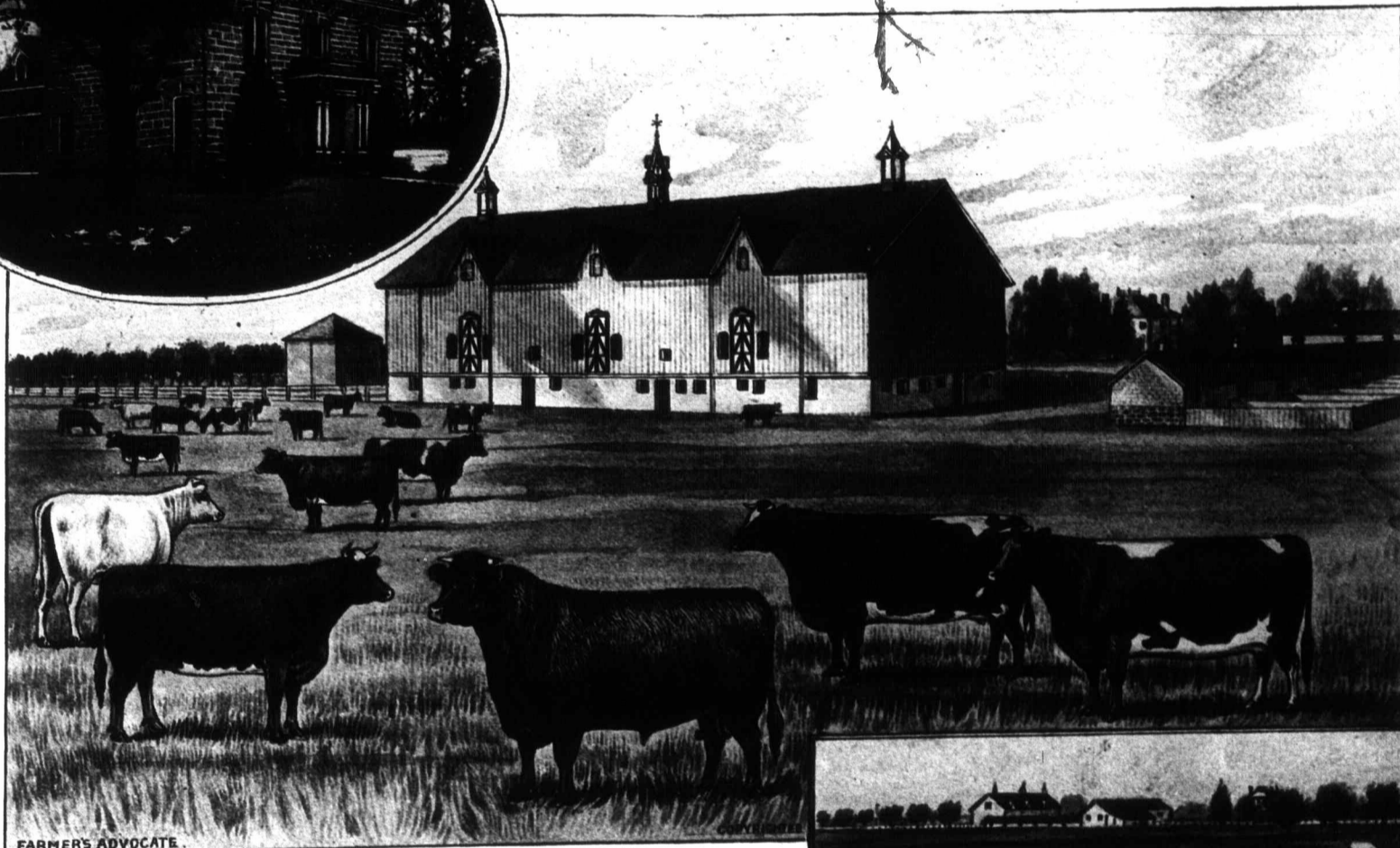
Berkshire swine have been the favorites on the estate for some time, but to these have been added a few Tamworths within the last year or so. Of Berkshires, there are some ten brood sows of typical character and good breeding capacity.

Considering the natural excellence of soil,

Legislation and Agriculture.

AN ENGLISH SEATESMAN'S VIEW.

Lord Roseberry, late Premier of England, not long ago attended a plowing match held under the auspices of the Surrey County Agricultural Society, to distribute the prizes to the successful competitors, and in proposing "Success to the Association," made some remarks on the condition of agriculture. There was only, he said, in these days, one sound legal technical definition of an agriculturist. That was a person who had half his rates paid by the Government. (Laughter.) Of course in that sense he was not nearly as much of an agriculturist as he should like to be. (Laughter.) Then there was another class of agriculturist—limited, he believed, entirely to Ireland—which had all its rates paid for it. That was the sort of agriculturist he would like to be. (Much laughter.) Both these classes of agriculturists were the results of attempts by the Government to assist agriculture. He said nothing about those particular attempts, because to do so would be to pass into a range of political discussion which was forbidden at that dinner, and from which, in any case, he should hold himself debarred; but he was bound to say that he was not a great believer in legislation to assist agriculture. Legislation could do much to prevent unfairness and injustice as between landlord and tenant, but for the real difficulties of agriculture, low prices, and difficulties connected with the climate of the country, after all, legislation could do little or nothing. In agriculture they were eternally confronted with good crops and bad prices, or good prices and bad crops. This year, he believed, was perhaps an exception, and he



OAK PARK FARM, OWNED BY CAPT. D. MILLOY, PARIS, ONT., CANADA.

board fences of a very substantial character; the gates are neat and tastily painted white. Up till 1896 there was need of outbuildings in keeping with the farm and the splendid mansion erected by the former owner and lately much improved. In working out a plan for the new barn and stables no pains nor expense were spared to incorporate the most healthful, convenient, substantial and neat effects. The FARMER'S ADVOCATE of Nov. 16th, 1896, gave a detailed description of the basement and barn, the former of which contains at present some 80 head of pure-bred and high-grade Shorthorns. The capacious superstructure is almost overflowing with the products of the farm. Fall wheat is an important crop, and does so well that about 100 acres, presenting a fine appearance, is now in readiness to burst forth when released from the bonds of winter, which in this district is much modified by reason of the southern location and the influence of the adjacent lakes. A large proportion of this, as well as the spring cereals, will be seeded to clover and timothy, providing one of the most important factors in working out the favored four-year rotation. Besides clover and grass, fall wheat and spring cereals, roots and corn do especially well, and are largely grown for the stock. In fact, there is no crop suitable to Central Southern Ontario that will not yield a maximum return on Oak Park Farm. In preparation for the coming season's seedings, upwards of 100 acres have been returned to the mellowing influences of the winter season. Whether that be done under the Captain's supervision or that of some other who may be fortunate enough to embrace the opportunity of becoming its proprietor before that time arrives remains to be seen.

beauty of landscape, favorable location of Oak Park Farm, which lies about two miles from the town of Paris, on the G. T. R., and four miles from Brantford City, improved, equipped and stocked as it is, we have a combination of features perhaps not surpassed as a rural home anywhere in America.

To a Weed.

BY GERTRUDE HALL IN M'CLURE'S MAGAZINE.
 You bold thing! thrusting 'neath the very nose
 Of her fastidious majesty, the rose,
 Ev'n in the best ordained garden bed,
 Unauthorized, your smiling little head!
 The gardener—mind—will come in his big boots
 And drag you up by your rebellious roots,
 And cast you forth to shrivel in the sun,
 Your daring quelled, your little weed's life done.
 And when the noon cools and the sun drops low,
 He'll come again with his big wheelbarrow
 And trundle you I don't know clearly where—
 But off—outside the dew, the light, the air.
 Meantime—ah yes! the air is very blue,
 And gold the light and diamond the dew,—
 You laugh and courtesy in your worthless way,
 And you are gay—ah, so exceeding gay!
 You argue in your manner of a weed
 You did not make yourself grow from a seed,
 You fancy you've a claim to standing-room,
 You dream yourself a right to breathe and bloom.
 The sun loves you, you think, just as the rose:
 He never scorned you for a weed,—he knows.
 The green gold flies rest on you and are glad,
 It's only cross old gardeners find you bad.
 You know, you weed, I quite agree with you:
 I am a weed myself, and I laugh too.—
 Both, just as long as we can shun his eye,
 Let's sniff at the old gardener trudging by!

thought that, excepting for the drought, it might be claimed that the year 1898, in respect of crops and even of prices, as compared with a few years ago, held a blessed and conspicuous position in farming. While he did not believe in the effort of the Legislature to do much for agriculture, he thought that agriculturists could do a great deal to help themselves. In all arts and professions all over the world that was going on, higher education, instruction and more technical information was being applied to the practice of every art and profession, and he believed that the South-eastern Agricultural College must do a great deal to promote what he believed was the highest interest of agriculture.

The Canadian Egg Trade.

Great improvements have taken place both in quality and magnitude of Canadian importations. The demand exceeds the supply. Great credit is due to the Canadian shippers for the manner in which the eggs are now put up for the British market. The eggs are securely packed in paper in separate compartments. This process is more expensive, but the freedom from breakage, mustiness and other objectionable flavors which arise from straw, wood shavings or sawdust packing more than compensate. So long as we have to import eggs, it is only fair that our own most go-ahead colony should be fully encouraged to send us the best they have, as against Continental competitors. — Chamber of Agriculture Journal.

An Essex County Peach Farm and Its Methods.

The peach industry has made great progress in Essex County, Ontario, within the last ten years. Previous to that, a few people had planted to some extent, sufficiently so to show that they could be successfully grown. In the autumn of 1889, W. W. Hilborn resigned his position as Horticulturist at the Central Experimental Farm, Ottawa, and removed to Leamington to engage in peach culture, he believing at that time that this was the most favorable locality in Canada for growing the finer fruits. The success which has attended his efforts proves conclusively that he was not mistaken. From this time dates the beginning of the large commercial peach orchards now to be seen throughout Essex County. Here also has been established, by the Ontario Government, a "Peach Experiment Station," in charge of Mr. Hilborn. All promising varieties will be brought together here and tested, to determine which are most valuable for extensive planting. Already one hundred and fifty kinds have been planted. These will be largely added to year by year as new sorts are introduced.

In 1892, Messrs. Morris & Wellington, of the "Fonthill Nurseries," Welland, Ont., also had their attention drawn to this locality. While they did not wish to depart from the nursery business to en-

The greater part of this has been planted with ornamental trees and shrubs. Natural gas is used in the house for fuel, both in the heating furnace and cooking stove, at a cost of less than forty dollars per annum.

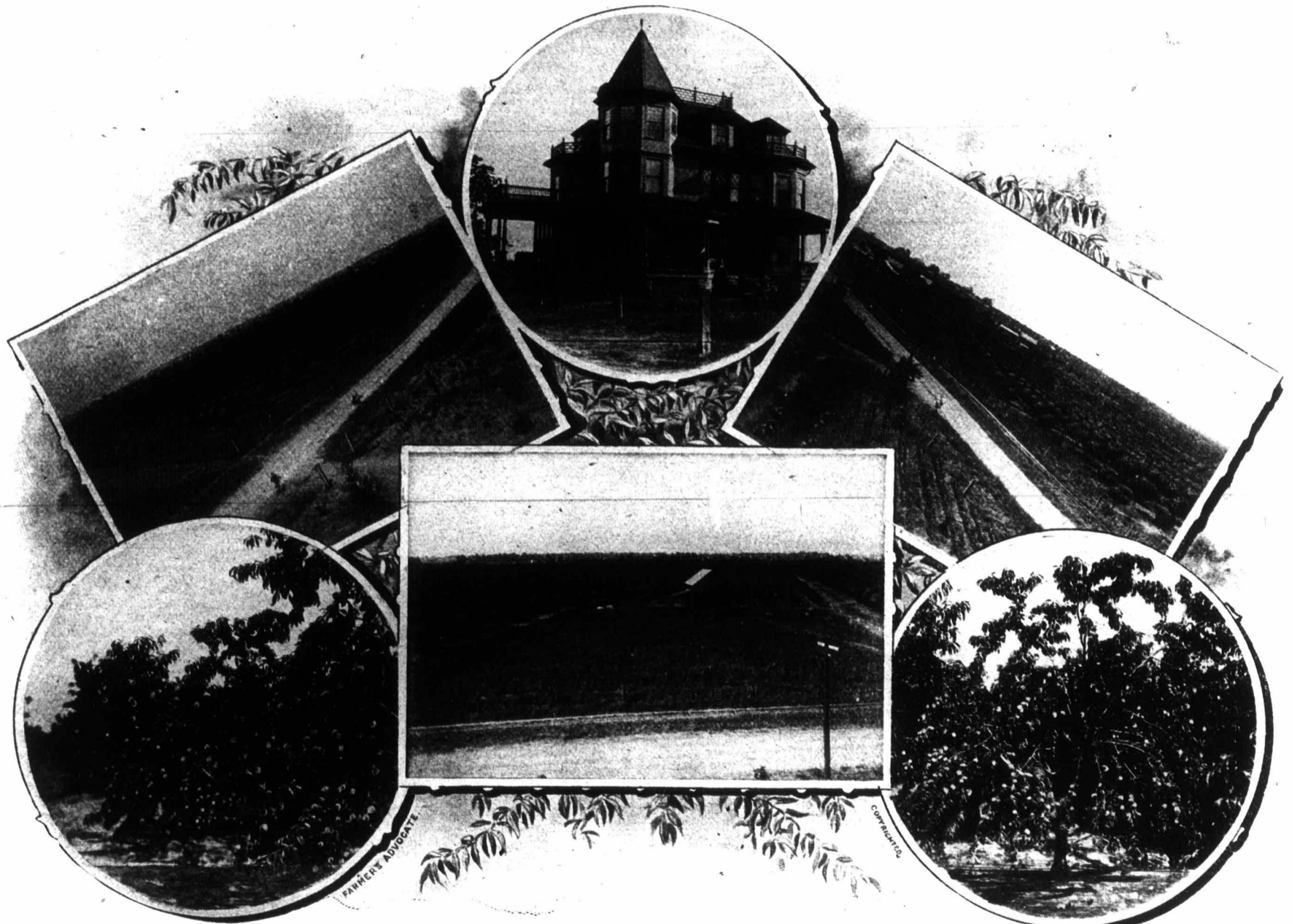
The orchard contains about 10,000 trees, not half of which bore a crop of fruit this season; nearly all will be old enough to produce a crop next year. The yield, of course, is not so great on these young trees, the average being about two to three baskets per tree. The quantity produced by a peach tree increases rapidly with age. This season thirty baskets were gathered from a single tree nine years planted. It was a sight worth going many miles to see the Brigdens, Fitzgeralds, Barnards, Crosbys, Longhursts, Golden Drops, Smocks, and many other kinds laden with their choice fruit. The finest grades sold for sixty cents to one dollar per basket. Although less than half of the orchard produced a crop, the net returns after paying all expenses was, we understand, between \$2,000 and \$3,000. With a full crop and ordinary prices good results can be obtained. The farm is conveniently located for marketing the fruit. The L. E. & D. R. Railway runs crosswise through the middle of the orchard. Here they have put in a siding to carry out the fruit in car lots. The M. C. Railway depot is also within half a mile of the orchard. A long-distance telephone is used to convey all orders for fruit direct

to ripen about July 15th to 25th. One variety continues to succeed another until about October 10th to 25th, thus giving a continuous supply for three months. The fruit is carefully picked into baskets by men and boys. All of the fruit is not in condition to pick at once. The trees have usually to be gone over three or four times at intervals of two or three days, in order that all may be gathered at the proper degree of ripeness, each time taking only what is sufficiently ripe for market. As fast as the fruit is picked it is carted to the packing-house; here it is turned out into trays containing canvas bottoms to prevent bruising. It is then sorted carefully into the different grades as required for market. Four- and eight-quart baskets are used largely in which to pack the first early fruit; later, twelve-quart and bushel baskets are used as the fruit becomes more plentiful.

The peach industry has become one of the most if not the most profitable class of farming in Canada. The areas suitable for the cultivation of the peach, however, are very limited. This will prevent the probability of overproduction, and thus allow it to remain profitable.

Indians at a Barn-Raising 80 Years Ago.

Capt. Benjamin Wilson, from Vermont, was one of the first settlers in what is now Ontario County,



AN ESSEX COUNTY PEACH FARM, LEAMINGTON, ONT., CANADA. MORRIS, WELLINGTON & HILBORN, PROPRIETORS.

gage in fruit-growing, still, they were so strongly impressed with this section that they bought a farm of ninety acres just outside the thriving town of Leamington, their purpose being to plant out a large commercial peach orchard to more fully demonstrate the capabilities of this locality as a peach-growing district. Arrangements were made with W. W. Hilborn to co-operate with them in carrying out this work. It was not the original intention to retain possession of this farm after the object sought was accomplished, and it will now accordingly be disposed of. We herewith present photo-engravings which give an exact representation of this farm as it was the past summer during the fruiting season. In each of the lower corners will be seen a single tree loaded with choice peaches; on the right hand is a Barnard tree; on the left, one of the Golden Drop variety. The latter was taken from a tree in a block containing 300 of this sort; they gave a yield of about 2,000 baskets, which sold at an average of forty-five cents per twelve-quart basket; nine hundred dollars for this their first crop. These trees have been planted six years. The lower central picture is a view down the center of the orchard; at the top are two views looking diagonally across either side of the farm. The upper central figure is the residence of Mr. Hilborn, located on the opposite side of the road and directly in front of the central or leading road through the farm. It is built on a triangular piece of land containing three acres,

to the farm that are sent by either telegraph or telephone from any part of the country.

The trees are planted fifteen by eighteen feet apart, in blocks containing twenty-four rows of twenty trees in a row. These blocks are located on either side of the central drive, which is thirty feet in width. Between each two blocks a crossroad is left twenty-five feet wide for convenience in gathering the fruit, etc. The trees are pruned every spring. The first two or three years after planting the trimming consists in thinning out the superfluous branches and shortening in the longest limbs. After the trees come into bearing, thinning out is all that is required in the way of pruning. Every spring cultivation begins quite early or when growth starts. The land between the trees is plowed to a depth of three or four inches. This is done with a regular farm plow, as near to the trees as possible. A side draft is attached, which permits plowing quite close to them. An implement called a "grape hoe" is used to turn the soil that cannot be reached with the common plow. Cultivation is continued at frequent intervals, say once a week, up to the middle or last of July, with harrow and cultivator. It is then discontinued in order that the wood and fruit buds will ripen up properly to withstand the cold of winter. When the trees are young, crimson clover or rye is sown among them at last time of cultivating. This is plowed under quite early the following spring. The fruit usually begins

Ont. His home, where he made the first clearing in the pathless forest in 1778, was on the Lake Ontario shore, on lot No. 1, Broken Front, East Whitby. The Captain now sleeps in the Port Oshawa burial ground, close beside his former home. Some 80 years ago last June he raised a large frame barn on his farm. There being but few whites about there (1800), he got the Indians who were camping near to help him at the raising. Lithe, active fellows they were, and most efficient at a barn-raising, being able to go aloft without a tremor. Not long ago Mr. Conant removed this barn to the adjoining lot 5, had it re-raised, but this time by white men, since there are now no Indians nearer than the Reservation on Scugog Island, 25 miles away. The timbers were found to be perfectly sound, and made of the finest clear stuff, pine, of a quality not now obtainable.

A man was indicted at the Cork Quarter Sessions for stealing ducks from a farm. The farmer swore he should know his fowls anywhere, as they had certain peculiarities, which he went on to describe. "Why," said the solicitor for the prisoner, "they can't be so very rare. I have some like them in my own yard." "Faix, that might aasily happen," said the farmer, "for these are not the first I've

Ontario Agricultural College, Guelph.

The Ontario Agricultural College at Guelph, of which our artists present a bird's-eye view on the title page, is undoubtedly one of the most useful institutions in the Dominion. It is doing a work which is telling for the good of the country, and will tell more and more as the years go by, stemming the tide from country to city, training young men for agricultural pursuits, doing a large amount of experimental work, stirring farmers up to read and think for themselves, and contributing in various ways to the success, dignity and stability of the farming community. The direct educational and experimental work of the College challenges attention, and the indirect influence of the president and members of the staff through the Press, Travelling Dairies, Dairy Schools, Fruit Experiment Stations, Farmers' Institutes, and the like, has been no less important.

The College was opened in the spring of 1874. For several years it was a football between the two political parties which meet from year to year in the Provincial Legislature; but the trouble from this source has been gradually overcome, and at the present time the institution is patronized and supported by both parties, no more criticism being offered than is wholesome for a public institution. Since the College opened there have been 1,672 students in the regular course and 504 in the dairy course, or a total of 2,176. The number of new students who entered at the beginning of the present session was 72; so the outlook for attendance is very satisfactory. In speaking of attendance, however, and comparing it with that of the United States institutions, we must bear in mind that the Guelph College is the only one on the continent which has persistently kept on purely agricultural lines. If it added departments of mechanic arts and domestic economy, admitted ladies, and prepared students for the various professions, as in the American agricultural colleges, the attendance would be fourfold what it has been hitherto. In Great Britain it is quoted as a model institution for agricultural instruction, and it has attracted students not only from all parts of Canada, but from the United States and distant countries; but the time may come when we shall see its scope enlarged in some of the directions mentioned.

required in an arts college, such, for instance, as appliances and men for experimental work on half a dozen lines, live stock (cattle, sheep, swine, and poultry) for practical instruction, a dairy department, a horticultural department, and a bacteriological laboratory—all this in addition to the buildings, class-rooms, and laboratories required in an arts college, from which it is manifest that an arts college or university should not cost the country so much as an equally well equipped agricultural college.

The equipment of our College at Guelph is creditable and well adapted to the objects for which the institution was founded. The farm is sufficiently large, and has the necessary breeds and varieties of live stock—cattle, sheep, and swine



MENNONITE HOME OF PETER DICK, VEUBERTHAL, MAN.

—for practical instruction in that department; the dairy has a herd of 30 cows, and all the latest and most approved appliances for making butter and cheese; the poultry department has commodious buildings, and a good representation of the best breeds and varieties of fowl; the horticultural department has a complete set of greenhouses, with gardens and orchards suitable for excellent work in growing fruit and vegetables. The College has well-furnished class-rooms for lectures, and four well-equipped laboratories for practical work in chemistry, physics, biology (botany, zoology, and entomology), and bacteriology, including the manufacture of tuberculin for use throughout the Province; also an extensive collection of rocks and minerals for instruction in geology, and a large car-

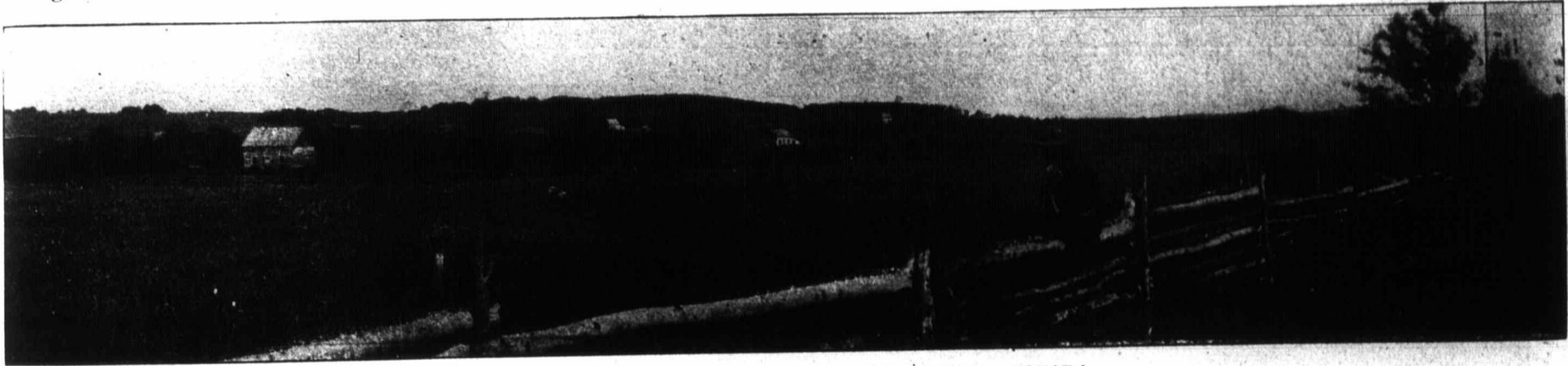
Mennonites Successful Settlers.

The Mennonites, the first of whom settled in Eastern and Southern Manitoba in 1878 and 79, have proved a most successful class of settlers. Frugal and economical in their mode of life, industrious and saving in their methods, they have from very small beginnings become possessed of abundance. In almost all cases they adopted the hamlet as against the scattered homestead system of settlement. Grouped thus in large villages entails some disadvantages in working the land, but has its compensations. A village has one common pasture field, one herdsman. The advantages, socially and for schools, churches, etc., are certainly very great, but these also serve to deter people of foreign origin from assimilating with our ways and customs. In the reserve east of the Red River the Mennonites follow mixed farming, raise cattle, sheep and hogs in considerable numbers, and also pay attention to dairying, several cheese factories being established in the reserve. In the Gretna reserve wheat is king; considerable quantities of flax are also grown.

The Winnipeg Industrial Exhibition.

Although the Winnipeg Industrial Exhibition Association was only inaugurated in 1890, it has, by enterprise and business management, already become thoroughly established as the great agricultural fair and holiday carnival of Western Canada. Pioneering in a new country like this entails pretty close and constant application to personal interests, whether on the farm or the ranch, at the counter or the desk; and there are comparatively few opportunities for seeing what others are doing, or for enjoying a sight-seeing holiday, such as is now, at a very small per capita cost, afforded annually at the Winnipeg Exhibition.

The most important feature of any agricultural exhibition must always be the live stock departments and the displays of agricultural products, and of the \$11,000 paid out in prizes this last year, a large proportion was awarded to these departments. In the live stock departments there has been a steady gain (both numerically and in average excellence) ever since the inception of the Indus-



FARM SCENE AT EDMONTON, ALBERTA, N.-W.T., CANADA.

One of the difficulties which the College has to work under is the lack of preparation in those who apply for admission. They are generally boys of good parts, but because of their willingness to do farm work they have been kept at it and their early education has been very much neglected. The consequence is that a large proportion of them find it difficult to avail themselves of the lectures in the different departments, fail in the first-year examinations, become discouraged, and return home after a few months' trial. Such students do not get anything like the full benefit of the College course, and they are apt to be poor representatives of the institution in the communities in which they settle. Those who remain at the College for two years or longer generally give a good account of themselves in after life—as practical farmers, dairymen, fruit-growers, judges of live stock, farm managers, experimentalists, entomologists, agricultural chemists, superintendents of dairy schools, agricultural writers, professors of agriculture, horticulture, dairying, animal husbandry, etc. Some of the most promising young men we have in all these lines are graduates or associates of the College.

As regards the cost of maintaining the institution, we may say that the FARMER'S ADVOCATE stands for efficient and economical management in all public institutions; but we think that very few have an adequate conception of what is meant by a properly-equipped agricultural college. A great many think of it as simply a farm, which should be managed so as to pay its way. The facts are that a strong and efficient agricultural college is like an arts college or university, except in one or two particulars: (1) That the agricultural college, say in the Province of Ontario, is working for the education of that section of the community which represents about seven-tenths of the population, while the arts colleges are working for the education of another section which represents about one-tenth of the population; and (2) that the agricultural college has several heavy items of expense in addition to those of nearly all the

penner shop, with the benches and tools necessary for plain work and general repairs. The equipment for practical instruction in beekeeping and veterinary science is, perhaps, not quite up to the mark. The grounds set apart and buildings provided for field experiments are excellent; the equipment for experimental feeding, etc., serves the purpose fairly well, but the scope of the branch might be enlarged; and the provision made for experiments in dairying, horticulture, and poultry management is such as to warrant us in expecting valuable results from the heads of these departments.

In a word, we may say that the equipment of the College is good; the course of study is adapted to the wants of farmers; and the educational work is thorough and practical. We hope that an increas-



B. KEHLER, MENNONITE FARMER, ALTONA, MAN.

ingly large number of young farmers may avail themselves of the great advantages offered by the institution in its various departments.

Mennonite Views.

The two Mennonite views show the progress of those hardy European settlers in Southern Manitoba. Mr. Dick's house and stable were connected roofs thatched with swamp grass, and wooden box for chimney. Mr. Kehler's house is detached from outbuildings. The house is large and well lighted, and nicely sheltered with trees on a site that was a few years ago bare prairie.

trial, and the accommodations have had to be increased and improved from year to year, as the finances of the Association would allow. The eight horse barns, with a double row of stalls and boxes along each side, have a total length of 1,300 feet. The speed stables are 300 feet long, in which are thirty large box stalls. The ten cattle barns have 200 double stalls. The sheep barn, with 144 pens, is one of the best buildings of the kind on the continent. The new swine building has 136 roomy pens, with about 80 pens in the old sheds. The poultry house is also large (about 400 coops), and, like the other buildings, is often taxed to its utmost capacity. A new feature was introduced in 1898, in the large judging arena, with seats around the outside, in which all horses and cattle were judged.

The beautiful bird's-eye view of the Exhibition grounds, which embellishes page number 622 of this Christmas number of the FARMER'S ADVOCATE, strikingly illustrates not only the extent of buildings now provided for the accommodation of live stock and other exhibits, but the beautiful park-like grounds that have been created in so short a time out of bare, rather low-lying prairie land. And, as all the surplus funds of the Association above current expenses have, according to the charter, to be devoted to improving the buildings, grounds, etc., the beautifying of the grounds will every year receive greater attention. For the entertainment and amusement of the people, elaborate vaudeville attractions are annually presented, together with magnificent pyrotechnical displays of such soul-stirring scenes as the Siege of Algiers, the Relief of Lucknow, etc. The racing events of exhibition week are now looked upon as the best and most important in the Northwest. Grandstand accommodation has been added to from time to time, and now a capacity for seating 9,000 people is not sufficient, and will have to be further extended. The main hall (340 feet long by 90 feet wide in the main center, each L being 50 feet wide) is now entirely inadequate to meet the demands for space for the display of manufactured articles, fine arts, etc. The agricultural implement building, with a

floor space of 9,000 square feet, built in 1897, is not half large enough now to accommodate the exhibits in this line. The dairy building, provided with excellent cold storage and good facilities for public inspection of the dairy products, was doubled in size this last year to allow space for the display of cream separators and dairy utensils of all kinds. The horticultural building is 60x30, and there are a number of other buildings for the accommodation of various exhibits.

There is, however, no measure for the success of an institution of this kind so accurate as its financial growth, for cash receipts speak louder than words the appreciation of the public. During the past four years the total receipts show a wonderful increase — nearly 100 per cent. per annum increase for the past three years; the total gate and grand-

year to year, not alone in the quality of our cattle, horses, hogs, agricultural and manufactured products, but in the number and quality of our population. The throngs of bright, intelligent, well-dressed young people from the farms and country towns are a constant source of wonder to visitors from the older Provinces and other lands. Then, again, the recently inaugurated excursions from the neighboring States of Minnesota and Dakota are already bearing fruit in a closer commercial relationship. Our stock-breeders are finding a good market for pure-bred stock developing south of the international boundary, and our neighbors are finding that here are thousands of acres of land unequalled anywhere for fertility and productiveness, and as a result a decided inflow of immigration is coming from these States.

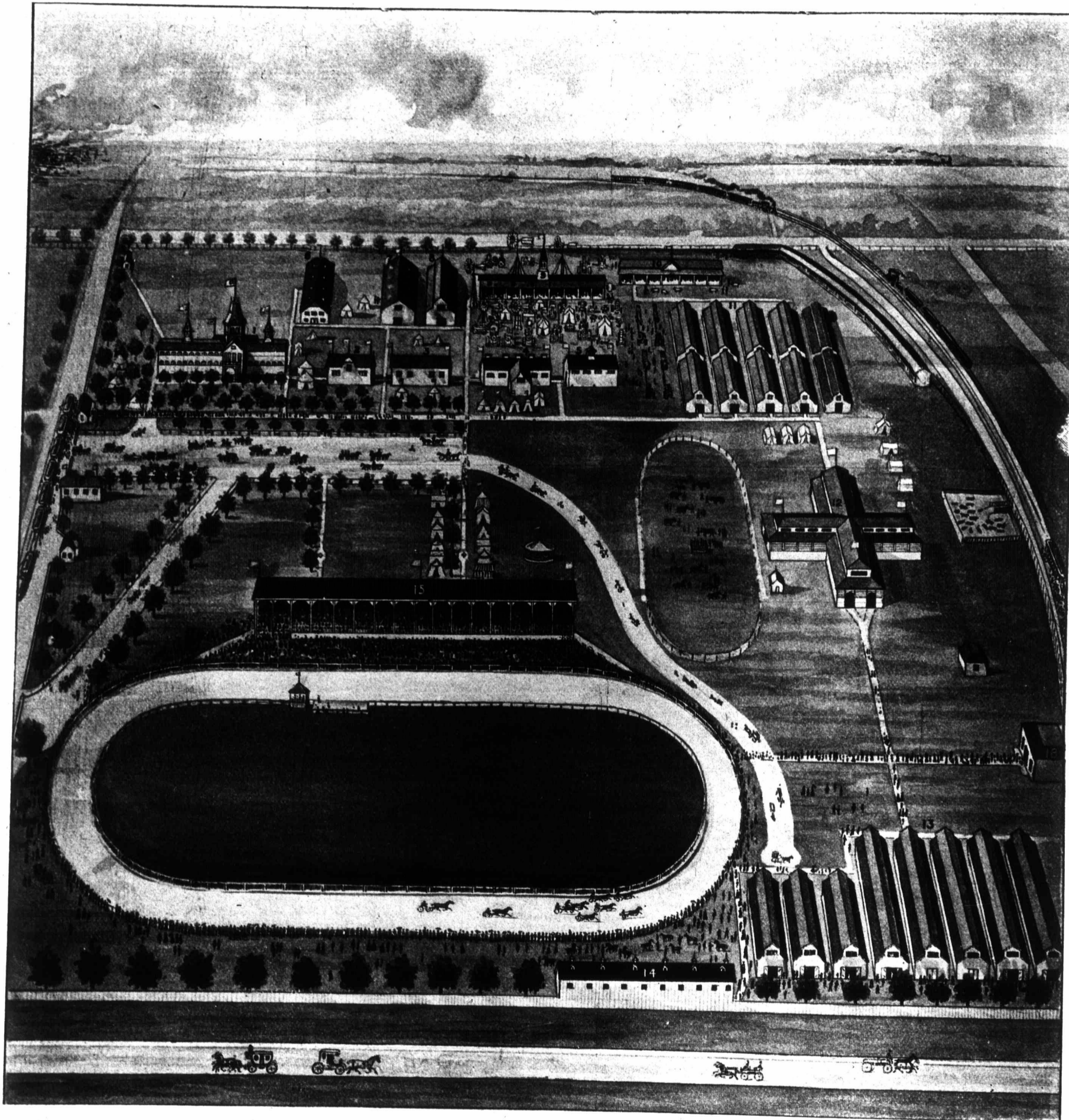
The News of the Day.

