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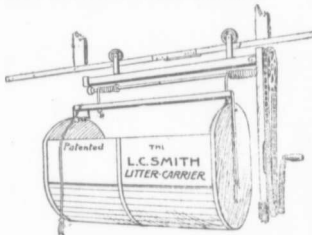
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The De Laval Cream Separator is daily gaining in popularity. The thousands of satisfied and pleased users of this high grade machine form a substantial proof of its excellence. Be sure and read the DeLaval announcement on the back cover of this issue.

A Mark of Canada's Progress

The advertisement of the Farmers' Bank of Canada, appearing in our columns on page 631, is well worthy the attention of every Canadian farmer, and marks a page in the commercial history of Canada, because that, up to the present time in the banking business of the country, the farmer has been the oyster, prepared for the palate of the commercially inclined, with no say in the result. Now, thanks to the efforts of some farmers of ability, the ordinary farmer

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\$3.00 to the Pacific Coast

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A rust-proof tin cap is the latest device for getting a tight roof, and it seems very practical. The ordinary cap furnished with ready roofings is made of tin scrap, which, of course, rusts in a very short time. The outside is painted but the inside will rust just as quick. Many roofs have failed because the tin caps rusted out. A patent on this new rust-proof cap has been granted F. W. Bird & Son, East Walpole, Mass., the makers of Paroid Roofing. It is made of new sheet steel, and has more binding surface than the ordinary round cap, because it is square.

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Berlin, Ont., March 22, 1904
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A stalwart youth in seeking work from a farmer gave the assurance that he never got tired. He was accordingly engaged; but when the farmer went to the field where he had been put to work he found him lazily lying beneath a tree. "Hullo," cried the farmer, in surprise. "I thought you told me you never got tired." "No more I don't," replied the youth. "But I soon should be if I didn't do a lot of resting!"

The Farming World

And Canadian Farm and Home

Vol. XXV.

TORONTO, 1 SEPTEMBER, 1906.

No. 17.

Some New Developments in Modern Agriculture

AGRICULTURE has made rapid strides in recent years. The methods employed in farm practice to-day are far in advance of those in use fifty years ago. So much so is this the case, that one is inclined to wonder if there is anything more to be learned in regard to it that is really new. And yet every day brings before the busy farmer some new problem to be solved or some new feature tending towards the improvement of his crop and the increasing of the productive power of his farm. It is indeed a progressive age, agriculturally as well as in other respects. The farmer must, therefore, give some thought to some of the new movements of to-day that will in future have an important bearing upon his calling.

One of the most important lines of investigation opening up to the experimenter or the farmer is to be found in the application of the principle of the survival of the fittest in the propagation of ordinary farm crops, or in other words the propagation of crops with disease resisting qualities. No field of investigation pertaining to farm crops is more important than this. Insect pests and diseases of plants seem to increase in number as the years go by. Their ravages must be counteracted in some way, and one of the most feasible and practical ways of doing it is to select and propagate plants in which the greatest disease resisting powers predominate. The movement for better seed and the method of crop improvement by seed selection is accomplishing a great deal in this direction. Experiments conducted recently by the United States Department of Agriculture have demonstrated that it is possible to obtain a variety of most all of the standard vegetables and fruits which can to a greater or less extent ward off the attacks of insects or blight. While it is true that many plant pests can be controlled by various poisons and culture methods, yet for such pests as wheat rust, clover seed midge, etc., satisfactory remedies have not yet been discovered. Here is the investigator's opportunity to select and propagate varieties of crops immune or less subject to attack by disease, and which will succeed where others fail.

Numerous instances might be given of the disease-resisting qualities of one plant as compared with another. For instance, European grapes plant-

ed in the United States, where the grape fruit louse is present, fail because this insect is able to destroy their roots. On the other hand, the roots of American grapes are so hard and wiry that this insect cannot destroy them. The resisting power of the Keiffer pear to blight has made it possible to grow this variety successfully in the south, where other varieties fail. American gooseberries are but little subject to mildew, which seriously affects English varieties grown on this side of the Atlantic. In recent years experiments have been conducted in Maine, Vermont and Minnesota to obtain a disease-resisting type of potato. While these experiments have not yet produced a

A new feature of interest to the fruit grower is the introduction of parasites to prey upon and destroy orchard insect pests. A few years ago a parasite was introduced into California from a foreign country to prey upon the codling moth. The results have been very satisfactory, and now the Ontario Department of Agriculture has decided to take up this line of work, and in a few years, perhaps, wormy apple, will be a thing of the past. This plan of destroying pests by other insects has been utilized also with success in cotton culture in the south and in connection with other agricultural industries. If it prove effective the orchardist has a simple way of controlling the ravages of insect pests. However, one is inclined to ask what will these parasites prey upon when the particular insect which they have been brought in to destroy is destroyed? Will they die off, having fulfilled their mission, or prey upon something else, becoming a pest themselves? In the meantime, however, we need not worry. Sufficient for the day is the evil thereof.

Specialty new features in the realm of live stock are not numerous just now, excepting it be the more prominent place given to the dual-purpose cow. Progress in every branch of it is being made. Generally speaking the purebred animal holds a higher place among our farmers than ever before. Slowly but surely, there is a growing tendency to use purebred males, though the "scrub" male is made use of for breeding purposes even yet in too many localities. However, progress in this direction is very gratifying and marks a distinct advance in the live stock industry of the Dominion. A feature of this work is the advent of cow testing associations and the desire to know what the dairy animal will return in milk. This work will have a wholesome effect in stimulating dairymen to keep only cows that will return a good profit over their keep. Horsemen are waiting with interest for the announcement of the local government in regard to the horse industry.

The feature of interest in dairying just now is the milking machine. Upon the final success of this machine depends in a very large measure the future of the dairy industry of this country. If the forces now at work can succeed in perfecting a machine that will do the work of milking successfully in every respect, and which can be sold at a reasonable figure, dairying is bound to extend its operations, and become a far more impor-

This Issue.

This is the ninth annual Exhibition number of THE FARMING WORLD. Its special features are the illustrations and the number of articles written specially for this journal. The illustrated article on "Clydesdales in Scotland," by Arch. McNeillage, is of special interest to horsemen. Beginning with this issue and extending during the next few months, we begin a series of articles on "Agriculture in Ireland," by the Hon. John Dryden, which will be read with interest by every Canadian. Many other articles deserve special mention but space will not permit.

Read this number through carefully. Speak a good word for it to your friends. If you are not already a subscriber send in your name and address at once. We will send THE FARMING WORLD to your address from date to Jan. 1, 1908, for Sixty Cents, or until Jan. 1, 1909, for One Dollar.

tuber wholly proof against late blight or rot, sufficient evidence has been obtained to justify the hope that efforts in this direction may soon result in the development of varieties combining general excellence with a high degree of disease resistance. A melon grower of Colorado has discovered a rust-resistant melon which promises to be of immense value to the cantaloupe industry of that state. And the same thing is possible with other crops, if only the farmer is active in observing the growing crop. If there is rust in the wheat, select some individual plants for seed that have withstood its ravages or have been least affected by it. If a hill of potatoes is not affected by blight, keep that hill for seed. In this way the strongest and best seed can be secured, and the way opened up for eventually securing disease-resisting types.

tant part of our agriculture than it is even at the present time. If, on the other hand, the milking machine proves a failure and cannot be adapted to the needs of the average dairyman, this industry is bound to retrograde in the years to come, in so far as the quantity of the output is concerned. We have reached a stage when either more or better help must be forthcoming, or the work must be lessened by machine milking or many farmers will be compelled to change to some other branch of agriculture in which not so much work is required to make a success. There is every hope, however, that a cheap and thoroughly practical milking machine will be forthcoming at no distant date. There is a growing tendency to increase the production of butter, notwithstanding the fact that cheese prices are comparatively high. The advent of the farm separator has made it possible for the farmer to make butter at a greater profit than heretofore. It enables him to raise young stock on the farm and maintain his land in better condition.

Power on the farm is always of importance, and is becoming increasingly so. A new interest has been added to this question by the freeing of denatured alcohol from revenue tax in the United States, thus making it possible to produce this product at a price at which it can be profitably used for manufacturing purposes. It can be used as fuel and as a substitute for gasoline in electro-gasoline engines. The cost is a trifle and will be less than gasoline. The sugar beet factories in the United States have already taken steps to install plants for manufacturing alcohol out of the unsucroseous molasses, which has heretofore been a waste. As compared with gasoline, some recent tests have shown that in an engine of given cylinder dimensions and speed, alcohol, when properly used, will produce a greater output than the former, to the extent of some 20 per cent., as one expert claims. It is also believed that with an engine built for the purpose the thermal efficiency of alcohol may be raised to and above 50 per cent., while with gasoline the efficiency would be nearly 10 per cent. lower. In point of safety, too, alcohol has considerable advantage. It works well in engines, giving very clean combustion. As to its comparative cost data differ, some tests showing a decided advantage for alcohol over gasoline. All sorts of vegetable waste as well as surplus grain in times of exceptional crops can be utilized for alcohol-making. Some improvement is, however, necessary in the method of manufacturing. It must be cheap, simple and effective.

In so far as Canada is concerned, alcohol for manufacturing purposes has paid no duty whatever since 1889. The trade in this commodity has been controlled by the Inland Revenue Department. Alcohol has been purchased from the distillers at 40c per gallon and rendered unfit for use as a beverage by an admixture of wood alcohol. This mixture produced methylated spirits, which has been sold by the department under certain conditions at \$1.10 per gallon for No. 1 grade and \$1.50 for No. 2. At the beginning of August a reduction to 90c and \$1.25 per gallon was made. Experiments are now being conducted with a view to obtaining a more economical de-naturing mixture, so that a further reduction in price can be made. However, at these prices

in Canada, alcohol cannot compete with gasoline. What is wanted in Canada is not "free alcohol" but cheap alcohol. Prices must go down over fifty per cent. before an alcohol denatured to protect the revenue can be furnished as an illuminant or fuel. In some districts of the United States it has been shown that alcohol can be produced at a cost below 5c per gallon, and there seems to be no good reason for believing that it cannot be produced in Canada equally as cheap.

Coming to the more social and business side of farm life, the new features of note are developments in free rural mail delivery and rural telephones. Canada has not made a start in the former yet and from the present attitude of the post office authorities in regard to it is not likely to for some time. Rural mail delivery is now the common thing in most of the States of the Union, and miles of new routes are being established every year. The influence of this movement will eventually effect things upon this side of the line and bring about free rural delivery in the older parts of Canada at least, in spite of the powers that be. A new development in rural mail delivery in the United States is that of bringing the automobile into use for distributing the mail. The Post Office Department at Washington is now making a test of the automobile for this work, though individual carriers have used it in some sections where the roads are good for several years. A special automobile motor car is being tried, which can be supplied to country postmen at about \$400 each. With the automobile brought into use for this work, a more rapid and better delivery service should result.

The rural telephone movement is gradually spreading over the country. Recent legislation at Ottawa, compelling trunk lines to give connection with local companies, has made things easier and placed the rural phone in a position to do much better service for the farming community. The rural phone is of the greatest possible advantage to the farmer, both socially and otherwise. They can be conducted cheaply and will return a good interest on the investment.