In 1869, while I was managing editor of the *New York Sun*, about nine o'clock in the evening, Mr. Dana came stamping into my room and laid upon my desk a two-column proofsheet, saying:

"Amos, here is a copy of a speech to be delivered before the Young Men's Christian Association to-night by William E. Dodge. His friends have asked me to print it in *The Sun*. I gave them to understand that it would be printed."

I turned the sheets face down, and continued at my work, without a reply. A moment afterwards Mr. Dana said:

"You will print it, won't you, Amos?"



BIRD'S-EYE VIEW OF THE WINNIPEG INDUSTRIAL EXHIBITION GROUNDS.

stand receipts being as follows for the years mentioned: 1895, \$8,000; 1896, \$11,000; 1897, \$18,000; 1898, \$27,000. This year the total receipts from all sources amounted to \$45,000, with an attendance of 70,000 people.

There is another feature in which Western Canada's great Industrial differs from fairs of a like nature in any other part of the Dominion. In a comparatively speaking, sparsely settled country, extending over such a vast area of territory, it is difficult for anyone, whether resident or visitor, to realize the growth and development that is being made; but a day at the summer fair serves as nothing else can to show what marvellously rapid advancement this Western land is making from

Every Year.

Yes, the shades of life are shifting
Every year;
And we are seaward drifting
Every year;
Old places changing fret us,
The living more to regret us,
There are fewer to regret us,
Every year.

But the truer life draws higher
Every year;
And its morning star climbs higher
Every year;
Earth's hold on us grows lighter,
And the heavy burden lighter,
And the dawn immortal brighter,
Every year.

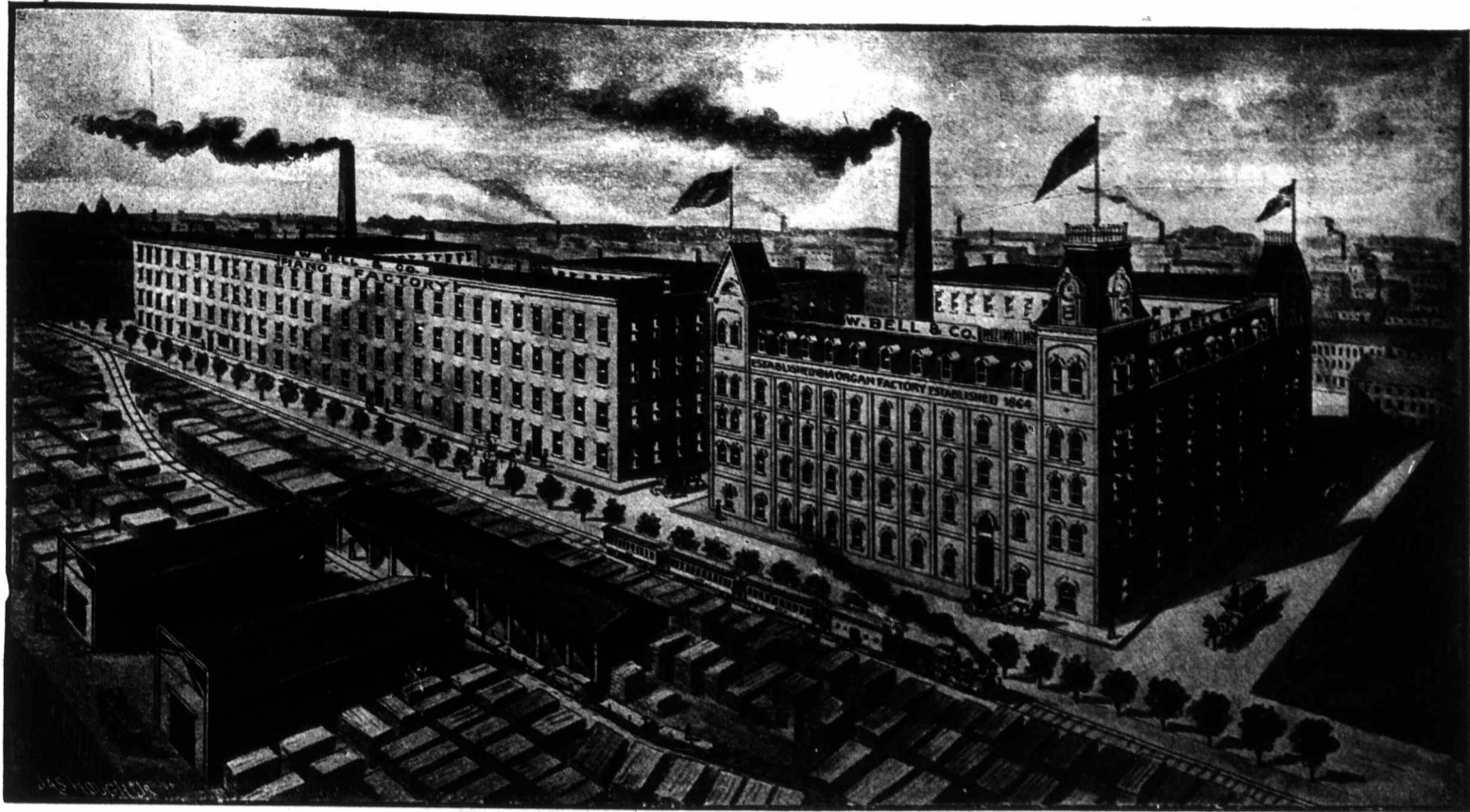
I replied: "Mr. Dana, the advertisements have slopped over on the editorial page to-night. I have only six columns in which to print the news, and it is a heavy night for news."

Then I resumed work. Mr. Dana whistled softly, but a moment afterward again said:

"Well, will you print it?"

"Oh, yes, I will print it," I answered, if you say I must print it, but I warn you that this is no way to run a newspaper. It is ten to one if I print this speech it will crowd out a dog fight."

Mr. Dana replied, "if it comes to that leave out William E. Dodge's speech and print the dog fight; we must have the news of the day."—*Amos J. Cummings, in the Journalist.*



FACTORIES OF **THE BELL ORGAN AND PIANO CO., Limited,** GUELPH, ONTARIO.

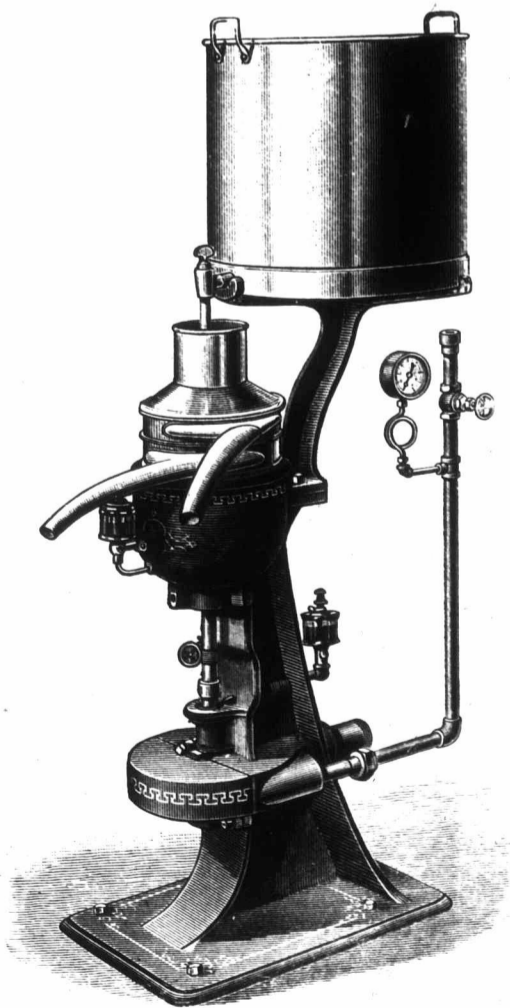
**BELL
PIANOS &
ORGANS**
BUILT TO LAST
A LIFETIME.

ALTHOUGH THE LARGEST OF THEIR KIND IN CANADA, AND RUNNING 12 HOURS PER DAY, ARE UNEQUAL TO THE DEMAND FOR BELL INSTRUMENTS, THE TRADE FOR WHICH EXTENDS THROUGHOUT THE WORLD. SEND FOR DESCRIPTIVE CATALOGUE NO. 62, TO

The Bell Organ and Piano Co., Limited,
GUELPH, ONTARIO.

Branches at...
London, Eng.
Sydney, N. S. W.
Toronto, Ont.
Hamilton, Ont.
London, Ont.

CHAMPIONS OF THE WORLD!



"ALPHA" NO. 1 STEAM TURBINE.



The unqualified superiority of the "Alpha-De Laval" to all other cream separators in thoroughness of separation, actual capacity, necessary power, greater "churnability" of cream, and in all other essential respects, is the universal basis of its sale, and is subject to practical demonstration in actual test or otherwise.

SEND FOR "DAIRY" CATALOGUE NO. 268.
OR "FACTORY" CATALOGUE NO. 508.



"BABY" NO. 3.

CANADIAN DAIRY SUPPLY CO.,
SOLE AGENTS FOR CANADA. MONTREAL.

THE CANADA PAINT CO., LIMITED

THE MOST EXTENSIVE MAKERS OF

Factories at Montreal, Toronto, and Victoria.
Head Office: 572 William St., Montreal.

Colors, Varnishes and Paints IN CANADA.

SPECIALTIES IN READY MIXED PAINTS IN OIL AND VARNISH
FOR ALL PURPOSES.

Mixed Paints for Interior & Exterior House Decoration.	Mixed Paints for Outhouses, Roofs, &c.
Mixed Paints for Floors, Specially Hard Drying.	Mixed Paints for Wagons & Implements, <small>HARD AND GLOSSY</small>
Mixed Paints for Carriages, Buggies and Sleighs.	Enamels for Beautifying Everything Indoors.
Varnishes in Every Kind for Every Purpose.	

ALL PUT UP IN CONVENIENT PACKAGES TO SUIT BUYERS, AND EVERY PACKAGE BEARING THE NAME OF THIS COMPANY CAN BE DEPENDED UPON AS THE BEST THAT CAN BE BOUGHT.

COLOR CARDS TO ASSIST IN SELECTING PAINTS FOR EVERY KIND OF WORK CAN BE HAD FREE FROM THE PRINCIPAL PAINT DEALERS IN EVERY TOWN IN CANADA.

...The Canada Paint Co., Limited.

THE FROST & WOOD CO., LIMITED,

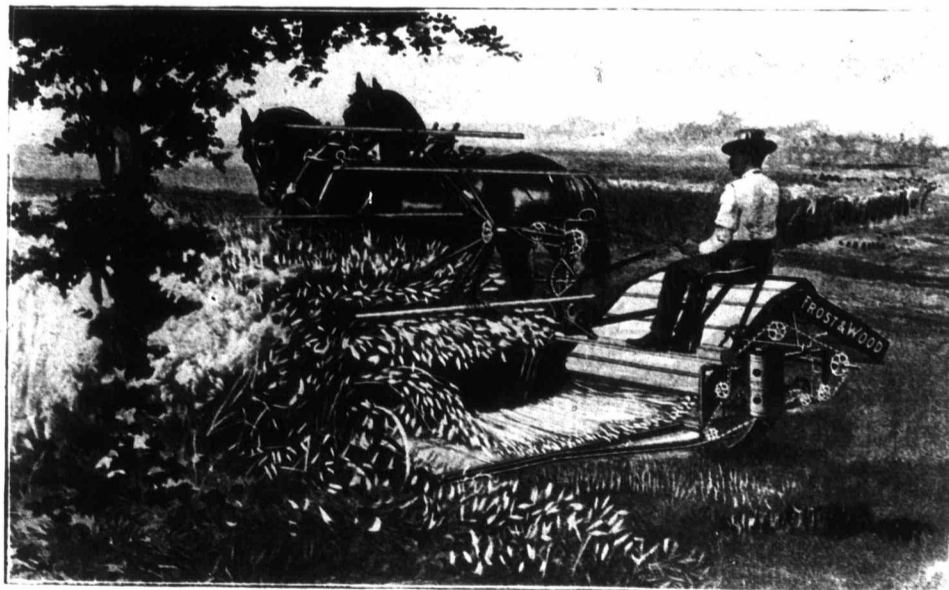
SMITH'S FALLS, ONTARIO.



OUR NEW LIGHT

Binder

IS
NICE LOOKING,
EASY RUNNING,
AND A
PERFECT WORKING
MACHINE.



NO. 2 LIGHT STEEL BINDER.



Our Aim

IS TO PLEASE THE
CANADIAN FARMER.
WE SELL IN NO
OTHER COUNTRY.

"CANADA IS
OUR HOME."



WE have purchased from the WARDER, BUSHNELL & GLESSNER CO., of Springfield, Ohio, the exclusive right for Canada to build their **CHAMPION BINDER**.

WE have purchased from the AMERICAN HARROW CO., of Detroit, Michigan, the exclusive right for Canada to manufacture the **DETROIT DISK HARROW** and **NEW AMERICAN CORN CULTIVATOR**.

THE THREE MACHINES ABOVE MENTIONED ARE THE MOST POPULAR OF THEIR KIND IN THE UNITED STATES.

Watch this paper for Cut of our No. 8 Mower. Catalogue with Description.

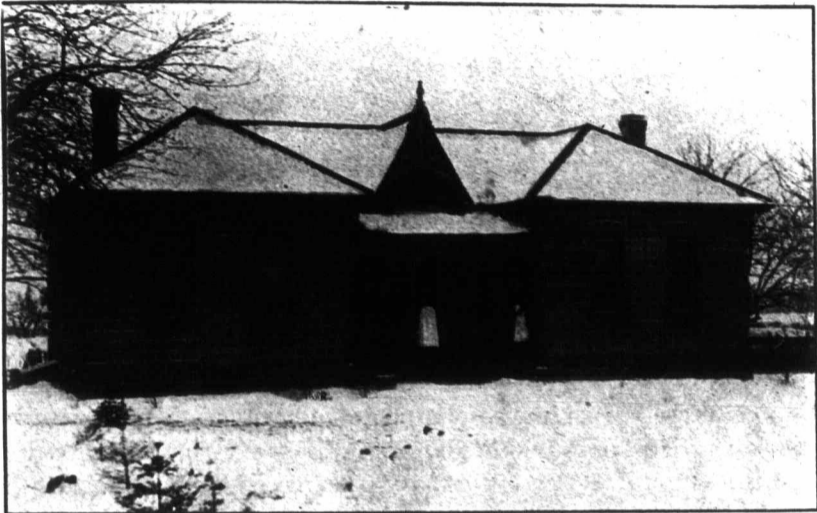
ADDRESS: **FROST & WOOD CO., LIMITED,**

77 JARVIS STREET, TORONTO, ONT.

Work Done With **THOROLD CEMENT** Speaks for Itself.

Don't take our word for it. Write to any one who has used it.

BUILT WITH THOROLD CEMENT.



CONCRETE RESIDENCE OF JOSEPH HARRIS, NEAR KERWOOD, ONT.
Built from basement to roof with Thorold Cement in 1896.
Mr. Joseph Harris, Jr., Builder.

To the Estate of John Battle, Thorold, Ont.:
Kerwood, Ont., Dec. 22nd, 1896.
DEAR SIRS—Having used your Thorold Cement in my concrete dwelling this last season, I found it a success, and most satisfactory in every particular, and equal to if not better than any Canadian cement that I have ever used. I raised my planks three feet one day, part of it being a single plank. Would prefer the wall to any brick wall.
Having run out of Thorold Cement, and not being able to wait until you could send me more, I used some other cement, and must say that the Thorold Cement gave me the best satisfaction.

JOSEPH HARRIS, Kerwood,
Township of Adelaide, Middlesex Co.

BUILT WITH THOROLD CEMENT.



BARN OF WM. PATTON, SOUTH CAYUGA, ONT.
Size of Basement Walls, 36 x 60 x 9 feet. Built with Thorold Cement.

Dunville, Ont., Nov. 1, 1898.
Estate of John Battle, Manufacturers of the Thorold Cement, Thorold, Ont.:
DEAR SIRS.—It is with pleasure that I testify to the good qualities of your Thorold Cement for building purposes. During the past summer I have built a barn 36x60 feet, with basement walls 9 feet high, and with cistern under driveway 8x19x7 feet high. I also put concrete floors throughout, for cow stables as well as horse stables. I consider both wall and floors to be much better and cheaper than if they were built of any other material.
Sincerely yours,
WILLIAM PATTON.

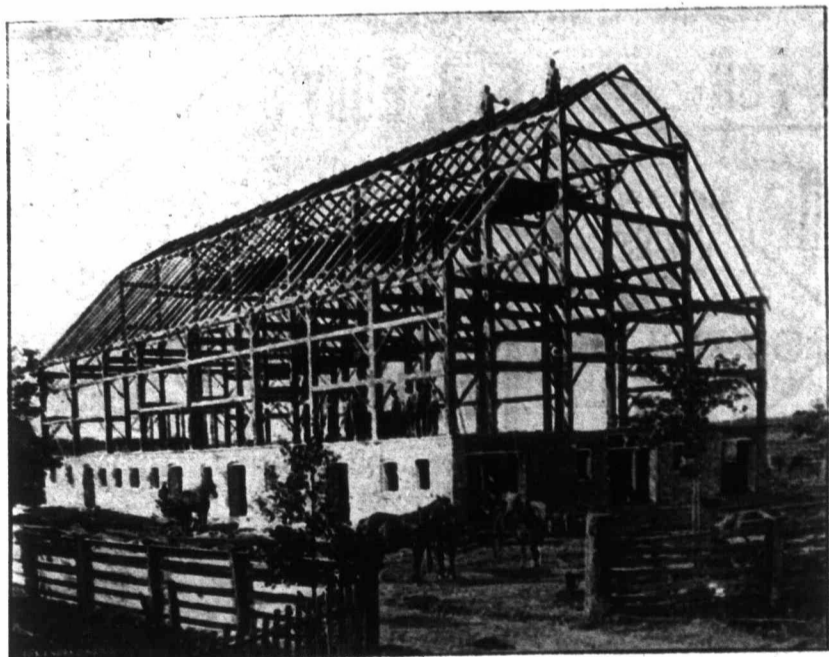
BUILT WITH THOROLD CEMENT.



BARN OF ALLAN McMANE, ELMA TOWNSHIP.
Basement Walls, 84 x 100 x 9 feet high. Built with Thorold Cement.

Elma Township, Nov. 15, 1898.
To Estate of John Battle, Mfrs. of the Thorold Cement, Thorold, Ont.:
GENTLEMEN,—I have used your Thorold Cement, and find it very satisfactory. I built my barn walls, 84x100x9 feet high, with it. If I had stone on the ground I would not use it, as I much prefer a concrete wall built of your Thorold Cement and gravel.
My walls are here for inspection, lots 24 and 25, Elma Township. I strongly recommend your Thorold Cement to all farmers who intend building barn walls.
Yours respectfully,
ALLAN McMANE, Atwood P. O., Ont.

BUILT WITH THOROLD CEMENT.



MAMMOTH BARN OF BESWETHERICK BROS., NEAR HAGERSVILLE, ONT.
Size 60 x 120 feet.
Floors for horses and cattle were put in this barn with Battle's Thorold Cement.

Hagersville, July 1, 1897.
Estate of John Battle:
DEAR SIRS.—Having used your Thorold Cement in our stable floors, which were put in last fall under the supervision of your Mr. Ward Hagar, we must say it has given good satisfaction in every particular. Our floors are as hard as stone. We clean our stables by driving a team and wagon through the stable on the concrete behind our stock, and load the manure on the wagon. We can truly say it is just perfection for stable floors.
Yours, etc.,
BESWETHERICK BROS.

FOR FREE PAMPHLET WITH FULL PARTICULARS, ADDRESS
ESTATE OF JOHN BATTLE, THOROLD, ONT.
AGENTS WANTED IN UNREPRESENTED DISTRICTS.

NOTABLE FARM FOR SALE

The property of Capt. Milloy (known as "Oak Park Stock Farm"), consisting of 560 acres, in the County of Brant, two miles from Paris and four miles from the City of Brantford. This is admitted to be one of the very best Stock and Grain farms in Canada. It is in a very high state of cultivation, and splendidly fenced throughout. On it is a most excellent

LARGE STONE MANSION

Beautifully furnished, and fitted up with all modern improvements: bath room (hot and cold water), and heated throughout by hot-water system. A very large NEW BARN, with

MAGNIFICENT STONE STABLING

Fitted up in the latest improved style, with all latest conveniences. Abundance of pure spring water, forced throughout the buildings by hydraulic ram. This grand property is situated in the garden of Canada, on the Grand River. The soil is a rich clay loam. Inspection of farm and buildings is cordially solicited. For terms, apply to

MESSRS. HOSKIN, OGDEN & HOSKIN

(Solicitors for the proprietor),

—on Toronto Street, Toronto.

Woodstock Steel Windmills

FOR POWER AND PUMPING



GET A DANDY WITH GRAPHITE BEARINGS. THEY RUN WITHOUT OIL. STEEL TOWER PUMPS, TANKS, SAW TABLES, GRINDERS, AND WATERING TROUGHS.

Woodstock Wind-Motor Co., Limited.

WOODSTOCK, ONT. —on Write for catalogue.

GOSSIP.

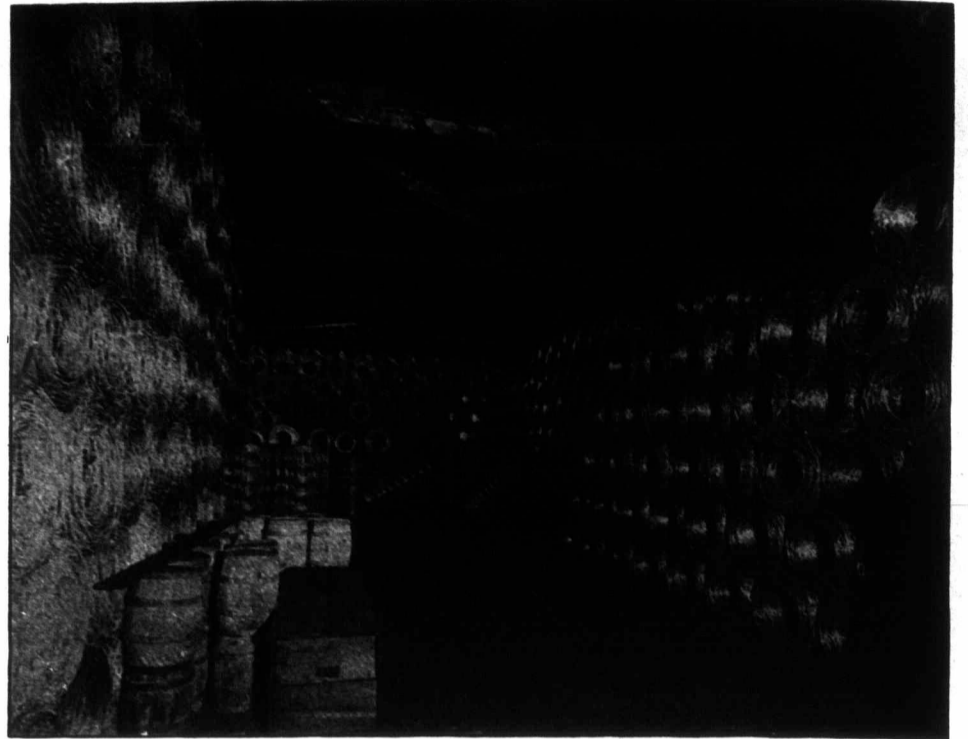
F. W. Taylor, Wellman's Corners, Ont., writes: "My stock are looking fine, and my Ayrshire cows are milking well, considering the dry, hot summer that we had in our part of the country. Their milk is testing 4.2 per cent. in creamery at present."

Mr. Arthur Johnston, of Greenwood, Ont., changes his advertisement in this issue, and writes to say that his imported Scotch Short-horns have just arrived home from quarantine. The importation consists of FOUR big, growthy young bulls and seven females, all of the very foremost North Country families, such as Kinellar, Golden Drop, Sittyton Brawith Bud, Upper Mill Princess Royals, and others of equal fame and merit. They have all done fairly well in quarantine, and though not by any means fat, they are looking rugged, hairy, fleshy, and healthy. The home herd is now quartered for the winter. The young bulls, of which we still have thirteen, are a capital lot, and in just the form to do their purchasers most good—growthy, and well covered with natural flesh.

A POULTRY FATTENING TRIAL.

Mrs. Joseph Yuill, Carleton Place, Ont., writes us as follows: "Thinking it might be interesting to the numerous readers of the FARMER'S ADVOCATE, I send you a statement of an experiment we have conducted on our farm for the Department of Agriculture of the Dominion Government, under the direction of Professor Robertson, who was anxious to find out if it would pay to feed chickens in Canada and send them to the Old Country market. We purchased 133 chickens, for which we paid \$35.75; they weighed 575 pounds; they were fed in crates 8 feet long and 1 foot 4 inches square, divided into three departments. They were fed for six weeks; the first four weeks they were fed three times a day on peas, oats, barley, wheat, tallow, and skim milk. The feed for the first four weeks was as follows: 24 bush. 22 lbs. oats, 5 bush. 7 lbs. barley, 2 bush. 52 lbs. wheat, 1 bush. 3 lbs. peas, 23 lbs. tallow, and 2,589 skim milk. The above feed, with the exception of the tallow, was fed for the first four weeks; the last two weeks with a machine called a crammer; after this machine was used they were only fed twice a day. This machine has a rubber tube, which is inserted down the bird's swallow into the crop, through which the feed is injected. The above feed being too coarse to feed through machine, they were fed kiln-dried oats, ground very fine and mixed with tallow and skim milk. This was their feed for the last two weeks. During the six weeks we fed them they gained as follows: First week, 57 lbs.; second week, 74 lbs.; third week, 127 lbs.; fourth week, 12 lbs.; fifth week, 13 lbs.; sixth week, 58 lbs. Total gains for six weeks, 341 lbs. At the end of the third week the birds commenced to moult, which accounts for the small gain for fat the last three weeks. They grew feathers instead of putting on flesh. They were killed on the 25th of November, and on the 28th they were shipped to Liverpool, and as soon as the returns come back we will let you know the result. Professor Robertson, when here giving instruction as to killing and shipping, was so well pleased with the appearance of the chickens that he asked us to try a lot of turkeys under the same treatment, which we are doing."

The Page Woven Wire Fence



The accompanying view shows one of our warehouses containing some of our famous fence, all woven, in forty-rod rolls, ready to be shipped to our customers as soon as the fence-building season opens up in the spring.

By January 1st we will have nearly two hundred miles of completed fence on hand, and will continue to make more at the rate of three miles per day during the year. During the past season we could not supply the demand. But we are making every effort to give satisfaction in this particular this coming year. Page fencing will be cheaper than ever this year. Let us send you our 1899 prices and a nice calendar.

THE PAGE WIRE FENCE CO., LIMITED,
WALKERVILLE, ONTARIO.

No Hoops to Fall Off.

Neat, Light, Durable.

USE **E. B. Eddy's** INDURATED **FIBRE WARE**

WASH TUBS, STABLE PAIRS, MILK PANS, MILK PAIRS, ETC.

THEIR SUPERIORITY OVER THE ORDINARY WARE IS UNIVERSALLY ACKNOWLEDGED BY THOSE WHO HAVE GIVEN THEM A TRIAL

ENQUIRE AT ANY FIRST-CLASS GROCERY STORE FOR ANYTHING IN THESE LINES. OR WRITE TO THE Manufacturers for Catalogues and Price Lists.

MANUFACTURED SOLELY BY

Farmers, Dairymen AND Others

FOR PACKING PURPOSES USE **E. B. EDDY'S** **ANTISEPTIC WARE**

BUTTER, HONEY, JAM, ETC., PUT UP IN THESE PACKAGES RETAIN THEIR FRESHNESS UNTIL USED.

Clean, Odorless.

THE E. B. EDDY CO., Limited,

HULL, MONTREAL, TORONTO,

QUEBEC, HAMILTON, KINGSTON, LONDON, ST. JOHN, N.B., HALIFAX, WINNIPEG, VICTORIA, VANCOUVER, ST. JOHN'S, NFD.

Some IMPLEMENTS that have Made Records for Themselves,

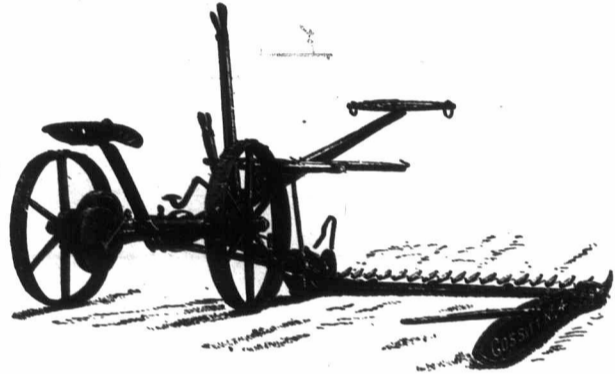
AND WILL LEAD FOR 1899.



A FULL LINE OF DISK AND SPRING TOOTH HARROWS, SCUFFLERS, CORN SHELLERS, ROOT PULPERS, SLICERS.

THE COSSITT FAMOUS AMERICAN NO. 4 MOWER.

ITHACA AND TIGER HORSE RAKE, ONE-WHEEL REAPER, BINDER.



WRITE FOR CATALOGUE AND PARTICULARS.

THE COSSITT BROS. CO., LIMITED, BROCKVILLE, ONT.

ESTABLISHED 1849.

GOSSIP.

In this issue J. Campbell, of Fairview Farm, Woodville, Ont., offers a choice lot of young Shropshire ewes, bred to first-class rams of his own raising or importing.

F. Martindale, York, Ont., writes: "I have been very successful at the fairs this fall. At the County of Haldimand I won on Short-horns seven firsts, six seconds, five thirds, and diploma for best herd at Bramford Provincial Fat Stock Show; second on fat cow. My Shorthorn cow Griselda produced a large calf, November 6th, weighing 104 pounds, and weighs now, at 32 days old, 216 pounds, a gain of nearly 34 pounds per day. I am offering my young bulls at low prices, to make room for young calves coming now."

Henry Arkell, Arkell, Ont., writes: "Trade in Oxford Down sheep has been exceedingly brisk this past season. I have sold to different parts of U. S., Manitoba, British Columbia, Nova Scotia, and Canada over three hundred head. At retail I have sold between sixty and seventy. Thirty went to U. S. and Manitoba for show purposes, winning many honors at Omaha, Winnipeg, and State fairs. I have already a number of orders for fitted show animals for next season. As usual, I have found the FARMER'S ADVOCATE an excellent medium for selling my stock."

A. J. Watson, Castlederg, Ont., writes that his Cotswold sheep won the following prizes at Omaha: Ram, 1 year and under 2, 3rd; ram, under 1 year, 1st and 2nd; ewe, 3 years or over, 1st and 3rd; ewe, 2 years and under 3, 2nd and 3rd; ewe, 1 year and under 2, 3rd and 4th; ewe, under 1 year, 1st and 3rd; sweepstakes ram of any age, 4th and 5th; sweepstakes ewe of any age, 3rd and 4th. Specials given by the American Cotswold Record: Ram lamb, 1st and 2nd; ewe, 2 years or over, 2nd; ewe lamb, 1st; flock of 1 ram, any age, and 3 ewes of graded ages, 2nd. Special by American sheep breeder for best pair of lambs, 1st. Special by South Omaha Stock Yards, for best fat ewe of any age, 1st and 3rd.

F. Birdsall & Son, Birdsall, Ont., write: "Sales of cattle, sheep and horses have been numerous this fall. We recently sold five Shorthorn calves to Fred Staples, Ida, and one to Joshua Smithson, Graystock; one Jersey bull to Mr. Drain, Norwood. Our Jersey bull, Regal St. Lambert, offered in a grand show bull and a splendid stockgetter. Two of his heifer calves, exhibited at three shows in full rings, took first and second at each. Our cows, both Shorthorn and Jersey, are dropping fine calves sired by Mildred's Royal Gloster -25070-, a grand son of Indian Chief, and Regal St. Lambert, bred by Mrs. E. M. Jones. The demand for Oxford ram lambs was also good. To Henry Arkell, Arkell, we sold thirteen, and one each to the following: Peter Werry, Burkton; Mr. Monroe, Rosneath; Allen Sherwin, Fenella; John Harrison, Westwood; M. Lynch, Birdsall; A. Robertson, Bobcaygeon; Alex. Robertson, Bobcaygeon; Wm. Fry, Sutton West; to Joshua Smithson, five ewe lambs. The open fall has helped to send in the ewes in good breeding condition. The FARMER'S ADVOCATE has been of great help in advancing the number of our sales."

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ESTABLISHED 1889. Students have a LARGER EARNING POWER who acquire the following lines of preparation under our efficient SYSTEM OF TRAINING. IT HAS NO SUPERIOR.