J. W. W.

Fall Wheat Growing

To insure a probability of success it is essential that the various stages of preparation during the next few weeks should be thoroughly and intelligently carried out. Experience shows that wheat generally thrives best when sown on an inverted clover sod, a cultivated pea stubble, or a bare summer fallow. With our present methods of farming the last named has been largely discarded, as being too expensive. The plowing down of clover and other green crops should be done at least a month before seeding. If the land is worked up, and sown immediately after plowing, the green stuff will not have decayed, but will be heating to such an extent as to prove very detrimental, if not entirely ruinous to the wheat crop.

The old practice of plowing the ground two or three times, has, in my opinion, but little to recommend it. The frequent plowing makes the sub-soil too loose and open, so that it becomes more or less saturated with water, which by freezing and thawing in winter heaves the plants and kills them. Also in times of drouth

the soil dries out very quickly, with serious injury to the crop. The ideal seed bed then is pulverized at the surface merely, and is compact below; the roots thus coming in contact with solid earth, which holds the moisture much more readily and is in a position to assimilate the available plant food, and so enable the plant to make an early and rapid growth. Moreover, the latter stand of grass seed is obtained. The land should be plowed quite shallow as soon as practicable after the previous crop has been removed, and followed by frequent surface cultivation. There are three reasons for the latter operation: the conserving of moisture, the liberation of plant food, and the germination of weed seeds.

THE TIME FOR SOWING

depends largely on circumstances. When sown too early there is danger of too rank and succulent a growth, especially on very rich lands. Therefore, other things being favorable, the poorer the soil the earlier seeding may be done with safety. Early sown wheat being, however, subject to attack from the Hessian fly, it is usually well to wait until after a slight frost. Generally from the first to the twentieth of September will be the best time. Although no hard and fast rule can be laid down, it may be broadly stated, as the result of observation, that while early sowing is often better than late sowing, late sowing is seldom better than early sowing.

The quantity of wheat sown per acre depends chiefly on the character of the soil, the size of the grains and the time of sowing. As a rule, one and one-half to two bushels will be sufficient. On rich soils less seed will do than on poor soils, as a thick seeding will tend to increase lodging. With fewer plants they grow naturally; the sun gets in more, the straw is heavier, and the plant is healthier. If sown thickly it tillers little, and produces few heads per plant. When sown thinly it stools more and the heads are larger, often enough to counterbalance the thin seeding. If a variety having small grains is sown less seed is required. As the result of nearly 400 determinations it was found that there was about an average of 12,000 kernels in a pound of wheat. In some samples there was less than 8,000, while in others 24,000 kernels to the pound. One bushel of seed in the one case being equal to three bushels in the other. When sown early small quantities will do, as each plant will have time to grow larger; will stool out and cover more ground.

The two main factors in obtaining a large yield are a fertile soil and good seed. A judicious selection and grading of sown wheat will work wonders in this direction. Care should be taken in the first place to secure the seed from that part of the crop that has given the most satisfactory returns. This may be done by storing a load or two where it could be specially set apart for seed; then by making a free use of the fanning mill a choice sample could be easily obtained.

J. H. M.

Elgin Co., Ont.

New Proverbs.—Uneasy lies the head that wears a false hood. Actresses happen in the best regulated families. It is doubtful about the time, to look at the kitchen clock and run for the train. Many are called, but few get up.

SCOTLAND'S CLYDESDALE STALLIONS OF 1906

By Archibald MacNeillage, Editor and Manager of the Scottish Farmer and Secretary of the Clydesdale Horse Society of Great Britain and Ireland

(Written especially for THE FARMING WORLD)

I am asked to write something for the autumn special of THE FARMING WORLD on the subject of the Clydesdale stallions of the present season at home. The subject will be of considerable interest to Canadian farmers at the present time. First of all I may mention the H. and A. S. champion horse

SCOTTISH CREST 13182.

He is a two-year-old and his photograph, by Brown & Co., Lanark, represents him as he appeared in the Peebles showyard ten days ago, when he was first in his class, and won the champion honors of the day. He is owned by Messrs. A. & W. Montgomery, Kirkcudbright, and is a good representative of the kind of stock left by their celebrated champion breeding horse Baron's Pride 9122. Scottish Crest was bred in Cumberland, by Messrs. Wright & Sons, Silloth House Farm, and is a short-legged, strong, flat-boned two-year-old, with the kind of feet and patterns Scotsmen like, and great pith and substance. He has plenty of muscle in his forearm and is a good, sound cart horse mover. By that I mean his action is not sensational, but just such as one wants in a cart horse and not in a Hackney. The Messrs. Wright have an excellent stud of mares of very old breeding and sound lineage. R. Ness & Son, Howick, Quebec, have this season exported the full brother of Scottish Crest, but one year older, Scottish Crest was foaled in March, 1904. This fact is to be borne in mind when looking at our next photograph, that of Mr. James Kilpatrick's

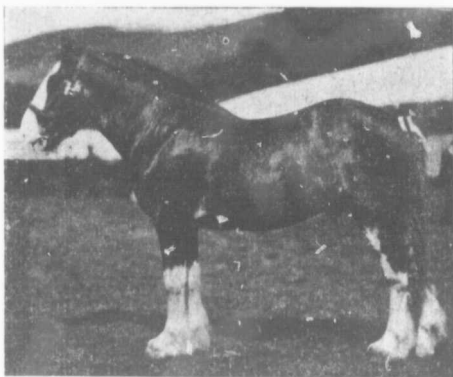
OYAMA 13118.

the champion of the Scottish Stallion Show, held in February, when the photograph was taken. Oyama was then only 21 months old, his birthday being in May. There is thus about seven months difference between the ages of the colts, as they are represented in the pictures. Oyama is a beautiful bay colt, full of style and quality, a fine mover and very showy. He was bred by W. & R. Scott, Boghead, Gervan, and his sire was Baronson 10981, an extremely handsome son of Baron's Pride. It will be noticed that Oyama appears to be rather wanting in depth of rib, but Scotsmen do not object to that in a two-year-old, especially when so young as Oyama was when photographed.

DUNNYDEER (12557).

whose photograph follows, although placed second at the Highland Show at Peebles, is a very fine specimen of the Clydesdale breed. He is a three-year-old horse now, and the Strathearn premium horse this season. As may be seen, he is a horse of splendid size and color and very good at the ground. Gay and stylish, he has fully gained all the honors that have ever come his way. He was bred in Nairnshire, and is owned by Mr. William Clark, Netherlea, Cathcart. His sire was the highly successful breeding horse Sir Hugo, and he gained first prize at Glasgow when a yearling. A better horse of his age is not easily found.

Of a rather different type is our next, the "cocky" gay horse,



Scottish Crest, 13182



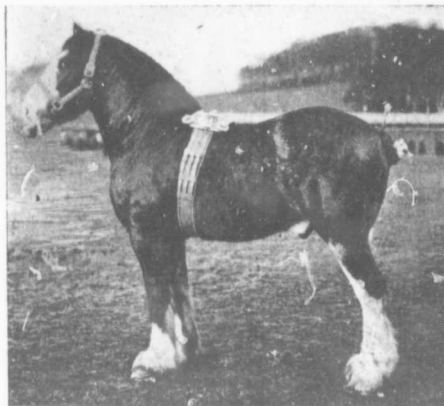
Oyama, 13118



Dunnydeer (12567)

REVELANTA 11876.

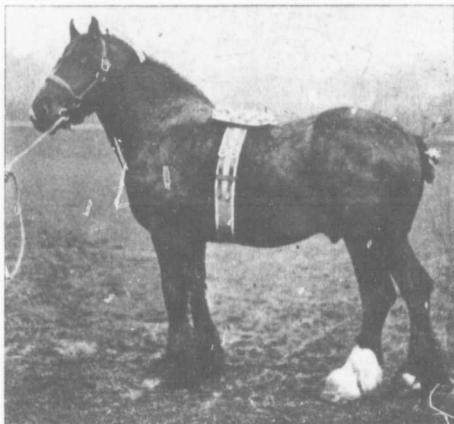
This horse was foaled in July, 1901. He was bred by the eminent grower of early potatoes, Mr. John M. Hannab, Gervan Pains, Gervan, and the photograph represents him as he was at the Glasgow Stallion Show in February, 1906. He stands barely 17 hands high and was, therefore, ineligible to compete for the Brydon 1000s. challenge Shield, which can only be won by an aged horse at least 17 hands high, or a three-year-old at least 16.2 hands high, and otherwise in proportion. His owner is Mr. George Alston, Londonhill, Darvel, Ayrshire, and he was got by Baron's Pride 9122 out of a beautiful mare by the 3,000gs. horse Prince Albion 6178. This is breeding sure to produce quality, but not likely to give size and substance, and Revelanta is a case in point. He won the Cawdor Challenge Cup in 1904, and this year was first in the open class of aged stallions at the show. In all the essential points of the Clydesdale, Revelanta stands nearly unrivalled. Were he an inch higher and bigger all round in proportion, he would be invincible. He proves an excellent sire and Clydesdale men are all proud of him.



Revelanta 11876

MALVOLIO 13088

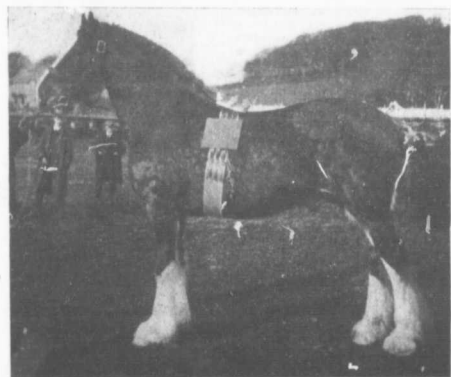
is a horse of quite distinct type. He was foaled in May, 1902, and is owned by Mr. Matthew Marshall, Stranraer. The photograph represents him as he appeared at the Glasgow Stallion Show in February, 1906, when he stood next to Revelanta in the open class, and was awarded the £20 premium of the Glasgow Agricultural Society, for which Revelanta did not compete. His sire was Marcellus (11110), the Cawdor Cup winner in 1903, and a very true kind of horse. Malvolio can hardly be described in these terms. He is a big, well-colored, and, when compared with his sire, rather a coarse type of horse. In his veins there is a good deal of Shire blood, in fact, just about as much as there can be without disqualifying him for registration in the Clydesdale stud book. He has a grand foot and good pasterns, but his bones are not too sharp and his hair is just a shade wiry. He is a well-made horse, and easily beats most of his age in respect of action. He moves close and straight, and has considerable popularity. His breeder was the Earl of Stair, K. T. Stranraer.



Malvolio, 3088

ALLANDALE 12418

should, perhaps, have been noticed sooner. He is of the same age as Dunnydeer, and was got in the same district by the same sire, Sir Hugo 10924. Allendale was foaled in June, 1903, and the photograph shows him as he was at the Glasgow Stallion Show in February, 1906, where he gained second prize in the class of three-year-old stallions and stood reserve for the Brydon 1000s. challenge trophy. He is owned by Mr. George A. Ferguson, Surradale, Elgin, and his breeder was Mr. Walter Adam, Park, Nairn. Allendale is a big horse, standing 16.2, even when four months short of the three years. He shows himself with commendable gaiety and action, is of weight and substance corresponding to his height, and can give an excellent account of himself in most company. It is seldom the great Clydesdale breeding area of the south of Scotland takes kindly to a horse bred in the north of Scotland, but Allendale had that distinction conferred upon him. He was selected to travel in Wigtownshire last season, and proved highly popular in the locality. The horse which beat him in the spring was



Allendale 12418

MEMENTO 13100

Curiously enough he was bred in the district in which Allendale was chosen to travel. His breeder was Mr. William Tully, Colfin, Stranraer, and his owner is Mr. Matthew Marshall. He was first at Kilmarnock when a yearling, and this year he was put in a strong class of three-year-olds at the Glasgow Stallion Show, where he was awarded the £50 junior premium of the Glasgow Agricultural Society, and the Brydon 100gs. challenge trophy. He was foaled in May, 1903, so that the photograph represents him when only two years and nine months old. He is a black horse, standing 17 hands high, with big, broad, flat bones, extra good feet and pasterns, and very good action. His fault is easily detected. He lacks depth of rib and roundness of barrel, yet Scotsmen do not object to this sort of horse when he is but three years old. Those who study the photograph closely will see how sharply the pastern or fetlock joints and the coronet are defined. The sire of Memento was Baden Powell 10963, a beautiful horse with rare quality of bone. The dam of Memento has Prince Robert 7135 blood in her veins. This big horse was very like Memento in shape. He lacked depth of rib, but had plenty of bone and could move well. He was first at Glasgow when an aged horse, and is chiefly known to fame as the sire of the champion Hiawatha, perhaps the most distinguished show Clydesdale of modern times. Memento recalls the stallion Corsewall 1420, which as a three-year-old was first at the H. and A. S. Stirling, 25 years ago. He, too, was a big horse with broad, flat bones and good action, but he lacked depth and roundness of rib.

HAPLAND'S PRIDE (VOL. XXIX.)

whose portrait, taken at the stallion show, is now given, deserves mention here. He is a bay three-year-old son of Hiawatha, bred by Mr. Wm. Motion, Haplunds, West Kilbride, from whom he was purchased by Mr. James Kilpatrick, Craigie Mains, at the stallion show in February. This photograph was taken then, and represents a good specimen of the Clydesdale breed. Before one set of judges "Haplund's Pride" was placed reserve to Memento for the Glasgow premium, but another bench of judges took a different view, and put two horses between him and Memento, relegating him to fourth place. Haplund's Pride is a thick, well-ribbed horse, as seen in the picture, standing fully 16.3 hands high, with great pith and substance, first-rate feet and first-class action. He is rather deficient in length of pastern and those who look carefully at the photograph will see that. His thickness and substance, with good action, carry him far, and he may safely be described as of a capital cart horse type.

My last photograph does not represent a breeding horse, but the champion gelding at the recent H. and A. S. Show at Peebles.

BEST OF ALL

He was bred by Captain Brown, Miltonhill, Alves, Morayshire, and was owned by Mr. Wm. Clark, Netherlea, Cathcart. At the time of writing, however, he is on the sea en route for Canada, in company with King Harry, the H. and A. S. champion gelding of 1905, which beat Best of All. These two magnificent specimens of the Clydesdale breed have been bought by Graham Bros., Claremont, Ont., and form the Clydesdale



Memento 13100



Haplund's Pride (Vol. XXIX)



Best of All

answer to the attempt which His Majesty the King and Lord Rothschild are said to be making to "boom" the Shire in Canada. "Let 'em all come!" the Clydesdale does not need to be boomed in that fashion. He rests on his merits, known and recognised many decades ago by the settlers in Ontario. These great geldings will show Canada and the States what the Clydesdale as a work horse is.

A Wonderful Horse

The horse in many ways has shown an intelligence beyond that of other dumb animals, but it has remained for "Clever Hans," the celebrated Russian stallion, to outdistance all of them in this respect. In fact, he is a phenomenon, an incredibly fine thought-reader among all the horses, such as previously has not been dreamed of. He gives by stamping with his hoof the answer to examples in arithmetic, spells words, etc. The numbers in the examples may be known to the thought-reader and not spoken, merely thought. The horse has been studied by thousands, including the leading scientists of Europe. Not one of these has been able to detect anything like collusion between master and steed. Indeed, the horse performed equally well in the absence of his master, Herr Von Osten.

A committee of practical horsemen, horse-training experts, physiologists, psychologists and veterinary surgeons, who put the animal to a severe test unanimously report that no training tricks of any sort of the circus kind were used, that the horse receives absolutely no intentional signs or conscious helps from his questioner, and further, that in the committee's opinion, no intentional or involuntary signs are used. Still the investigation was pursued, and a clever young German scientist has now established that "Clever Hans" is a sort of thought-reader among horses, and has learned to read the answer from his instructor's or the questioner's face by paying attention to the little, almost imperceptible, and quite unintentional helps that the questioner gives him. To all appearances Clever Hans reckons and spells exactly like a primary school pupil. In point of fact, however, he knows nothing whatever of numbers or letters, but merely pays close attention to the smallest unconscious movements of the person standing before him, which show him when he must stop with the hoof-tapping. In any case, however, the horse remains the wonder of this age, and is undoubtedly the most remarkable animal of his species that has hitherto been known.

A Horse on Him

A father going into his stable one day found his little son, with a staff and pencil in his hand, astride one of the horses.

"Why, Harry," he exclaimed, "what are you doing?"

"Writing a composition," was the reply.

"Well, why don't you write it in the house?" asked the father.

"Because," answered the little fellow, "the master told me to write a composition on horses."

Wells Farmer — "Gootpye, Mr. Shones, goot-pye. I will see you on Montay, who-effer." Excursionist from Yorkshire to friends—"Haow foony t' fowks do tark in this paart t' country!"—Punch.

The Ontario Crop A Good One

The following gives the area and estimated yields of the principal crops in Ontario. The forecast of August 1st is based on returns from 2,000 special correspondents:

Fall Wheat—787,287 acres, estimated at 19,026,633 bushels, or 24.2 per acre, as compared with 17,933,961 bushels from 796,213 acres in 1905, or 22.5 per acre. The average for 24 years was 20.4.

Spring Wheat—A reduced area of 171,743 acres is expected to produce 3,348,190 bushels, or 19.5 per acre, as compared with 3,582,627 bushels in 1905, or 18.8 per acre. The average of 24 years being 15.8.

Barley—756,163 acres, 25,478,250 bushels, or 33.7 per acre, as against 773,623 acres and 24,265,394 bushels in 1905. The average of 24 years was 27.4 per acre.

Oats—2,716,711 acres, 111,356,914 bushels, or 41.0 per acre, as against 2,668,416 acres and 105,563,572 bushels in 1905. The average of 24 years was 36 per acre.

Rye—79,870 acres, 1,370,898 bushels, or 17.2 per acre, as against 101,292 acres and 1,714,951 bushels in 1905. Peas—410,356 acres, 8,671,567 bushels, or 21.1 per acre, as against 374,518 acres and 7,100,021 bushels in 1905.

Beans—51,272 acres, 1,034,119 bushels, or 20.2 per acre, as against 50,543 acres and 846,443 bushels in 1905.

Hay and Clover—3,069,917 acres, 4,862,830 tons, or 1.58 per acre, as against 5,020,365 acres and 5,847,494 tons in 1905. The average of 24 years was 1.48 per acre.

Apples—899,810 trees of bearing age are estimated to produce 34,302,202 bushels, or 4.97 per tree, as compared with 21,380,749 bushels in 1905, which was 4.47 per tree.

Long Hours AND Hard Work

have been experienced by all industrial farmers' sons and daughters during the past SPRING AND SUMMER, for the sake of the annual harvest just gathered in.

WHY NOT spend some extra time this Fall and Winter in preparing for a

PERPETUAL HARVEST

as a result of a good, sound, practical education that will help many more.

We furnish the seed and help you with the work. We are helping many more and will help many more.

Home Study Courses

Select one or more best suited to your needs and plan to improve your time to advantage. Write

**THE SHAW
CORRESPONDENCE SCHOOL
TORONTO**

(formerly Correspondence Dept. of the Central Business College.)

**W. H. SHAW, President,
293 YONGE STREET, TORONTO**

The area in other crops for which no estimates are made are as follows: Potatoes, 136,064 acres; mangels, 69,353; carrots, 4,980; turnips, 132,512; rape, 43,560; flax, 6,902; hops, 1,732; tobacco, 8,087; orchard, 332,306; vineyard, 12,785; pastures (closed land), 3,549,181.

Pastures and Live Stock—Pastures were in excellent condition up to the latter part of July, but were beginning to show need of rain when correspondents wrote early in August. Live stock generally are in good form, except that cows have suffered much from the horn fly, and have consequently lost in milk in many sections of the province. No serious cases of disease among live stock are reported. Prospects are good for fall and winter keep, as there will be plenty of coarse grains, and a good supply of ensilage corn, and an abundance of straw, although hay will be somewhat scarcer than in more recent years.

Bees and Honey—The season has been a rather poor one for the apiculture. Swarming was uneven, and on the whole unsatisfactory. Clover was a disappointment; basswood was better, but only fair; buckwheat promises well. The weather was too wet for best results at the gathering time, and it is estimated that the average yield per colony will be between 35 and 40 pounds. Bees are otherwise in a thrifty condition.

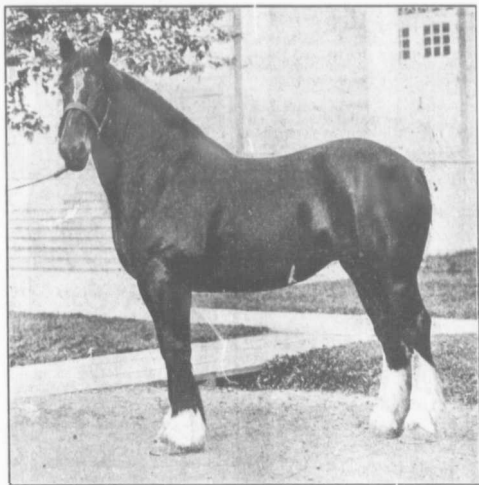
Farm Labor—Notwithstanding the large number of immigrants coming to Canada, farm labor in Ontario has been almost as scarce as ever. However, the references to the quality of the old country help is somewhat favorable than formerly. The high rates of wages during the harvest—ranging from \$1.25 to \$3 a day, with board, and from \$20 to \$40 a month—have forced farmers to do much of the work within their own families, the use of modern machinery enabling women to help in the fields during the rush. Farmers also exchange work with one another to mutual advantage. The comparatively light drop of hay this year lessened the demand for harvest help to some extent. On the other hand, the attractions of the West, the lakes, and the mines, as one correspondent put it, has lured many of our most skilled young men from Ontario farms.

Official Referee Recommended

At the gathering of dairymen held at Brockville, as announced last issue, a number of prominent dairymen were present, including Dairy Commissioner Ruddick, G. A. Putnam, Supt. of Farmers' Institutes, J. W. Mitchell, Supt. of the Kingston Dairy School, and G. G. Publow and G. H. Barr, chief instructors.

The meeting decided that it would be of advantage to have an official referee at Montreal, but whose duties should be modified somewhat from what they formerly were, the main difference being that he should be called in to inspect cheese only at the request of both parties to the dispute.

The question of having three grades for cheese and butter was favorably received by those present. Mr. Ruddick announced that as the Government cool-curing stations at Woodstock, Brockville, and Cananville, St. Hyacinthe had fulfilled the mission for which they were established, that of demonstrating to the dairymen of the country the value of cool curing, they would not be operated by the Government after this season.



His Majesty the King's Shire Billy Tassonia 4497, foaled 1913; sire, Calwich Blend 1729; dam, Saxon Queen 3822. One of His Majesty's Shire exhibit at Canadian National Exhibition.