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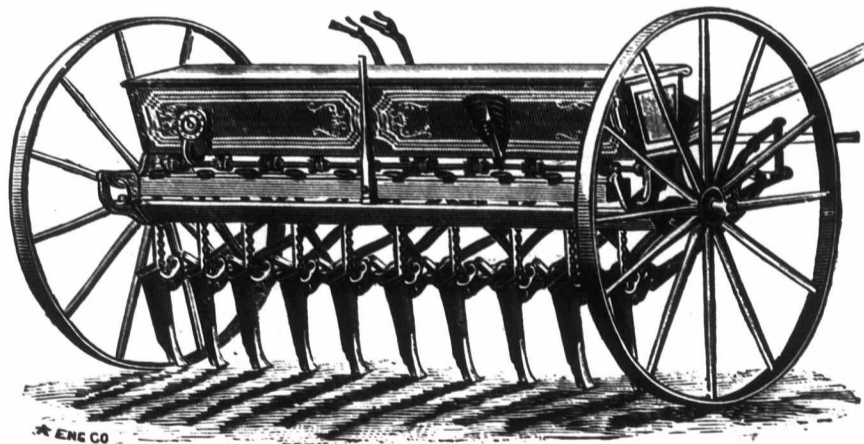
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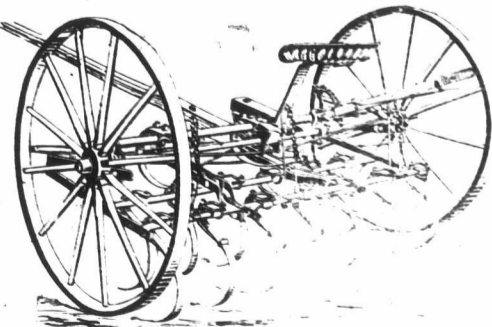
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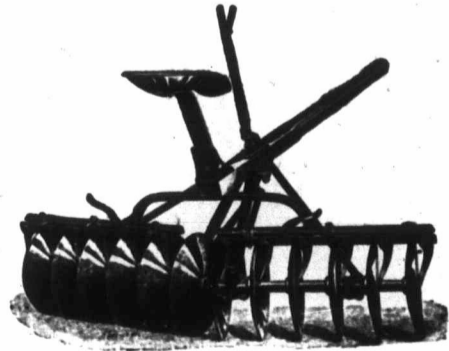
The only Cultivator made that both lines of teeth will cut an even depth in the ground. Examine it and you will see why. The only Cultivator with a movable tooth seat so that the angle of the teeth can be regulated to suit any condition of soil. Pressure can be regulated to act differently on every section requiring it. The teeth are carried between the wheels instead of trailing behind, as in other machines, thus securing lighter draught. This machine is furnished with grain and grass seed box when required. It has reversible diamond steel points for the teeth; also extra wide thistle-cutting points can be furnished. Examine it and you will buy no other.



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This is the only Disc Harrow made or sold in Canada having independent adjustable spring pressure upon the inner ends of the gang discs, allowing any amount of pressure to be thrown upon the inner ends of the gangs by the foot of the operator. By this means a perfectly flexible action is secured, and the ground can be worked at a uniform depth. Examine this machine carefully and compare with others.



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**PURE MANILA, 600 FEET,
SPECIAL MANILA,
TIGER,
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Farmers! Don't be taken in. There is none "just as good." These twines will not bunch at the knoter, and a Binder will run all day without stoppage, thus saving time, annoyance and a "lot o' cussin'."

We pack our twine in bags of the size of ordinary grain bags, and we are not ashamed to put our name upon it. Don't take any other.

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MONTREAL. Limited.

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**POPULATION, - - - 250,000
NUMBER OF FARMERS, - 33,000**

**LOOK UP ITS ADVANTAGES BEFORE
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CROP OF 1898:

	<small>TOTAL YIELD OF PROVINCE.</small>
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BARLEY.....	4,500,000
FLAX.....	400,000

Over 10,000,000 acres in Manitoba that have never been cultivated. Price of Land from \$2.50 to \$6.00 per acre. Easy terms. Free Homesteads can still be obtained in many parts of the Province.

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**THE RAINY RIVER VALLEY,
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For Horses, Cattle, Hogs, and Sheep; an appetizer, a flesh producer, a blood purifier and tonic. It expels worms.

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Cures Diseases and Makes Hens Lay.

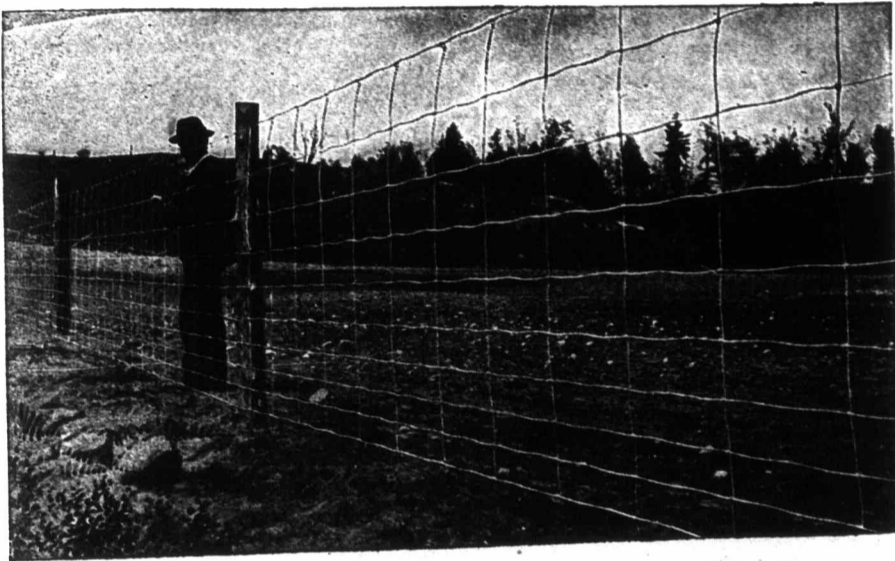
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Awarded medals at the Toronto Exhibition; medal at the Western Fair, London; first premium at Chicago Poultry Show; first premium at St. Louis Poultry Show; first premium at Rock Island Poultry Show; endorsed by the London Poultry and Pet Stock Association, St. Louis Fanciers' Association, Rock Island Poultry Association, Davenport Poultry Association, by the President of the American White Plymouth Rock Club. Thousands of testimonials on file. Sold by dealers generally, or address:

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GEM FENCE ON THE SHEDDEN CO.'S FARM NEAR TORONTO. This fence is constructed from the best No. 9 coiled spring fence wire made, and weighs from 3 to 4 lbs. per rod more than factory-made fences; the cost is about one-half. For \$30 we will furnish you with 1,250 lbs. of wire, 2 good wire stretchers, and 1 "Gem" fence machine. Write for particulars.

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Make a handsome finish; can be easily and quickly applied, and give fireproof, durable protection. They can't be equalled for economy and fine effect.

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DO YOU USE IT REGULARLY EVERY DAY

For all your THRIVING STOCK—HORSES, COWS, FAT CATTLE, CALVES, PIGS, and POULTRY? **IF NOT, WHY NOT?**

IT WILL PAY YOU, AND

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The results of improved condition with increased returns of a better quality of Milk, Butter, Cheese, Eggs, Veal, Beef, Mutton, Lamb, Pork, and Poultry will satisfy you that **THERE IS PROFIT IN ITS USE.**

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YOU CAN SAVE EXPENSIVE MEALS AND GRAIN BY USING HERBAGEUM WITH HAY, STRAW, CORNSTALKS AND OTHER COARSE FOODS, WHICH CAN BE FED IN LARGER QUANTITIES.

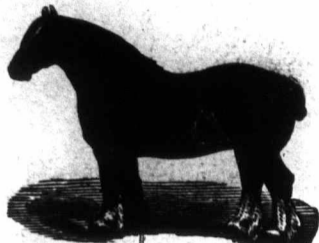
In fresh whey there is considerable nutrition, and skim milk retains all the bone, muscle, nerve and flesh constituents of new milk. Herbageum insures the full assimilation of both milk and whey. AS for CALF MEALS none of them are as economical as Herbageum, and as a POULTRY SPICE it equals the best, either as an EGG PRODUCER or as a HEALTH RESTORER.

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IT PURGATES THE KIDNEYS, CURES SCRATCHES AND CLEANS OUT INTESTINAL WORMS, BOTS AND LICE. **THE DEWEY MANUFACTURING CO., SOLE MANUFACTURERS, GALT, ONT.**

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IMPORTED AND
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From One to Four Years Old. Also



SEVERAL THREE YEAR OLD FILLIES,
All registered and warranted sound. Inspection invited.

ROBT. DAVIES,
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Clydesdales for Sale**

I offer for sale three MARES, all winners of first prizes in hot company. Countess, in class of thirteen, won first as a three-year-old at Highland Society Show, and at Illinois State and other big shows—never beaten. Jenny Dear, by Nasmyth, out of Jenny Roy, a half-sister to exported Prince of Quality, and a successful winner. She is a beautiful mare, full of quality. Lady Mab Ist, by St. Cuthbert, winner of first at Illinois State Fair. These mares are believed to be sound and all right, and will be sold below their value, to effect a partnership settlement.

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**Stallions,
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We have several imported Clyde mares 8 and 10 years old for sale at moderate prices. Some of them in foal to Grandeur An imported Hackney mare in foal to Square Shot. Also Ayrshire bull and heifer calves. Write for prices or come and see

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Ontario Winter Show Prize List.

CATTLE.

SHORTHORNS.—Steer, two years and under three—1, Matt. Wilson, Fergus; 2 and 3, J. R. Snyder, Humber. Steer, one year and under two—1, H. Smith, Hay; 2, J. Fried & Sons, Roseville; 3, Wm. Cowan, Galt. Steer, under one year—1, J. Oke & Sons, Alvinston; 2, J. Fried & Sons. Cow or heifer, three years and over—1, J. Oke & Sons; 2, F. Martindale, York. Heifer, two years and under three—1, J. Fried & Sons; 2, J. Oke & Sons. Heifer, under two years—1 and 2, J. Oke & Sons.

HEREFORDS AND POLLED ANGUS.—Steer or heifer, two years and under three—1, John Brown, Galt; 2, Jas. Bowman, Guelph. Steer or heifer, one year and under two—1, Walter Hall, Washington; 2, Jas. Bowman. Steer or heifer, under one year—1, Walter Hall; 2 and 3, Jas. Bowman. Cow or heifer, three years and over—1, H. McDougall, Guelph; 2, Jas. Bowman.

GALLOWAYS AND DEVONS.—Steer or heifer, two years and under three—1 and 2, R. R. Rudd, Eden Mills; 3, David McCrae, Guelph. Steer or heifer, one year and under two—1, Thos. Lloyd-Jones & Sons, Burford; 2 and 4, David McCrae; 3, A. M. & Robt. Shaw, Brantford. Steer or heifer, under one year—1 and 2, David McCrae; 3 and 4, A. M. & Robt. Shaw. Cow or heifer, three years and over—1, W. J. Rudd; 2, A. M. & Robt. Shaw; 3 and 4, David McCrae.

GRADES OR CROSSES.—Steer, two years and under three—1, John Campbell, Woodville; 2 and 4, Jas. Leask, Greenbank; 3, Walter Robson & Son, Ayr; 5, Matt. Wilson, Fergus. Steer, one year and under two—1 and 3, Jas. Leask; 2 and 5, Thos. Russell & Son, Exeter; 4, John Campbell. Steer, under one year—1, Jas. Leask; 2, 3 and 4, J. Fried & Sons, Roseville. Cow or heifer, three years and over—1, Jas. Bowman, Guelph; 2, J. Oke & Sons, Alvinston; 3, Jas. Leask; 4, Walter Robson & Son. Heifer, two years and under three—1, Jas. Leask; 2, J. Fried & Sons; 3, Matt. Wilson; 4, F. Martindale, York. Heifer, under two years—1, Jas. Leask; 2, John Campbell; 3, J. Oke & Sons; 4, J. Fried & Sons.

GRADE STEER.—Sired by pure-bred Shorthorn bull. Prize, \$20, donated by the Dominion Shorthorn Breeders' Association—1, John Campbell, Woodville.

CHAMPIONSHIP PRIZE.—1, John Campbell, Woodville.

SHEEP.

COTSWOLDS.—Ewe, one year and under two—1, 2 and 4, John Park & Son, Burgessville; 3, Geo. Allen, Oriel. Ewe, under one year—1, 3 and 4, J. Park & Son; 2 and 5, Geo. Allen. Wether, one year and under two—1, 2 and 3, John Park & Son; 4, W. H. Beattie, Wilton Park & Son. Three wethers, under one year—1 and 3, John Park & Son; 2, Geo. Allen. Three ewes, under one year—1 and 3, John Park & Son; 2, Geo. Allen.

LINCOLNS.—Ewe, one year and under two—1 and 5, William Oliver, Avonbank; 2 and 3, Gibson & Walker, Denfield; 4, William West, Ilderton. Ewe, under one year—1, 2 and 5, Gibson & Walker; 3, Wm. Oliver; 4, Wm. West. Wether, one year and under two—1, 2 and 3, Gibson & Walker. Wether, under one year—1, 2 and 3, Gibson & Walker. Three wethers, under one year—1, Gibson & Walker. Three ewes, under one year—1 and 4, Gibson & Walker; 2, Wm. Oliver; 3, Wm. West.

LEICESTERS.—Ewe, one year and under two—1, J. M. Gardhouse, Highfield; 2, 3, 4 and 5, A. W. Smith, Maple Lodge. Ewe, under one year—1, 2 and 3, Kelly, Shakespeare; 3 and 4, J. M. Gardhouse; 5, Orr & Lillio. Wether, one year and under two—1 and 2, Orr & Lillio. Wether, under one year—1, 2 and 3, Orr & Lillio. Three wethers, under one year—1 and 2, Orr & Lillio. Three ewes, under one year—1, John Kelly, Shakespeare; 2, J. M. Gardhouse; 3, Orr & Lillio.

OXFORDS. Ewe, one year and under two—1, J. M. Evans, Gourcock; 3 and 4, J. H. Jull, Mt. Vernon. Ewe, under one year—1, Andrew Elliott, Pond Mills; 2 and 3, Smith Evans; 4, J. H. Jull. Wether, one year and under two—1 and 5, W. E. Wright, Glanworth; 2 and 4, J. H. Jull; 3, W. H. Beattie, Wilton Grove. Wether, under one year—1, 2 and 3, Andrew Elliott. Three wethers, under one year—1 and 4, Andrew Elliott; 2, Andrew Elliott; 3, J. H. Jull.

SHROPSHIRE.—Ewe, one year and under two—1, and 2, John Campbell, Woodville; 3, 4, and 5, D. G. Hamner & Sons, Mt. Vernon. Ewe, under one year—1, 4 and 5, John Campbell; 2 and 3, D. G. Hamner & Sons. Wether, one year and under two—1 and 4, D. G. Hamner & Sons; 2 and 3, Richard Gibson, Delaware; 5, W. E. Wright, Glanworth. Wether, under one year—1 and 3, Richard Gibson; 2, D. G. Hamner & Sons; 4, W. H. Beattie; 5, John Campbell. Three wethers, under one year—1, R. Gibson; 2, D. G. Hamner & Sons; 3, W. E. Wright. Three ewes, under one year—1 and 3, D. G. Hamner & Sons; 2, John Campbell.

SOUTHDOWNS.—Ewe, one year and under two—1 and 4, John Jackson & Sons, Abingdon; 2 and 3, W. R. & G. L. Telfer, Paris; 5, A. Simenton & Son, Blackheath. Ewe, under one year—1 and 5, John Jackson & Sons; 2 and 4, T. C. Douglas, Galt; 3, D. G. Hamner & Sons. Wether, one year old and under two—1 and 3, W. R. & G. L. Telfer; 2, W. E. Wright, Glanworth; 4 and 5, T. C. Douglas. Wether, under one year—1 and 2, John Jackson & Sons; 3, W. R. & G. L. Telfer; 4, D. G. Hamner & Sons; 5, A. Simenton & Son. Three wethers, under one year—1, John Jackson & Sons; 2, D. G. Hamner & Sons; 3, A. Simenton & Son; 4, T. C. Douglas. Three ewes, under one year—1, John Jackson & Sons; 2, T. C. Douglas; 3, A. Simenton & Son.

DORSET HORNS AND MERINOS.—Ewe, one year and under two—1, 3 and 4, R. H. Harding, Thorndale; 2, Jas. Bowman, Guelph; 5, W. E. Wright, Glanworth. Ewe, under one year—1, 2 and 3, R. H. Harding; 4, Jas. Bowman; 5, W. E. Wright. Wether, one year and under two—1 and 2, R. H. Harding. Wether, under one year—1, R. H. Harding.

HAMPSHIRE AND SUFFOLKS.—Ewe, one year and under two—1, John Kelly, Shakespeare. Ewe, under one year—1 and 2, W. J. Rudd, Eden Mills. Wether, one year and

Pure-bred Ayrshire Imported Cattle.

LARGEST AND MOST EXPENSIVE IMPORTATION IN AMERICA.



Bred for the dairy, with grand constitution, and champion prize records awarded them in Scotland and England. Sweepstakes herd, Montreal, Toronto, London, and Ottawa, in 1897. Awarded four years in succession herd prize at Ottawa's great exhibition, and special gold medal at Montreal. Their individual prize records are of the same distinguished honors of the four years of their exhibition career. Stock all ages for sale and at prices in reach of all.

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DENTONIA PARK FARM

EAST TORONTO, COLEMAN P. O.

DENTONIA JERSEY HERD Winners of the Herd Prize at both the Toronto and London Fairs last fall, also some thirty other prizes. The herd comprises fourteen head of imported cattle, many of them winners of valuable prizes on the Island; also some thirty animals carefully selected from the best Canadian herds. Heifer and Bull Calves, also good Cows, always on hand.

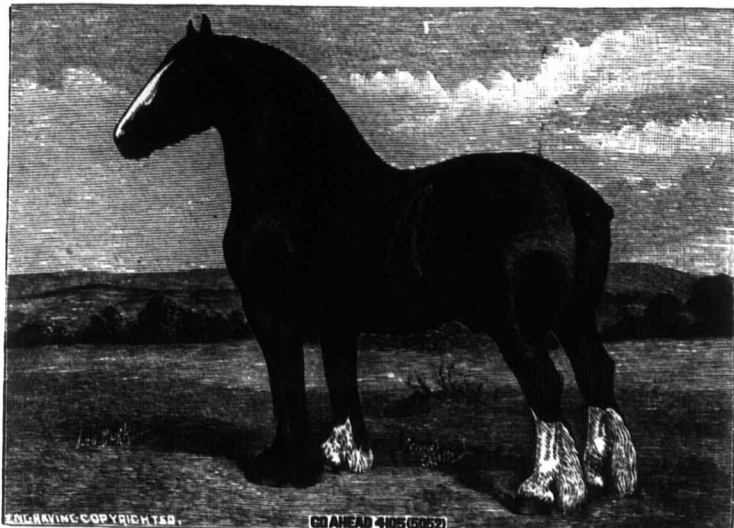
DENTONIA TROUT PONDS 100,000 healthy fry ready for delivery. Prices reasonable. Trout eggs in season. Market Trout supplied on short notice.

W. E. H. Massey PROPRIETOR.

DENTONIA POULTRY YARDS S. C. Brown Leg-horn and Light Brahma Cockerels for sale.

NEW IMPORTATION OF... CLYDESDALE STALLIONS

ARRIVED OCTOBER 31ST, 1898.



The largest importation of the breed made in five years. Sons of MacGregor, Sir Everard, and other noted sires. Brothers to Champions Royal Garty and Prince Patrick. All the fashionable strains represented, and 80 per cent. of them Scottish prizewinners. A few choice Hackneys for sale also. Address for particulars—

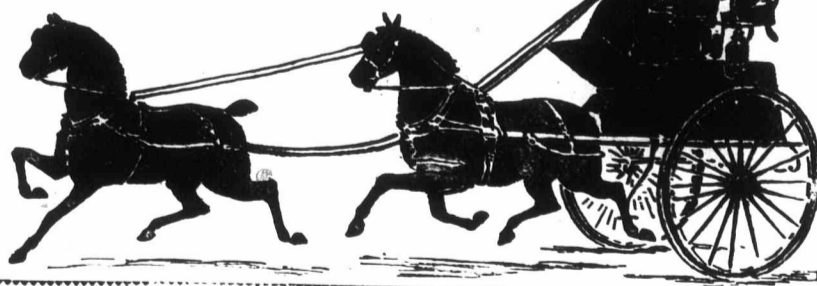
ALEX. GALBRAITH, JANESVILLE, WISCONSIN.

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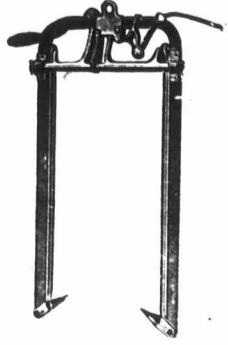
Cannot be expected in a horse which is "run down,"—"out of sorts" through impoverishment of the blood—but build him up with **Dick's Blood Purifier** and he has both. It destroys all the impurities in his system and fortifies it. He feels good and his spirit is high. It aids digestion—gives gloss to his coat—brightness to his eye—vim to his action. It will double his usefulness and value.

Dick's Blood Purifier

50 CENTS A PACKAGE, TRIAL SIZE 25 CENTS.
DICK & CO., PROPRIETORS.
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Provan's Patent Reversible Carriers, Fork and Slings



HAVE now become a Standard of Excellence with the Farmers of Canada and the United States. At the World's Fair, Chicago, 1893, the only Medal and Diploma given on Hay Carriers, Forks and Slings was awarded to us on these Implements.

Following is a copy of the Judges' Award:

AWARD. "For open trip hook to receive the sling; automatic clutch, adjustable for size of load desired; ingenious design of stop block, which enables perfect control of carriage; no springs required for locking car, which has motion in all directions; compact form of fork, which can be tripped in any position; the car is reversible and of double action; for safety, ingenuity, and usefulness. Excellence of material and construction."

CORRECTION SOLICITED.

SPECIAL DISCOUNT FOR CASH.

MANUFACTURED BY **JAMES W. PROVAN,**

ONTARIO, ONTARIO, CANADA.
AGENTS FOR PROVINCE OF QUEBEC: **SLY-HANCOCK (Limited), MONTREAL.**

"GEM HOLSTEIN HERD." STOCK FOR SALE

We only keep and breed registered Holstein-Friesians. We have now some choice young bulls and heifers, also some older animals, all of the very best dairy quality, that we will sell, one or more at a time, on reasonable terms. Correspondence solicited.

ELLIS BROS., Bedford Park P. O., Ont. 7-y-om Shipping Station, Toronto.

MAPLE HILL.. HOLSTEIN-FRIESIANS

BULL CALVES from Queen DeKol 2nd, winner of Prince of Wales prize over heifers of all breeds in public test; Lady Akkrum 2nd, 67 1/2 lbs. milk in one day and 24 lbs. butter in a week; Kaatje DeBoer, 63 lbs. milk and 3 lbs. butter per day at 14 years old; Marcena, 57 lbs. milk per day at 14 years old; Daisy Teake, dam of Daisy Teake's Queen, the great test winner, finest cow I ever saw.

G. W. CLEMONS, ST. GEORGE, ONT.

WE MUST SELL IN THE NEXT THIRTY DAYS, 60 Holstein Cows, Heifers and Calves

OF THE RICHEST AND LARGEST PRODUCING STRAINS. Owing to the lack of stabling they will be sold at greatly reduced prices. Come and make your selections, either singly or by the carload. They are served by Manor De Kol, De Kol 2nd's Butter Boy 3rd, and Mutual Friend 3rd's Paul. Our herd won first at the Trans-Mississippi Exposition. They have the largest official butter test ever made. Now is your opportunity to secure bargains in the Brookside herd.

Henry Stevens & Sons, Lacona, N. Y.

BUTTONWOOD STOCK FARM. JERSEYS.

POULTRY, COLLIE DOGS.

Richly-bred young Jersey bulls and heifers from prizewinning dams and sires, noted for their milking and butter qualities.

Importers of Fowls and Eggs. We are importing larger than ever of British fowls and also in new varieties for the coming year, and having entered into arrangements with some of the largest English breeders in poultry, we are prepared to supply eggs of all kinds of fowls, viz., chickens, ducks, geese, turkeys, pheasants, etc., from prizewinning British stock. We can satisfy and please you in this department. Write us at once if you desire early eggs.

Breeders of Collie Dogs. Fine young puppies for sale, sired by Benedict K. C. S. B. 34350, winner of 8 firsts, 10 specials and medals. Correspondence solicited.

S. WICKS & SON, Buttonwood Farm, MOUNT DENNIS.

FOREST HERD OF JERSEYS

9 Cows 8 Heifers 4 Bulls OF THE FOLLOWING STRAINS: Ida's Stoke Pogis, sire of 26 tested cows. Fancy Harry, " 36 " " Tottie, " 20 " " Tormentor, " 39 " "

Signal's Lilly Flag, test 1,047 lbs. 3 oz. in one year; Bisson's Belle, 1,028 lbs. 152 ozs.; Landseer's Fancy, 836 lbs. 14 1/2 ozs., or 29 lbs. 1/2 oz. in 7 days; Tottie's Fancy, test 27 lbs. 5 1/2 ozs. in 7 days; Ooman, 22 lbs. 2 1/2 ozs.; Ida of St. Lambert, 30 lbs. 2 1/2 ozs.; and Little Goldie, and Alteration, which proved what they are at Chicago in 1893. Will also sell a half-brother to these last two named cows; also 5 head of Jerseys that are at Sudbury to any party in that vicinity. Prices low.

H. FRALEIGH, FOREST, ONT.

MEADOWBROOK Jerseys, Tamworths, and White Wyandottes. St. Lambert Jerseys, bred for production; herd of 20 cows averaging above the 300 pounds; butter per year. Registered Tamworths from prizewinning stock. A splendid pen White Wyandottes (exclusive), McCormick and Kettlewell strain. Eggs booked for this pen at \$2 per 13. Young stock for sale. Prices right. Motto: Not how cheap, but how good.

EDGAR SILCOX, Shedden, Ont.

St. Lambert of Arcfost 36943

whose sire was 100 Per Cent.; dam, St. Lambert's Diana 69451. Official test, 18 lbs. 6 ozs. in seven days. A few choice young bulls and heifers rich in his blood, from deep and rich milking dams, for sale at moderate prices. Tuberculin tested.

H. E. WILLIAMS, SUNNYLEA FARM, KNOWLTON, P. Q.

\$700 for seven of the richest bred pure St. Lambert cows in Ontario.

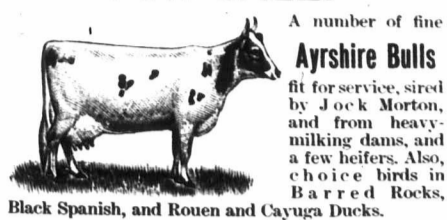
All daughters and G. daughters of King Hugo of Ste. Anne 16386 and old St. Lambert's Beauty 41069. All show animals. Address: ROCK BAILEY, Union, Ont.

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TEMPERANCE ST., TORONTO, CANADA. Affiliated with the University of Toronto. Patrons: Governor-General, Premier, and the Government of Ontario. Fee, \$15.00. Apply to ANDREW SMITH, F.R.C.V.S., 182 Queen St. W.

PLEASE MENTION FARMER'S ADVOCATE.

Choice Ayrshires and Poultry FOR SALE.



A number of fine Ayrshire Bulls fit for service, sired by Jock Morton, and from heavy-milking dams, and a few heifers. Also, choice birds in Barred Rocks, Black Spanish, and Rouen and Cayuga Ducks.

JAS. McCORMACK & SONS, ROCKTON, ONTARIO.

CHOICE AYRSHIRE BULLS FROM IMPORTED STOCK.

I offer for sale three (3) bulls, 9, 10 and 13 months old, all sired by prizewinning imported bulls, and from high-class imported cows; also five bull calves from 1 to 4 months old.

W. W. BALLANTYNE, Late Thos. Ballantyne & Son, Stratford, Ont. "NEIDPATH FARM" adjoins city, main line G.T.R.

W. F. STEPHEN, Breeder and importer of choice and fashionable AYRSHIRES

from deep-milking strains. Two bull calves for sale. Write or come to BROOK HILL FARM, Carr's Crossing, G. T. R. on Trout River, Que.

AYRSHIRES.

An extra fine bull calf for sale; dam a first-class milker; sire Royal Monarch - 1941 - of the noted Sprightly and Maggie Brown of Barmoorhill strains. Also choice young females of same breeding. Prices reasonable.

J. A. R. ANDERSON, HAMILTON, ONTARIO.

GLENGARRY STOCK FARM AYRSHIRES ARE STILL TO THE FRONT

Orders taken for young stock. Specialty in bull calves. Correspondence solicited. John A. McDonald, Jr., WILLIAMSTOWN, ONTARIO.

MEADOWSIDE FARM, J. YULL & SONS, Props., Carleton Place.

Breeders of high-class, deep-milking Ayrshires. Sweepstakes young herd at Ottawa. Shropshire sheep from prizewinning stock. Berkshire pigs and Barred Plymouth Rocks. Young stock for sale. Visitors met at Queen's Hotel. Give us a call.

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KAINS BROS., Byron, Ont. (R. R. London), are offering a number of grand young bulls, prizewinners; also a few choice females. Prices right.

SIX CHOICE AYRSHIRE BULL CALVES, Whose dam and sire were imported by D. Morton & Son, Hamilton. Prices right.

F. W. TAYLOR, WELLMAN'S CORNERS.

INGLESIDE HEREFORDS. UP-TO-DATE HERD OF CANADA!

TAMWORTHS Orders booked for Spring Pigs. Pairs not akin.

Send for Illustrated Catalogue. Address, H. D. SMITH, COMPTON, QUE.

FOR SALE, 3 HEREFORD BULLS (REGISTERED).

6, 2, and 1 year old; 954, 955, 956. No finer bred stock in Canada. JOHN BERGIN, CORNWALL, ONT.

IF WEST'S FLUID IS PROPERLY USED IT IS A POSITIVE PREVENTIVE FOR SUCH DISEASES AS Contagious Abortion and Hog Cholera

AND A MOST EFFECTIVE DISINFECTANT. SIMPLY BECAUSE IT IS A STRONG ANTISEPTIC AND DESTROYS THE GERMS UPON WHICH SUCH DISEASES DEPEND, AND DOES NOT CONTAIN CORROSIVE OR IRRITATING PROPERTIES. FULL INSTRUCTIONS ON APPLICATION.

THE WEST CHEMICAL CO., TORONTO, ONTARIO.

under two-1, 2 and 3. W. J. Rudd, Wether, under one year-1, 2 and 3. W. J. Rudd. SWEEPSTAKE.-1 John Jackson & Sons, Abingdon.

LEICESTER SPECIALS.-1 A. W. Smith, Maple Lodge. SHROPSHIRE SPECIALS.-Best registered Shropshire wether, one year old and under two-1, Hamner; 2 R. Gibson. Best registered Shropshire wether, under one year old-1, Gibson; 2 Hamner. Best three registered Shropshire wether lambs-1, Gibson; 2 Hamner. Extra special premiums for best wether, sired by registered Shropshire ram, out of grade ewe, one year old and under two-1, Hamner; 2 Gibson. Under one year old-1, Hamner; 2 Campbell.

GRADES AND CROSSES.-Ewe, 1 year and under two-1 and 2 John Campbell, Woodville; 3 W. H. Beattie, Wilton Grove; 4 John Park & Son, Burgessville; 5 Gibson & Walker, Denfield. Wether, one year and under two-1, D. G. Hamner & Sons, Mt. Vernon; 2 and 3, Richard Gishler, Delaware; 4 W. H. Beattie; 5 John Campbell, Woodville. Three wethers, under one year-1, Orr & Lillieco; 2, John Campbell; 3, D. G. Hamner & Sons. Wether under one year-1, Orr & Lillieco; 2, D. G. Hamner & Sons; 3 and 4, John Campbell; 5, J. H. Jull, Mt. Vernon. Ewe, under one year-1, D. G. Hamner; 2, W. H. Beattie, Wilton Grove; 3 and 4, John Campbell; 5, W. A. Rennie, Shakespeare. Ewe or wether, under two years-1, D. G. Hamner & Sons.

SWINE. IMPROVED BERKSHIRES.-Barrow, six months and under nine-1 and 2, T. A. Cox, Brantford; 3, George Green, Fairview. Barrow, under six months-1 and 2, Geo. Green; 3, T. A. Cox. Sow, nine months and under fifteen-1 and 2, Geo. Green; 3, Robt. Agnew, Acton. Sow, six months and under nine-1 and 3, Geo. Green; 2, T. A. Cox. Sow, under six months-1, Geo. Green; 2 and 3, T. A. Cox. Three pigs, the offspring of one sow, bred by exhibitor-1, Geo. Green; 2, T. A. Cox.

IMPROVED YORKSHIRES.-Barrow, six months and under nine-1 and 2, Henry Dedels, Kossuth; 3, Jos. Featherston, Streetsville. Barrow, under six months-1 and 2, Jos. Featherston; 3, Jos. E. Brethour, Burford. Sow, nine months and under-1, Jos. E. Brethour; 2, Jos. Featherston. Sow, six months and under nine-1, Jos. E. Brethour; 2, Jos. Featherston; 3, Henry Dedels, Kossuth. Sow, under six months-1 and 2, Jos. Featherston, Streetsville; 3, Jos. E. Brethour. Three pigs, the offspring of one sow, bred by exhibitor-1, Jos. E. Brethour; 2, Jos. Featherston.

CHESTER WHITES.-Barrow, six months and under nine-1 and 2, H. George & Son, Crampton; 3, Wm. Butler & Son, Dereham Centre. Barrow, under six months-1 and 2, H. George & Son; 3, Wm. Butler & Son. Sow, nine months and under fifteen-1, H. George & Son; 2, Wm. Butler & Son; 3, Daniel DeCourcy, Bornholm. Sow, six months and under nine-1, Daniel DeCourcy; 2 and 3, H. George & Son. Sow, under six months-1 and 3, H. George & Son. Three pigs, the offspring of one sow, bred by exhibitor-1, H. George & Son; 2, Daniel DeCourcy; 3, Wm. Butler & Son.

POLAND-CHINAS.-Barrow, six months and under nine-1, W. & H. Jones, Mt. Elgin; 2 and 3, W. M. & J. C. Smith, Fairfield Plains. Barrow, under six months-1 and 2, W. & H. Jones; 3, W. M. & J. C. Smith. Sow, nine months and under fifteen-1 and 2, W. & H. Jones; 3, W. M. & J. C. Smith. Sow, six months and under nine-1, and 2, W. & H. Jones; 3, W. M. & J. C. Smith. Sow, under six months-1, 2 and 3, W. & H. Jones. Three pigs, the offspring of one sow, bred by exhibitor-1 and 2, W. & H. Jones.

SUFFOLKS AND ESSEX.-Barrow, six months and under nine-1, T. A. McClure, Meadowdale; 2 and 3, Jos. Featherston, Streetsville. Barrow, under six months-1 and 3, Jos. Featherston; 2, T. A. McClure. Sow, nine months and under fifteen-1 and 2, Jos. Featherston; 3, T. A. McClure. Sow, six months and under nine-1 and 2, Jos. Featherston; 3, T. A. McClure. Sow, under six months-1 and 3, Jos. Featherston; 2, T. A. McClure. Three pigs, the offspring of one sow, bred by exhibitor-1 and 2, Jos. Featherston.

TAMWORTHS.-Barrow, six months and under nine-1, A. Elliott & Son, Galt; 2, H. George & Son, Crampton; 3, Wm. Butler & Son, Dereham Centre. Barrow, under six months-1, H. George & Son; 2 and 3, Wm. Butler & Son. Sow, nine months and under fifteen-1 and 3, Norman M. Blain, St. George; 2, Wm. Butler & Son. Sow, six months and under nine-1, Norman M. Blain; 2 and 3, Wm. Butler & Son. Sow, under six months-1, 2 and 3, W. R. McDonald, Ridgetown. Three pigs, the offspring of one sow, bred by exhibitor-1, Wm. Butler & Son; 2, A. Elliott & Son, Galt.

DUROC-JERSEYS.-Barrow, six months and under nine-1 and 2, Tape Bros., Ridgetown; 3, F. W. Terhune, Brantford. Sow, under six months-1 and 3, Tape Bros.; 2, E. & N. Park, Oriskany. Sow, nine months and under fifteen-1, Tape Bros.; 2, F. W. Terhune; 3, W. M. & J. C. Smith, Fairfield Plains. Sow, six months and under nine-1, Tape Bros.; 2 and 3, W. M. & J. C. Smith. Sow, under six months-1, Tape Bros.; 2, E. & N. Park; 3, F. W. Terhune. Three pigs, the offspring of one sow, bred by exhibitor-1 and 2, Tape Bros.

GRADES AND CROSSES.-Barrow, six months and under nine-1, T. A. Cox, Brantford; 2, Jos. Featherston, Streetsville; 3, A. Elliott & Son, Galt. Barrow, under six months-1 and 2, Norman M. Blain, St. George; 3, Wm. Butler & Son, Dereham Centre. Sow, six months and under nine-1, A. Elliott & Son; 2, Wm. Butler & Son; 3, Jos. Featherston. Sow, under six months-1, Norman M. Blain; 2, Wm. Butler & Son; 3, W. & H. Jones, Mt. Elgin.

PRIZE.-For the heaviest sow or barrow at the show, any age-1, Robt. Agnew, Acton.

EXPORT BACON HOGS.-Four improved Berkshires-1 and 3, Geo. Green, Fairview; 2, T. A. Cox, Brantford. Four improved Yorkshires-1, Jos. Featherston, Streetsville; 2, Jos. E. Brethour, Burford; 3, Henry Dedels, Kossuth. Four Tamworths-1, H. George & Son; 2, W. R. McDonald, Ridgetown; 3, A. Elliott & Son, Galt. Four Chester Whites-1, Daniel DeCourcy, Bornholm; 2, Wm. Butler & Son; 3, R. H. Harding & Son,

Thorndale. Four Poland-Chinas-1, W. & H. Jones, Mt. Elgin; 2, W. M. & J. C. Smith, Fairfield Plains. Four Duroc-Jerseys-1, F. W. Terhune, Brantford; 2, Tape Bros., Ridgetown. Four Suffolks or Essex-1, McClure, Meadowdale; 2, Jos. Featherston, Streetsville or crosses-1, J. H. Wilson, Mt. Vernon; 2, Wm. Butler & Son; 3, A. Elliott & Son. Two best export bacon hogs, dressed, to be brought to the show alive, and killed the second day of exhibition-1, H. George & Son; 2 and 3, J. R. McWilliams, Mt. Vernon. Four export bacon hogs, any breed or grade-1, Jos. E. Brethour; 2, Jos. Featherston; 3, J. H. Wilson. SWEEPSTAKES.-For best animal in Swine department-1, Geo. Green, Fairview.

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CAST IRON, MALLEABLE IRON, BRASS AND BRONZE METAL.

Send for our new Catalogue of Stable Fittings. We make and carry in stock the finest and most complete line in Canada.

THE Vokes Hardware Co., LIMITED, TORONTO.

SHORTHORNS IN BULLS.

I am prepared to dispose of a dozen fine, healthy, and grandly bred, growthy fellows, reds and roans. IN FEMALES, Anything I have on hand I will price; many of which are by imported Kinellar Sort (64209) 18951.

Correspondence Invited and Visitors Always Welcome. G. A. BRODIE, YORK COUNTY, ONT. BETHESDA, ONT.

SHORTHORNS 5 BULLS 5 HEIFERS 5

Sired by Revenue 21052 and Oxford (imp.) 2725, and out of grandly-bred dams. Farm one-half mile from station - C. P. R. and G. T. R. ROBT. DUFF, MYRTLE.

SHIRES, Shorthorns and Leicesters.

SIX GRAND YOUNG BULLS, FROM 9 TO 30 MONTHS. Prime Minister heads our herd. J. M. Gardhouse, Highfield, Ont. Malton Station and Telegraph Office.

SHORTHORN BULLS

We offer one choice two-year-old roan, fit to head first-class herd. Two red bull calves, 8 and 10 months old, of choice breeding; also their sire, Elvira's Saxon 21064, sired by Royal Saxon 16537, he by Excelsior (imp.). R. MITCHELL & SON, NELSON, ONTARIO.

HERD ESTABLISHED 1855. SHORTHORNS, BERKSHIRES. TEN YOUNG BULLS

And a few heifers, by Isabella's Heir - 19550 -, and richly bred on their dam's side; also a few young BOARS fit for service. JAMES DOUGLAS, ONT. CALEDONIA, ONT.

W. R. BOWMAN, MT. FOREST, ONT., OFFERS

10 Shorthorn Bulls of good breeding and quality, from good milking strains, at from \$50 to \$75 each. 1 Berkshire Boar, of Snell breeding, weighing 250 pounds, extra quality, \$15. 12 Yorkshire Boars, good ones, weighing from 150 pounds to 250 pounds, at \$12 to \$15 each. All stock registered and shipped C. O. D. Young pigs from 30 pounds to 40 pounds at \$6 each.

Shorthorns, Yorkshires, Poultry

Golden and Silver Wyandottes, Plymouth Rocks. FOR SALE.-Bull three years old, "Toftill's Boy," by Imp. Toftill, out of a Duchess of Gloster cow. Bull fourteen months old, by Toftill's Boy. Young sows three and four months old. Cockerels and Pullets. JAS. LENTON, PARK FARM, OSHTAWA, ONT.

FOR SALE: Four Shorthorn bulls, three Berkshire boars, seven Southdown and Leicester rams; females all ages; and B. & W. Leghorns. Write or come and see.

E. JEFFS & SONS, Bondhead, Ont.

6 Shorthorn Bulls from 7 to 14 months old, of choice breeding.

Apply to J. R. McCALLUM, Iona Station, Elgin County, Ont.

Ashton Front View Stock Farm A. J. WATSON, CASTLEBERG, ONT.

importer and breeder of Cotswold sheep, Shorthorn cattle, and Berkshire swine. C. P. R. Station and Telegraph Office, Bolton, or G. T. R., Palgrave.

PLEASE MENTION FARMER'S ADVOCATE.

TUBERCULOSIS IN CATTLE
IMPORTANT TO FARMERS.

The following letter is sent by the Department of Agriculture at Ottawa to persons desirous of having their cattle tested for Tuberculosis, and sets forth the conditions under which the Dominion Government undertake to apply the Tuberculin Test FREE OF CHARGE.

DOMINION OF CANADA.
DEPARTMENT OF AGRICULTURE.

OTTAWA,.....1898.

DEAR SIR,—
In response to your letter of the..... I beg to say that the following are the conditions upon which the Department applies the Tuberculin test to cattle:—
When a person makes application to the Department to have his cattle tested for the purpose of ascertaining whether any of them are affected with Tuberculosis, a Government Inspector is sent to test, and all expenses in connection with this are paid by the Department. The owner must accept all responsibility for the result of the test. The Government do not order the slaughter of diseased animals. No compensation will be given in cases where owners slaughter of their own free will. If any of the animals are found to be suffering from the disease, they will have to be isolated and the shed or corral in which they are kept will be quarantined. The owner will then be prohibited from selling any of them or their raw products. Should he desire of his own free will to slaughter them and dispose of their carcasses for food he will have to consult the local authorities as to whether he will be allowed to sell them. The premises in which diseased animals have been must be cleaned and disinfected to the satisfaction of the Government Inspector, as recommended on page 11 of the Farmer's Bulletin on Tuberculosis, a copy of which I enclose you. The premises in which the diseased cattle have been quarantined will also have to be disinfected and cleansed, as mentioned above, after the animals have been disposed of. When the Minister of Agriculture receives a certificate from the Inspector that the disinfection has been done to his satisfaction the premises will be released from quarantine. No application will be considered unless the owner agrees to submit all his cattle to the test.

If an applicant refuses to have his cattle tested after having made formal application, he will be charged with and will have to pay whatever expenses may have been incurred by the Department in connection with the sending of a Veterinarian to make the tests.

Upon your signing and returning to us the attached form of request a Government Inspector will be sent to test your cattle.

Yours truly,
W. R. SCARTH,
Deputy Minister of Agriculture.

To.....

To the Honorable the Minister of Agriculture for Canada, Ottawa, Ontario:

DEAR SIR,—I hereby request that my entire herd of cattle, consisting of.....
..... Bulls,
..... Cows,
..... Heifers,
..... Calves,

be tested for Tuberculosis with Tuberculin, and I hereby agree to conform to the Government conditions as expressed in their letter dated..... which I acknowledge having received.

The nearest railway station to my premises is..... on the line of the..... Railway Company, and if I am notified when the Inspector will arrive at the station I will meet him and drive him to my premises and, when the testing of my animals is completed, will drive him back to the station free of charge.

Signed.....

Date.....

-om Address.....

W. D. FLATT,
HAMILTON P. O. and TELEGRAPH OFFICE,



OFFERS FOR SALE
TEN CHOICE SHORTHORN BULLS
from seven to twelve months,
FIFTEEN COWS AND HEIFERS,

served by imported bull, Golden Fame 2856; also, a few cows with calves at foot. Farm 6 miles from Hamilton. Catalogue sent on application. Visitors met at G. T. R. or C. P. R. if notified.

SPRING GROVE STOCK FARM



Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Imported Blue Ribbon = 17065 and the famous Money-tuff Lead 26521. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply.....

T. E. ROBSON, Ilderton, Ont.

Maple Bank Stock Farm



OFFERS
15 SHORTHORN BULLS
with Scot. topped pedigrees. Splendid reds and roans, and sired by Valkyrie 21896, and out of dams by young Abol-shams Heir 15917 and Imp. Mariner 2729. Also a few good females of all ages and in good form. Farm one mile from depot.

T. DOUGLAS & SON, Strathroy, Ont.

Highland Park Herd of Shorthorns, Berkshire

Are strictly up-to-date in style, quality and quantity. Present offerings: Three young bulls, one yearling bull, and several cows of various ages.

MAC CAMPBELL, NORTHWOOD, ONT.

THE FARMER'S ADVOCATE.
AUCTION SALE
...OF...
30 IMPORTED SHORTHORNS 30

The undersigned will offer by public auction at his farm, 1 1/2 miles from Markham Village, on January 11th, 1898, 10 bulls and 20 females, recently imported and selected from the best herds in Aberdeenshire, Scotland; also a few Canadian-bred. They include such families as the Nonpareils, Rosebuds, Minus, Bessies, Claras, Gold Drops, and Violets, and other noted families. Farm twenty miles north of Toronto. Catalogues on application.

JOHN SMITH, M. P. P., JOHN ISAAC,
-om AUCTIONEER, BRAMPTON, ONT. MARKHAM, ONT.

ARTHUR JOHNSTON,
GREENWOOD P. O. and TELEGRAPH OFFICE,
OFFERS FOR SALE
13



FIRST-CLASS YOUNG HOME-BRED BULLS OF THE CHOICEST SCOTCH BREEDING.

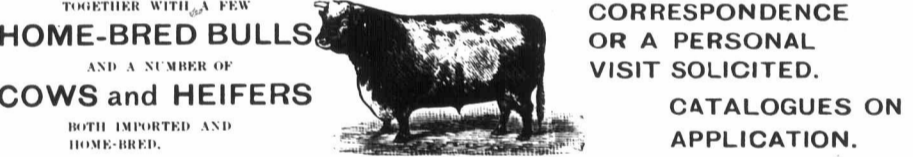
4 Imported yearling Bulls. 1 Imported two-year-old Bull.
1 IMPORTED SIX-YEAR-OLD BULL.

All of the finest families in the North of Scotland—big, good, and in the very nicest condition. Also Cows and Heifers of various ages. The whole of the above will be sold at very moderate prices. Send for catalogue.

-om Claremont Station, C. P. R.; Pickering Station, G. T. R.

WE ARE OFFERING FOR SALE
8 HIGH-CLASS YOUNG IMPORTED SHORTHORN BULLS

OF THE BEST SCOTCH BREEDING,
TOGETHER WITH A FEW HOME-BRED BULLS AND A NUMBER OF COWS and HEIFERS BOTH IMPORTED AND HOME-BRED.



H. CARGILL & SON.,
CARGILL, ONTARIO.
Cargill Station and Post Office on G. T. R., within half mile of barns.

W. C. Edwards
AND COMPANY,
IMPORTERS AND BREEDERS
Laurentian Stock and Dairy Farm,
NORTH NATION MILLS, P. Q.
Pine Grove Stock Farm,
ROCKLAND, ONTARIO.

Ayrshires, Jerseys, Shropshires, Berkshires.
Our excellent aged herd of Ayrshires is headed by our noted imported bull Cyclone. Tam Glen heads the young herd, and Lisgar Poggis of St. Anne's heads the Jerseys. The young stock are all from time-tried dams.

Shropshires and Scotch Shorthorns.
The imported Missie bull, Scottish Pride, at the head of herd, assisted by British Knight. Special bargains in young bulls, young cows and heifers of the best of breeding.

A. E. SCHRYVER, Manager. JOS. W. BARNETT, Manager.
We can be reached either by steamboat, the C. P. R., or C. A. R.; the C. A. R. making connections with the G. T. R. at Coteau Junction. Rockland is our station on all lines.

MAPLE LODGE STOCK FARM
ESTABLISHED 1854.

SHORTHORNS: 10 grand young bulls, and an excellent lot of heifers, from good milking dams, and sired by the great show bulls, Cathness 22963 and Abol-shams 19416.

LEICESTERS: Both rams and ewes for sale. Every first prize offered by flock of Leicesters at Toronto, London, and Bradford, 1898, including gold Medal for best display of Leicesters, won by our flock.

A. W. SMITH, -om MAPLE LODGE P. O., ONT.

GUERNSEYS. The grandest of dairy breeds; good size, hardy, persistent, produce the richest colored milk and butter when fed in the stable.

CHESTER WHITES. The farmer's favorite; easy feeders, early and plentiful milkers, giving satisfaction bred as pure or as cross bred.

DUROC-JERSEYS. Easiest fed, easiest fattened; will do well on any kind of feed.

TAMWORTHES. The ideal "barn" hog; two boards fit for service; fat and lard included. Write.....

Wm. BUTLER & SONS, DEREHAM CE. E. ON

SHORTHORNS
OF THE
Crimson Flower and Minnie Strains



And from such sires as Scotchman 2nd, Duke of Laverder, Premier Earl, Indian Chief, and Clan Campbell. A few splendid young bulls ready now. Cows-wild sheep.

DAVID BIRRELL,
-om Greenwood, Ont.

SHORTHORNS
AN OFFERING
Seven Splendid Young Bulls,
4 TO 11 MONTHS OLD.

Two descended from Waterloo Daisy (World's Fair dairy test), balance Missie and Lady Jane strain, and by Kineller of York; as well as a few cows and heifers equally well bred.

F. MARTINDALE,
YORK, ONT., Caledonia Stn., Haldimand Co.

8 SHORTHORN BULLS 8

Reds and roans, by St. Louis (a Morton-bred bull), and from our best cows reserved from sale. Also a few females of all ages.

FITZGERALD BROTHERS,
Mt. St. Louis, Ont.

SHORTHORN CATTLE AND LINCOLN SHEEP.

Imp. Baron Blane 11th at head of herd. Seven young bulls for sale—good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

J. T. GIBSON,
-om DENFIELD, ONT.

2 SHORTHORN BULLS 2

Of Canadian Duchess of Gloster and Laverder breeding, from imported sires.

Thos. Allin & Bro.,
OSHAWA, ONT.

W. G. PETTIT & SON,
FREEMAN P. O., ONT.

Twelve choice young Shorthorn Bulls by Indian Statesman = 23004 =. Fifteen young Cows and Heifers with calves by side, or forward in calf. Twelve yearling Shropshire Ewes, sired by imported ram Flashlight; also Berkshire Boars and Sows of all ages. All of which will be sold at moderate prices. Farm half mile from Burlington Station, G. T. R.

ROSE COTTAGE STOCK FARM
H. K. Fairbairn,
THEDFORD, ONTARIO.

OFFERS FOR SALE
2 SHORTHORN BULLS, one 3 years old and one 14 months; also five heifers 2 years old, sired by Great Chief 16388.

3-Shorthorn Bulls for Sale-3

Two of them fit for service; all reds and well bred.

WM. MILLER,
-om P. O. 112, Markham P. O.
Stations: Markham, G. T. R.; Locust Hill, C. P. R.

SHORTHORN CATTLE.

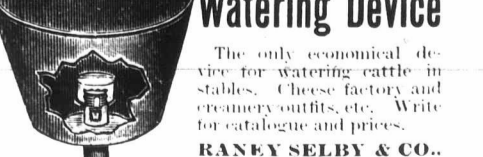
Good young bulls of Scotch breeding and a desirable lot of heifers for sale.

H. SMITH, HAY, ONT.
Exeter Station, G. T. R., half mile from farm.

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS.

For SALE: 1 young bull of the choicest breeding and good quality, and from A 1 dairy cows.

Wm. Grainger & Son, - Londesboro, Ont.



BUCKLEY'S
PATENTED
Watering Device

The only economical device for watering cattle in stables. Cheese factory and creamery outfits, etc. Write for catalogue and prices.

RANKY SELBY & CO.,
- Kingston, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

BERKSHIRES.

I have forty-seven Berkshires on hand, old and young. A fine litter just arrived will make good show pigs. Two sows due to farrow in February, 1899. My pigs are all of the up-to-date bacon type. Orders booked now will have my special attention.

J. B. EWING, Dartford, Ont.

HALDIMAND HERD OF BERKSHIRES

Boars and Sows, two to four months old, by Royal King, the choice of the winning pen in 1897, in the hands of Geo. Green, his breeder.

ALB. NAUMAN, Fisherville, Ont. Haldimand County.

FOR SALE!

TWO -- BERKSHIRE BOARS -- TWO

Farrowed March, 1898, \$10 each. Also 4 boars and 4 sow pigs, farrowed October 18th, 1898, \$6 each or \$9 for pair. One A. J. C. C. bull calf, calved 8th September, 1898, \$20.

WILLIAM CLARK, MEYERSBURG, ONT.

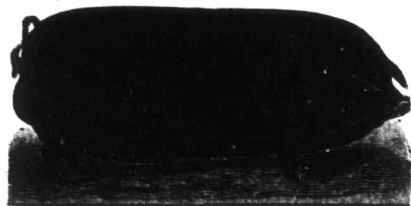
ROSE HILL FARM James Dorrance,

SEAFORTH, ONTARIO. Breeder of REGISTERED BERKSHIRES of the most approved type. Choice young stock always for sale. Write at once and secure a bargain. 18-2-y-om

Berkshires, Berkshires, Berkshires.

My herd contains such blood as Baron Lee, Varua Duke, and other imported strains, with the celebrated sire, First Prize, at the head.

WM. McALLISTER, VARNA, ONT



DUROC-JERSEY SWINE

combine more profitable qualities than any other breed. They are the most prolific; are good mothers, and raise large litters; are good weathers, and will fatten at any age; if turned off in the proper condition, make the choicest bacon.

We have the earliest established and most reliable herd in Canada. We won all the red ribbons at the recent Fat Stock Show at Brantford. We have for sale a very choice lot of boars ready for service, and sows ready to breed, and an excellent lot of fall pigs. Get our terms before buying elsewhere. Address

TAPE BROS., RIDGETOWN.

OXFORD HERD

Winning Poland-Chinas.

Having won the herd prizes at Toronto, London, Ottawa, and Brantford Fat Stock Show, we feel justified in stating that we are in a position to offer you from gilt-edge prize-winning

W. & H. JONES,

OXFORD CO. MT. ELGIN.

POLAND-CHINA BOARS

FIT FOR SERVICE.

A few choice sows three months and under. Black Wilkes (imp.) and Jack Sanders head of herd. A few choice Black Minorca cockerels cheap.

R. WILLIS, JR.,

GLENN MEYER, ONT.

1898 Sweepstakes Herd of Tamworths

TORONTO AND LONDON.

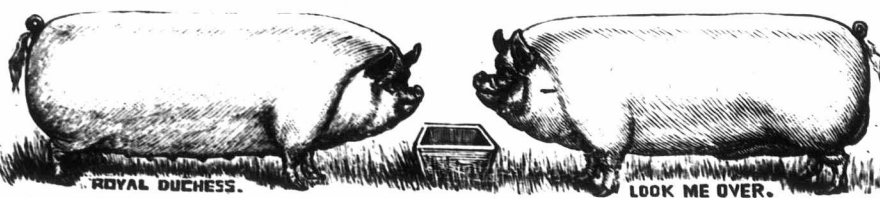
Sows in pig and boars fit for service. Young stock of both sexes by my sweepstakes boar, Amber Luther 245, out of prize-winning sows.

JOHN C. NICHOL, HUBREY, ONT. Express Office: London.

TAMWORTHS UP-TO-DATE.

One boar one year old; five boars six months old; ten sows six months old; one boar five months old; four sows three months old. Also thirty head of stock for sale, cheap.

J. H. SIMONTON, Box 304, Chatham.



SUMMER HILL HERD OF YORKSHIRE HOGS.

LARGE, LENGTHY, ENGLISH TYPE.

Among them being the undefeated prizewinning boar, "LOOK ME OVER" 2602. Also Royal Duchess, a first prize sow at the Royal Show of England in 1898, and several choice young sows bred to Look Me Over; also, young stock of both sexes, single or in pairs, not akin. We ship to order, prepay express charges. Guarantee stock as described.

D. C. FLATT, MILLGROVE P. O., ONTARIO.

Spring Brook Holsteins, Tamworths, and Barred Rocks.

Largest and most select herd of Tamworths in this country. Three imported boars at the head of herd, including a Royal winner. Sows of equal merit. English and Canadian winners. Young stock (fall litters) for sale. Orders booked for spring litters from winning stock. Holsteins of all ages, of best breeding, for sale.



A. C. HALLMAN, NEW DUNDEE, ONTARIO.

How to Succeed on the Farm!

Every farmer desires to succeed, and he may do so by applying principles and methods upon which success depends in all branches of farm work. It is not a matter of luck nor waiting for dead men's shoes. During 33 years past the FARMER'S ADVOCATE has made an honest effort to promote this object, and we are encouraged every year by the testimonies of thousands of farmers that have been helped to prosperity by it. We have the best of reasons for knowing that we will aid more farmers next year than ever before, and in better and more practical ways, we believe.

A NEW DRESS.—Among the many improvements in the FARMER'S ADVOCATE for 1899 will be a complete new dress of type, which will add greatly to its already handsome appearance. It is worn for the first time in the present Christmas number.

CHRISTMAS NUMBER FOR NEW SUBSCRIBERS WHILE THE SUPPLY LASTS.—Every new yearly subscriber will receive the Christmas number, with its wealth of illustrations and instructive reading matter, and all the issues for 1899 at the ordinary subscription rate of \$1.00. Extra copies required by subscribers we will supply at 25c. each; to non-subscribers, 50c.

GRAND CASH PRIZE COMPETITION.—As a special inducement to our friends who will aid in extending our subscription lists, we have decided to offer a cash commission of 25c. for every new subscriber sent in, together with \$50 in cash, to be divided as follows among those sending in the seven largest lists: Prizes: 1st, \$15.00; 2nd, \$12.00; 3rd, \$10.00; 4th, \$6.00; 5th, \$4.00; 6th, \$2.00; 7th, \$1.00. Everyone sending in one or more new subscribers will receive at least the 25 per cent. cash commission, and also stand a chance of earning one of these handsome cash prizes. Names and money should be sent in as fast as obtained, and will be credited the person getting up the club. Renewals will not count in competition. Our regular salaried agents and agricultural society or farmers' institute lists are excluded from this competition. Send for free sample copy and subscription forms and begin work at once, in order to make the best possible use of the remaining time. No subscription must be taken at less than \$1.00. The 25 per cent. commission may be retained as the names are sent in. Final lists in this cash competition must be mailed before January 1st, 1899.

HOW TO GET THE PAPER FREE.—Any present subscriber sending in two new subscribers and \$2.00 will have his or her subscription extended for one year.

OUR NEW SELF BINDER.—Each copy of the FARMER'S ADVOCATE, as received, is safely secured as in a fine cloth-bound book. Handy, handsome, durable. Will be sent post prepaid to any subscriber sending us two new yearly subscriptions, or may be had for 75 cents each.

Rush Your List of New Subscribers. Address,

The WILLIAM WELD CO., Limited, London, Ont., Canada.

EXTRACT FROM ANNUAL REPORT FOR 1897

OF THE CONSULTING CHEMIST OF THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

Published in their Journal, 31st December, 1897, page 732.

It has been necessary to call attention to the fact that under the name of "slag," and sometimes even under that of "basic slag," have been sold refuse materials of a very different character, and having little or no manurial value. These have not been the product of the now well-known "Basic" of THOMAS process of iron or steel making, and have contained little or no phosphoric acid such as basic phosphate has. In several instances the purchasers believed that they were buying the true basic slag. It behooves, therefore, to be careful to stipulate for THOMAS-PHOSPHATE, and to have a guarantee of phosphoric acid contained, and of fineness of division.

WE HANDLE THE ONLY TRUE

THOMAS-PHOSPHATE POWDER

SOLD IN CANADA.

And to be sure of genuine material see that the bags have our name and logo on them.

WALLACE & FRASER.

Masonic Block, ST. JOHN, N. B.

Canada Life Building, TORONTO.

Tamworth and Chester White Boars

FIT FOR SERVICE.

Sows ready to breed, and a choice lot of fall pigs now ready to ship at rock-bottom prices from the sweepstakes herd at the leading exhibitions of Ontario and Quebec in 1897. We pay express charges to your station, and guarantee the safe arrival of all stock shipped.

Pairs furnished not akin. Drop a card before buying elsewhere.

H. George & Sons, Crampton P. O., Ont.

3 Four Months TAMWORTH BOARS 3

By a Bell-bred boar, and out of an O. A. C. bred sow.

JOHN PULFER & SON, BRAMPTON, ONT. Prices Right.

TAMWORTHS

My stock was founded on Hallman & George bred females, with Spruce Grove Model 405 at the head. Young boars and sows now ready for shipment, and other sows to farrow.

R. O. MORROW, Hilton P. O., Northumberland County.

BORNHOLM HERD IMP. CHESTER WHITES.

For sale: 1 imported boar 8 months old, and 6 boars from 5 to 7 months old, at reduced prices if taken this month. Stock for sale at all times, all ages. Nothing but first-class stock shipped. Inspection invited. Correspondence promptly answered.

DANIEL DE COURCEY, Bornholm P. O., Ont.

CHRIS. FAHNER, Crediton, Ont.

I have now to hand a choice lot of Tamworth sows, 8 months old, and have a few Berkshire boars left, at 8 months old; also, a few Victoria sows with pig at one year old. They were bred from imp. stock. Don't forget to write at once to secure the best. Also write for my new Catalogue.

E. D. GEORGE, PUTNAM, ONT.

Importer and Breeder of Ohio Improved Chester White Swine.

The largest and oldest established registered herd in Canada. I make this breed a speciality, and furnish a good pig at a fair price. Write for prices.

IF YOU WANT Chester Whites Write me for particulars.

The imported sires, John A. 751, and Nonsuch 910, at head of herd. JOS. CAIRNS, Lambton County, CAMLACHIE P. O.

YORKSHIRES AND GOTSWOLDS

Young Boars and Sows on hand now; also well-covered shearing and two-shear Rams, and half a dozen Ram Lambs.

R. HONEY, Warkworth, Ont.

Barred Plymouth Rocks, Exclusively, I. K. FELCH'S ESSEX STRAIN.

A few more good ones yet. Cockerels large size, well marked, vigorous birds, at \$1 to \$2 each.

A few nice pullets left, at \$1.50 per pair. Breeding pens (four hens and one cockerel, good value) \$4.50. Can supply eggs for incubators in season from pure-bred stock, at reasonable prices. Will also have eggs from choice matings. Look out for advertisement in March.

Miss P. J. Coldwell, Huron County, CONSTANCE, ONT.

M. Br. Turkeys

S. G. Dorkings

B. P. Rocks

Br. S. C. Leg-horns

Bl. Minorcas

Finest lot of cockerels I ever had.

Mated, not akin. Write T. A. H. SHORE, White Oak, Ont.

This is the time to Hatch Chickens. If you are looking for profit in your poultry business, hatch the

The TORONTO INCUBATOR

machines manufactured, awarded silver and gold medals. Write for circulars. Address

T. A. WILLITTS, BUNDAS STREET, TORONTO, ONT.



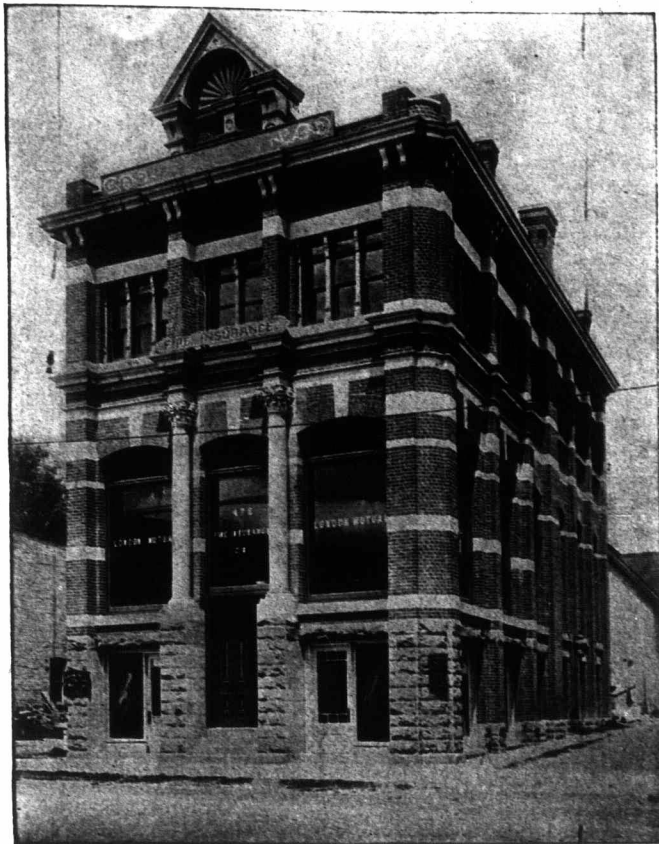
SAFE, SURE AND SUCCESSFUL! 40 YEARS.

1859 **The London Mutual** 1899

FIRE INSURANCE COMPANY,
OF CANADA.

476 RICHMOND STREET, LONDON, ONTARIO.

The only
Fire Mutual
Licensed
by the
Government
of Canada.



This Company has the honor of being the Pioneer of cheap fire insurance in Canada. It was established by farmers, is controlled by farmers, and does a larger business in Ontario than all the local companies combined; its rates are governed by its own experience, and it belongs to no combine. Agents throughout Ontario, to whom apply for insurance. Large resources; ample security; prompt payment of claims. Nearly **THREE MILLIONS OF DOLLARS** have been expended by this old Company in the Province of Ontario alone.

CAPT. THOS. E. ROBSON, Iderton, President.
JAMES GRANT, Esq., Treasurer, London Township Treasurer.
D. C. MACDONALD, Manager.

RICHARD GIBSON, Esq., Delaware, Chairman of Finance.
CAMERON MACDONALD, Assistant Secretary.

IT HAS PROVED A
CLINCHER TO THOUSANDS
TO KNOW THAT THE
SPRAMOTOR

has been endorsed by men of such standing and reputation as W. E. H. Massey, Hon. John Dryden, H. L. Hutt, Prof. Jas. Fletcher, Prof. Wm. Saunders, Wm. M. Orr, L. Woolverton, W. F. Holston, Alex. McNeill, and the most prominent fruit growers and brewers in Canada.

Over **100 GOLD MEDALS** and **HIGHEST AWARDS** have been granted the **SPRAMOTOR** in three years. Sixty-eight outfits are in use by the Ontario and Dominion Governments for experimental work. Adopted by six American and European Governments.

CERTIFICATE OF JUDGES' AWARD.
THIS IS TO CERTIFY that at the contest of spraying apparatus held at Grimsby, under the auspices of the Board of Control of the Fruit Experimental Stations of Ontario, in which there were **ELEVEN CONTESTANTS**, the **SPRAMOTOR** made by the Spramotor Co. of London, Ont., was awarded **FIRST PLACE**.

H. L. HUTT, Judges.
M. PETTIT,

There is an attempt about to be made to still further fool the farmers by selling them a line of "cheap and nasty" brass spray pumps, and this "ad." is now addressed to prospective users of spraying appliances to give them "warning."

You may say this is too much to expect from a manufacturer, but we answer no. Our reason is, we want to sell you **SPRAMOTORS**. They are made of **BRASS**, and with this object in view we want to tell you what kind and weight of brass is used in the **SPRAMOTOR**.

All the brass castings used is what is known in the trade as bronze metal of extra heavy weight. The cylinder tube is of seamless drawn brass, No. 14 gauge; the air chamber and inner tube are seamless drawn brass, No. 16 Stubbs gauge, and there is **THREE TIMES MORE BRASS** in the **SPRAMOTOR** than in any spray pump of equal capacity.

The valves are patent detachable, with brass balls; the plunger is compensating automatically. You do not require to do anything with it, it regulates itself. In fact, the **SPRAMOTOR** is the subject of twelve patents, and is sold lower than any other, which is the reason why so many thousands have been placed so quickly.

We are selling, and have sold, **MANY TIMES MORE** than all other makes **COMBINED**. When you are ready to buy write us and we will send you a 72-page copyrighted treatise, giving you information unobtainable elsewhere. Don't be fooled with so-called brass pumps, with the tube as thin as paper.