Winnipeg and Brandon Fairs

A Western correspondent sends us the following in reply to "Brandon Special Correspondent" in last issue:

"I have just opened up a copy of THE FARMING WORLD, the issue of August 15th, and I notice on page 528 an article written by a special correspondent, booming the Brandon Fair. He says that the live stock show was much better than at Winnipeg, and then in the next clause he states that practically the same exhibits were out in cattle as at Winnipeg. As you know, Mr. Editor, these smaller shows—I have in my mind London or Ottawa—do not get their entries until the Toronto exhibition is practically over, and that their entries are made up of exhibits from Toronto, and you know how much sense there would be for a fellow not winning anything at Toronto to going up either to Ottawa or London; and the majority of exhibitors know before leaving Toronto what exhibits are going to either Ottawa or London. The same is just as applicable, if not even more so, in the case of Winnipeg and Brandon. Brandon had Winnipeg's prize winners, but nothing more, in cattle.

In sheep and pigs they were not 1, 2, 3, 4, with Winnipeg. In horses, while your correspondent stated that the Brandon exhibit had Winnipeg beaten to a standstill, I might say that I spent one morning in Brandon counting the horses they had, and including all their speed and show horses, they had 264 by actual count. The Winnipeg catalogue contained 312, not including speed horses, in fact, I think, there are some a's and b's scattered through it which would help to swell the total somewhat. As for cattle, I might state that these also were counted and their total number was 146; compare that with the number in the Winnipeg catalogue and you will see that your spe-

cial correspondent is wide of the mark.

Then when he compares the parade at Brandon with the parade that is at Toronto, it is something like comparing some township fair with that of Toronto. He clearly demonstrates that he does not know what he is talking about.

He also speaks about the attendance being quite equal to that of Winnipeg. Can you imagine a place of less than ten thousand people turning out to an exhibition or anything of that kind, equal to a city of ten times its size?

As far as light horses are con-

cerned, the Brandon exhibit was simply not to be mentioned in the same breath with that seen at Winnipeg. I will admit that in the heavy draft and agricultural teams that Brandon excelled Winnipeg, but outside of that I did not see any comparison whatever."

Prince Edward Island

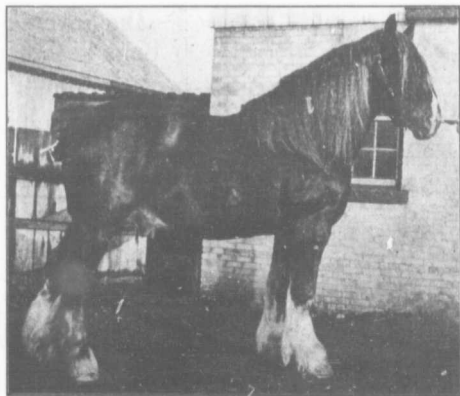
The pleasant cool weather is appreciated after the intense heat during the month of July and the first week in August. The grain is coming on well and promises a full crop in many sections of the Island. Some farmers will commence harvest about the 1st of September. The potato crop will not be more than half that of last year, as the bugs have been more persistent and numerous than usual. Many fields have been destroyed by these pests. Fruit is plentiful. Pastures are good and cows are milking very well.

A meeting of the cheese board was held on August 16. The following cheese (except Hazelbrook) were sold to R. E. Spillett at 11 1/2¢. St. Peter's, 86, Orwell 90, Dundas 120, Stanley Bridge 200, Cornwall 100, Lakeview 120, Red Point 80, Gowan Brae 70, New Glasgow 220, Union 135, Kensington 390, Hazelbrook 80, Redhouse 80, Hillsboro' 83, Hampton 70.

The committee appointed at the last meeting to get reduced rates from the railway, reported that nearly one-third reduction had been granted on the advanced rates.

On July 23 Mr. Morrow, dairy inspector, visited the Launching Creamery. According to his report he found everything in good order, with a fine stock of butter on hand, which speaks well for the quality of the milk. A meeting was held in the evening which was well attended. Some ladies were present. Mr. Morrow gave a very interesting address on dairying in general, the care of milk and milk production, and some practical advice as to how to produce more milk at a lower cost, also pointing out the wisdom of parting with poor unprofitable animals and replacing them with good ones.

At a number of pure seed meetings held recently, resolutions were passed



Recently imported Shire horse, Red Cloud, a very successful sire in England and possibly the heaviest stallion ever imported to Canada, weighing about 2,500 lbs. Owned by T. J. Berry, Hensall, Ont.

asking for legislation compelling the cutting down of all noxious weeds before the ripening of the seed. This should have been attended to long ago, yet it is better late than never.

As many farmers' hens are taking a vacation eggs are scarce, and are expected to advance in price.

Damages is being done in many orchards by the tent caterpillar. Every colony should be destroyed.

Preparations are being made for our exhibition. There are to be three days' racing and nine days' fair, in three classes each day. Large purses are offered, totalling \$2,250.

A. R.

New Brunswick Notes

The present season is not proving a very good one for the farmer in New Brunswick. The cold, wet spring prevented the usual acreage of crops from being planted, and although the latter part of June and first part of July were most favorable for growing crops, the steady drought since about the 20th of that month has seriously checked growth of all kinds.

THE HAY CROP

In some countries was well up to the average, in others not half a crop, and taken as a whole, there is a decided shortage. There is as yet no after-growth, and the continual bright sunshine, with the thermometer from 80 degrees upwards, is drying up the grass roots so thoroughly that it will leave old meadows in poor condition for next year's growth.

Early sown grain is a fair crop, but unfortunately, on account of the backward spring, there is but little of it, and the late sown is simply drying up without properly ripening.

Potatoes also feel the effect of the drought. While their quality is strictly A1, the yield will be very light, and prices must go up considerably above the average of past years to give the grower average returns. The bug this year has been unusually plentiful, and while the spray pump has been generally introduced, the varying strength of paris green, and perhaps frequently carelessness in mixing, many fields have been much damaged by its use. In fact, some good growers claim that paris green in any quantity hurts the feeding surface of the leaf, and affects injuriously the quality of the potatoes. Growers who have used "Bug Death," apparently a sulphate of zinc preparation, are almost unanimous as to its beneficial effect on the growth and quality of the potato crop, but the cost of treatment, about six times that of paris green, prevents its being largely adopted.

TURNIPS AND MANGELS

were much affected by the fly and grubs, and most growers had to sow the second time. This fact, coupled with the drought, militates against the prospect of a full crop.

Corn, where growing, is looking well, and it is too bad that more of this kind of fodder is not grown.

The drought has furnished several lessons on the effect of frequent and continued cultivation for corn, potatoes and roots, and those men who have persistently cultivated are not grumbling nearly so much about the absence of rain.

As is usual in a very dry season, we are suffering tremendous loss from

FOREST FIRES

They are the result of gross carelessness, and the greatest sinner in this respect is the International Railway. The I. C. R. engines have been daily

spreading destruction from Moncton to Campbellton, and from Fredericton to Chatham.

Of course much of this land has been previously and recently burned, but the fires are spreading to heavily timbered areas, and immense loss resulting.

Hundreds of men are out at the expense of the lumber companies trying to check the spread of the fires. We need many additional safeguards on our timber lands and an aroused public sentiment before this tremendous loss can be prevented.

High prices for

DAIRY PRODUCTS

have given our dairy farmers great encouragement, and had the pastures been maintained there would have been a make of cheese and butter above last year. The extension of the cream-gathering system for butter factories should have a very large increase in the output of creamery butter. As no statistics are kept of the farm dairy make, no notice can be taken of the consequent shrinkage in that direction.

The apple crop promises fairly well, and if the drought is broken soon the promise should be fulfilled. Continued dry weather will, however, spoil these prospects.

THE EXHIBITION SEASON

is now upon us. St. John opens the ball on the 1st September, and is followed by local shows at Sussex, Chatham and Woodstock. A number of Ontario stockmen will act as judges at all these shows, and later some of them will address Farmers' Institute meetings throughout the province. We understand the expense of employing is divided between the

Saving made Easy

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\$1.00 opens an account in our savings department.

Interest paid 4 times a year

The Sovereign Bank of Canada

Put your money in a place where you can get it when you want it.

68 Branches throughout Canada.

different shows and the Dominion and Provincial Departments of Agriculture.

While this season's outlook is not so encouraging as we should like to see, there is one branch of farm work where a very decided forward move has been made, and that is the supplying of the various town and city markets with small fruits and early vegetables. Of early cabbage, squash, potatoes and vegetables of all kinds there has been an abundant supply, and of a quality absolutely unsurpassable. The prices have also been encouraging to the growers. A better poultry supply than in previous years can also be noticed.

MCADAM.

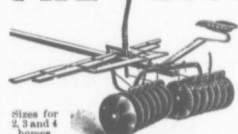
Nova Scotia Crops

The following crop returns are made from something over one hundred reports received from correspondents in the most important agricultural districts in the province during July.

The fall of 1905 was unusually dry. This was succeeded by an open winter and by a rather slow spring. As a result of all these conditions, the plants are healthy and vigorous, the reports are favorable. But where fields have been neglected for a number of years, the grass roots especially did not seem to have the vitality to withstand the conditions, and as a result, reports are not so favorable. Scldom have we experienced such a backward spring, as a consequence of which little seeding was done until June, and in many sections fields were not seeded until the end of that month. Following the wet month of May, June brought in very dry weather, and it looked for a time, as if crops would generally prove a failure. However, during the latter part of June and the month of July, we have had lots of rain and heat, and the growth has been unprecedented. At the present time, as mentioned above, opinions as to crops differ considerably, but it would appear as if the hay crop for the whole province may be estimated at about 85 per cent. Oats and other grains will be about a 90 per cent. crop. Roots will be fully up to average. In regard to fruit, opinions too are variable; but it is generally anticipated that the crop will be above the average. Every correspondent reports the season to be from ten days to three weeks late.

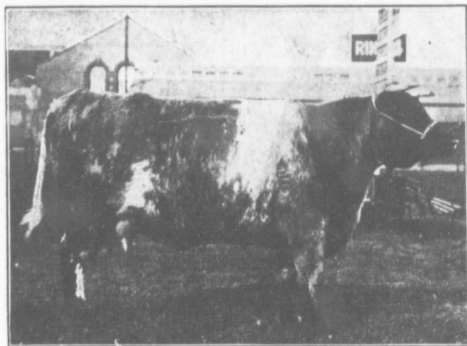
Artful—Tommy: "You ought ter show the teacher yer mumps, and she'd let yer go 'ome." Willie, the invalid: "I'm not a-goin' to tell 'er I've the mumps till she says one of the other boys 'ave caught 'em. Then there'll be plenty of boys for me to play with!"

THE BISSELL



is known among the farmers as the
BEST DISC MADE
because it has the Capacity, the Back, the Get There which others lack.
Try the Bissell for making a good Seed Bed—for pulverizing Cows or Root Ground, or for any tough job. It's the best by far. NONE genuine without the name "Bissell." For Sale by Agents.
Manufactured by—
T. W. BISSELL, Biora, Ontario.

Call and meet us at the Toronto Fair, in the New Process Implement Building; also at the Ottawa Exhibition. See "BULLDOG" ad on page 617



Miss Prim, 4 years old. Sold to go to South America.

The Shorthorn Herds in Ireland

The Favorite Breed of Cattle—The Milking Qualities Not Neglected

Written especially for THE F. W. Exhibition Number by the HON. JOHN DRYDEN

A somewhat extended tour over different portions of Ireland permitting of frequent conversations with breeders, farmers and others, brought to the writer the conviction that by far the most popular breed of cattle in Ireland at the present time is the Shorthorn. They are used in every part except in the mountain districts, and sometimes even there. They are in great demand for crossing purposes, and the results of experience in the past in most of the districts where they have been introduced is so satisfactory that the demand is not likely to slacken for some years to come.