SPRAMOTOR CO.,
357 RICHMOND STREET, LONDON, ONT.
—om Agents wanted. Mention this paper.

BUNCHEES ON HORSES
OR ANY OTHER LIVE STOCK ARE UNSIGHTLY.

Gombault's Caustic Balsam

WILL ABSOLUTELY REMOVE THEM AND INCREASE THE VALUE OF THE HORSE FIFTY PER CENT....

SAFE FOR ANYONE TO USE AND SURE IN RESULTS.

BEFORE turning your horses out for the winter, horsemen should apply it to remove Curb, Splint, Sweny, Capped Hock, Strained Tendons, Founder, Windpuffs, all Skin Diseases or Parasites, Thrush, Diphtheria, Pink Eye, all lameness from Spavin, Ringbone and other Bony Tumors. Also, all obstructions and imparts new life and vigor. It is a peerless remedy for all Throat and Bronchial Troubles. **NOT ONLY SEE WHAT OTHERS SAY OF IT, BUT SATISFY YOURSELF BY TRYING IT.**

TESTIMONIALS:

<p>RHEUMATISM AND HORSES. Cornhill, Tex. Please send me six bottles Gombault's Caustic Balsam by express. Your Balsam is the best I have ever used, both for horses and myself. I have used it on myself for rheumatism with good success. I doctored four months and spent \$120 for doctor and medicine, with no results, but since using your Balsam I can work around on the farm. Would like the agency for this county. OTTO A. BEYER.</p>	<p>CURES IF PROPERLY USED. Houseville, N. Y. Enclosed please find \$1.50 for a bottle of Gombault's Caustic Balsam. Send by express to Glendale, N. Y. It is an exceedingly good medicine. I cured a very bad spavin with it. If it does not take off any bunch from a horse it is because it is not used properly. GEO. GRAINGER.</p>	<p>ALWAYS USED WITH SUCCESS. Altoona, Ia. We have used Gombault's Caustic Balsam for years and in all cases where a severe blister was necessary, with success. We have removed curbs, bunches caused by kicks, and strained tendons by repeated applications of your remedy and have never had a failure, when used according to directions. COMB & CRAWFORD.</p>	<p>HANDLED 15 YEARS WITH SATISFACTION. Clarington, Ohio. I have handled Gombault's Caustic Balsam for about 15 years, and, of course, in that time have sold hundreds of dollars worth with pleasant satisfaction to myself and great pleasure to my patrons. It is a delight quite seldom experienced by present-time druggists to have a remedy that can be honestly recommended with no fear of having more in future sales than is gained by the profit in push sale talk. With little or no advertising, Gombault's Balsam has had an ever increasing sale because of neighborhood introduction and my present effort of pushing a good thing along. WILL S. RICHARDSON.</p>
<p>SATISFACTORY RESULTS. Wier, Ga. I have used Gombault's Caustic Balsam for spavin, bone and blood, and windfalls, and laminitis, with entire satisfaction as to results; have not failed to make a perfect cure. I have recommended it to all my neighbors. I have taken some warts off my neighbor's horses. It is all you recommend it, and more. W. F. SIMMONS.</p>	<p>DOES MORE THAN CLAIMED. Walcott, Ind. The bottle of Gombault's Caustic Balsam just received, for which accept thanks. Yes, you have my consent to publish my letter to you in regard to the merits of the Balsam. It is all and more than you claim for it. I have no ax to grind in speaking so highly of it. I have used it many times and know whereof I speak. It is a grand medicine. CHAS. E. ROSS.</p>	<p>DOES ITS WORK EVERY TIME. Wilmington, Del. I found out the virtue of the Balsam and have used two bottles. I think it one of the finest remedies one can keep around a stable. It is always ready for use, and I believe if properly applied and rubbed in, will do its work every time. I have used different kinds of liniments, but this does its work quicker than anything I have ever used, and after all leaves no scar, and the hair grows in same as ever. You can use my name whenever you see fit. H. C. PARRISH.</p>	<p>BEATS ALL LINIMENT. Albert, Pa. Please send me six bottles Gombault's Caustic Balsam. Ship to Fairview, Pa. Will send money on receipt of same. Parties whom I have sold Caustic Balsam to say that it beats all liniments they ever used. GEO. SMITH.</p>
<p>PROVED TO BE A SUCCESS. Greenville, O. I have used a great deal of your Balsam this summer—11 bottles—and it has proved a success in every thing that I have tried to cure. Found one case of fistula and poll-evil. The horse was a solid swell all over and I cured him sound and well. He is now 7 years old and is handsome now; did not look so when I first used it. DANIEL COLLINS.</p>	<p>USED FOUR BOTTLES WITH SATISFACTION. Toronto, Jeff. Co., Ohio. My horses have been sick this winter and I have used four bottles of Gombault's Caustic Balsam with the greatest satisfaction. They swell under the belly and on chest and throat, and every time I rub them with the Caustic Balsam it would swell and water would drop from the same, and I believe my horses would have died had it not been for that medicine. DANIEL COLLINS.</p>	<p>"IT NEVER FAILED TO CURE." Walcott, Ind. I see you are still handling the Gombault Caustic Balsam. I wish to say right now and here, that it is FAR THE BEST LINIMENT I ever used, and I have in years past used a good deal. I would rather have ONE BOTTLE of it than a BARREL of any other kind I ever used. It never failed to cure for me. CHAS. E. ROSS.</p>	<p>NEVER BE WITHOUT IT. West End, Va. I am very much pleased with Gombault's Caustic Balsam and never expect to be without it again. ROBERT NOURSE.</p>

THE LAWRENCE-WILLIAMS CO.,

Sole Agents for the United States and Canada.

TORONTO, ONT., and CLEVELAND, OHIO.

Gombault's CAUSTIC BALSAM is the only **GENUINE**.

PEACH FARM FOR SALE.

Contains 90 acres.
70 acres planted to peaches.

Most desirable Peach Orchard in the famous Essex County peach-growing district.

Ten Thousand Trees

just coming into full bearing; best varieties. Located just outside of the thriving town of Leamington.

Railway Siding

in the center of the orchard, where cars can be loaded for any part of the country.

Good Water.

Soil high and dry, sandy loam, just suited to the peach.

Natural Gas for Fuel.

No wood, no coal required; mild climate.

A new large three-story House

will be sold with the farm, if required. Located just across the road from the farm, on three acres of land, mostly planted to ornamental trees and shrubs.

Write for full particulars to

W. W. Hilborn,
LEAMINGTON, ONT., CAN.

OR

Morris, Stone & Wellington,

WELLAND, ONT., CAN.
See page 620 for photo-engraving of farm.

LANDS FOR EVERYBODY.

FREE GRANTS OF GOVERNMENT LANDS.
CHEAP RAILWAY LANDS FOR SALE ON EASY TERMS.
GOOD SOIL. PURE WATER. AMPLE FUEL.

Most desirable lands suitable for mixed farming can be obtained in the **OLDS DISTRICT** along the line of the Calgary and Edmonton railway, about fifty miles north of Calgary.

Most desirable lands can be obtained in **SOUTH-EASTERN ALBERTA** in close proximity to the Calgary and Edmonton railway, and the Crow's Nest Pass railway; suitable for mixed farming and ranching on both a large and small scale.

North Saskatchewan also affords a splendid opening for intending settlers in the Prince Albert, Duck Lake and Rosthern districts, on the line of the Qu'Appelle, Long Lake and Saskatchewan railway. For full information concerning these districts, maps, pamphlets, etc., apply to

OSLER, HAMMOND & NANTON,
381 Main street, WINNIPEG, MANITOBA.



FAMILY KNITTER!

Will do all knitting required in a family, homespun or factory yarn. SIMPLEST KNITTER ON THE MARKET.

We guarantee every machine to do good work. Agents wanted. Write for particulars.

PRICE, \$8.00.

DUNDAS KNITTING MACHINE CO.,
DUNDAS, ONTARIO.

RICE'S BEST FOR TABLE DAIRY AND FARM USE
PURE SALT
NORTH AMERICAN CHEMICAL CO. (LIMITED).
SOLE MAKERS — GODERICH, ONT.

Dominion Swine Breeders' Annual Meeting.

The Dominion Swine Breeders' Association convened in Brantford, Ont., on Dec. 2nd, the meeting being in charge of the President, Geo. Green, Fairview, Ont., who in his opening address referred to the extraordinary development of the swine industry during recent years. This was done, it was claimed, largely to the advancement of dairying and the low price of grain. With this has come the year-around marketing of hogs, which tends to prevent glutted markets, and brings a constant revenue. Credit was given the packers for having co-operated with the farmers and breeders in guiding the sort of hogs to raise, but it was considered that more money might be paid for the sort that suits the best market. The agricultural press was credited with having given valuable assistance in promoting the highest interests of this great industry. After dwelling upon various phases of the subject of profitable bacon production, in conclusion it was remarked that the question was not so much one of breed as that of type and management. By careful and skillful selection, management, and feeding, hogs of any of the breeds may be brought nearer the required bacon standard than we have been accustomed to see in those breeds during past years, and that without crossing. The use of pure-bred sires was strongly recommended, whether the brood sows be pure-bred or grade.

Expert judges were appointed as follows:—**Berkshires.**—J. J. Ferguson, Smith's Falls, Ont.; H. Glendinning, Massey; E. E. Martin, Canning; B. J. Jeffs, Bondhead; Wm. Linton, Aurora; H. J. Davis, Woodstock; J. C. Snell, London; Thos. Teasdale, Concord; George Green, Fairview; Robert Vance, Ida; T. A. Cox, Brantford; Jas. Quirrie, Delaware; Jos. Featherston, M. P., Streetsville; R. P. Snell, Snelgrove; Malcolm McArthur, Lobo; C. R. Decker, Chesterville; Chas. Young, Brookdale; Wm. Jones, Mt. Elgin; D. DeCoursey, Bornholm; Geo. Thomson, Bright; Robert Gibson, Galt; R. H. Harding, Thorndale; Jos. Yuill, Carleton Place; W. C. Edwards and Jos. Barnett, Rockland. **Yorkshires and Tamworths.**—Richard Gibson, Delaware; Henry Daddels, Kossuth; J. E. Brethour, Burford; G. B. Hood, Guelph; Jos. Featherston, M. P., Streetsville; H. E. Sharpe, Ida; A. F. McGill, Hillsburg; J. G. Mair, Howick, Que.; J. M. Hurley, Belleville; Geo. Gier, Grand Valley; Jas. Stephen, Trout River, Que.; R. McLellan, Harriston; Jos. Fletcher, Oxford Mills; Robert Nichol, Brussels; A. and F. Foreman, Collingwood; J. Y. Ormsby, Woodstock; F. C. Fearman, Hamilton; N. H. Blaine, St. George; A. Dunn, Ingersoll; J. H. Simonton, Chatham; G. North, Marden; A. Elliott, Galt; L. F. Master, Haysville; A. C. Hallman, New Dundee; J. Bell, Amber; D. G. Hamner, Burford; John Nichol, Hubrey; H. Caldwell, Orchard; W. Elliott, Hamilton; C. C. L. Wilson, Ingersoll; C. Fearman, Hamilton; And Laurie, Wolverton; Wm. Davies, Toronto; Jas. Leach, Toronto; Wm. Howe, North Bruce; and Chas. Yapp, Brantford. **Poland-Chinas.**—Thos. Teasdale, Concord; Jos. Featherston, M. P., Streetsville; J. H. Snarey, Croton; Jas. Main, Milton; Capt. A. W. Young, Tupperville; George Green, Fairview; Wm. Smith, Fairfield Plains; Jos. Brethour, Burford; Wm. Jones, Zenda; Oliver Drury, Fargo; C. Yapp, Brantford. **Duroc-Jerseys.**—J. E. Shibley, Harrowsmith; J. O. Fraser, Fellows; E. Butler, Dereham; Jos. Featherston, M. P., Streetsville; Wm. Jones, Zenda; Geo. Green, Fairview; Thos. Teasdale, Concord; S. H. Todd, Wakeman, O.; Jos. McGarvin, Chatham; R. H. Harding, Thorndale; D. DeCoursey, Bornholm; Wm. Tape, Ridgeway; Wm. Smith, Burford; Harry Jones, Zenda; Herbert George, Crampton; and P. W. Terhune, Guelph. **Chester Whites.**—Jos. Featherston; Thos. Banks, Brantford; T. A. Cox, Brantford; J. F. Jarvis, Paris; H. George, Crampton; Wm. Jones, Zenda; J. C. Snell, London; George Green, Fairview; J. E. Brethour, Burford; D. DeCoursey, Bornholm; R. Dorsey, Burnhamthorpe; R. H. Harding, Thorndale; W. E. Butler, Dereham Centre; G. B. Hood, Guelph; G. E. Day, Guelph; Thos. Teasdale, Concord; S. H. Todd, Wakeman, Ohio; Gideon Snyder, Jarvis; Henry Jones, Zenda; Jos. Cairns, Camlachie. **Suffolks and Essex.**—S. Butterfield, Windsor; W. Jones, Jos. Main, Milton; David McCrae, Guelph; Jas. Anderson, Guelph; Simeon Lemon, Kettleby; T. C. Douglas, Galt; Wm. Elliot, Milton; James Millar, Guelph.

Officers elected for 1899.—President, Geo. Green, Fairview; Vice-President, Wm. Jones, Mt. Elgin; Secretary-Treasurer, F. W. Hodson, Toronto.

Directors.—Berkshires, Thos. Teasdale, Concord; Yorkshires, G. B. Hood, Guelph; Chester Whites, R. H. Harding, Thorndale; Poland-Chinas, W. M. Smith, Fairfield Plains; Duroc-Jerseys, W. E. Butler, Dereham Centre; Tamworths, Andrew Elliott, Galt; Suffolks, A. Frank, The Grange; Essex, Jos. Featherston, Streetsville; Ontario Agricultural College, G. E. Day, O. A. C., Guelph; General Director, J. E. Brethour, Burford. Auditor, J. M. Duff, Guelph.

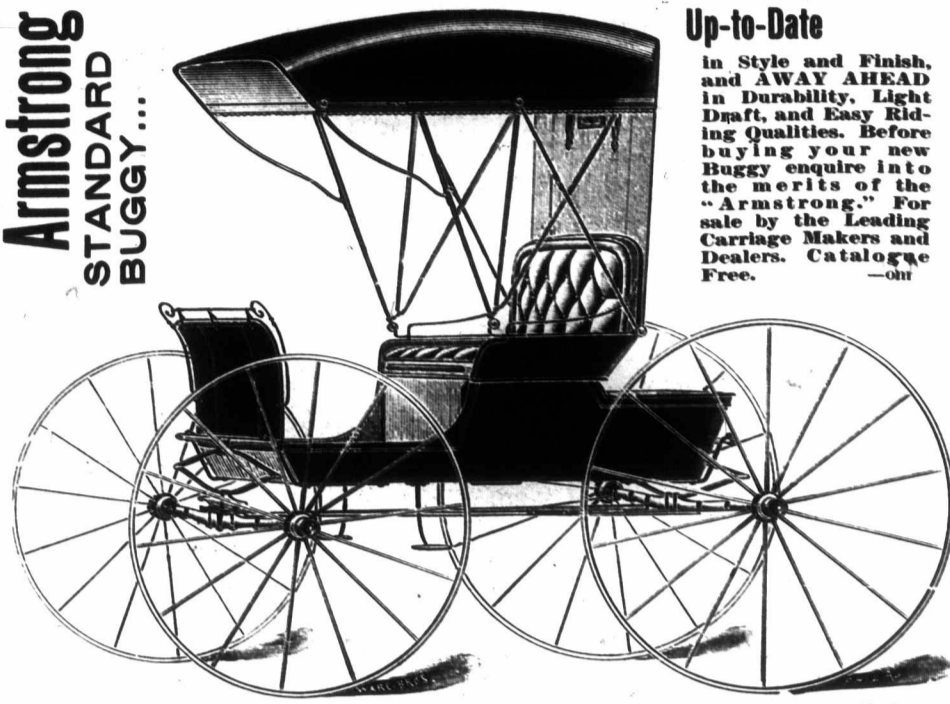
Representatives to Fair Boards.—Toronto Industrial; Thos. Teasdale, Concord; J. E. Brethour, Burford; Ottawa; Jos. Featherston, Streetsville; Jos. Yuill, Carleton Place, London; Geo. Green, Fairview; D. DeCoursey, Bornholm; Montreal; Jos. Featherston, Streetsville; Peterborough; Robert Vance, Ida, Guelph; G. B. Hood, Guelph; Jas. Anderson, Guelph; Brantford; T. A. Cox, Brantford; Geo. Thompson, Bright, Belleville; J. M. Hurley, M. P., Belleville, Quebec; E. O. Talbot, M. P., Quebec.

Committee.—Executive and Transportation: President, Vice-President, and Secretary. Delegates to the Board of the Provincial Winter Fair: Geo. Green, G. B. Hood, and J. E. Brethour.

ADDRESSES.

At the conclusion of the business, addresses were given to the swine breeders and Farmers' Institute speakers, the latter of whom had been requested to attend. Prof. J. W. Robertson, Dominion Dairy Commissioner, after addressing a few remarks to the Institute speakers upon an outline for public addresses, in which he emphasized the importance of correct statements, clearness of definition, conciseness and brevity, took up the subject of profitable pig production, which depends, he remarked, upon the man than the breed of swine or market conditions. The headings "Shelter, Treatment, and Food" were devel-

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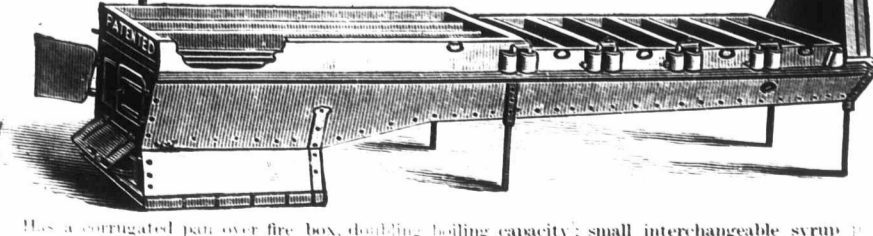
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Yours very truly, ROBERT KANE, NEWCASTLE, N. B.

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If not obtainable at your druggist's, will be mailed on receipt of price by

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XMAS

Many readers of the "Advocate" would like to know where to buy some nice, suitable Christmas presents for their friend. The list we give below is a very good one for the purpose, and the prices are not high. If you are interested, then select your article or articles, sending a post-office order for the amount of your purchase, and forward the order promptly to us, and by return mail we will send you the goods. The price we give includes the postage, and you will receive the goods at your nearest post office, all postage prepaid. Send at once.

Pearl Handled Pen Holder	25c.	Men's Finest Quality Razor	\$1.00
Pearl Handled Button Hook	25c.	Fine Plated Cheese Scoop	50c.
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Ladies' Fancy Back Combs, each	25c.	Ladies' Fine Silk Handkerchiefs	25c.
Best Rolled Plate Cuff Links, per pair	30c.	Ladies' Fine Silk Mufflers	\$1.00, 1.50, 2.00
Ladies' Fancy Silk Watch Guard	30c.	Ladies' Fancy Made-up Collars	35c.
Ladies' Sterling Silver Brooch	50c.	Pocket Mirror	25c., 30c.
Ladies' Sterling Silver Bracelet	\$1.50	Fancy Hat Brushes	25c., 30c.
Ladies' Sterling Silver Stick Pin	25c.	Fancy Pocket Match Safes	25c., 35c., 50c.
Ladies' Pearl Handled Penknife	25c.	Fancy Amas Calendars	10c., 15c., 25c.
Men's Pearl Pen Knife	25c.	Amas Booklets	10c., 15c., 25c.
Ladies' Small, Fine Scissors	25c.	Bagster's Teacher's Bible	\$1.25
Stag Handle Carving Knife and Fork	\$1.00	Bagster's Reference Bible	1.00
Buffalo Horn Handle Carvers	1.00	Men's Sterling Silver Waltham Watch	7.50
Pearl Handle Butter Knife	1.00	Men's Gold Filled Waltham Watch	9.25
Pearl Handle Pickle Fork	1.00	Ladies' 14k. Gold Filled Waltham Watch	\$12.50
Men's Good Stout Jackknife	35c.		

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It cuts both ways, does not crush. One clip and the horns are off close. Write for circular. The Keystone Dehorner Mfg. Co., Picton, Ont., Can.

oped along practical lines, which lack of space prevents our publishing. In the discussion which followed the remarks upon feeding, it was brought out that the most nearly correct method of feeding bacon pigs is to grow them up till they weigh 100 pounds or over on cheap food, such as pasture, dairy offal, roots, etc., and then finish them upon grain food, such as a mixture of peas, corn, barley, shorts, etc.

A short talk was given by Prof. Robertson upon the growing poultry trade with England. The subject of fattening the poultry, as is done in France and the south of England, by housing them three weeks on good feed and then finishing by two weeks of cramming by a machine, similar to that described in the FARMER'S ADVOCATE of Nov. 1st, 1898, page 518. The Professor also referred to our chances of developing a tender fruit trade with England. His observations and enquiries while in England lead him to the opinion that we have there a good opening for our pears, but our early apples, grapes, tomatoes, plums, etc., are not likely to find favor to the extent of doing us much good.

Prof. G. E. Day, of the Ontario Agricultural College, gave a useful paper upon swine feeding and the bacon trade, in which were incorporated details and results of his past season's feeding experiments, as recorded in the FARMER'S ADVOCATE of Dec. 1st, 1898.

Perhaps the most interesting information was given the audience by Messrs. Fearman, of the Hamilton Packing House; Britton, of the Ingersoll Packing Co.; and Leach, of the Davies Packing Co., of Toronto. Sides of bacon pigs selected from the animals slaughtered in connection with the show were hung up before the audience. An ideal side was hung up beside others which were too thin, too fat, or otherwise imperfect. An ideal side, when viewed from the inside, shows great length, width and evenness of thickness from end to end. The depth of fat along the back is about one and one-half inches, and is even from end to end. The ideal weights of bacon pigs are from 160 to 220 pounds, but the correct weight is only one of many requirements. The great advantage of having sows spayed before putting them up to feed was emphasized by Mr. Britton. They not only feed much more economically, but all danger of having to kill them while in season is prevented. At that time the flesh is often in an inflamed condition. With regard to soft bacon, Mr. Britton has found that thin pigs are more liable to be soft than those in proper flesh, a point demonstrated by Prof. Day's investigations. During the animated discussion, which lasted till a very late hour, the packers were enjoined to encourage the farmers to produce the correct sort of hogs by paying a better price for just what filled the bill, and if necessary refuse to accept hogs that are too light or too thin. Co-operative shipping by farmers was strongly recommended by members of the audience.

Oxford Down Breeders' Association.

The American Oxford Down Breeders' Association held its annual meeting in Bradford on Dec. 30th, with President Geo. McKerron, Sussex, Wis., presiding, and Secretary W. A. Shafer, Middletown, Ohio, recording the minutes. There was a good attendance of members from either side the line, who were favored with an inspiring and thoughtful address from the chair, in which it was pointed out that the present meeting was being held under very auspicious circumstances.

Some years ago wool breeds had the American field, but a depreciation in the value of that product and a greater demand for mutton changed the popular taste in the direction of sheep, especially for crossing on the range flocks. To this end the Oxford is peculiarly designed, and within the last few years the supply of serviceable males is not equal to the demand. Reference was made to the superiority of the Oxford over other mutton breeds, as proved by the three notable victories accorded to him at three great American exhibitions of recent years, viz., the Centennial, in 1876; the Columbian, in 1893; and the Trans-Mississippi, in 1898, at each of which an Oxford ram won the grand championship. Referring to the last named event, it was claimed that this breed had the show. This claim was verified by Col. Burch, of Chicago, who was there, taking a lively interest. Mr. McKerron claimed for the Oxford breed that it contains the best of the large, long-wooled breeds, and of the finer medium-wooled sorts, combined into an ideal animal.

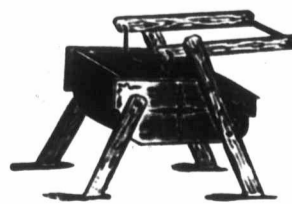
After reading the minutes of the last annual meeting, it was decided to donate \$75 in special prizes to each State and Provincial show having an Oxford class in its prize list.

At the suggestion of Mr. Henry Arkell, of Teeswater, and the President, a more definite breed type of the breed was considered, which resulted in the appointment of the President and Secretary to have executed a typical Oxford cut for use by the Association. In this connection it was suggested that the Association aid, as far as possible, fair boards in securing qualified judges, that the correct type be adhered to in placing the awards.

The receipts for the current year, with last year's balance, were \$2,198.46, and expenditures, \$842.14, leaving a balance of \$1,356.32.

Officers.—President, Geo. McKerron, Sussex, Wis.; Vice-President, G. D. Garmo, Muir, Mich.; Secretary-Treasurer, W. A. Shafer, Middletown, Ohio; Directors—John C. Williamson, Xenia, Ohio; B. F. Miller, Flint, Mich.; A. Bordwell, Fargo, N. Y.; Henry Arkell, Arkell, Ont.

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PERSIATIC HEN HOUSE SPRAY....

VERMIN is the most persistent enemy of the feathered stock. Keeps the fowl in bad health, listless and drooping; destroying its good qualities for show, laying or breeding purposes. Not much use in doctoring the fowl until the houses are in shape. Strike at the root of the trouble by keeping them in perfect sanitary condition with

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EASIEST AND BEST

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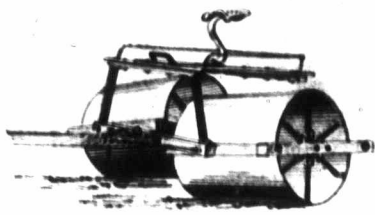
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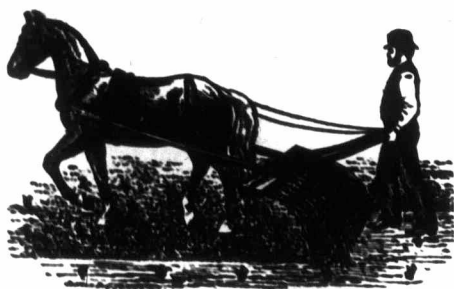
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MARKET.

ALEXANDRA SEPARATORS.

Size.	Capacity per hour.	Price.	Easy Work for	Recommended for
No. 12	160 Lbs.	\$30.00	Small Boy.	3 to 8 Cows.
No. 11	250 "	75.00	" "	6 to 10 "
No. 8	300 "	90.00	Boy.	8 to 12 "

MELOTTE SEPARATORS.

Size.	Capacity per hour.	Price.	Easy Work for	Recommended for
No. 1	350 Lbs.	\$100	Small Boy.	10 to 20 Cows.
No. 2	450 "	125	" "	15 to 25 "
No. 3	450 "	145	Boy.	15 to 25 "
No. 4	700 "	165	" "	20 to 35 "
No. 5	850 "	185	" "	30 to 50 "

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GOSSIP.

SALE OF A CHAMPION SHORTHORN. Capt. T. E. Robson, Ilderton, Ont., has sold Mr. C. E. Ladd, Portland, Oregon, the white three-year-old Shorthorn cow Mysie's Rose...

ISAAC DEVITT & SON'S CLYDESDALES AT FREEMAN, ONT. During the depression in heavy horse circles the past few years, very few of the many breeders realized the importance of breeding their mares...

The aged mare Bell, by Good Hope (1679), and out of Mall (6257) is credited with a whole string of good, useful animals, notable among them being Douglas Macpherson 1791, by Macpherson (3825), imported in dam...

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BARRED PLYMOUTH ROCKS. For sale. A few fine, well-bred, pure-bred birds. Prices moderate and satisfactory. Write James Row, Avon P. O. FOR SALE: Young Bronze Turkeys, Peter Arkell, Teeswater, Ont.

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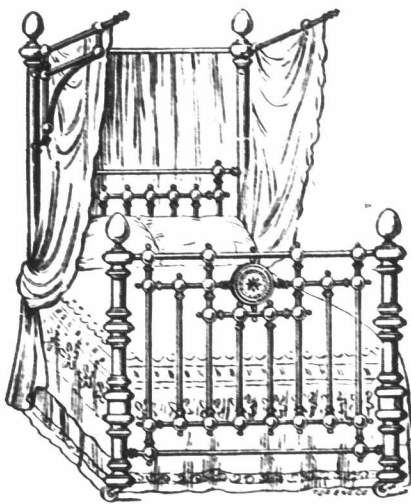
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Mr. D. Derbyshire is President of the Butter and Cheese Association of Eastern Ontario.

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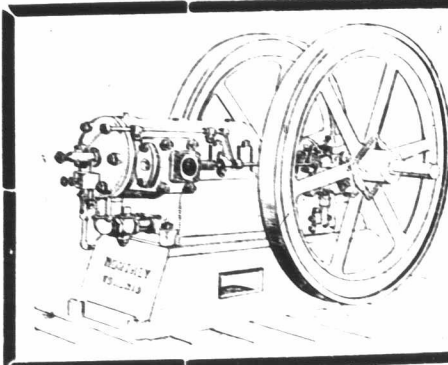


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NORTHEY Gasoline Engine

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of Shearwater strain. Also a few Bonnet bred Indian Game. H. GEE & SONS, Holderness Co., Fisherville, Ont.

OAK HILL HERD OF TAMWORTHS.

For sale, young bears and sows, 3 and 4 months old, by Sandy 3rd and Nimrod, and out of prize-winning dams; also young pigs. Prices reasonable. R. J. & A. LAURIE, WOLVERTON, ONT.

POULTRY.

L. and D. Brahmas, B. and W. Wyandottes, Black Minorcas, Indian Game, and Red Caps. Young stock and eggs from above breeds. Eggs, \$1.25 for 13; \$2 for 25. Satisfaction guaranteed.

JACOB B. SNIDER, German Mills.

FOR SALE AT REASONABLE PRICES: 12 Buff Cochin Cockerels, 12 Barred Plymouth Rock Cockerels, 12 White Leghorn Cockerels, 20 Pekin Ducks. All are selected birds, and will be sold cheap. We also offer a fine litter of Tamworth swine. W. R. Graham, Bayside, Ont.

GOSSIP.

Wm. E. Wright, of Glanworth, Ont., reports that the demand for Shropshire sheep has been very good, having made the following sales recently: Five ewe lambs to James Edson, Oregon; nine ram lambs to W. J. Boynton, Rochester, Minn.; three yearling rams and thirteen ram lambs to W. S. Hawkshaw, Glanworth, Ont.; one shearing ram to Ed. Moody, Humber P. O., Ont.; one ram lamb to James Campbell, Fingal, Ont.; one two-shear ram to Wm. McLaughlin, Southold Station; one ram lamb to H. J. Coate, Rosseau, Muskoka; one ram lamb to James W. Arnold, Elmstead, Ont.; one shearing ram to J. Cornish, Orchard P. O., Ont.; one ram lamb to Wm. W. Hazard, Friendship, Alleghany Co., one ram and one ewe lamb to Alex. McPherson, Forest, Ont.; two ram lambs to Cole & Wright, Bad Axe, Michigan; one ram lamb to Mr. Schooley, Sparta, Ont.; one ram lamb to Smith & Eckert, Belmont, Ont.; one ram lamb to James Marshall, Tilsonburg, Ont., and has still 75 head of fine Shropshires which he intends wintering over. He has a lot of young Chester White pigs for sale. In Mammoth Bronze turkeys he has forty choice birds for breeding purposes selected from his flock of 100 birds. In exhibiting turkeys, Mr. Wright has been very successful, winning at the Western Fair, London, seven prizes out of seven entries. On young Mammoth Bronze he won first prize on young hen, also first prize on young gobbler, 1898 hatch.

MR. MAC CAMPBELL'S SHORTHORNS, BERKSHIRES, AND POULTRY.

A short visit to the home of Mr. Campbell, near Northwood, Ont., a few miles east of Chatham, revealed the fact that Mr. Campbell has enjoyed his share of the prosperous stock trade during the past season. At present Mr. Campbell has three young Shorthorn bulls, by Invincible 3rd and Labor Day, and out of Best-bred dams, which trace to Miller & Son's stock. They are promising young animals, possessing much quality. Among the Berkshires, we feel at liberty to mention a pair of sows which has given their owner much good-doing stock of the right type. Lady May 3767, by Prince Imperial 4124, and out of Lady Maid 4350, with pedigree running to the noted Baron Lee 4th, was added to the herd since our last visit, and is now safely in pig to farrow early in January. Duchess of Kent 3691, by Bakerfield 1863, and out of Blanche 1647, is a good type of an animal, and is safely in pig to farrow in the latter part of Dec. A dozen very thrifty, well-marked youngsters were also seen, which are growing up as young stock for breeding purposes should, with plenty of exercise to produce vigor and strength, and among them were some good young females ready for shipment.

G. A. BRODIE'S SHORTHORNS AT BETHESDA, ONT.

Mr. Brodie's farm in York Co., Ont., is still the scene of active breeding operations, and although numerous sales were made within the past year, the herd at present contains something over 25 animals made up of some of the leading strains of the day. The old foundation stock, which has been the most successful family in Mr. Brodie's hands, are still on the farm. May 14222, by Vengsarth 1306, and out of Florence 6th, and running through Royal Harpington to many of the highly prized sires in their day, has been a regular breeder, and a whole row of her daughters and granddaughters are in the herd. Strawberry 4th, by Lord Clyde 2003, and out of Strawberry 2nd 4590, has also been a successful producer of saleable dams, so much so that only one young bull is left. Mr. Brodie informed us that all the cows were safely in calf to imported Northern Light, a bull which did service in many of the leading herds in Canada and the old country. Among the dozen young bulls we saw, half of them were the last crop by imported Kinellar Sort (64200), as well as the major part of the young females, and they show in their make-up just the quality that we would expect to find in the produce of an animal possessing such a rich pedigree as their sire. In the field we saw a bunch of growthy young red and roan bulls which, though not fleshy, are promising lot from which some really excellent individuals may be selected. In looking over their pedigrees we were impressed with that of Bismarck 2nd 2729, and Speculator 4th 2677, as possessing much of value, running as they do through such family lines as Lady Rose 2nd, Miss Bamster, Scarlet Velvet, and other good ones. There are also half-a-dozen young females, mostly by Kinellar Sort, which Mr. Brodie says are all for sale.

NOTICES.

The London Mutual. The attention of our readers is drawn to the card of this Company in this issue. As is truly stated, the "London Mutual" was the pioneer of cheap farm insurance in Canada, the founder of the FARMER'S ADVOCATE, the late Wm. Weld, having been one of the first members of this old Company.

Institute Prize Essays. The Executive Committee of South Bruce, Ont., Farmers' Institute offer the following prizes for an essay entitled, "The best method of cultivating and managing a 100-acre farm in all its branches with a view to profit; also a few suggestions as to the better protection of our flocks from the ravages of dogs, and the remuneration to owners sustaining damages from the same." 1st, \$10; 2nd, \$8; 3rd, \$6; 4th, \$4; 5th, \$2. The competition for this essay is open to all farmers and farmers' sons in South Riding of Bruce; all essays to be in the hands of the Secretary not later than 1st of April, 1899. The prize essays will be read at the next annual meeting of this Institute, and awards made for same.

Prosperous Canadian Industry. During a short call at the Dominion Organ & Piano Co.'s plant in Bowmanville we were surprised to learn that the large and complete establishment has been compelled to work until 9 p.m. for some months past in order to keep pace with their orders, their export trade has so much increased, while their Canadian orders are in keeping with the renewed prosperity of this country. The reputation gained for their instruments has only been by constant application to their business with shrewd judgment on the part of the management, sparing no pains or expense in the execution of the work, and to-day their high grade instruments lead, not only in beauty of design and finish, but are considered equal to any on earth in tone and durability. The firm are to be congratulated upon their success. Send for their handsome catalogue.

PLANT LIFE, to be vigorous and healthy, must have

Potash

Phosphoric Acid and Nitrogen. These essential elements are to plants, what bread, meat and water are to man.

Crops flourish on soils well supplied with Potash.

Our pamphlets tell how to buy and apply fertilizers, and are free to all.

GERTIAN KALI WORKS, 93 Nassau St., New York.

USE ULRICH'S Ensilage Corn

MAMMOTH WHITE GIANT PROLIFIC YELLOW DENT IMPROVED LEAMING

E. R. ULRICH & SON SPRINGFIELD, ILL.

Ask your dealer for samples and testimonials.

Leicester Breeders' Annual Meeting.

The annual meeting of the American Leicester Breeders' Association was held in Brantford on December 1st, with Pres. D. C. Graham, Cameron, Ill., in the chair. Sec. A. J. Temple, also of Cameron, was present in his official capacity. The meeting was well attended by both Canadian and American members...

At the recommendation of Mr. Alex. Smith, Maple Lodge, Ont., and other members, it was resolved that henceforth only sheep be received for registration that are from already recorded sheep and their progeny from registered sires...

It was resolved that a meeting of the members be held annually in future. It was also decided to hold the meeting of 1899 at the time and place of the next Ontario Provincial Fat Stock Show.

Officers elected: - Pres., D. C. Graham, Cameron, Ill.; Vice-Pres., A. W. Smith, Maple Lodge, Ont.; Sec.-Treas., A. J. Temple, Cameron, Ill. Vice-Presidents for States and Provinces: - Penn., W. A. McCoy, Mercer; Ont., A. Whitlaw, Guelph; Mich., John Marshall, Cass City; Neb., Geo. Richardson, Benedict; N. Brunt, M. H. Parlee, Sussex; Ill., A. L. Wingate, Avon; N. S., S. P. Gandy, Yarmouth; P. E. I., Wm. Clark, N. Wiltshire, Que.; Isaac Parnell, Lennoxville, Oregon; J. W. McKenney, Salem, Board of Directors: John Kelly, Shakespeare, Ont.; J. E. Gaunt, St. Helen's, Ont.; J. M. Garthouse, Highfield, Ont.; James Snell, Clinton, Ont.; E. W. Wood, Fremont, Ont.; John Walton, Walkinsville, Mich.; J. W. Murphy, Cass City, Mich. Executive Committee composed of President, Vice-President, Messrs. Kelly, Snell and Murphy. Honorary member, Col. L. D. Burch, Chicago.

Joint Meeting of Live Stock Associations.

In connection with the annual Provincial (Ontario) Fat Stock Show, a joint meeting of the various live stock associations was held in the Opera House, Brantford, on the evening of Nov. 30, and was presided over by Hon. A. S. Hardy, Premier of Ontario. After a brilliant speech, in which he referred to Ontario as being the breeding ground for the vast agricultural territory west of Lake Superior on either side of the line, addresses were given by Mayor Raymond, of Brantford; Hon. John Dryden, Minister of Agriculture for Ontario; Mr. Geo. McKerron, Madison, Wis., President of the American Oxford-Down Record Association; Hon. Sydney Fisher, Dominion Minister of Agriculture; Prof. Curtis, Director and Professor of Agriculture, Iowa Agricultural College; and Mrs. Hoodless, Principal of Hamilton School of Domestic Science. The audience, who taxed the capacious auditorium to its limits, were entertained and enlightened by the addresses. The American speakers dwelt in high terms upon the character of the exhibits, which were far beyond their expectations. The Hon. Mr. Fisher dealt with the growing time in Canada during the last few years. Figures were given to show that the imports into Canada had increased from \$105,252.51 worth in 1895 to \$130,678,807 worth during the fiscal year ending in July, 1898; while the exports had increased from \$113,638,803 worth in 1895 to \$161,113,500 worth the twelve months preceding July, 1898. Reference was made to the satisfactory manner in which he found Canadian bacon received in the Old Land. He also spoke of the great opportunity we have to develop a valuable poultry trade with the motherland.

Hereford Breeders Meet.

The annual meeting of the Dominion Hereford Breeders' Association was held at Brantford on November 30th. The Secretary's report showed a decided revival of interest in this breed of beef cattle, and indicated an active demand, especially for bulls, which are much sought after, and are bringing very satisfactory prices. The public sales of Herefords held in the United States during 1898 being marked by very high average prices, the average at two spring sales being \$385, and four figures being reached in several cases for single animals. There has been a gratifying increase of registrations during the year, these being 109 in excess of those of 1897, and the financial report shows a balance on hand of \$334. It was resolved to make a call of \$2.00 for membership for 1899, and agreed that in view of the satisfactory financial statement, the Secretary be authorized to proceed to have the first volume of the Dominion Hereford Herd Book published at once. The following officers were appointed for 1899: President, H. D. Smith, Compton, Quebec; Vice-President for Ontario, Walter Macdonald, Toronto; Vice-President for Quebec, R. H. Pope, Cook-shire, Quebec; Vice-President for Manitoba, James Shearman, Toddburn; Vice-President for Nova Scotia, W. W. Black, Amherst. Directors: George Brent, Warwick, Ont.; A. Rawlings, Forest; E. A. Fleming, Toronto; John Stubbins, Forest; Mr. Stone, Guelph; I. Ringley, Alberton; Isaac Wagon, Prescott; Secretary, Thomas H. Wainwright, Toronto.

FLEMING'S LUMP JAW CURE



Is acknowledged now to be a thoroughly proved remedy for that common disease usually called "LUMPY JAW," "BIG JAW," ETC.

Thousands of cases have been saved, at a small cost, during the past two years to the ranchers and farmers of Canada.

THESE TESTIMONIALS SPEAK FOR THEMSELVES:

Chicago, Nov. 30, 1898. MESSRS. FLEMING BROS.: Gents.-Having been chief meat inspector for the City of Chicago for the last two years, and being in touch daily with all forms and stages of Lump Jaw Cattle, I must say that where your "Lump Jaw Cure" had been applied that the disease had no internal effect. The lump was thoroughly killed and the animal passed without any hesitation. I should favorably advise all stock-raising people to use "Fleming's Lump Jaw Cure" above all others, as I am positive it is a sure and speedy cure. Yours truly, JOHN J. CASHIN, Chief Meat Insp., Chicago. Does the Work Every Time. Owensville, Ohio, June 1, 1898. FLEMING BROS.: Gentlemen.-Enclosed you will find money order for one-half dozen bottles of your Lump Jaw Cure. It will do the work every time. Can be relied upon as a sure cure and a complete one. Respectfully yours, JOSEPH B. RAFF, V. S. Queen Hill, Ont., May 18th, 1898. Dear Sir.-Having noticed your advertisement in the FARMER'S ADVOCATE, I was induced to try your "Lump Jaw Cure" on a three-year-old steer. It was a bad case, and after three applications is now completely cured. I have no hesitation in highly recommending it to any who have cattle troubled with the same disease. Respectfully yours, ARCHIE CAMERON, Township South Dumfries, Co. Brant, Nov. 15, 1898. FLEMING BROS.: Gentlemen.-I removed a tumor as large as a quart pail from the neck of a steer with two applications of your Lump Jaw Cure. The tumor was located right over the jugular vein, so that it was impossible, or at least very dangerous, for a Veterinary Surgeon to cut out. It was done without leaving a scar and the hair has grown in all over the spot. Yours, etc., JUDSON ROBERTSON. Guarantee: Our remedy has always been sold under guarantee. We stand ready to refund the money in every case where the treatment fails to give satisfaction. Price, \$2.00. Sent by mail on receipt of price. FREE: Our new illustrated treatise on lump jaw, together with booklet of testimonials, sent FREE on request.

Address: FLEMING BROS., Chemists, St. George, Ont.

GOVERNMENT ANALYSIS

LABORATORY OF INLAND REVENUE, OFFICE OF OFFICIAL ANALYST, Montreal, April 8, 1895.

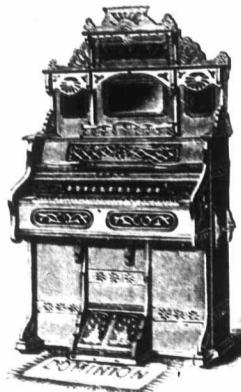
I hereby certify that I have drawn, by my own hand, ten samples of the ST. LAWRENCE SUGAR REFINING CO.'S EXTRA STANDARD GRANULATED SUGAR, indiscriminately taken from ten lots of about 150 barrels each. I have analyzed same and find them uniformly to contain:

99 99 to 100 per cent. of pure Cane Sugar, with 100 100 no impurities whatever.

(Signed) JOHN BAKER EDWARDS, Ph. D., D.C.L., Prof. of Chemistry and Public Analyst, Montreal.

"Dominion" Organs and Pianos

ARE THE MOST POPULAR INSTRUMENTS MANUFACTURED IN CANADA.



40,000 IN USE.

WRITE FOR CATALOGUE AND PRICE TO DOMINION ORGAN AND PIANO COMPANY, BOWMANVILLE, ONTARIO.

ROADS TO WEALTH are shortened by the right kind of education. A Technical Education pays. The shortest route to mastery of technical subjects is correspondence instruction. Success guaranteed. Best and simplest text books free. CIVIL ENGINEERING Bridge, Steam, or Electrical Engineering; Mathematics; Chemistry; Mining; Architectural or Mechanical Drawing; Surveying; Plumbing; Architecture; Metal Pattern Drafting; Prospecting; Book-keeping; Short-hand; English Branches. TAUGHT BY MAIL. Circular free. State subject you wish to study. Exam. 1891. \$5,000 students and graduates. The International Correspondence Schools, Box 900 Scranton, Pa. \$2.00 a Month

Federated Business Colleges:

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INTERCOLLEGIATE BUSINESS PRACTICE between the students of these two Representative Business Schools. Enter either of the Federated Colleges and enjoy the best in business and shorthand instruction. Send for illustrated announcement to

C. R. McCULLOUGH, President, HAMILTON, ONT.

WINTER TERM OPENS JAN. 3, '99

CENTRAL Business College STRATFORD, ONTARIO.

Holds first place among the best commercial schools in Ontario; enjoys a large patronage. Board cheap. Write for beautiful catalogue.

W. J. ELLIOTT, Principal.

9 CORDS IN 10 HOURS



BE ONE WAY WITH THE FOLDING SAWING MACHINE. No backache. Weighs only 41 lbs. Saws down trees. Folding Sawing Mach. Co. 64 Clinton St. S. 71, Ont.

GOSSIP.

Mr. S. J. Pearson, Meadowvale, has decided to retire from his farm, and will offer his entire herd of some thirty Shorthorns at public auction some time in March, particulars of which will be given later in the columns of the FARMER'S ADVOCATE.

W. G. Pettit & Son, Freeman, Ont., in sending change of advertisement, report that their herd of Shorthorns now numbers near seventy head. The young bulls are an exceedingly good lot. Their sire, Indian Statesman, is proving himself a grand stock bull. We are having a fine lot of young calves from him this fall. Our Shropshires have done well for us this season. We have sold a lot of ram lambs. The yearling ewes we are offering for sale are an excellent lot, well covered, of good size and good quality—the right kind for a foundation flock.

Mr. A. W. Smith, Maple Lodge, writes: We have recently sold to Mr. James Shelley, of Powassan, Ont., a splendid young bull by Calithness—22065—dam by our grand old bull Conqueror—8227—grandam by a son of Baron Constance 5th—1378—. This young bull cannot fail to be a success in siring the dual-purpose Shorthorn. His dam has tested two pounds butter in a day, his grandam nearly as much, and his sire's dam fifty pounds milk testing four per cent. Then the three sires mentioned above scaled an average weight of 2,600 pounds.

The illustration of "A Happy Trio" elsewhere in this issue shows specimens of Mr. D. G. Ganton's (Saurin, Ont.) Shropshire flock. The ewe in the foreground is Ganton's No. 12, and the ram is Lawrence's No. 149. Mr. Ganton's "Hill Home" flock of a score of ewes and the stock ram have entered winter quarters in the finest of breeding form, and a choice crop of lambs is looked for next spring. Regarding the FARMER'S ADVOCATE as an advertising medium, Mr. Ganton writes us that it has brought him more orders than he could fill from all parts of Ontario and from the United States.

The Clydesdale sale of Col. Robt. Holloway, Alexis, Ills., held on Nov. 16th and 17th, unfortunately encountered very uncoöperative weather, as rain fell most of the time of holding the sale. Upwards of seventy head of Clydesdales were catalogued and sold. Sensational figures were not reached, although good individuals having excellent pedigrees went under the hammer. Prince Consort, by Prince Charming, brought the highest price, \$25,000, and sold to Henry George, Monticello, Iowa, and McLay Bros., of Janesville, Wis., paid \$500 for His Excellency, a Canadian, Mr. R. R. Bryerly, Winnipeg, Man., secured the stallion, Danascus Blade, by Cederic; also a pair of mares, for about \$1,000.00. From \$200 to \$300 each took a large number of the mares, but \$475 was the price paid by Mr. Ang. Post, Molton, Iowa, for the eleven-year-old Cuthbert's Minnie. The sale was not a clearing-out one, as the Colonel has yet a large and select stud of breeding material.

J. Yuill & Sons, Meadows Farm, Carleton Place P. O., Ont., writes under date of December 9th: Our stock has gone into winter quarters in first-class condition. We have twenty cows calved within the last two months and two more will be in very soon. We would be pleased to dispose of young calves, either sex, to make room, as we are somewhat crowded. We are clean sold out of young bulls fit for service, but we have a fine lot of heifers, one and two years old. We are also sold out of ram lambs, but have a lot of fine ewe lambs, shearing and two-shear ewes. There has been an unusual demand for Shropshire rams for the purpose of crossing on common flocks. We are also sold out of Berkshire boars, but have a few young sows of the real bacon type. We have lately effected the following sales: Nellie Meadowside—2463—, a grand cow, to Robert Stewart, Aylmer, Quebec; bull calf, Clearance Meadowside—972—, to John McCollough, Aylmer, Que.; Heather Meadowside—9581—, to Andrew Ponpore, Bromley, Ont. This is a grand calf; he headed the first prize young herd at Ottawa exhibition, a cut of which appeared in the FARMER'S ADVOCATE, Dec. 1st, 1898. Lynch Meadowside—9780—, R. W. Phillips, Aurora, Ont.; one Shrop. ram, two shears (took third prize at Ottawa exhibition), to F. Graham, Mosgrove, Ont.; one shearing ram to W. T. Dunlop, Manotick, Ont.; Mr. Robert Tuft & Son, Tweed, Ont.; one ram and one ewe lamb; Mr. J. H. Elliott, Day Mills, Ont.; one ram lamb; Mr. D. H. Lawrence, Sprucedale, Ont.; one ram lamb; Mr. Wm. R. Gibson, Lammernoor, Ont.; one ram lamb and one boar pig; Mr. John Hopkins, Cummings' Bridge, Ont.; one ram lamb; Mr. Joseph Lewis, Ashton, Ont.; one aged Berkshire sow; Mr. Thos. Willows, Lanark, Ont.; one young boar; Mr. W. C. Wyman, Chute a Blondeau, Ont.; two sows and one boar; Mr. W. H. Wheland, West Port, Ont.; one young sow; Mr. A. E. Bush, Ontario, one young boar; Mr. Samuel Hanna, Munster, Ont.; one boar; Mr. John Hanna, Munster, Ont.; one sow; Mr. James Shellington, Munster, Ont.; one sow.

A NEW IMPORTED BULL FOR THE MAPLE LODGE AND SPRINGHURST HERDS.

Messrs. A. W. Smith, of Maple Lodge, and H. Smith, of Hay, visited Cargill on Dec. 10th, and after careful inspection of the new importation of twenty-one head of Scotch Shorthorns, eight bulls and thirteen females, made by Messrs. Cargill & Son, selected for use in their herd the roan yearling bull Knecke-Duster (22733), calved March 13th, 1897; bred by Mr. Bruce, of Inverquhomery, Longside, Aberdeen-shire; sired by Waverly (6802); dam Augusta (290), by Cup-a-Pie. This is a very level, well proportioned young bull, with a 2000 lb. head and horns, well-filled crops, well-sprung ribs, long, level quarters, straight top and lower lines, and fine handling quality. Having seen the bull, and knowing the herds he goes into, we feel sure a good choice has been made and that he will prove a profitable investment. Messrs. Smith also purchased at the same time two of the imported 2-year-old heifers. These are Lady Bell 3rd and Lady Mary 3rd, both rears, sired by Denmark. The former in calf to Illustration, the latter to Maximus, a show bull and a winner, sired by Massena, and of the Missie family. Both are strong, useful heifers, with good quality and of similar pattern, though of different families. Lady Bell was first in her class at Banchoy Show this season.

MONEY TO LOAN

AT REASONABLE RATES ON IMPROVED FARM PROPERTY THROUGHOUT THE DOMINION

Write for particulars of our system providing for repayment by Endowment Insurance.

MANUFACTURERS' LIFE Insurance Co.

TORONTO.

SPECIAL CHRISTMAS HOLIDAY OFFER.



GOOD ONLY UNTIL JANUARY 15, 1899.

- No. 1 American Cream Separator - \$ 70 \$ 60
No. 2 American Cream Separator - 100 75
No. 3 American Cream Separator - 135 100

THE BEST CREAM SEPARATOR MADE.

Over 800 Sold Since January Last.

Write us for Catalogue and Testimonials.

We have everything that is required for a cheese factory, creamery, or the dairy, and make a specialty in the manufacture of these goods. Write us for particulars.

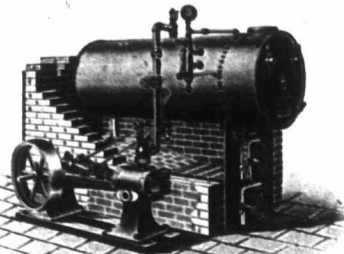
RICHARDSON & WEBSTER, ST. MARY'S, ONTARIO.

N. B.—All acceptances of this offer must reach us not later than January 15th, 1899.

ENGINES AND BOILERS FOR CHEESE AND BUTTER FACTORIES.

DURING 1898 WE SOLD

95 Engines



130 Boilers

FOR ABOVE PURPOSES.

E. LEONARD & SONS, LONDON, CANADA.

Estimates on ICE and REFRIGERATING PLANTS of any size, for CREAMERIES, COLD STORAGE, Etc., Etc.

NOTICES.

Secret of Progress. John D. MacLeay, Oxford Co., Ont., writes: "Enclosed find express order for \$4, in payment of four new subscriptions, as per list sent herewith. Will send a few more shortly. Please send me a few extra copies occasionally. Farmers must see that they cannot be progressive without perusing your valued paper."

Bargains in Farm Lands. In another column Mr. William Harvey, of 210 Portage Avenue, Winnipeg, Man., advertises bargains in farm lands. Mr. Harvey is general agent for The London & Ontario Investment Co. (limited), and has listed a choice lot of mixed farming and wheat-growing land adjacent to Winnipeg. A list and all information will be supplied to all parties who apply either in person or by letter.

Expectations Exceeded. An esteemed Elgin Co., Ont., subscriber, under date of Nov. 28th, 1898, writes: "I drop you a few lines to inform you that I received your beautiful premium, the Bagster's Teacher's Bible. I consider it a very valuable book, more than exceeding my expectation when I saw your liberal offer in the ADVOCATE. Wishing you continued success in the valuable work you are doing for the farming community, I remain, Yours truly—HENRY BISS."

Guelph Dairy School Staff.—Owing to the resignation of Mr. T. B. Millar and the continued illness of Mr. J. H. Findlay, it has been found necessary to appoint two new men to the staff of 1899. Mr. James Morrison, Stratford, will take charge of the Cheese Department, and Mr. J. A. McFeeters, Bowmanville, will take control of the Home Dairy Department. Mr. Morrison has had twelve years' experience as a cheesemaker, and has been employed for the last two years as inspector by the Western Butter and Cheese Association. He formerly owned the Silver Corners factory in Perth County. His work with the Association has been satisfactory. Mr. McFeeters is a graduate of the '77 dairy class, and stood high in all departments. He was in charge of the "Fowler Farm" Dairy, near Cobourg, for a year, and latterly has been at the Dentonia Park Farm, Toronto. He is a likely young man, who will give excellent service to the School as Home Dairy Instructor.

The Christmas Globe.—One of the best proofs of the popular merit of the Christmas Globe for 1898 was the fact of the publishers receiving from news dealers and individual readers thousands of orders for extra copies that could not be filled. The bright golden-tinted cover encloses a wealth of illustrations and seasonable reading matter from the pens of gifted writers, beginning with Jean Blewett's "Legend of Love," followed by a tribute, "With the Pioneers," by J. S. Willison, editor of the Globe. Chas. G. D. Roberts contributes a short Acadian tale, "Brown Witch and Black Abbe," in his own peculiar vein. Joanna E. Wood writes "The Mystery of the Carved Coffin," and Duncan Campbell Scott "Their Wedding Eve," a story of the war of 1812. There are many other bright literary features besides. The portraits of Lord and Lady Minto grace the number conspicuously, and will please the Canadian public. There are several fine supplementary engravings including one of the Canadian militia. The Globe has more than sustained its splendid reputation as an enterprising newspaper in this beautiful production.

To Sunshine Land.—Take the Sunshine-Route from Chicago to Los Angeles, San Francisco and other points in California, and escape the rigors of winter in the East and North. Pullman Tourist Cars for first and second class passengers leave Chicago every Saturday at 2 o'clock p. m. via the Chicago, Milwaukee & St. Paul Railway to Kansas City, thence to California via the Atchison, Topeka and Santa Fe Railway—a real Sunshine Route. This is the earliest afternoon train leaving Chicago for the West after arrival of morning trains from the East, thus avoiding tedious delay. The Sunshine Route is essentially the through car line for men, women, and children. Every attention paid to the needs of passengers en route. Send for a Sunshine Route time-table folder. It costs nothing. Address A. J. Taylor, Canadian Passenger Agent, 8 King street, E., Toronto, Ont.

A Unique Number.—The spirit of Christmas is strikingly expressed on the front cover of the Mait and Empire Christmas number. With the advent of the Christ-child, the beasts of darkness, superstition and evil, are portrayed skulking away to their retreats.

"The warmth and light the Christ-child brings to places chill and lonely. Discomforts sore all evil things." They name Him Maister only.

The reproduction in colors of a fine painting of a Western cowboy scene, and many others, both in color and black-and-white, beautifully adorn the issue, which is replete with fascinating and seasonable contributions, both in poetry and prose. A very taking feature is the A H C of politics, illustrated with catchy cartoons of all the leading public men of Canada. We congratulate the Mait and Empire upon its number.

GOSSIP.

W. R. Bowman, Mount Forest, Ont., writes: "I am more than satisfied with your paper as an advertising medium. During this fall I have sold a goodly number of sheep and swine, and shipped to all parts of the Dominion and the United States. As we are overstocked, I am making a great slaughter in prices until middle of January. The Shorthorn bulls are a choice lot, good colors (roans and reds), with plenty of bone, and in good thriving condition. Our hogs are in good shape for breeding purposes, and should do well."

MR. ISAAC'S SALE OF IMPORTED SHORTHORNS. The catalogue of Mr. John Isaac's 30 head of newly imported Scotch Shorthorns, to be sold at Kinellar Lodge Farm, Markham, Ont., on January 13th, is to hand. The pedigrees show a rich variety of representatives of many of the best Cruickshank and Kinellar families; and from the footnotes we judge the standard of individual merit is high, a number of the animals having been prize-winners in Scotland, while prizewinners elsewhere appear in the list of noted ancestors. This sale will be one of the most interesting events of the coming year, and stockmen should send for the catalogue and attend the sale, which will be without reserve. A few good home-bred bulls and heifers are also included in the sale.

CONTENTS OF THIS ISSUE.

ARTICLES.

"Great Britain's Canadian Empire"..... 577
 The yeoman's path..... 577
 Evolution of farming in Canada..... 577
 Canada's agricultural resources and hor-
 opportunity..... 578
 Subsidizing Danish farm produce..... 578
 An English country gentleman of the old
 school..... 579
 The Earl of Minto..... 579
 Miss Canada abroad..... 580
 Isaleigh Grange..... 581
 Thorncliffe stock farm..... 583
 To begin well..... 583
 Handling Manitoba wheat..... 584
 A Bruce county breeding establishment..... 584
 A reminiscence..... 585
 Hillhurst stock farm..... 585
 Our export of fine fruits..... 586
 Agricultural exports from Toronto, Ont..... 586
 The holly and the Christmas tree..... 586
 The family falling..... 586
 A strong mount..... 586
 German agriculture through Canadian eyes..... 587
 Norwich (Eng.) fat stock show..... 587
 Ordering eggs under difficulties..... 587
 Prairie Home stock farm..... 588
 Carman farmers' elevator..... 588
 Beekeeping as a branch of Canadian agri-
 culture..... 588
 New Ontario lands for settlement..... 588
 Dentonia Park..... 589
 The cattle trade of Manitoba and the North-
 west Territories..... 589
 The town of Moosomin..... 589
 The Ontario Provincial fat stock and dairy
 show..... 590
 Guelph fat stock show..... 591
 Ontario fruit growers' association..... 592
 Oxford stock show..... 592
 Alva, the farm home of the Dominion Minis-
 ter of Agriculture..... 593
 Maple shade farm..... 594
 Banana farming..... 595
 Agriculture in public schools of Manitoba..... 595
 The wonders of natural gas..... 595
 The horses of Manila..... 596
 The Dominion experimental farms..... 598
 Brandon experimental farm..... 598
 Experimental farm for British Columbia..... 599
 Indian Head experimental farm..... 600
 Sheep ranching in Alberta..... 600
 Experimental farm for the Maritime Prov-
 inces..... 601
 Ramsack farm..... 601
 "Neidpath"..... 602
 Getting at first causes..... 602
 Hereford stock farm..... 603
 To-day..... 603
 "Annandale"..... 604
 Pine Grove and Laurentian stock farms..... 604
 Historic Bow Park farm..... 607
 Gem Holstein herd..... 607
 Lookin' for trouble..... 608
 "Ingleside," headquarters for Herefords..... 610
 Cheese and butter making at "Black Creek"
 factory..... 612
 "Rapids Farm"..... 613
 "Bellevue," an Acadian stock farm..... 613
 Swine-raising at Summer Hill Farm..... 613
 Manitoba native plums..... 614
 The shepherd's calendar..... 614
 Why it was closed..... 619
 Oak Park farm..... 619
 To a weed..... 619
 Legislation and agriculture..... 619
 The Canadian egg trade..... 619
 An Essex county peach farm and its methods..... 620
 Indians at a barn-raising 80 years ago..... 620
 Ontario Agricultural College, Guelph..... 621
 Mennonite views..... 621
 Mennonites successful settlers..... 621
 The Winnipeg Industrial Exhibition..... 622
 Every year..... 622
 The news of the day..... 622

HOME DEPARTMENT.

Home Magazine..... 615
 Children's Corner..... 616
 Minnie May's Department..... 617
 The Quiet Hour..... 618

ILLUSTRATIONS.

Isaleigh Grange stock farm..... 580
 Thorncliffe stock farm..... 582
 The Brandon farmers' elevator..... 583
 New C. P. R. wheat-storage tanks at Ft.
 William..... 583
 A wheat-carrying whaloback steamer..... 583
 Stock farm and residences of H. Cargill &
 Son..... 584
 Hillhurst stock farm..... 585
 A strong mount..... 586
 Homestead and grain field of Graf
 Schweinitz, Germany..... 587
 German women laborers..... 587
 Inside Graf Schweinitz's barn court..... 588
 Carman farmers' elevator..... 588
 The home and farm of Hon. Thos. Greenway..... 589
 First house in Moosomin..... 589
 St. east corner in Moosomin..... 589
 Glimpses of Dentonia Park farm..... 590
 Range cattle, Southern Alberta..... 591
 A happy trio..... 592
 Harvest scene at Lord Brassey's farm..... 593
 The home farm of Hon. Sydney Fisher..... 594
 The home of Hon. John Dryden..... 594
 Home of Johannes Emarsson..... 595
 Hedges at Indian Head experimental farm..... 596
 Home of Skuli Sigfusson..... 597
 Central experimental farm at Ottawa..... 598
 Experimental farm at Brandon..... 599
 Experimental farm at Agassiz..... 600
 Experimental farm at Indian Head..... 601
 Maritime experimental farm at Nappan..... 602
 Neidpath stock farm..... 603
 A Maritime herd of Herefords..... 604
 A glimpse of Annandale..... 604
 The Pine Grove and Laurentian stock farms..... 605
 Bow Park farm..... 607
 Gem Holstein herd..... 608
 Shorthorns at Trout Creek farm..... 608
 The home and Herefords of Mr. H. D.
 Smith..... 609
 A creamery at Moosomin..... 610
 Black Creek cheese and butter factory..... 610
 Mr. W. W. Ogilvie's imported herd of Ayr-
 shires..... 611
 Summer Hill stock farm..... 612
 An Acadian herd of Ayrshires..... 613
 Manitoba native plums..... 614
 "The honeymoon"..... 617
 "The first skate of the season"..... 619
 Oak Park Farm..... 620
 An Essex County peach farm..... 621
 Mennonite home of Peter Dick..... 621
 Farm scene at Edmonton..... 621
 R. Kehler, Mennonite farmer..... 621
 Bird's-eye view of the Winnipeg Indus-
 trial Exhibition grounds..... 622

Tastes differ about most things, but
 there are no two opinions about
Blue Ribbon Tea

All who have tried it know
 that in strength, richness and
 every quality that makes a Tea
 perfect Blue Ribbon is far
 superior to all others.

THE FARMER'S ADVOCATE
 AND HOME MAGAZINE.

THE
 LEADING AGRICULTURAL JOURNAL
 IN THE DOMINION.

PUBLISHED BY
 THE WILLIAM WELD COMPANY (LIMITED),
 LONDON, ONTARIO, AND WINNIPEG, MANITOBA.

LONDON, ENGLAND, OFFICE:
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 Strand, London, W. C., England.

JOHN WELD, MANAGER.

1. THE FARMER'S ADVOCATE is published on
 the first and fifteenth of each month.

It is impartial and independent of all cliques
 or parties, handsomely illustrated with origi-
 nal engravings, and furnishes the most profit-
 able, practical, and reliable information for
 farmers, dairymen, gardeners, and stockmen,
 of any publication in Canada.

2. TERMS OF SUBSCRIPTION—\$1.00 per year in
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 your paper will not enable us to discontinue it,
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 reporting the fact at once.

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 will receive attention.

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 written on one side of the paper only.

13. WE INVITE FARMERS to write us on any
 agricultural topic. We are always pleased to
 receive practical articles. For such as we
 consider valuable we will pay ten cents per
 inch printed matter. Criticisms of Articles,
 Suggestions How to Improve the ADVOCATE,
 Descriptions of New Grains, Roots or Veget-
 ables not generally known, Particulars of
 Experiments Tried, or Improved Methods of
 Cultivation, are each and all welcome. Con-
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 papers until after they have appeared in our
 columns. Rejected matter will be returned
 on receipt of postage.

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 matter connected with this paper should be
 addressed as below, and not to any individual
 connected with the paper.

Address:
 THE FARMER'S ADVOCATE, or
 THE WILLIAM WELD CO.,
 LONDON, ENGLAND.

OUR STAFF FOR 1888-1889.

THE TEACHING POWER
 Of any school or college is the chief factor in
 producing good results for its patrons. The

Central Business College
 TORONTO,

Leads its best Canadian competitors in this respect, and gives modern and thorough
 courses of training in its ENGLISH, BUSINESS, SHORTHAND, and THE
 GRAPHY Departments. It is largely patronized by farmers' sons, many of whom
 thus take the first step toward becoming our leading business men, while many of
 them with no other thought than to gain that commercial training now so necessary
 for the successful farmer. Winter Term Opens Jan. 2. Write for Prospectus.

Mention the Advocate. W. H. SHAW, PRINCIPAL.

RELIABLE FEED COOKER AND TANK HEATER

We guarantee our Cooker to do all we claim. (Duty 30%
 ad valorem.) Medal and diploma at Omaha
 Exposition over all other cookers.
 Constructed of Boiler Steel and Well Made
 on Scientific Principles.

HAS NO FLUES TO BURN
 OR LEAK.

Recommendations in our catalogue from the largest and best
 breeders of the U. S. prove we
 have the best cooker on the
 market, also that they Save
 One-Third to One-Half
 Their Feed by cooking it
 with our cooker. Write for
 catalogue and discounts. Special
 price on one to get cooker
 introduced in Canada. Agents
 wanted.

RRIPLEY HARDWARE CO.
 400 Water Street,
 GRAFTON, ILL.

The cut shows our latest Im-
 proved No. 2 Cooker, and in
 order to introduce it in Canada
 we will make a special price of
 \$25.00, cash with order. This
 offer will be for 30 days only, as
 our regular price is \$35.00.

The COMMON SENSE BOLSTER SPRING

For Transforming Common Wagons into First-
 Class Spring Vehicles.

THE BEST
 Farm
 Wagon
 Spring
 in the
 World

WINDSOR, ONT.

Every Spring guaranteed. Will carry light or heavy loads. Especially adapted for marketing fruit,
 etc. Capacity up to 7,000 lbs. Write for particulars. In ordering give width between stakes, and
 capacity required.