Ireland in general has not in the past years finished her cattle, but in preference has sent them out at a younger age as stockers. It is claimed by those in the business that the stockers pay better than the finished article. In any case those who finish the feeding cattle require much additional capital in buildings, etc., as well as a change to increased tillage with the necessary employment of more labor. So far there are very few willing to make the change. Formerly, on account of poor breeding, many of these stockers were of inferior quality, but it is now said by the purchasers in England that the quality has in recent years been much improved. This improvement has been almost entirely produced by the use of the Shorthorn. The average farmer in Ireland believes he can better retain the milking qualities of his cows by this cross than any other, and this, no doubt, is the chief reason why the Shorthorn retains its present popularity.

So great has been the demand that for some years resort has been had to Great Britain for a considerable number. The most popular strains, as in Canada, are what are called

THE SCOTCH, OR CRUICKSHANK

Prices are high, running from \$150 to \$225 for yearling bulls for crossing purposes. Some of these which develop well, and especially if the colors are good, are afterwards sold for the South American trade at high figures.

I saw one animal bought as a yearling for \$200 and sold as a three-year-old for \$2,000. Frequent sales are made at even higher figures, so that it is quite natural to observe that the number of Shorthorn breeders in Ireland is increasing rapidly.

In 1903 Mr. Robert Bruce, secretary of the Royal Dublin Agricultural Society, and well known as an authority on Shorthorns, prepared an article which was published in *The Journal* of the Department of Agriculture, in which I find some statistics giving the names of breeders, as well as in most cases the number of cattle in each herd. At that time there were 157 breeders of Shorthorns in Ireland, the majority having from three to twenty females. It must not be understood, however, that all these cattle have been introduced recently. Among the first breeders of Shorthorns in the very early days were some located

in Ireland, and no doubt the older sorts of common cattle at present found here are crosses of the early Shorthorns.

The writer had the privilege of a personal inspection of several herds in different parts, but mostly in the north-country. There is no doubt

THE LARGEST HERD

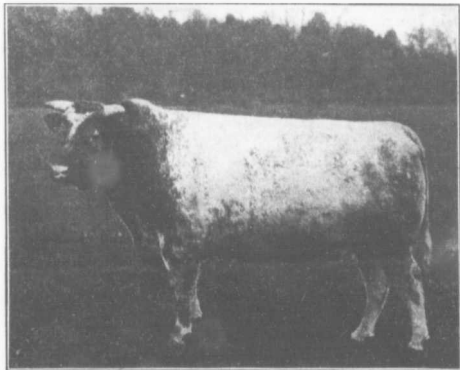
at present in Ireland is that owned by Mr. Barton at Shaffan. It is under the skilful management of Mr. Milne, a canny Scotsman, who has filled this position for many years. The herd at present numbers about 300. It was established a half century ago, and consisted entirely of Booth blood. The herd was bred along these lines for thirty years, until about 1880, when the first Cruickshank bull was introduced, producing results so satisfactory that others followed from the same source, and ever since only Scotch bulls or their produce have been used. The large herd of cows contains many admirable specimens, some of which are shown in the accompanying illustration. The milking properties have not been lost sight of, for, strange to say, the whole herd of cows is milked by hand, and the calves brought up on the pail.

The mild winter of the Irish climate permits of the most of this herd living in the open air in the year round. Only the bulls and the cows giving milk are stabled, the latter at night only. The herd is remarkably healthy. The crop of calves this year numbers 79, and all are living but one. The surplus are all sold privately, and at good prices. Two of the cows shown in the cuts have been sold to go to South America as also the group of young heifers. The herd bulls at present number six, the latest addition being a young bull from the King's herd at Windsor. (See cut.) Mr. Milne informs me that no case of reaction to the tuberculin test has ever occurred up to the present.

I was greatly interested in an inspection of what Mr. Milne calls

THE "DEXTER SHORTHORN"

They are the result of crosses of Shorthorn bulls on the little Dexter cows. The cows, as now seen, carry the type and form of the Scotch Shorthorn, only on a smaller scale. They retain the milking properties of the Dexter, as is well illustrated on next page, showing a rear view of the



Thrown (78010). Sire in the Priory Herd, Tullybogue

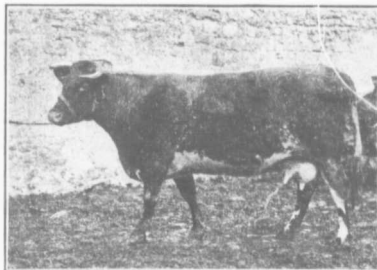
udder of one of the best milkers. These plump, fleshy, good milking cows are not now crossed with Short-horn bulls, but are kept as a distinct breed. One of the bulls in use is shown on page 581, and is an accurate likeness. Whether they can hold and perpetuate their good qualities remains to be seen. They are in good hands, but should be scattered, so as to permit of crossing later on.

Another herd rapidly coming into prominence is that of Sir Hugh Smiley, Bart, D.L. This herd is comparatively young, being started in 1898. It is under the management of Mr. J. Coey, a nephew of the proprietor, whose close attention and intelligent oversight is worthy of all commendation. He believes thoroughly in the Short-horn, and has made a splendid start towards a first class herd. The illustrations shown give some idea of the type which is considered the most desirable.

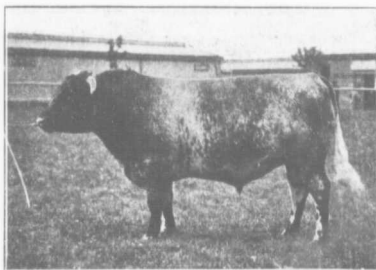
The farm is situated near Larne, on the north-east coast of Ireland, on rather high land overlooking the sea. The soil is among the best in Ireland, as shown in the rich pasture lands as well as the growing crops, which



Best of Southern cow, Little Pet. Note the well developed udder.



Rose of the Vale. Walter R. Crawford's Priory Farm Herd.



Broadhook Champion. Winner of five firsts and one championship. Six times exhibited. Priory Farm Herd.

looked most promising early in July when the herd was examined.

Larne is only a short distance from Belfast, in a northerly direction, and is located on the narrowest part of the channel separating Ireland from Scotland. About two hours is sufficient to cross in the small steamers plying between that point and Stranraer, where close connections are made for all parts of Great Britain. Only a short distance to the north of Larne, as the tourist will know, is found the Giant's Causeway, that wonderful freak of nature to which thousands of travellers resort annually.

The herd numbers about 70 head at present, and is rapidly increasing. Frequent additions are made as opportunity offers. Much attention has from the first been given to the breeding of the cattle purchased. A hasty glance at the neat catalogue put out this year shows some of the choicest blood now much sought after. Several of Mr. Cruickshank's families are represented, including Secrets, Butterflies, Broadhooks and Victoria, to which may be added from other sources, Wemple, Jilts, Lady Mary's, Missie, Roan Lady, etc. It will be seen that what is called

SCOTCH PEDIGRES

predominate, and form by far the major portion of the herd. Mr. Coey, like most other breeders, is always searching for a bull. His latest purchase was made at the dispersion sale

of the late Philo Mills, at Ruddington Hall. It consisted of a young bull under one year, but a very choice specimen. He shows a slight blemish, which allowed him to go to the Ardmore herd at a moderate price, con-

sidering his superiority. In the writer's judgment this young bull has sufficient strong Scotch blood to make him a safe cross on this herd, and the result will be watched with much interest. A very neat yearling bull from this herd, which won first place at the Dublin spring show, was sent to the Royal at Derby this year. He stood well up in a list of some 60 odd animals of the choicest in the kingdom, but not inside the charmed circle—so very limited in comparison to the whole number.

Near Cookstown, in the north country, I found

ANOTHER INTERESTING HERD

It is owned by Mr. Walter R. Crawford, The Priory Farm Tullybogue. His brother on an adjoining farm has also the nucleus of a herd, being built up on similar lines. The present sire at the head of the herd is "Broadhook Champion," winner of five first prizes and one championship. He was bred in Scotland, and shows good Short-horn type, but his general excellence is weakened somewhat by the plainness of his head and lack of style. This young bull is, I under-

stand selected for shipment to South America at a good round figure. (See cut.) This herd has produced several good sires. Two of these are shown in cuts herewith. The bull Tirowen was used in the herd with much suc-

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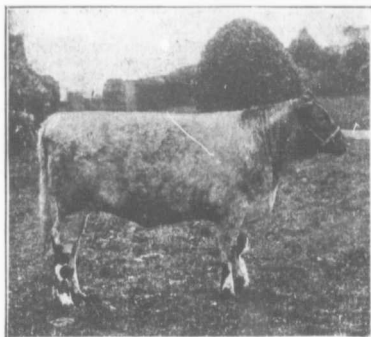
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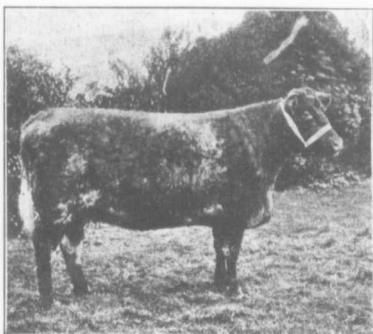
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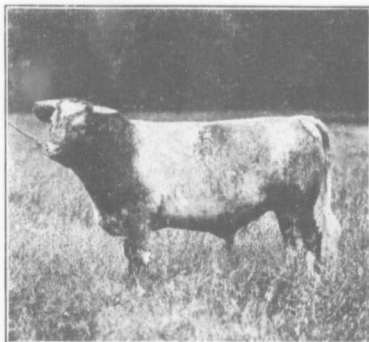
Litty Lind II, in the Ardmore Herd.



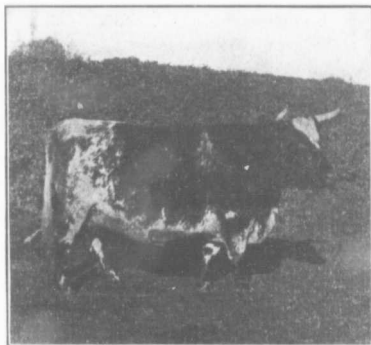
Lady Muriel, in the Ardmore Herd.



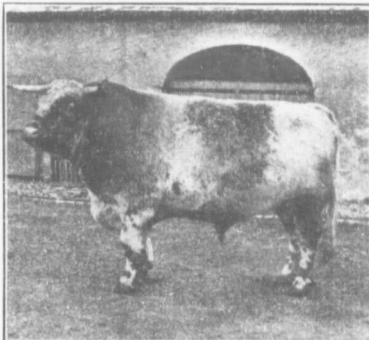
Shorthorn cow, Grattuly, recently sold for £300 to go to South America.



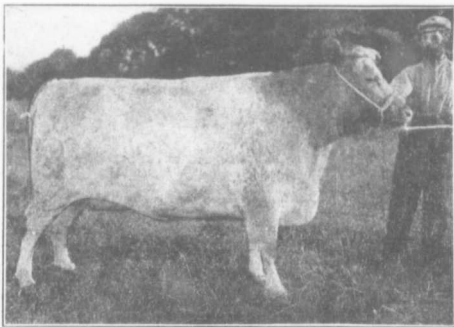
Scottish Chief, lately secured by Mr. Barton from the King's herd.