Montreal Markets.

REVIEW OF THE YEAR'S TRADE.

Navigation from this port closed with the sailing of the SS. Guild Hall, on November 27th, thus bringing to a termination one of the most successful years in the history of the port.

The total shipments of live stock for the year, with comparisons, were as follows:

Table with columns: Year, Cattle, Sheep, Horses. Rows for years 1898-1888.

It will be seen by a study of these figures that shipments have fallen off in all three lines as compared with last year.

Opening in May at 11c. per pound (sinking the offal), the markets varied from that figure down to 10c. to 10 1/2c. July opening up with the best market of the year, at 11c., dropping back again to 11c. In August a drop was made to 10c.

A feature worth giving prominence to has been the improvement in the quality of our stock sent forward, undoubtedly rendered possible by the scouring the country has had of its scrub stock for shipment to the States as stockers.

Practically a new market has been opened up for the trade, for although shipments were made spasmodically to Manchester last year, it remained for the "Manchester Liners Co." to establish a regular service to that port.

The sheep trade has dropped away almost to one-half what it was last year, the total for the season amounting to 36,086, against 61,254 last year.

The big decrease in the horse trade is due almost entirely to the lack of good shipping horses in Canada, and from figures which have just been handed to us we find that of the 3,800 shipped, fully 2,000 head were American horses shipped through in bond.

The total shipments of cheese for the year show a falling off of about 200,000 boxes, as compared with 1897, the total for the year being 1,879,000, against 2,102,000 last year.

Table showing the following table shows the growth of this industry: Year, Cheese, Butter.

Toronto Markets.

The drovers attending the Western cattle market complain that their stock is unduly delayed by reason of the shunting operations at Little York and the Don yards.

Export Cattle opened brisk: good cattle firm; choice export sold at \$4.25 to \$4.65 per cwt.

Butchers' Cattle. - Choice picked lots of butchers' cattle weighing from 1,100 to 1,400 lbs. were selling at from \$4.25 to \$4.75 per cwt.

RELIABLE SEEDS

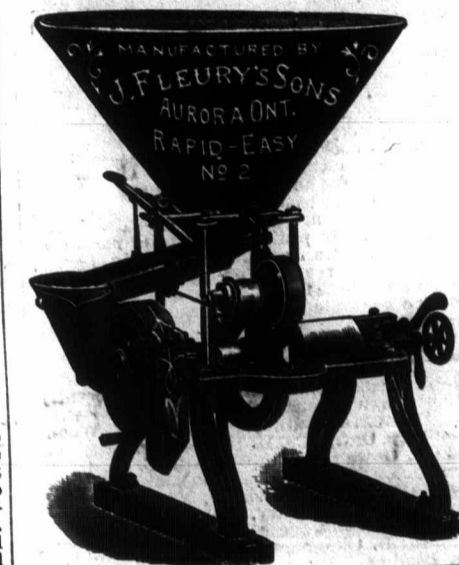
OUR STOCK INCLUDES ALL THAT IS BEST IN... FOR FARM AND GARDEN

Garden and Field Roots, Flower Seeds and Flowering Plants, Grasses, Clovers, and Seed Grain.

Illustrated Catalogues mailed free on application. WILLIAM EWING & Co., SEED MERCHANTS.

142 MCGILL STREET, MONTREAL

"RAPID-EASY" GRINDERS.



Best Quality; Greatest Quantity WITH LEAST POWER.

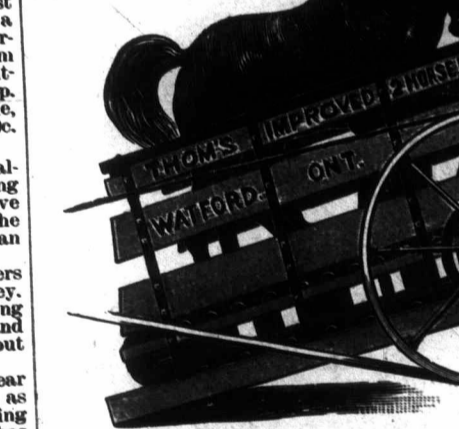
80 lbs. of steam on "Rapid-Easy" Grinders will do more work than 100 lbs. on any other.

"The Rapid-Easy Grinder I purchased from your agent does its work faster and easier than any other make of Grinder."

J. FLEURY'S SONS, AURORA, ONTARIO.

Watford Tread Powers!

We hold the record for up-to-date Tread Powers. We are so often asked the question if our Governors will fit other makes of Powers. We answer YES. That's a strong point in favor of our



Powers, and intending purchasers had better make note of this and buy the Power that has the leading improvements.

The Watford. Over twenty years established, and in dealing with us you have all the benefits derived from experience.

SUCCESS HAS GAINED THE DAY!

WE LEAD in Feed Cutters and Tread Powers.

THOM'S IMPLEMENT WORKS, ONTARIO.

The Razor Steel, Secret Temper, Cross-Cut Saw



WE take pleasure in offering to the public a Saw manufactured of the finest quality of steel and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known.

This secret process of temper is known and used only by ourselves.

Now, we ask you, when you go to buy a Saw, to ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other Saw is as good ask your merchant to let you take them both home, and try them and keep the one you like best.

It does not pay to buy a Saw for one dollar less and lose 25 cts. per day in labor. Your saw must hold a keen edge to do a large day's work.

Thousands of these Saws are shipped to the United States and sold at a higher price than the best American Saws.

PLEASE MENTION FARMER'S ADVOCATE.

sold at \$3.65 to \$4.00 per cwt.; medium at \$3.25 to \$3.40 per cwt.

Stockers. - Buffalo stockers weighing 500 to 600 lbs. each selling at \$3.00, while choice bred sold at \$3.35.

Feeders. - Few good feeders were offered; prices were a little firmer, at \$3.65 per cwt.

Cats. - The general run sold at \$3.00 to \$3.00 per head, with veals of extra weight and quality selling at \$5.00 per cwt.

Sheep. - Prices for sheep were a little easier. Choice picked lots at \$3.50; bucks, \$2.50 per cwt.

Lambs. - Deliveries heavy; prices easier on slow demand, at \$3.75 to \$4.10 per cwt.

Milk Cows. - Choice springers and good milk cows would find ready sale at good prices. Only 15 on offer; sold at from \$25 to \$45 per head.

Hogs. - Owing to the severe storm, deliveries were light this week. The price easier; there was only a poor demand. Choice selection of cars sold at \$4.25 to \$4.37 per cwt; heavy fat, \$4.25; light fat, \$4; sows, \$3; stags, \$2.

Mr. Harris complained that fully 50 per cent. of the hogs offered the other day were too fat. From 160 to 200 is the standard. The prospects are that prices for hogs will go still lower.

Dressed Hogs. - Deliveries of dressed hogs have been unprecedented during the last week, and prices are easier on the street. Farmers' loads are quoted at \$5.50 to \$5.60 for choice quality.

Grain Market. - Receipts of farm produce were light. Wheat easier, at 70c. for white and red; goose, 67c. per bushel. Barley, 60c. per bushel. Oats, 30c. per bushel. Peas, 40c. per bushel.

Hay. - Over 40 loads on the market to-day, at \$8 to \$9.50 for timothy, and \$6 to \$7 for clover. Straw scarce; four loads at \$3 to \$10 per ton.

Poultry. - The King, Darrell Co., of Elm street, Toronto, closed down for the season. They have shipped 20 carloads of dressed poultry, comprising 50,000 head of turkeys, ducks and geese.

A cable message reports the arrival of the first consignment in excellent condition. A better method must be devised next year of shipping to market. The loss from dead birds in the cars has been lamentable, the ducks more especially. They do not bear the constant jolting, and very quickly succumb. The loss from this cause has been very extensive.

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT.

Table with columns: Beef cattle, Top prices, ago, 1897, 1898. Rows for 1500 lbs. up, 1350 to 1500 lbs., 1200 to 1350 lbs., 1050 to 1200 lbs., 900 to 1050 lbs., Fed Westerns.

Table with columns: Hogs, Mixed, Heavy, Light, Pigs. Rows for various types.

Table with columns: Sheep, Natives, Western, Lamb. Rows for various types.

A couple of 1,800-lb. pure-bred Herefords sold at \$6.50. Opinions agree that ripe fat cattle are not plentiful. The following were top prices for Christmas cattle at Chicago:

Table with columns: December, 1898, 1897, 1896, 1895, 1894, 1893, 1892, 1891, 1890, 1889, 1888. Rows for various years.

There is a widespread feeling that the supply of good ripe cattle is bound to be short for some time to come.

An Iowa breeder had in 107 head of 1,285-lb. Angus cattle, which sold at \$5.70; also 15 head of 1,578-lb. fancy cattle, which sold at \$5.25.

These were two-year-olds that had been fed by an expert Scotch feeder. The owner said they were taken without growing "bunchy." They were fed largely on a mixture of chopped oats, beans, oil meal and molasses. Ten of these were at the Omaha K. position, where they took first and second premiums for grades and crosses, also for individuals. The owner said there was a good deal of satisfaction in preparing such cattle as the load of best ones, but there was not much profit in the matter of dollars and cents.

Stock heifers lately have been very hard to sell, at disappointing figures.

The average price of 1,200- to 1,600-lb. beef cattle in November was \$4.50, being 10c. lower than the previous August, which was the highest average of the year.

October prices were 35c. higher than in October, 1897, and this year's average prices show about 20c. per 100-lb. gain over last year, being the highest average since 1886. This is an encouraging state of affairs, and good judges see no reason for thinking that prices for good cattle will be materially lower for some eight or ten months.

A large number of feeding cattle went back to the country this fall, but owing to the increasing value of corn the number of cattle being marketed in half-fat condition is very large.

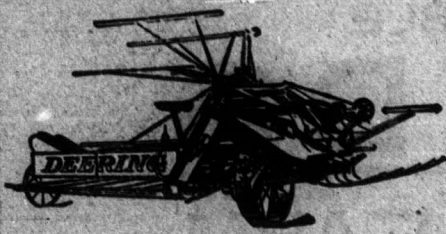
The November price of heavy hogs averaged \$3.50, against \$3.40 in November, '97, \$3.25 in '96, \$3.60 in '95, \$4.50 in '94, and \$4.10 in '93.

The average price of heavy hogs the first eleven months of 1898, \$3.85, against \$3.65 in 1897, \$3.40 in '96, and \$6.55 in 1883.

November average price of mutton sheep, \$4.05, being 15c. lower than November, '97. Eleven month's average price, \$4.30, being 55c. higher than the average price for all of 1897, \$1.10 per 100 pounds higher than 1896, and \$1.50 higher than in 1894.

Mr. Edgar Silcox, Sheddin, Ont., breeder of St. Lambert Jerseys, in remitting for advertisement expresses his high appreciation of the FARMER'S ADVOCATE as an advertising medium.

He refers to a yearling bull and bull calf he still has for sale as being worthy to head fancy herds. He needs the room they occupy, and will sell them for prices below their value.



**The Machines
THAT
MADE
America Famous**

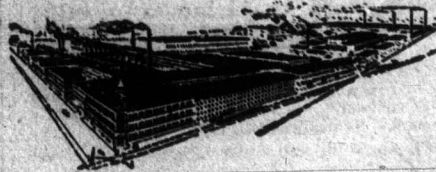
HOW TO SECURE A
**Merry Christmas
AND A
Happy New Year**

Place your order for whatever kind of machine you are going to require for the coming harvest, and be sure the order is for either.....



Also have none but Deering Twine to tie your grain, and Deering Harvester Oil for your implements, and your harvest will indeed be a happy one.

- A DEERING IDEAL BINDER,
5, 6 OR 7 FT. CUT.
- A DEERING IDEAL MOWER,
3 1/2 FT. TO 7 FT. CUT.
- A DEERING CORN HARVESTER,
- A DEERING IDEAL REAPER,
- A DEERING STEEL HAY RAKE,
8 1/2 FT., 10 1/2 FT. OR 12 FT.



DEERING
BINDER TWINE

Main Office and Factory:
CHICAGO, U. S. A.

Permanent Branch House:
LONDON, ONT.

ACTIVE AGENTS WANTED

In EVERY TOWNSHIP to take Subscriptions to the

FARMER'S ADVOCATE

GOSSIP.

The 125-acre stock farm recently advertised in the FARMER'S ADVOCATE by the estate of the late Mr. J. G. Snell, Snelgrove, Ont., has been sold to Mr. James Robinson, of Peel County. The price paid was \$3,300.

Thos. Way, Hastings Co., Ont., writes: "I think the FARMER'S ADVOCATE one of the grandest papers published as a means of helping the agriculturist to keep 'up-to-date' in systematic farming."

Mr. R. C. Trott, of the Reformatory Farm for Boys at Pentanguishene, Ont., reports the purchase from the well-known breeder, Mr. Geo. Raikes, Barrie, Ont., of the fine young Shorthorn bull, Duke of Orr.

Among the new live stock advertisements commencing in this issue, we would draw attention to that of Messrs. Devitt & Sons' excellent Clydesdale stud, which has this year some ten mares in foal, besides many good young females. Crowded space forbids more extended mention in this issue.

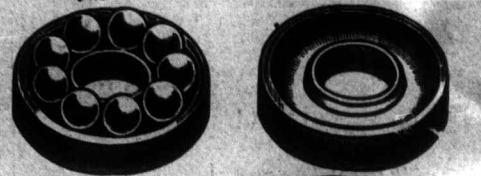
H. K. Fairbairn, Thedford, Ont., writes: "We have at present a fine lot of cows and heifers, also two bulls, one red and one roan. We have three heifers out of the cow that took the \$50 prize at the late Brantford Fat Stock and Dairy Show. She milked in a two-days' test 83.83 pounds of milk, containing butter-fat 3.8 per cent."

R. Mitchell & Son, Nelson P. O., Burlington Station, writes: "The fine two-year-old we offer in our ad. is a thick-fleshed, blocky fellow, and good enough to head any first-class herd. The two reds are smooth and straight, and promise to be good ones. Their sire is also for sale, having worthily headed our herd for the past three years. He is a massive red, four years old, and with splendid back and loin. Along with the rest, he will be priced right to intending purchasers. We have sold a ten-months bull calf to Mr. Hugh Gibson, of Newcastle, Ont., and are receiving many enquiries through the ADVOCATE for first-class stock."

Mr. Jas. Lenton, Oshawa, Ont., in renewing his advertisement, says he is particularly pleased with the way his stock are now thriving in their winter quarters. Sales of poultry have been very satisfactory, but he still has on hand a few cockerels and pullets of Golden and Silver Wyandottes to dispose of. His remaining B. P. Rocks he would like to sell entirely, as he will breed only Wyandottes in future. The Yorkshires are the long, deep-sided bacon type, and their pedigrees contain names of aristocrats. The Shorthorn bulls Mr. Lenton offers are both roans. The older one, Tofthill's Boy, is a massive fellow. He is only three years old, and he has left "Park Farm" and its neighbors some choice young stock. The young bull, though thin in flesh, gives promise of being another Tofthill's Boy.

John Hord & Son, Parkhill, Ont., have recently sold, through their advertisement in the FARMER'S ADVOCATE, Tamworth boars to Wm. Wood, Kleinberg, Ont.; Mrs. H. H. Spencer, Brooklin, Ont.; J. Gowan, Strathroy, Ont.; C. H. Giles, Fredericton, N. B.; J. W. Johnston, Underwood, Ont.; H. K. Fairbairn, Thedford, Ont.; and John Reid, Leury, Ont. Of Tamworth sows he has sold one each to W. M. Jackson, Toronto; D. Chalmers, Palmerston, Ont.; and Jos. Hughes, Iderton, Ont. The firm has also sold a pair of Suffolks to Thomas Marshall, Walsingham, Ont.; and a Suffolk boar to A. G. Duncan, St. Joseph's Island. Their sales of Yorkshires have been sows to H. Hodgins, Clandeboye, Ont.; Joseph Randall, Sylvan, Ont.; Wm. Dimeray, Adelaide, Ont.; and boars to John Neil, Leury; David Robson, McGillivray; John Elliot, Marden; H. J. Davis, Woodstock; Geo. Burr, Fergus; Wm. Lamb, Arkona; P. A. Spaulding, Anderson; Jas. Custiss, Camille; V. J. McBeth, Verschoyle; Neil Moon, Chesley, and Geo. Folchard, Bentinck. They are pleased with their ad., and their stock are doing well.

BRANTFORD GALVANIZED STEEL WIND-MILLS...
For POWER and PUMPING with PATENT ROLLER and BALL BEARINGS.



Makers of the lightest running and best constructed Galvanized Steel Windmills and Towers made.



Write for Illustrated Circulars.

BUY
Coleman's Salt
THE BEST

FOR DAIRY OR TABLE USE IT IS UNEQUALLED.

SALT ON THE FARM

FOR WIREWORM, JOINTWORM, ARMY WORM, AND ALL INSECTS THAT DESTROY CROPS, SALT IS THE BEST INSECTICIDE. IT IS ALSO A FERTILIZER. TRY IT.

R. & J. Ransford,
CLINTON, ONTARIO.



ROCK SALT for horses and cattle.
Per 100 lbs., 70c., or 500 lbs., \$3.00, Toronto. Cash with the order. Also in car lots.
TORONTO SALT WORKS, Toronto.

THE GEO. WHITE & SONS CO. LIMITED
LONDON, ONT.

CHALLENGE
WHITE LOCOMOTIVE STYLE TRACTION

ARTHUR W. WHITE, Sec. Treas.
FRED J. WHITE, 2nd Vice Pres.
E. A. WHITE, Asst. Sec. Pres.

NEW AND REBUILT Engines

FOR FARM USE
always ready for shipment at
LOWEST PRICES.

Examine the
POINTS OF EXCELLENCE

in our machinery before purchasing.

Modern and Handsome in Design.
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Contents of the Farmer's Advocate and Home Magazine, Volume XXXIII.

APIARY.

A skillful beekeeper's system reviewed	359
Beekeeping	105
Beekeeping as a branch of Canadian agriculture	588
Bees successfully kept in Manitoba	183
Bees in Manitoba in 1897	35
Encouraging note from Senator Reesor	35
Feeding bees	440
Handling bees	409
How to get rid of laying workers	490
Ontario beekeepers' convention	10
Ontario beekeepers' convention	35
Preventing after-swarming	260

DAIRY.

A day's operations at St. Mary's creamery	309
Adding cream to milk	489
A good cow stall - ventilation	129
Aid for an Algoma dairy enterprise	153
A great dairy cow	285
A model cow tie	129
A successful Holstein breeder's methods	32
An English dairy test	407
Barn building, illustrated	81
British Columbia dairymen's association	105
Butter and cheese, the Eastern makers' convention	129
Butter and cheese association for Eastern Ontario, the	55
Buttermaking in Canada on the creamery plan	488
Butter, a big day's make	285
Butter factory accounts	236
Butter or cheese, which pays best	182
Butter-fat percentage to butter - the relation of	182
Buttermaking in Canada on the creamery plan	537
Calamity Jane, test of	32
Canadian cheese factory, operations of a first-rate	405
Canada's loss and New Zealand's gain	466
Canadian butter in English markets	261
Care of milk on farm	334
Care of dairy utensils in hot weather	334
Care and modification of milk "certified" pure	381
Causes of mottled butter	261
Channel Island cattle	34
Cement floors	33
Cheese and butter makers' association	104
Cheese and butter makers' association, Western Ontario	466
Cheese and butter making at "Black Creek" factory	610
Cheese and butter convention for Western Ontario	56
Cheese curing, moisture and temperature in	516
Cheese-curing rooms, sub-earth duct ventilation system for	236
Cheese, bad flavors in, caused by bacteria in water	57
Cheese and butter conventions	438
Cheesemaking, fall	466
Churning with natural gas	467
Creamery work in the Northwest Territories	211
Creamery apparatus, some coming	517
Cow, a good general purpose, illustration	382
Dairying as a speciality in farming	466
Dairy herd, a wise systematic management of	80
Dairying, the essentials to success in	153
Dairy department, practical notes from the O. A. C.	406
Dehorning: on silage and cement floors	33
English milking trial rules	309
Ensilage and dehorning approved	33
Ensilage feeding and good butter	285
Fodder corn, experience in feeding	32
Formalin, a further test	138
Hints to buttermakers	438
Holstein-Friesian butter records, Canadian	153
How the silver medal butter was made	489
How the St. Mary's creamery patrons are kept informed	182
Ice house, filling	32
Important points for Canadian dairymen	182
Inside watering	10
Jersey butter test at the Tunbridge Wells show	382
Jersey cattle, English society	538
Kerosene emulsion for lice; liniment for garget	153
Lucern beats all other fodders	33
Methods for caring for dairy cows at the Nova Scotia Government farm	32
Milk, production of	537
Milk of Holstein-Friesian cows	33

Milk, the secretion of	516
Mr. Tillson's reply to Mr. Linton	153
Mr. J. A. Ruddick's successor	489
Milk, production and care of on the farm	309
Milk-fat, the source of	406
Milk, production of, for the manufacture of cheese	407
Milk and butter test at the Royal show	334
Milk, aeration and cooling of	260
Milk, influence of food on the quality and quantity of	285
Plan for farm dairy, illustrated	182
Points re skim-milk pipes	129
Preparing a fermentation starter	261
Proportion of butter to butter-fat	236
Record, a year's complete	80
Record of Annandale herd	236
Relation of butter-fat to merchantable butter	211
Ripening milk and use of a starter in cheesemaking	438
Romeo H. Stephens, the late	466
Rules and regulations of the Provincial winter dairy show	285
Separator creamery, and its equipment	465
Strippings, richness of	466
Uses tank and windmill; waters all stock inside	10
Winter dairying pointers	32
Winter dairying	33

EDITORIAL.

Aaggie Grace 2nd's Pietertje	509
Advance, Canada	400
A commendable revision in O. A. C. course	400
Agricultural schools in Scandinavia	399
Agriculture in the public schools	532
Agricultural possibilities	75
Agriculture at the recent session of the Ontario Legislature	52
Agricultural education in Ohio	53
A judging arena at the Winnipeg exhibition	255
An English country gentleman of the old school	579
A pig-headed Hamilton editor	303
A lightning-rod fakir's lie exposed	27
A railway commission	175
Armour packing company on raising bacon hogs	352
A word of warning for the cheese trade	427
Bacon-curing test, result of a	203
Bacon hogs; sample from Canada	483
Barn plans, more	99
Binder twine and tariff	52
Binder and other premiums	52
Better transportation facilities wanted for Maritime Provinces	204
Breeding for type	389
Breeding, management and feeding of bacon pigs	376
Cash prizes for live stock at Omaha	255
Canadian butter and its competitors, an Englishman's opinion	533
Canada's agricultural resources and her opportunity	578
Canada's opportunity in hog raising	376
Canadian live stock records uniting	400
Canadian bacon capturing the British market	351
Canadian butter and cheese in England	175
Canadian bacon popular in Britain	427
Changes in the U. S. regulations regarding imported stock	483
Chair of biology in the O. A. C.	123
Clover crop, a great	328
Colman, the late Mr. J. J.	483
Constitutional vigor in stock	255
Co-operative pork packing	424
Creamery, the largest in Canada	27
Death of Mr. W. S. Marr	125
Death of A. F. Pettit	486
Death of Prof. J. H. H. Pantou	76
Demand for pure-bred stock	147
Dr. Sankey's letter on tubercular infection indorsed	28
Early publication of prize lists	27
Editorial notes, 351, 255, 279, 327, 231	303, 455
Elevator combine monopoly, the	279
Elevator monopoly, reply by Dr. Rutherford, M. P.	279
Evolution of farming in Canada	577
Experimental farms, useful or ornamental	51
Experimental farm exhibits	232
Export trade and the stock-raiser	455
Fair season, the	3, 531
Fat stock shows	3, 531
Fattening steers loose in box stalls	231
Farmers' meetings in Quebec	75
Farmers' reading circles	5
February breeders' meeting	27
Feeding stock for the showing	304
Fencing question, the	147
First and fearless	27
Francis Green, the late	484
Glanders, those reported cases	99
"Great Britain's Canadian Empire"	577
Hints from the trend of trade	427

Horse show and horse breeding, the	175
Horses, healthful and economical wintering of	4
Hon. Sydney Fisher interviewed	456
How shall agriculture be taught	532
Improvements in the Canadian Packing Company's bacon plant	484
In favor of tree planting	232
Irish bacon curer, the policy of	376
Law of specialization applied to agriculture	75
Leasing farms on shares	76
Legislation and agriculture	619
Live stock association, Ontario	99
Manitoba Premier and the show-ring	400
Manuring, a study in	507
Medals as prizes, only	203
Meddling with private enterprise	455
Miss Canada abroad	580
Model farms by the dozen	175
Natural gas on the farm	456
Need for individual effort	3
Ontario portfolio of agriculture, the	147
Our dairy industry	51
Our agricultural shows	203
Our outlook for feeding cattle	428
Our wheat and flour in Britain	455
Pig, form of in relation to profit	509
Postage on papers	175
Poultry fattening in England	556
Proud of The Farmer's Advocate	509
Public officials, wake up	5
Pure-bred Shorthorn steer, Bruce	53
Rip Van Winkle advice to dairymen	203
Road work	231
Royal show, the	327
Seed time is coming	99
Sheep industry in Canada, the	279
Soil moisture and fertility	256
Stock, the carriage of pure-bred	411
Subsidizing Danish farm produce	578
Swine feeding, opportunities for investigating	327
Thanksgiving	531
The Earl of Minto	579
The farmer and horse breeding	303
The Napoleon of the Chicago	577
The yeoman's path	303
Wheat pit	123
Township fairs	123
Tuberculous animals, the percentage of	533
Transportation of stock eastward	203
Tree planting and forest preservation	175
Tree planting, to stir up an interest in	148
Treatment of show animals after the exhibitions	5, 7
Trip to the Eastern Provinces, a	508
Trusting the Judges	231
Tuberculin test, the	507
Tuberculosis scare, the	327
Types in judging	375
Why educate the farmer's son	375
Where agricultural college graduates go	27
Winnipeg abattoir, the	428
Wm. Lochhead, B. A., M. Sc.	400

ENTOMOLOGY.

Arsenate of lead as an insecticide	262
Fruit bark-beetle, the	262
Rocky Mountain locust	563
San Jose scale	212
San Jose scale, injury by	213
San Jose scale, legislation against the	154
Tent caterpillar	213
Advice to intending settlers	464
Agricultural exports from Toronto, Ont.	586
Agriculture in the public schools of Manitoba	595
Agriculture, local object lessons in, under government supervision	206
Agricultural experimental union, the	102
Agriculture in the public schools	464
Agricultural fair to supplant the sun dance of the Indian	463
Amende honorable	9
"Annandale"	603
Annual meeting of the Nova Scotia farmers' association, the third	104
Arbor Day, observe the	207
Ashes and rags	464
A three-crop rotation	126
Autumn cultivation in P. Q.	403
Banana farming	595
Barn, plan of round	178
Barn, W. E. H. Massey's stock	404
Barn, a small modern, and watering system	103
Barn, a well-contrived	102
Barn building	30
Barn, a \$1,000	180
Barbed wire, an Ohio law on	180
Brandon experimental farm	598
Brome grass on alkali land	333
Broad tires and good roads	153
Cable stay fence, satisfactory	181

Canada at Omaha	381
Canadian bacon trade	559
Carman farmers' elevator	588
Carter wire fence	181
Cement octagonal silos	333
Cement floors	33
Central experimental farm, lessons from the	79
Clover curing, three rules in	306
Clover and lucern, dodder infestation	283
Clover crop, harvesting in P. E. I.	283
Clover cutting and curing	282
Clover, harvesting	282
Clover, cut early	282
Clover crop, saving the second	378
Clover growing, a point in	379
Clover an excellent fertilizer for potatoes	151
Clover the best green fertilizer for potatoes	208
Clover a good fertilizer	208
Contents of stacks	153
Corn, growing to husk	179
Corn growing, a point in	179
Corn in the glazed stage too green for the silo	403
Couch grass, a battle with	440
Cows, corn and clover the main sources of fertility	101
Cultivation of the soil, fall	403
Cultivation soon after harvest, shallow	403
Cut grain on the green side	306
Dairymen, points for	55
Dawson's Golden Chaff the principal sort	357
Death of Mr. Henry Anderson	437
Death of Mr. David Maxwell	437
Death of Joseph G. Snell	379
Dunlop Park dairy farm	404
Disposal of town sewage for fertilizing	534
Dominion experimental farm	103
Dorsets, trio of shearing Horned	459
Elevator monopoly, the	308
Ensilage corn competition	55
Ensilage corn two years old	379
Ensilage, favors	33
Ensilage feeding	559
Exhibitions for 1898	441
Experimental farm for British Columbia	589
Experimental farm for the Maritime Provinces	601
Farms, illustration	235
Farm work for June	258
Farm fencing	127
Farmers' association, third annual meeting of the Nova Scotia	127
Farm fences, cheap and substantial	181
Farmhouse, a convenient and inexpensive	209
Fall wheat, overgrown	515
Fall wheat, hints on preparation for	357
Fall wheat after peas	357
Fall wheat on fallow or pea stubble	357
Fall wheat, forty bushels to the acre	357
Fall wheat, good drainage and rich soil for	358
Fence, correction re cost of	182
Fencing material at thirty-one cents per rod	181
Fence question, the	150
Fence, making over a rail	150
Fence, the old rail was good in its day	150
Fence, the best and how to build it	151
Fence, good opinion of hedge	209
Fences, rebuilding old rail	151
Fence, Mr. Pickering's endorsed	181
Fence, renovating old rail	151
Fence post heaving, to prevent	182
Food value, standard of	236
Food, the influence of on animal increase	380
Forest preservation	178
Forest preservation, a valuable lesson in	178
Foul seeds; allow none to ripen in grain	127
Forest and farm	177
Gasoline engines on the farm	152
Galls, to prevent harness	380
German agriculture through Canadian eyes	587
Get new seed about every third year	125
"Gem" fence recommended	181
Getting at first causes	602
Good crop follows good preparation	568
Good mixture of grasses better than clover and timothy	102
Grain, mixtures of, for green fodder	177
Guelp college chair of biology, the	378
Handling Manitoba wheat	583
Harvesting operations	307
Harvesting, points on, with especial reference to peas	306
Harvesting in New Brunswick	307
Harrowing and rolling	209
Haying pointers	282
Haymaking in Nova Scotia	282
Hay-growing and seeding operations	152
Heavy feeding crop once in six years	101
Hogs, fattening in the winter	559
Home-grown seed; depend mostly on	126
Homemade horse-power construction	180
Home-grown seed corn earlier than imported	151
Illustration stations	309
Increase wealth by saving it	307

Indian Head experimental farm	600
Indians at a barn-raising 80 years ago	620
Institute work in Maritime Provinces	29
Iowa agricultural college, a day at the	515
Jersey cow, Adelaide of St. Lambert	381
Jersey cow, imported "Crocus Bud"	457
Keep the cultivator going	259
Leicesters, pair of aged	461
Manitoba's final crop report for 1897	29
Mangels, carrots and turnips, the growing of	151
Manitoba crop bulletin	308
Manure the clover and the clover will feed the following crops	125
Maritime notes	55, 128, 210, 437, 515, 464
Market legislation	534
Mennonite views	621
Mennonites successful settlers	621
Milling, co-operative	210
Moisture as a protection from frost	307
Mr. W. E. H. Massey's Jerseys	415
New Ontario lands for settlement	588
Oak Park Farm	619
Oats, nutritive properties of	514
Oats; treatment of seed to destroy smut	31
Ontario Agricultural College, Guelph	621
Ontario institute division No. 6, gleanings from	210
Ontario agricultural and experimental union	9, 152
Our Scottish letter	80
Our governments should encourage and foster the growth of timber	207
"Page" wire fence has good features	181
Peace River district	535
Plant fertilization and seed production	307
Plowing, shallow vs. deep	381
Plowing match at A. O. C., Guelph	569
Posts sixty feet apart and set in cement	309
Potatoes, my way of growing	208
Preparation for spring wheat	103
Preserving timber	535
Preparing for wheat sowing	357
Prizewinning Dorset Horned ram	515
Ramshackle farmin'	601
Rape, sow a piece of	284
Rape for the sheep and young cattle	390
Rich and well-cultivated soil will not suffer from drought	127
Ringworm, dressing for	379
Removing large stones from the ground	516
Root-growing	208
Roots and corn; reasonable work	235
Root-growing, thirty years' experience	179
Roots, flat cultivation for	179
Root crops and their feeding values	179
Roots, will corn displace	179
Root harvesting at the Guelph experimental farm	487
Rotation and cultivation at the Ontario experimental farm	126
Seed wheat for testing purposes	378
Seeding, prepare for spring	127
Seed, select from early portions of field	126
Seeding operations	126, 101
Second to none	31
Secure seed from a different soil	126
Sex, regulation of	152
Silos for 1898	235
Silo walls, a suggestion in building stone or cement	309
Silo, the stone	152
Silos, the octagonal cement	285
Silo, the round in Ontario Co.	259
Silo, the stave	259
Silo, the octagonal, and summer feeding of silage	260
Silo filled in three or four days	403
Soil moisture	392
The Dominion experimental farms	588
The town of Moosomin	580
"The Water Witch"	307
The Winnipeg Industrial Exhibition	621
The wonders of natural gas	595
Three great pictures	31
To a weed	619
To begin well	583
To carry a lantern and two pails of milk	306
To destroy twitch grass	534
Tree seeds, deciduous and their management	535
Tree planting in Nova Scotia	178
Tree planting for pleasure and profit	178
Trees, plant for future fence posts	181
Underdraining tells to good effect	127
Weed killing, a test in	464
Weeds, a new way to kill	307
Wheat, preparing for fall	283
Windbreaks favored	207
Windmill power, favors	31
Wild mustard, destruction of by sulphate of copper solution	358

Winter wheat growing in Ontario 378
Windmill power capacity 180
Windmills, two on one farm 10

GARDEN AND ORCHARD.