Dexter Shorthorn cow, 4 years old.



Dexter Shorthorn bull, Little Prince, 5 years old.



Lady 17th. A matron in the Ardmore herd.

cess, and was sold altogether too soon. He shows good type and character, which deserves to be developed wherever possible. One of the cows bred here, called "Rose of the Vale" (page 581), is now in the King's herd at Windsor, and is the dam of some of the prize winners recently shown from that herd. This cow is an extra milker, and as often happens, has proved a good breeder also.

What specially attracted my attention in this herd was a number of what may be called

SHORT FEDGEEED CATTLE

They have now the right of admission in both the Canadian and American herd books under the changed regulations. A considerable number of cows of this family are found here, all showing a really useful type. They are all low and thick, showing robustness and good constitution, and best of all, they are really good milkers, able to nurse two calves, and do it well.

This family originated from a good Shorthorn grade and a great milker called in the pedigree "The Roan Cow," which cow was presented to Mr. Crawford's mother as a wedding present on the occasion of her marriage nearly half a century ago. The choicest sires which were within reach were always used, with the result that a genuine present day Scotch type has been produced, showing great robustness, and still retaining those splendid milking qualities.

Why should such cattle be discarded to make room for others belonging to more popular families, but which show weakness in constitution, with the milking propensity almost gone? Are these not the sort of cattle from which the best Shorthorns have sprung? In Mr. Cruickshanks' later days his most select families resorted to for his sires were not those showing the longest line of ancestors, but were in most cases the shorter, and at that time the more unfashionable pedigrees. For myself, "handsome is as handsome does," and the cattle which still combine

BEEF AND MILK

as these do, are of real value, and should be perpetuated, even against present day popular opinion. I saw here a cow of fine Shorthorn type, said to have produced by actual measurement one thousand gallons of milk in one year. Such cows are worth perpetuating.

I visited several agricultural shows and found the Shorthorns presented

for inspection were of a good sort, and generally well brought out. The first prize aged bull at the Royal show this year was sent from Ireland, and was really superior and good enough in the judgment of many to have won the male championship. I have seldom seen a more perfect aged bull without a serious fault, of good size and smooth as an apple.

Besides the three herds here described there are a large number in different parts, containing from five to twenty-five females. Many of them have been founded in recent years by wealthy men, who will without doubt, rapidly push to the front. I visited a few of these near Dublin.

SOME MINOR BREEDERS

The first one is owned by Mr. Wrench, who is also a noted horse

breeder. It was a great privilege to look over the herds, where I found so many of the first quality.

The Shorthorns have only lately been brought together, but are choice, both in character and pedigree. He has not yet selected a sire, but has a young bull on hire for the season.

Mr. Wrench is enthusiastic in his admiration for his cattle, and where that spirit is found progress is sure to follow.

Another beginner is Mr. O'Malley, a few miles out of Dublin, with a beautiful farm in splendid condition, and with means sufficient to very soon build up a splendid herd. His Shorthorns looked well, and his stock bull, judging from what I saw, is a first class sire. Some of the best calves I saw in some other herds were sired by this bull.

I visited also the fine residence of Mr. Nash, also quite near to Dublin. Here I saw a cow sired by a bull bred at "Maple Shade," and sold many years ago to Mr. Robert Bruce for export to Great Britain. The cow was no disgrace to Canada, and is among the best of this herd. Several animals here at once attract attention as being superior specimens. Some good young calves were noticed, and among them one especially promising, sired by Mr. O'Malley's bull above referred to. This herd was commenced five years ago, and will no doubt soon reach the front rank. The proprietor is a critical judge, and has abundant means to enable him to carry out his wishes, even if others should stand in his way.

I need not go further into particulars in this article. Shorthorn breeding in Ireland has received a new impetus from the increased demand and correspondingly high prices, and in future Shorthorn breeders must reckon on competition from this quarter.

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The Dual-Purpose Cow

By E. C. DRURY, B.S.A., Agriculturist, Macdonald College,
Ste. Anne de Bellevue, Que.

While believing most strongly in the utility of the dual-purpose cow, I will not attempt to assert, as do some advocates of the special purpose cow, that she is the only animal the farmer can afford to keep. On the contrary, I believe that there are many sections of our country that are best served by the special purpose cow, and I rejoice in the success which has attended the efforts to produce classes of cattle suited to the requirements of these sections. On the other hand, I am very firmly convinced that there are many large sections of our country that can best be served by the dual-purpose cow. I think it a pity, however, that our breeders of pure-bred cattle, in their efforts to attain excellence in the production of special purpose cattle, with the show ring fame attendant upon it, should have so largely neglected the breeding of the dual-purpose type, that those sections where this class of cattle is required should be left without an adequate supply of pure-bred stock for breeding purposes. It is, I think, a mistake that our agricultural shows should so largely emphasize the importance of the special purpose animal to the almost total exclusion of the dual-purpose type, which undoubtedly would best serve a very large proportion of our farmers. It is not by the special advocacy of any class or classes of cattle, but by a fair and impartial recognition of the merits and demerits of all classes that the live stock interests of the country can best be served.

WHERE SPECIAL-PURPOSE CATTLE PAY BEST

Of all classes of cattle, it is unquestionably true that the dairy type gives the largest money return for the food

consumed. It is equally true that, per head, they require the largest amount of labor, expended in milking and caring for the milk. These two facts, taken together, point to the farm of rather limited production as the true and proper place for the dairy cow. Here, since the amount of food for stock produced, is comparatively limited, it is important that it should be accounted for to the best advantage. This the dairy cow does. Here, too, the special disadvantage of this class of cattle, the amount of labor required, is not felt so severely as in other situations, as the united labor of the farmer and his family is generally quite equal to the care of all the cows the land will feed. These conclusions are borne out by the fact that it is in just such sections as these that we find the dairy industry most firmly established.

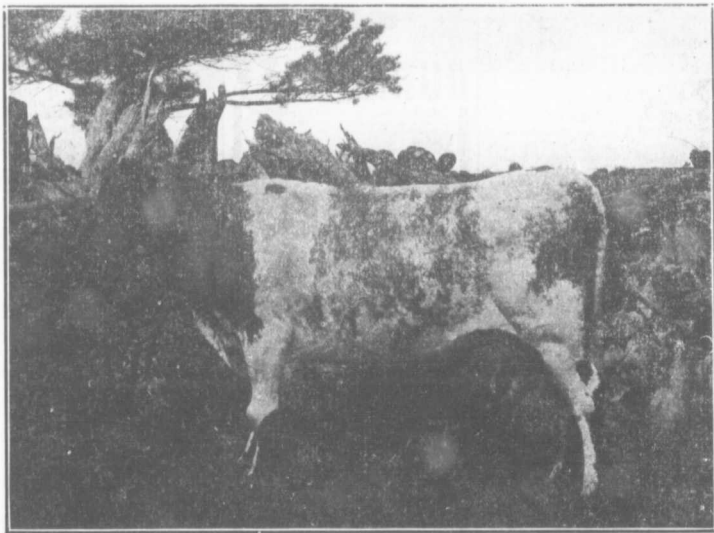
On the other hand, the raising of special purpose beef cattle, that is, those cattle which depend for their usefulness on the production of beef alone, and cannot be profitably used for the production of milk, cannot be successfully carried on except in a country of cheap land and plentiful food. The cow that yields no more than a calf, which must afterward be fed a good deal before reaching maturity, is not a profitable animal except in sections where food is abundant and land cheap. The one great redeeming feature of this class of cattle is that they require a very small amount of labor. Hence, in sections where land and food count for very little, and labor counts for much, this class of cattle is the most profitable. This is the condition in ranching countries, but scarcely in the older farming sections. It is doubtful if,

under Ontario conditions, for instance, this class of cattle ever can be used with profit for the production of beef, except in a very limited way, for a fancy market, certainly not for the production of beef which must come into competition with other meats as the food of the people at large.

GENERAL FARMING AND THE GENERAL-PURPOSE COW

But while the special purpose cattle admirably suit the conditions above noted, there is much of our country which does not come under either of these heads. This third class of farming country is that comprised by the great bulk of our territory where general farming is practiced. Here the farms are fairly large and fertile, and the number of cattle that may be kept is far in excess of the number that could be handled, with the labor available, as dairy cows. On these farms the greatest number possible of cattle must be kept, in order to maintain soil fertility, and since it is impossible to obtain labor to handle this number as dairy cows, and unprofitable to keep cows on this high-priced land, which yield no more than their calves, the farmers, taking the only other alternative, must fall back on the dual-purpose cow. A certain number of cows may be kept for dairy purposes, and it is necessary that their progeny be such as may be turned into good beef by judicious feeding and management.

This is the condition on most Ontario farms, and this is the type of cattle that supply nine-tenths of our export cattle. It is true they are not as good as they might be. It is true that much might be done to improve them. Is it true that this is entirely the fault of the farmer? It is the common practice of farmers' institute lecturers and agricultural writers to blame all defects in this class of cattle on the use of the scrub bull.



A good type of the dual-purpose cow. She had been milked just previous to being photographed.

(The word "scrub" is applied here to all bulls, which is hardly a correct application of the term, as all grade bulls are not scrubs.—Editor F. W.) I, for one, am inclined to think that

THIS SOURCE OF DEFECTS

has been greatly overdrawn. The use of the scrub bull is not by any means as common as we are sometimes told. The writer has personal knowledge of whole neighborhoods where pure-bred bulls, the best the farmers could afford, have been constantly used, and yet where the cattle have decidedly retrograded in size and quality and constitution. In many of these sections a few years ago there were herds of great strong grade Shorthorn cows, capable of giving a good account of themselves at the milk pail, and at the same time of producing calves that at three years old, with good feed, would weigh from 1,400 lbs. to 1,500 lbs. And yet in these same sections nothing but pure-bred sires have been used.

This is a lamentable fact, and yet it is easy of explanation. The sires used have been in most instances of the extreme beef type, and the farmers have not always taken them from choice, but because they were the only pure-bred animals easily available. These sires, transmitting their characteristics to their progeny, have given heifers, beautiful in form, but of a non-milking type, which the farmers soon found out. The only remedy under the circumstances, since the farmers required milking qualities, was to select those heifers which showed as little as possible of the characteristics of their sire. These were for the most part undersized and constitutionally weak animals, and were, in fact, the culls of this system of heredity. The result has been that while they graded up on the sire's side, they graded down on the side of the mother. The final effect is seen in the conditions above described.

THE REMEDY

lies in the return of the breeders of pure-bred cattle to the dual-purpose type. The one great dual-purpose breed is the Shorthorn. Other breeds equal or surpass them as special-purpose animals, but as dual-purpose animals they stand almost alone. It was largely this quality that made this breed the great farmer's cow in so many areas, so widely distributed. Remembering this fact, it is to be regretted that the breeders of these cattle should have so largely neglected milking qualities. It is a rather sorry sight to see pure-bred Shorthorn cows, the mothers of the future breeding stock of the country, that cannot raise their own calves. True, the beef type of Shorthorn is a handsomer animal, a better prize winner, perhaps, than the dual-purpose type, but I am of the opinion that the future of the breed, the beef industry of the olden farming sections, and the general prospering of our farmers, will be best served by a return, a frank and full return, to the dual-purpose type.

Willie—"Papa, if I was twins would you buy the other boy a banana, too?"
Papa—"Certainly, my son."
Willie—"Well, papa, you surely ain't going to cheat me out of another banana just 'cause I'm all in one piece?"

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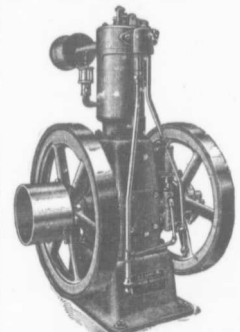
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For an ideal dairy cow, there are many that set the highest value on a cross-bred Shorthorn, as she is a general purpose animal, and in a high position in milk production, breeds a good calf and is worth a substantial sum when parted with, if not too old. In many of the best dairy districts a pure bred Shorthorn bull is objected to, on account of extreme purity of breeding, encouraging the fattening property at the expense of milk production, and a half or three-quarter bred animal, according to the quality of the cows, is much preferred, as owners of a dairy stock are confident that for general purposes the latter suits them best. The Polled Angus, which a few years ago threatened to become a dangerous rival of the Shorthorn, has rather waned in public opinion from the general belief that it is not a milking breed. Possibly there may also be some objection to the color, after the long connection with the reds and roans, but notwithstanding all objections, the blacks hold the highest position with the graziers, as the best for their purpose, and are eagerly picked up, and higher prices are given than for any other cross breeds. For quick growth and early maturing qualities the Hereford is hard to beat; indeed, many think it the best of all for purely fattening purposes, being easily fed, and attaining a heavy weight when liberally treated, at a very early age.

For crossing purposes, when the calves are reared on the dams, Hereford bulls are greatly favored, the milking property of the Hereford, not requiring to be recognized by this arrangement, the cows chosen being half-bred Shorthorns, although occasionally pure bred Hereford cows are used, crossed by Polled Angus bulls, without the milking property being called in question, as they seem to rear two calves in the season remarkably well.

W. R. GILBERT.

A Frenchman who was staying at an hotel in England asked for his bill, and, on its being presented, was astonished to find it so large. He felt that he had been plundered, but he paid the bill and asked to see the proprietor. The landlord came down, and the Frenchman rushed up to him. "Ah, let me embrace you!" he exclaimed. "Let me kiss you!" "But why do you want to embrace me, sir? I don't understand." "Ah, sire, but look at this bill!" "Your bill? Yes, but what of it?" "Vot of it? Why, it means zat I sail nevaire, nevaire see you again, sire!"



Talks With the Old Cattleman

By J. W. Sangster

"The farmers' noospapers," remarked the Old Cattleman, as he wiped the f-esh buttermilk from his moustach and placidly resumed his corn-cob pipe, "from the Farmin' World, published at Toronto, all down the line to the Allopathic Husbandman, operated among the Mormons at Salt Lake City, Utah, hev a pet hobby hoss which in mistaken kindness they trot out on all occasions an' work almost to death. I don't want to hand out that he ain't a good hoss enough, but watchin' him work under all sorts of conditions has made me think that he either ain't the hoss he used to be, er anyway I've got one to him that I b'lieve I could put up agin him

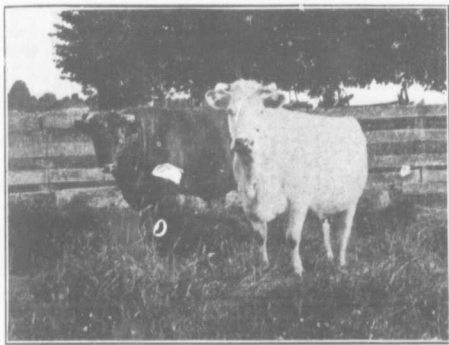
the other. Hosses are either bein' bred so fast that it takes two men to hold the hair on one man's head, er else so big that you hev to hev an extra chamber maid fer th' hoss stable. "Get busy an' do likewise or even wuss," is the maxim that goes with this brand ov literature, an' right here is where I climb onto my nominated favorite an' land up at the end ov th' heat with about forty or fifty common lookin' hogs and about three dozen fairish sort ov fat steers an' the ordinary returns from a dozen cows, a few etecs in the way ov poultry, fruit an' vegetables, an with this, together with the commission of a few cross-roads deals I hev made

ways, the only argyment I got left is the one that is writ on green paper an' I carry in my starboard breast pocket. An' when you run across one ov them kind, an' all other resorts fail, that is the time to use it. She is the kind that will keep you watchin' dairy markets all her life, and it won't be the latest quotations on third class hides an' fertilizer that'll interest you most either when you finally bid her good-bye for the last time. Specialization may do for the race track, an' the grand stand, an' the footlights, but a more versatile form ov general ability will always work pretty satisfactorily away back on the farm."

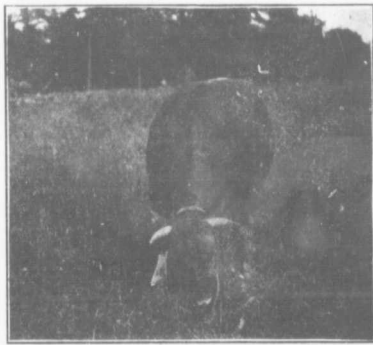
Holsteins in Canada

The writer cannot claim to be one of the oldest breeders of Holsteins in Canada, although many will probably think that I am among that number. As a matter of fact, however, ever since I have been breeding Holsteins I have been taking a part in the fight.

Holsteins, I believe, were first in-



Pasture scenes on the farms of two of Canada's leading Shorthorn breeders, Maple Shade, Brooklin, Ont.



Hillhurst, Que.

an' pretty near come out a winner. The critter I'm referin' to is called by a very long and tumultuous name, an' runs along sumthin' like "Specialization," and the one whose argyment 'm willin' to strengthen with my pile has been entered in the books a trifle musically also, bein' cognominated 'Practical Utility.' They ain't neither one iv them the kind iv hoss that enny one kin get the best work out ov, an' the one I'm favorin' with my confidence ain't the best lookin' hoss ov the two either, but looks ain't everything, if they wuz, fer instance, I'd have the hired man runnin' an automobile instid of a wheelbarrow. But that's the game they are mostly bankin' on now.

"If one man has a Holstein cow that gives so many quarts, an four ounces ov milk in so many hours an forty minutes, we git a photo ov the cow with her ancestral tree an' marginal comments.

"Another medium fer the circulation ov enlightenment devotes its leadin' editorial to the glories ov the fat steer that just cost the even money to feed for three months, an' after readin' both the reflection came to me that the beefin' qualities of the milkin' machine was probably about as well developed as the dairy qualities ov

I pays the store bill an' taxes, an' if the company promoter an' the insurance agent don't git at me too soon I kin mebbe squeeze a little spare change into the bank, or perhaps accommodate a few choice risks at first hand among my Specialist acquaintances and neighbors.

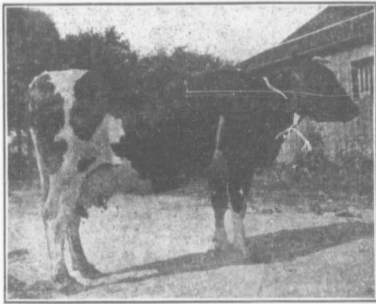
"Ov course, the way you look at things hez a good deal to do with it, but from my point ov view both the feller who works regardless fer a lot ov beef an' also the one thet hez a morbid ambition in the way of inundatin' humanity with milk an' butter, is away off to one side. The kind ov critter that recommends herself to me is the one that looks capable of a decent amateur performance in both lines, and the one that I places in the most temptin' attitude on my bargain counter, is the one that has proved not very handy at either.

"There are three argyments that I kin use when I'm out lookin' fer a cow. If she is an extra good milker I kin often buy her a little cheap by commentin' sadly on her thinness ov flesh an' run-down appearance. If she is a high-class breeder, I kin ruminate regretfully on the absence of the dairy qualities that go to make a cow valuable, but if she shows legible intimations that she is all right both

introduced into Canada in 1882, from the States of Michigan and New York to Norfolk County in southern Ontario and around Kingston in the east, and later on they were introduced into other parts of Canada. The first shipments were very small in number, those engaged in importing them doing so in very limited numbers. The progress that the breed made, at least during the first ten years, was very slow, due partly to the small number imported and to the way those were handled. Of course, when a breed is introduced into a new country and "butts in" against other breeds it has got to "make good" to make progress. Whether from modesty or lack of "strenuosity," the earlier breeders did very little to popularize the breed in the way of making milk records or demonstratin' their capacity fer dairy work. Of course, it is work that counts in the dairy breeds. They may talk all they like about the dairy form and all this sort of "rot," but it is

PERFORMANCE THAT ATTRACTS

and holds the progressive dairymen, and those who have money to invest in purebred cattle, are likely to look ahead somewhat and endeavor to see if they are going to get their money's worth before investin'.



Aaltze Posh 4th, one of the earlier types of Canadian Holsteins.



Spring Brook Queen—a modern type of the Holstein cow.

I can remember when Holsteins were about as scarce in Ontario as bears. I can also remember when they were about as unpopular as any breed could be. I also know that there is no other breed more popular now among progressive dairymen and more in demand. What has brought this about? It is work on the part of the breeders of Holsteins themselves. The records made at official and public tests have been large and have been made over a great many years by a great number of cows, showing that when the breed is given a chance and has decent care and fed intelligently they respond to that care. Since 1894, when the first notable victory was made at Toronto by Holsteins in public tests, there has been almost a complete series of victories in public tests and also the official records made have been good. This might also be an object lesson to owners of some other dairy breeds that if they want to make or hold the esteem of progressive dairymen they have got to show by their works that they can "make good," and that whether the work is made in official

or public tests that they can do something above the average.

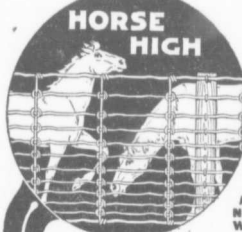
RECORDS OFFICIAL AND NON-OFFICIAL.
While this has been so in the last few years, it is bound to be more necessary for every dairy breed in future to show by records what they can do, as the breeders are now taking up the public test work more largely and the public are paying more attention to these records. Private or semi-private records have no weight at all among the kind of dairymen that it is most profitable to reach. It is rather unfortunate that so many different systems of making records are being followed, as it seems to make more confusion for the general public to follow the work being done. However, the records in order to continue to have weight should be made so that every step is witnessed by a disinterested party and is really official. People are very suspicious about

milk records, just as much so as about the records made in horse racing. It is not as important how long a period the records cover as it is to have that period covered by the record absolutely correct and free from any suspicions. While the records made by the purebreds have had a great deal to do in popularizing the Holsteins, the good work done by Holstein grades all over the country adds a great deal to popularizing the breed, and adds stability because we all know that the Holstein breed has done a lot towards raising the standard for dairy cows, and just as long as breeders keep on improving their breeding methods and care of the stock, just so long will the breed continue to grow and maintain its great popularity.—Geo. Rice, Oxford County, Ont.

Visitor—"What's become of old Sam, the boatman?"
Langshoort—"Billy—Dead, sir—died of 'art disease. A visitor gave him a shillin' very sudden. My 'art's very strong, sir."



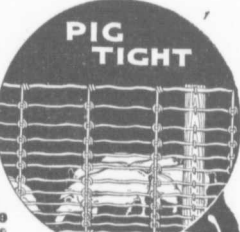
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The Banwell Hoxie Wire Fence Co., Ltd., Dept. C Hamilton, Ont.

IT'S ALL IN THE LOCK WILL TURN ANY KIND OF STOCK

Cow Testing and Herd Improvement

By J. B. SPENCER, B.S.A., Live Stock Branch, Dominion Department of Agriculture.