An Essex county peach farm and its methods 620
Annual meeting of Nova Scotia's fruit-growers 82
Apples, methods of keeping and storing 407
Codling moth, some recent observations on 184
Every farmer's hothouse 81
Evergreens, transplanting and care of 310
Forest trees, procuring for planting 261
Fruit picking, packing and shipping 382
Fruit experimental station for Algoma 382
Fruits, small, and how to grow them 154, 183
Fruits, marketing 408
Fruit shipments, regarding 335
Fruit-growers' association meeting, P. E. I. 490
Fruit-grower looking backwards 490
Fruit, fine, at Omaha from N. S. 517
Fruit trees, spraying of, reply to Prof. Craig 212
Grafting 82
Grapes, methods of keeping and storing 440
Grape-growing, the other side 35

Horticulture, specifics in teaching 184
Hobdod, the farmer's 106
Insecticide and fungicide mixtures 58
Manitoba native plums 614
Meetings of British Columbia fruit-growers 82
Manuring oats on clay soil with phosphoric acid 184
Mushrooming 561
New Dominion horticulturist 151
Notes from Simcoe experimental station 11
Nursery stock, purchasing 310
Orchard planting and management 539
Orchards, time to prune 183
Orchards, cultivation and fertilization of 58
Ontario fruit-growers' association 35, 10
Ontario fruit growers' association 592
Our export of fine fruits 586
Paris green, test for purity in 183
Pear tree, a grand old 252
Pears, grafted 382
Plant fungus, remedy for 81
San Jose scale 237
Strawberries, boxing and marketing 286
Suggestions on starting to plow 440
Spraying in 1898, results 539
Test caterpillars 335
Wagon grease, first-class 535
Why orchards are failing 185

HELPING HAND.

Cheap horse power 83
Cupboard elevator 36
Filling sacks easily 287
Handy hay rack 129
Handy movable hurdle 467
Homemade horse power 36
How to tramp hay in a mow 287
How to carry a lantern and two pails of milk 238
How to handle a vicious bull 238
Hurdles for guiding hogs 287
Plan for plowing an orchard 238
Root and chaff basket 36

ILLUSTRATIONS.

A creamery at Moosomin 610
A glimpse of Annandale 604
A happy trio 591
A Maritime herd of Herefords 603
An Acadian herd of Ayrshires 613
An Essex county peach farm 620
Apples, sprayed and unsprayed 539
A prize-winning Southdown ram 402
A strong mount 586
A wheat-carrying whaleback steamer 583
Ayrshire bull, "Oliver Twist" 534
Ayrshire bull, Matchless 557
Ayrshire herd, first prize 561
Bird's-eye view of the Winnipeg Industrial Exhibit's grounds 622
Black Creek cheese and butter factory 610
Blucher, winner of numerous prizes at the horse show 232
Bow Park farm 606
Buggy seat for third person 490
Carman farmers' elevator 588
Central experimental farm at Ottawa 507
Champion Shorthorn bull, "Marengo" 401
Champion Lincoln shearing ram 403
Champion hackney stallion, Royal Standard 233
Cross-bred steer, "General" 7
Cross-bred Guernsey-Shorthorn cow, "Nancy" 537
Cow stall, a good 129
Experimental farm at Agassiz 509

Experimental farm at Brandon 598
Experimental farm at Indian Head 600
Farm scene at Edmonton 621
First house in Moosomin 589
First prize Clydesdale mature stallion, King's Own 234
First prize two-year-old Clydesdale, "Tom Macgregor" 235
First prize Thoroughbred stallion, Othmar 236
First prize Cotswold lamb 435
First prize herd of Ayrshires at Toronto and London exhibitions 511
Food boiler 263
Fruit beetle 262
Gem Holstein herd 607
German women laborers 587
Glimpses of Dentonia Park farm 589
Grand old pear tree 286
Good general purpose cow 382

Harvest scene at Lord Brassey's farm 592
Hedges at Indian Head experimental farm 596
High-grade Shorthorn steer 8
High-grade Jersey steer 8
Hillhurst stock farm 585
Holstein-Friesian cow, "Daisy Banks" 433
Home of Johannes Emarsson 595
Home of Skull Sigfusson 596
Homestead and grain field of Graf Schweinitz, Germany 587
Horses at the Toronto horse show: "Blucher," "Royal Standard," "Border Riever," "King's Own," "Tom Macgregor" 232, 233, 234, 235
Hogs of bacon type 377

Imported Jersey cow, Island Lady of Dentonia 404
Imported Jersey bull, Lord of Dentonia 405
Imported Ayrshire bull, "Duke of York" 431
Imported Cotswold lamb 435
Imported Cotswold ewes and ewe lambs, prizewinners 55
Imported Jersey cow, "Crocus Bud" 457
Imported Southdown shearing ram 460
Inside Graf Schweinitz's barn court 587
Isaleigh Grange stock farm 5804
Jersey bull, Prince Frank's Son 561
Jersey cow, "Adelaide of St. Lambert" 381

Manitoba native plums 614
Maple Lodge Minnie, aged ewe, a great prizewinner 434
Maritime experimental farm at Nappan 601
Mennonite home of Peter Dick 621
"Mopsa and Rubicon" 237
Mr. W. T. Macoun 154
Mr. Meyer's poultry house 439
Mr. E. D. Tillson's new pigery 78
Mr. W. S. Marr, the late 125
Mr. Joseph G. Snell, the late 379
Mr. W. W. Ogilvie's imported herd of Ayrshires 611
Neldpath stock farm 602
New C. P. R. wheat-storage tanks at Ft. William 588
Oak Park farm 619
Oats, experiments with phosphoric acid 184, 185

Pair of aged Leicester, the property of A. W. Smith, Maple Lodge, Ont 461
Plant fertilization and seed production 307
Plan for convenient farmhouse 209
Plan for barn 30, 31
Plan for barn, Mr. John Morrison's 101
Plan for barn, Mr. R. K. Jackson's 102
Plan of Mr. E. D. Tillson's pigery 79
Prize-winning Dorset Horned ram 515
Prize-winning Ayrshire bull, "Duke of York" 431
Prize-winning aged ewe, Maple Lodge Minnie 434
Pure-bred Shorthorn steer, "Bruce" 434
Range cattle, Southern Alberta 590
R. Kohler, Mennonite farmer 621
"Scotch Lassie," Shorthorn 285
Selection of store cattle for feeding 305
Shorthorns at Trout Creek farm 608
Shorthorns, male and female champions 533
Shorthorn cow, Jewel H. 331
Shorthorn bull, "Silver Chief" 535
Silver medal Hereford bull, Spotless of Ingleside 401
Sittyton Hero 509
Southdown ram lamb, "Abraham Beau" 487
Stall for keeping cows clean 83
Stock farm and residences of H. Cargill & Son 5834
Street corner in Moosomin 589
Summer Hill stock farm 612
Sweepstakes Holstein cow 406
Sweepstakes Clydesdale stallion, Border Riever 233
Tent caterpillars 335
The Brandon farmers' elevator 583
"The first skate of the season" 618
The home and farm of Hon. Thos. Greenway 5884
The home and Herefords of Mr. H. D. Smith 609
The home farm of Hon. Sydney Fisher 593
The home of Hon. John Dryden 694
"The honeymoon" 591
The Pine Grove and Laurentian stock farms 605
The yearling bull, "Indian Noble" man 281
Thorncliffe stock farm 682

Trio of shearing Horned Dorsets 450
Two-year-old Jersey heifer 407
Two-year-old Shorthorn heifer, "Peachbloss" 514
W. E. H. Massey's stock barn 403
Yearling Ayrshire heifer, "Nellie Osborne" 513
Yearling Tamworth sow 436

MARKETS.

Abattoir for Winnipeg 314
Buffalo markets 492
Canadian horses in London 14
Canadian live stock exports 240, 264, 441, 541
Canadian bacon at the top 288
Canadian horses in England 288
Chatty stock letter from Chicago 14, 37, 62, 85, 108, 132, 188, 187, 216, 240, 264, 288, 312, 337, 361, 386, 411, 441, 468, 492, 520, 541, 643.
English live stock markets 288
England's live stock exports 240
Exhibit at Omaha 288
Farm gossip 132, 156, 186, 215, 239, 264, 287, 312, 337, 361, 386, 410, 441, 468, 492, 520, 541, 586.
Horse sales 264
Live stock exports 337, 361, 386, 492
Markets, Toronto 14, 37, 62, 85, 108, 132, 187, 216, 240, 264, 337, 361, 386, 411, 441, 467, 492, 520, 541, 643.
Markets, Montreal 37, 62, 85, 187, 216, 264, 338, 411, 441, 467, 492, 520, 643.
Markets, British 37, 62, 85, 216, 264, 337, 411, 467, 492, 520.
The horse trade 187
Toronto exhibition 411

MISCELLANEOUS.

Alberta horse ranching 540
For pure milk 540
Milk fever, prevention of 240
Our egg industry 240
Our Scottish letter 540
Tamworth standard of excellence and the bacon temperament 383
Winnipeg Industrial exhibition 216

POULTRY.

A good farm poultry house 518
An egg record 439
Beginnings in turkey raising 183
Canadian poultry for export 536
Canadian eggs wanted in Great Britain 213
Chickens dying suddenly 358
Chicks, summer treatment of 358
Chickens, feeding 334
Ducklings, rearing 286
Ducks, winter and spring care of 106
Early moulting 383
Eggs, unfertilized 358
Eggs, to preserve 358, 310
Eggs, care as well as breed necessary 467
Egg laying test with three popular breeds 335
Eggs, the food value of 408
Fattening of poultry by different methods 518
Fattening poultry quickly 490
Fattening turkeys 490
Fifteen thousand laying hens 536
Gapes in chicks 286
How some notable egg producing fowls are fed 35
How shall we raise the young turkeys 236
Infertile eggs and the poultry industry 286
Keep the chickens growing 261
Liberal feeding will make hens sit 183
Money in eggs and how to get them 62, 106
Ordering eggs under difficulties 587
Pens for poultry 286
Poultry disease, treatment 213
Poultry show, the Ontario 34
Poultry, Ontario association 34
Poultry keeping, practical autumn hints 439
Poultry house, description of Mr. Meyer's 439
Poultry for Christmas 536
Profit of one hen for the year 1897 130
Some of the standard breeds 408
Some lions in the way of the thoroughbred 536
The Canadian egg trade 619
The Princess of Wales a poultry fancier 490
Winter Eggs 11
Winter quarters 489

QUESTIONS AND ANSWERS.

LEGAL.
Cheese factory patrons default 410
Contract, landlord and tenant 130
Fire burning off 564

Husband and wife disagreement 214
Landlord and tenant 287
Master and servant 564
Railway farm crossing 564
Removal of division fence 440
Removal of cornstalks from rented farm 409
Removal of straw after sale of farm 214
Right to cut trees on roadside 36
Sale of sow 214
Sale of diseased bull 214
Trees along boundary lines 214
Unfulfilled contract 36

MISCELLANEOUS.

Alder buckthorn for hedge 186
Agriculture in Argentine Republic 37
A hollow horn 84
A breeding problem 287, 336
A log silo 131
A model farm 239
Apple pomace for cows and pigs 492
Ashes as a fertilizer 61
Artificial manures 157
Balanced ration for dairy cows 519
Bacon, home curing of 564
Brewers' grains not good for calves 215
Blind gobbler 215
Bluestone for smut 132
Bone many sheep at fairs 60
Boar's bite 60
Books on dairy cattle and poultry 410
Butter-fat and butter yield 186
Butting rams 132
Buckwheat, feeding value of 239
Bulldog wanted 239
Bull lacking vigor 239
Burlocks, eradication of 287
Butter factory report 239
Caustic balsam 311
Calves, feeding oil meal to 239
Canadian Holstein record 157
Cattle loose or tied 157
Calves without milk 492
Cement floors and lice 492
Cement cistern 215
Chickens, serious trouble 336
Chickens, roup in 239
Classifying sheep at fairs 37
Clover, ashes, and round silo 399
Clover, time to cut 215
Coach horses, stud books for 564
Coach horse, origin of the German man 287
Color of barred Plymouth Rocks 132
Corn fodder, saving 410
Concrete wall 13
Concrete root house 108
Couch grass 399
Cows slow to breed 519
Cows giving bloody milk 336
Cows, difficulty in drying 13
Cows hard to milk 132
Creamery problems 409
Creamery statement, incomplete 360
Dipping sheep 539
Dodder in clover 311
Dying fowls 312
Eggs for hatching 60
Feeding cattle loose 85
Geese with staggers 287, 312
Gooseberries, pruning 239
Grasses for gravelly hill 83
Ground-hogs, destroying 239
Harvesting lucern clover seed 287
Hardwood for posts and floors 287
Hay press, plan 312
Hogs, pasture for 186
Hog pen 85
Horses eating earth 13
Horse, spavined 491
Horse power from old mower 360
Ice, storing 410, 312
Injured udder 311
Intestinal worms in pigs 492
Land drainage 61
Lice in cattle, for killing 132
Mammoth clover 157
Mare, swollen 239
Mare in foal, working 85
Manuring land for roots 519
Measurements of Hoard's stall 467
Metallic roofing 37
Milk separation 60
New trotting and pacing standards 492
Oil cake for pigs 13
Pigs dying 312, 132
Pigs, feeding young 409, 108
Pigs, anthrax 132
Pear tree, fertilization 312
Plowing, shallow vs. deep 336
Potato bug remedies 312
Potatoes, spraying 409
Potatoes, evaporator for 37
Potato seed 85
Potatoes, fertilizer for 61
Preparation for spring wheat 37
Prickly lettuce 491
Protection from crows 239
Pure-bred or cross for bacon 157
Queen of the meadow 108
Rats in summer cottage 360
Rape seed 60, 108
Reduction of bones for fertilizer 519
Rock cross 312
Roup in chickens 239
Rye for horse feed 132
Shetland ponies 440
Sheep hurdles 390
Sheep-rearing 519
Sheep rack 492
Sheep, Hampshire 336
Sheep, winter feed for 410

Sick hens 492
Silo, capacity of 13
Slow churning 519
Slugs and root maggots 312
Solution of breeding problem 312
Sow thistle 312
Stallion, overfed 156
Stable ventilation 85
Tar paper in henhouse 492
Tares or peas for fodder 108
To prevent horns growing 37
Top dressing fall wheat 83
Trout-raising 157
Uneven gait of horse 440

Water pipes, size for pumping water 312
Water supply 83
Wheat rust, life history of 519
Wheat, spring, for seed 410
White crested ducks 492
Why are Devon cattle not more popular? 85
Why don't the butter come? 13
Weeders 157
Wild flax 60
Wire fencing 132, 157
Wool balls in lambs 267
Wool balls in sheep 539
Yull cow stall 157

VETERINARY.

Ailing Mare 214
Anthrax in calves 518
Bone spavin 36
Bog spavin 467, 338, 156
Bow derangement in colt 131
Bronchitis in cattle 311
Bruised knee 130
Caked udder 130, 384
Calves, sick 440, 564
Calves with sore feet 156
Castration of lambs 83, 13
Cow sweating 130
Curb 107
Digestion, disordered, or aching tooth 107
Discharge from heifer's nose 518
Dropsy of the womb 262
Dropsy of the uterus 130
Ear tags 360
Epizootic catarrh 410
Fetlock sprained 238
Fibroid tumor 13
Fits due to constipation 360, 3
Fistulous withers 107
Foot, knocking 69
Foot rot in sheep 155
Fowls, sick 36
Fowls, liver trouble in 83
Goitre in sheep 215, 384
Grease 157
Hereditary ringbone 214
Horse, deaf 214
Hogs, stomach staggers 564
Inflammation of pericardium 107
Impaction of the third stomach (indigestion) 467
Indigestion in horse 490
Intestinal worms in young pigs 107
Indigestion, chronic 156
Lambs dying suddenly 60
Lambs dying from scours 239
Lame mare 287, 60
Lice on pigs, to destroy 490
Lumpy jaw 360
Mange 156
Obstruction in cow's teat 311
Ophthalmia in South-western Ontario 360
Ophthalmia 360, 336, 215
Pigs with lumps on their bodies 238
Pigs, coughing and lame 262, 69
Pigs, shipping 132
Pigs, piles in young 13, 131
Pigs, ailing 60
Pigs, paralyzed 215
Pigs with diarrhea 384
Pigs, rupture in 185
Physic for horse 490
Prolapsus of the uterus 131
Recurrent abscess 440
Retention of afterbirth 156
Roup in turkey 83
Salt on young clover 186
Scours in calves 155
Sheep going blind 564
Sows aborting 360
Sore eyes in sheep 185
Sore leg 156
Spraying young sows 185
Splint andweeney 311
Sprained fetlock 238
Sprung tendons 238
Stallion lacking vigor 131
Swelled legs 60
Swollen mare 238
Swollen tongue 36
Tapeworms in dog 131
Tumor in cow's eye 83
Unbilical pyemia 440
Urinary troubles 60
Warts on cattle 440, 564
Warts, to remove 311
Warts or wens 36
Warts, removing 85
Worms in lambs 491
Worms in dog's throat 384

STOCK.

A Bruce county breeding establishment 584
A Canadian victory 234
Against stone walls for piggeries 149
A good system clearly outlined 6
Agricultural fair to supplant the Sun Dance of the Indian 463
Alva, the farm home of the Dominion Minister of Agriculture 593

A new sheep
Annual meeting
association
Annual meeting
Friesian a
A play exhibi
A reminiscenc
A steer-feeding
A strong impu
A well-conduc
ing establish
Ayrshires, 1st
Ayrshire bree
Ayrshires—fir
Ayrshire heifer
Bacon hogs, p
Barley and w
Wiltshire
Bath and Wee
Beef type and
nomical pr
"Bellevue," a
farm
Brantford Sou
Breed most lar
the fairs
Brood mares,
British dairy
Black Polls on
Blindfold the
Blutcher won't
Calves, raising
Canada a br
horses
Canada hog t
Canadian bac
Care for lamb
Carriage hogs
breeds
Castration of
Castration of
shepherds
Cattle
Champion ste
Champion s
Jewel
Champion st
female
Cleanliness in
Clydesdale br
Coloring of sh
Corn vs. peas
Cost of produ
Cows, waterin
Cows, feeding
Cross-bred G
cow "Nancy"
Crushed oats,
whole oat
Dairy produc
Dairy test
Dairy cattle f
Danish metho
tion
Dentonia Pa
Disputed poin
ing
Duroc-Jersey
produce t
Encouraging
enilage and
proved
Ensilage app
Exercise ess
ewes
Experiments
the O. A.
Experiments
steers
Facilitating l
tion
Fads in stock
Fall care of c
Farmers' Inst
Farm horse
care
Feeding beam
Feed well-br
Feed roots to
Feeding shee
Finishing cat
Flock at wea
Formalin, a f
Foot rot in sh
Gem Holstein
Guelp fat
meeting
Guelp fat st
Governing sec
Hackney bree
Hampshire
Hens without
Hereford sto
Hillhurst sto
Historic Bow
Hogs of bacon
Hog raising,
Hog feeding
Hogs too thic
Horse breed
ing
Horse fly, re
Horses
Horse ranchi
Horticultura
How it helps
How to lead
How to pro
pucker w
Hunters im
show
Imported Ay
"Twist"
Inducrimina
Influence of
of bacon
"Ingleside,
Hereford
Isaleigh Gra

A new sheep.....512
 Annual meeting of stock breeders' associations.....77
 Annual meeting of the Holstein-Friesian association.....77
 Apiary exhibit.....436
 A reminiscence.....584
 A steer-feeding test.....533
 A strong mount.....586
 A well-conducted bacon pig raising establishment.....329
 Ayrshires, 1st prize herd.....561
 Ayrshire breeders' meeting.....77
 Ayrshires—first prize herd.....511
 Ayrshire heifer, Nellie Osborne.....513

Bacon hogs, prizes for.....257
 Barley and whey the secret of Wiltshire bacon.....258
 Bath and West of England show.....281
 Beef type and its effect upon economical production.....8
 "Bellevue," an Acadian stock farm.....613
 Branford Southern fair.....490
 Breed most largely represented at the fairs.....514
 Brood mares, exercised for.....6
 British dairy show.....533
 Black Polls on the range.....125
 Blindfold the vicious bull.....402
 Blücher won the prize.....258

Calves, raising on oil-cake gruel.....258
 Canada a breeding ground for horses.....205
 Canada hog to the front.....533
 Canadian bacon.....437
 Care for lambs.....148
 Carriage horses, origin of various breeds.....204
 Castration of lambs.....125
 Castration of lambs—how Scotch shepherds do it.....125
 Cattle.....431
 Champion steer, "Bruce".....59
 Champion Shorthorn cow, "Jewel".....331
 Champion Shorthorns, male and female.....533
 Cleanliness in swine-raising.....402
 Clydesdale breeders' meeting.....77
 Coloring of sheep.....352
 Corn vs. peas.....378
 Cost of producing pork per pound.....149
 Cows, watering in stable.....54
 Cows, feeding of.....54
 Cross-bred Guernsey-Shorthorn cow, "Nancy".....537
 Crushed oats, cut hay better than whole oats and hay.....378

Dairy produce.....437
 Dairy cow.....437
 Dairy cattle for the showing.....282, 257
 Danish methods in bacon production.....377
 Dentonia Park.....289
 Disputed points in sheep wintering.....8
 Duroc-Jersey-Yorkshire cross to produce the bacon hog.....329

Encouraging milking Shorthorns.....557
 Ensilage and turnips not approved of.....6
 Ensilage approved.....534
 Exercise essential for breeding ewes.....28
 Experiments in sheep feeding at the O. A. C.....148
 Experiments with fattening steers.....331

Facilitating live stock importation.....148
 Fads in stock-raising.....124
 Fall care of ewes and lambs.....512
 Farmers' Institute meetings.....79
 Farm horse, the, breeding and care.....176
 Feeding beans to hogs.....378
 Feed well-bred hogs.....330
 Feed roots to breeding ewes.....28
 Feeding sheep in winter.....534
 Finishing cattle on grass.....235
 Flock at weaning time.....356
 Formalin, a further test.....462
 Foot rot in sheep.....205

Gem Holstein herd.....607
 Guelp fat stock club annual meeting.....78
 Guelp fat stock show.....591
 Governing sex.....206

Hackney breeders' association.....77
 Hampshire sheep.....305
 Hens without males.....82
 Hereford stock farm.....603
 Hillhurst stock farm.....585
 Historic Bow Park farm.....607
 Hogs of bacon type.....377
 Hog raising, information on.....100
 Hog feeding, experimental.....355
 Hogs too thick and fat for bacon.....377
 Horse breeders' association meeting.....78
 Horse fly, remedy for.....332, 306
 Horses.....429, 431
 Horse ranching in Alberta.....484
 Horticultural exhibit.....436
 How it helped him.....8
 How to lead a wild cow.....280
 How to produce the hog the packer wants at a profit.....328
 Hunters improvement society's show.....149

Imported Ayrshire bull, "Oliver Twist".....334
 Indiscriminate breeding of swine.....484
 Influence of food upon firmness of bacon.....556
 "Ingliside," headquarters for Herefords.....610
 Isaleigh Grange.....581

Live-stock exhibit at Omaha.....510
 Live stock, handling more than one breed.....511
 Live stock at Omaha.....511
 Live stock condition: N. B. notes.....7
 London (England) shire horse show.....125
 Loose boxes for brood mares and foals.....6
 Madison Square horse show.....558
 Maple shade farm.....594
 Maritime notes.....594
 "Matchless" and "Mildred," illustrated.....485
 Minnesota state fair.....462
 Moderate feeding of roots to breeding ewes approved.....28
 "Neidpath".....602
 Norwich (Eng.) fat stock show.....587

Operations of the Ingersoll Packing Co.....377
 Ottawa exhibition.....490
 Our Scottish letter.....355, 456, 513
 330, 280, 149, 176, 29
 Our efforts appreciated.....513
 Oxfordshire (England) county show.....281
 Oxford stock show.....592

Piggery, Mr. E. D. Tillson's.....78
 Pigs pasturing on stubble fields.....402
 Pig feeding for profit, experimental.....328
 Pig feeding and the Toronto market.....306
 Pigs run with sow till two years old.....100
 Pine Grove and Laurentian stock farms.....604
 Pointers from Iowa.....110
 Prairie Home stock farm.....588
 Provincial exhibition, New Brunswick.....486
 Provincial exhibition, Nova Scotia.....485
 Provincial exhibition of B. C.....510
 Professional live stock exhibitors.....514

Question for cattlemen to discuss.....28
 Raising English "Wiltshire" bacon.....485
 Rape for pigs.....281
 "Rapids Farm".....612
 Rams, selection of.....356
 Records, reciprocity of.....257
 Rearing young bulls.....401
 Royal show of England as seen by a Canadian.....401
 Royal show.....330
 Royal commission report condemned.....305
 Roots, their value in the raising of good stock.....205
 Roots and green feed liberally used.....100

Saddle galls, cause of.....306
 Selection of store cattle for feeding.....305
 Sheep, wintering.....54
 Sheep, pasturing.....258, 533
 Sheep in small flocks profitable.....304
 Sheep ranching in Alberta.....304
 Sheep; shear early.....125
 Shire horse breeders' meeting.....77
 Shoeing for action.....305
 Shorthorn heifer, Peachblow.....514
 Shorthorn bull, Indian Chief.....534
 Shorthorn breeding, present tendency.....401
 Shorthorns, prizewinning.....356
 Shorthorn prospects.....76
 Shorthorn breeders' meeting.....78
 Smithfield block test, the.....106
 Smithfield club show.....330
 Southdown ram lamb, Babraham Beau.....487
 Sows should farrow, the time.....149
 Stone walls for piggery.....258
 Stock barn, Mr. John Morrison's.....101
 Sweepstakes Hackney stallion.....352
 Sweepstakes Clydesdale stallion.....353
 Swine-raising at Summer Hill.....613

That "Royal Standard" matter.....79
 The cattle trade of Manitoba and the Northwest Territories.....589
 The horses of Manila.....595
 The Ontario fat stock and dairy show.....590
 The shepherd in the fall.....462
 The shepherd's calendar.....614
 The foal.....258
 Thorncliffe stock farm.....581
 Three great pictures.....7
 Toronto exhibition.....428
 Toronto horse show.....233
 Transportation of registered stock, reduction.....148
 Tuberculosis scare.....29, 558
 Ventilation of stables.....54
 Water trough for cattle stall.....101
 Western fair, London.....457
 Winnipeg Industrial exhibition.....352
 Windmill for filling silo not satisfactory.....150
 Wintering horses of various ages.....6
 Wintering horses; stock in P. E. Island.....6
 Wintering horses in Nova Scotia.....6
 Wool balls in lambs.....332
 Worth twenty times its cost.....79
 Worth more than a book which cost \$4.00.....281

Yearling bull, Indian Nobleman.....78
 Yearling Ayrshire bull, "Matchless".....557

STOCK GOSSIP.

Amalgamated Ayrshire association.....196

American Cheviot sheep breeders' association.....47
 American Oxford Down association.....71
 American poultry association.....297
 American Shropshire association.....524
 Annual meeting of the Dominion cattle breeders' association.....22
 Annual meeting of American Guernsey cattle club.....22
 Annual meeting of Hereford breeders.....45
 Annual meeting Jersey cattle club.....247
 Attractive sale of Shorthorns.....270
 Ayrshires and Guernseys, imported, for Isaleigh Grange.....293

Bath and West of England show.....297
 "Books that help me".....302

Canadian horse show for 1898.....113
 Canadian Jersey breeders' association.....47

Dominion swine breeders' annual meeting.....636
 Hereford breeders meet.....640

Joint meeting of live stock associations.....640

Leicester breeders' annual meeting.....640
 Live stock associations, joint meeting.....21
 Live stock shipping rates.....113

Ontario fat stock show meetings.....475
 Ontario winter show prize list.....630
 Ottawa fair prize list.....498
 Oxford Down breeders' association.....637

Smithfield club show.....368
 Sheep breeders meet.....22
 Southdowns, important sale.....294
 Stock breeders' meeting.....271
 Swine breeders meet.....22

Toronto Industrial fair prize list.....475

Western fair prize list.....501

VETERINARY.

Abortion in cattle.....538
 Antitoxin serum for hog cholera.....58
 Bog spavin, a new treatment.....538
 Experimental farms now free from tuberculosis.....12
 Glanders and the Mallein test.....105
 Housing of live stock in regard to health.....284
 Remedy for warts.....105
 Renovating a broken down horse.....59
 Report of the British royal commission on tuberculosis.....237

Tubercular infection in human beings and cattle.....12

Veterinary inspection.....59
 Veterinary, Ontario association.....59
 Veterinary, Dominion department.....11

THE HOME MAGAZINE

ENGRAVINGS.

"After Vespers".....242
 A day of reckoning.....87
 A finishing touch.....100
 A painful parting.....339
 A summer scene.....290
 A sure catch.....134

"Between two thieves".....616

Calling the ferryman.....111
 Christmas at the court of King Arthur.....567

Death of Queen Elizabeth.....315

"In Love".....443
 "I want to see the wheels go round".....180

Les Frais de la Guerre.....16

"Now look pleasant, please".....266
 "Spoils of war".....388

"The first skate of the season".....618
 "The honeymoon".....494
 "The stag at bay".....470
 The last dance.....265
 The blue jay.....161
 The foster mother.....40
 The village bride.....219
 "Three wise men of Munich".....413
 "Thoroughbred".....544
 "Too late".....64
 "Two strings to her bow".....522

Un joyeux chapitre.....363

MISCELLANEOUS.

A cathedral roof moving like an earthworm.....241
 A Christmas acoustic.....616
 A Christmas dream.....617

Agriculture in our Bible and Bible times.....617
 An amusing addition sum.....217
 A painful parting.....339

"Between two thieves".....616

Christmas eve.....618
 Christmastide.....615

Death of Queen Elizabeth.....315
 Decoy for hunters.....190

Empty stockings.....617

"In love".....443
 In memoriam, Mrs. Weld.....469

Little boy blue.....617
 Lookin' for trouble.....603
 Lucknow and Cawnpore to-day.....414

Recipes.....618

Sly old Santa Claus.....616
 Some suggestions for summer shade.....160
 Southern California as seen by a Manitoban.....338
 Spoils of war.....388

The Christmas spirit.....618
 The family falling.....618
 The first skate of the season.....618
 The holly and the Christmas tree.....586
 The honeymoon.....494
 The last dance.....265
 The village bride.....219
 The blue jay.....161
 The news of the day.....622
 The note of thanks.....388
 The point of view.....412
 "The song the angels sing".....618
 The stag at bay.....470
 The two little stockings.....618
 The young heir.....494
 Travelling schools of cookery, 160, 189

Un joyeux chapitre.....363

Why it was closed.....614

CHILDREN'S CORNER.

A point of honor.....290
 Ants' cows.....364

Christmas in the forest.....316, 340

Great men and cats.....444

The chickens' parade.....471, 494
 The child-dyke.....444
 The children who saved Hamburg.....389
 The discontented boy.....290
 The sick fairy.....100, 191, 242, 206
 The crow and the grub canon.....111
 The griffin and the minor canon.....40, 64, 88
 The wandering cow.....364
 The place to put riches.....364
 Tommy, the beach cat.....134

POETRY.

A Christmas acoustic.....616
 A Christmas dream.....617
 After Christmas.....15
 A housewife's poem.....160
 A silence and a song.....364
 A New Year's hymn.....16
 A pauper's funeral.....241

Battles.....63
 Beyond.....41
 Be kind to the loved ones at home.....191
 "Between two thieves".....616
 Bringing our sheaves with us.....267

Christmas eve.....618
 Christmastide.....615

Decreed.....161

Empty stockings.....617
 Essay on criticism.....220
 Every year.....622

Fra Ildefonso's guest.....218
 Friendship.....110

Gathering song.....523
 God knows best.....495

Homemade sunshine.....493

"I want to see the wheels go round".....180
 In the shadows.....523
 I shall be satisfied.....544

Knock and it shall be opened.....413

Light.....442
 Little boy blue.....617

Moonset.....523
 Night thoughts.....220

Only in Thee.....135
 Only a child.....387
 Out of Arcadia.....387
 On the warpath.....389

Ring, sweet bells.....508

Speak praises now.....241

Tell her so.....414
 "They are waiting".....469
 The land of "Pretty Soon".....315
 The morning.....63
 The last dance.....265
 The old straw hat.....289
 The village oracle.....289
 The fairy's gift.....412

The family falling.....686
 The first skate of the season.....618
 The flowers.....442
 The mother.....442
 The cloud.....442
 The builders.....442
 The goblet of life.....443
 "The song the angels sing".....618
 The two little stockings.....618
 The worship of nature.....443
 The beleaguered city.....523
 The bird's lullaby.....523
 The good old-fashioned way.....568
 To-day.....603
 Two men.....16

What if.....42

RECIPES.

Baking-powder biscuits.....189
 Boston brown bread.....160
 Burns, milk dressing for.....111

Cabbage, stewed.....364
 Chocolate almonds.....159
 Christmas cake.....544
 Christmas pudding.....544
 Coffee, to make good.....160
 Coloring Easter eggs.....159
 Cream sauce.....388
 Cream nectar.....363

English plum pudding.....544

French omelette.....189

Ginger cookies.....291

Hungry cake.....363
 Hot cross buns.....150

Ice cream cake.....189
 Ice cream.....363

Lemon pie.....206

Mayonnaise dressing.....266, 363
 Mock charlotte.....242
 Mush bread.....160

Omelette souffle.....189

Popovers.....189
 Pie crust.....189

Removing stains.....523

Sauce for beef and game.....189
 Shepherd's pie.....544
 Strawberry shortcake.....242
 Sultana roll.....242

To boil a ham.....206

Washing fluid.....388
 Wedding cake.....544
 White bread.....189
 Whole wheat bread.....189

STORIES.

A doctor of the old school.....14, 38
 A mistaken charity.....109
 An American girl in London.....521
 An automatic maid of all work.....63
 A narrow escape.....83
 An old arithmetician.....469
 At Satchaway Bay.....493

Boger's banquet.....289

Gentian.....188, 217

Mrs. Greenleaf's nerves.....412

The red-headed league.....362
 The burglar and the public house.....265
 The last steepchase.....241
 The little stowaway.....159
 Tiverton bank mystery.....133

THE QUIET HOUR.

Afterward.....316

Closed doors.....161

Do not be a slave.....161

Fruit.....267
 Full satisfaction in the King.....364

Giving comfort.....110
 God knows best.....495

He went about doing good.....241

Individual responsibility.....495

Keep straight ahead.....161

Manliness.....63

Our next-door neighbor.....339

Reflected light.....135
 Resurrection.....189
 Restfulness.....41

Social failings.....135
 Sunshine for every day.....290
 Small worries.....110
 Step by step.....16

The plan of Christ.....388
 The plan and the teaching of Christ.....412, 444
 The time is short.....110
 The Star of Bethlehem.....568

Unconscious influence.....543

Why.....241
 Words of cheer.....16