For many years live stock improvement has been a prominent feature of progressive agriculture. With the division of cattle into breeds came the development of types which were believed to be consistent with highest excellence. We have as a result the characteristic form and color in each of the well-known breeds of dairy cattle. While production has been kept well to the front, certain minor considerations, quite apart from milking, have tended to prevent that practical improvement we would expect to find in the leading breeds. Nor is even the show ring quite free from responsibility. We hear of great show cows and herds of dairy stock that have never been noted for yielding milk of good quality in generous quantity. Prominence has been given to certain points in conformation and color, such as the flat-soled udder, the solid color, black tongue and switch,

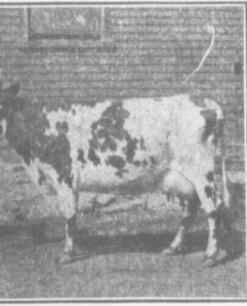
regular breeding is the strongest possible evidence of a cow's excellence.

It is true that the public testing of dairy cows at our winter fairs, even for brief periods, has been valuable as an educational factor, by encouraging breeding to a higher standard. Tests for longer periods, as were carried out at the Columbian, the Pan-American, and the Louisiana-Purchase Expositions, have had an excellent and far-reaching influence in the improvement of breeds; but these are not to be compared with tests made by the everyday man upon the everyday farm, in the matter of general cow improvement.

COW TESTING ASSOCIATIONS

For the past decade or more there has been a growing appreciation of the value of extended tests of the individuals of dairy herds. Dairy schools, cheese factories and creameries have given valuable assistance in this work, and many dairymen have

sent scores at least, agree to provide blanks for recording the weights of milk, test the monthly samples, compile the returns and prepare a report of the work at the end of the year. While it is only a few months since the first cow-testing association was formed, the amount of good already accomplished would be difficult to estimate. Herds considered fairly profitable have been found to contain animals yielding only 140 pounds of milk and 13 to 15 pounds of butter fat per month. While very low records were made in a number of cases by heifers, and cows that were farrow, many mature animals that were regular breeders, under the lime light of the scales and the Babcock, were discovered to be unworthy of a place in a dairy herd. These cows will be dried off and sold, while those yielding from 40 to 50 pounds of fat per month, of which there are many, will be retained, fed well and perpetuated. The result will be a great improvement of the tested herds; not that the act of testing a cow in itself has virtue, but it discovers the defects which the progressive dairyman will at once seek to eliminate.



These two Ayrshires are likely to qualify for registration in the Canadian Record of Performance.

waxiness of horn, length and strength of tail, etc. These and other minor considerations have been kept so prominently before breeders that development of true dairy quality has in many cases been delayed. It was not until a practical and convenient method of measuring the product of a cow's udder for an extended period came into vogue that improvement along the most useful lines could be generally carried out.

THE TRUE TEST OF A COW

A dairy cow differs from any other animal on the farm, inasmuch as her value can not be truly estimated without an accurate knowledge of the quantity and quality of milk she produces during full succeeding milking periods. A beef animal, or a hog, can be fairly accurately judged by its appearance and weight, a horse by its conformation, action and other evidences that appeal to an observer, a sheep by external evidence and a physical examination, but even the most skilled expert can be deceived after a careful examination of a dairy cow. A cow may make a great name for herself by conforming to the recognized type of a popular breed or by a test covering a day, a week or a month; but a test conducted during an entire milking period, under ordinary conditions of feeding and care, while undergoing the functions of

added to their farm equipment a milk tester and a set of scales. Wherever these are used there almost invariably follows a weeding out of cows, even to the extent of removing animals that were previously considered among the best in the herd, but have been found to be unprofitable "boarders." The Dominion Department of Agriculture has organized cow-testing associations in various parts of the country, to enable owners to test their herds in a co-operative manner and at slight expense.

Already seventeen cow-testing associations, with a combined membership of 267, have been organized. Thirteen of these are in the province of Quebec and four in Ontario. The number of cows under test is approaching the five thousand mark and is rapidly increasing. Each association consists of from twenty to thirty farmers. Its affairs are managed by a president, a vice-president, a secretary-treasurer, and a committee of three appointed from the membership to act with the officers. The only condition of membership is that the applicant shall agree to keep a record of individual cows during the entire milking period, to the extent of weighing the morning's and evening's milk on at least three days every month, and also taking of a representative sample for testing. The Department of Agriculture, for the pre-

RECORD OF PERFORMANCE

The improvement of a herd does not begin and end with weeding out the unprofitable cows and the perpetuation of only the best individuals, even when pure-bred sires are used. The excellence of the following generation is as much dependent upon the inherited qualities of the sire as of the dam. Realizing this and also the need of improvement in the dairy herds of Canada, the supervision of yearly tests of pure-bred herds, in connection with the establishment of the Canadian Record of Performance, was undertaken by the Department of Agriculture at Ottawa. The work is carried on through the various breed associations, who not only agree to the requirements of the Department in keeping an accurate record of the quantity of milk given, the sending of monthly samples to an official tester, and allowing the official inspector to weigh and test the milkings of two or more consecutive days as frequently as he sees fit to make visits, but the record of each cow that comes up to the requirements for registration must be published in the Herd Book for the breed to which the animal belongs. Bulls as well as cows that reach the required standard may be registered, the former after having four daughters in the Record of Performance, each from a different dam, the latter after producing

the required quantity of milk and fat, according to age and trying herself a regular breeder. Were all pure-bred sires genuine improvers, dairy herds would be much better than they are. In the more advanced sections only sires of pure breeding are used; but many of these unfortunately do not possess inherited powers of high production and their use is disappointing. Already about fifty pure-bred cows are under the supervision of the official inspector and the number is rapidly increasing. Many ordinary grass pasture are exceeding 1,000 pounds of four per cent. milk, and as high as 1,500 pounds in thirty days is being reached in a few cases. It is the purpose of the Department of Agriculture to assist and encourage the breed associations, to test entire herds year after year, with a view to raising the standard of every animal kept to that required for registration. When the pure-bred dairy herds have reached that stage and are headed by sires of equal standing, owners of grade milking herds will have no difficulty in securing sires intensively bred for milk and butter production. Wonderful improvements may then be expected in the dairy herds on Canadian farms.

THE INFLUENCE OF THE SIRE

While the average breeder prefers to use a male of high excellence, the great influence of the inherited qualities of the sire are not fully appreciated. Accurate evidence is not easily obtained, but the record of an extensive herd in England, published in the *Scottish Farmer* for 1906, contains a lesson that bears strongly on the question. In the milking Short-horn herd of Mr. Lawrence of Newton Rigg, four exceptionally heavy milkers were bred to Crown Prince Hanson, a beefy bull, whose dam carried a good udder, but whose sire was a good milking strain, but whose sire, a big massive bull, was of a strain whose milking qualities had been neglected. Each of these four cows bred a heifer calf to him. Afterwards the same cows produced heifers from the "Cinderly bull, Moss Rose, bred for milk." The returns from the first four heifers during their first milking period were 188, 58, 443, 405 gallons; while from the others, from the same dams and reared and fed under the same conditions, but from the milking bred bull, the returns with their first calves amounted to 677, 725, 725 and 729 gallons respectively; one set giving 1,184 gallons, the other 2,835 gallons, a difference of considerable magnitude, 100 per cent. Other cases almost if not quite as striking might be cited, but it is unnecessary. There are few extensive breeders of cattle who can not recall the benefit certain bulls exercised on their herds, as well as the deterioration worked by others. It is not too much to say that for a dairy herd one bull would be dear as a gift, while another, apparently no better, would be worth almost any price.

The Dominion Department of Agriculture, in assisting farmers, through cow-testing associations, to search out unprofitable cows, and, through the yearly testing of pure-bred herds in connection with the Record of Performance, discovering sires that can be depended upon to work actual improvement, is doing a much more valuable work in raising the standard of Canadian herds than any other agency, not excepting the one that has ever attempted serious work.

"Is this pure milk?" inquired a very particular lady customer. "Yes," replied the milkman, "we sell the cream separately!"

INVALUABLE TO FARMERS

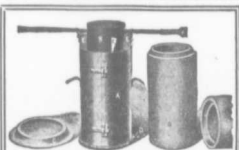
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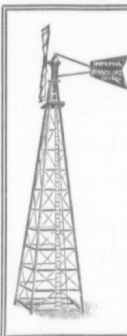
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The World's Wool Trade

The Australian Pastoralist's Review of July 16 last, includes a supplement on the wool trade, prepared by Dalgety & Co. This gives a hopeful view of the outlook for wool prices, and the prospects for the future. The world's wool crop is touched upon, and an impressive demand from the various producing and consuming countries dealt with in a very comprehensive manner. The present situation of the world's wool trade is summarized in part as follows: The most satisfactory feature of the industry to-day is that the present high value of wool has been caused by an excess of demand over supplies, and brought about not perhaps so much by the comparative shortness of the world's output of wool as by the very strong consumptive demand eventuating from the fact that not only has the population of the world increased, but that the masses are better off, and therefore more able to purchase cloth than ever before. Going back a period of 10 years we find that the population of the main wool-using portion of the globe, viz., Europe and North America, was 426,000,000, for whom the available supply of wool was 2,263,000,000 lbs., whereas last year's population—and a much wealthier population—of the same countries was 480,000,000, the wool available for their use being but 2,240,000,000 lbs., or, according to Messrs. Helmhuth, Schwartz & Co., of London, only 2.60 lbs. of clean wool per head. It is at least fortunate for Australasia that concurrently with a rapid increase in her flocks, and consequently production of wool, the number of sheep in other parts of the world shows no increase, but a decrease, as the following figures compiled by Mr. F. P. Bennett, of Boston, U.S.A., indicate:

NUMBER OF SHEEP IN PRINCIPAL COUNTRIES

	1890	Latest Statistics	Increase.
North America.....	31,000,000	30,000,000	5,000,000
South America.....	102,000,000	100,000,000	3,000,000
Europe.....	138,000,000	130,000,000	32,000,000
Asia (except Siam and Siberia).....	22,000,000	19,000,000	3,000,000
Africa.....	32,000,000	27,000,000	5,000,000
	605,000,000	577,000,000	28,000,000

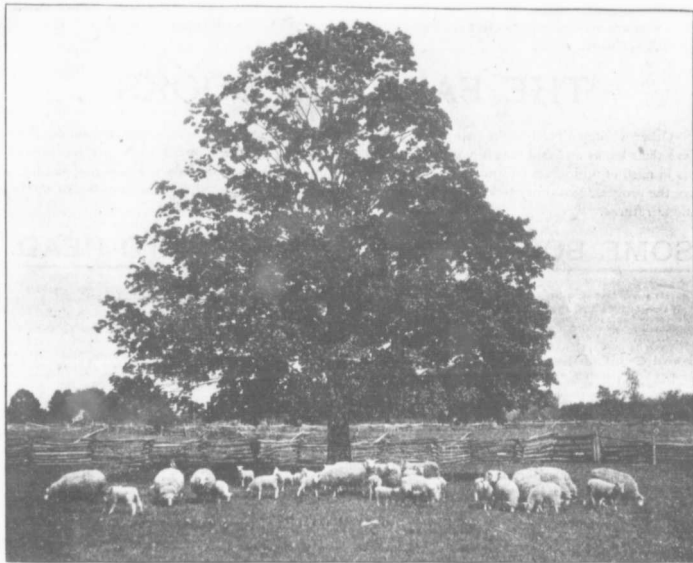
And whereas the numbers in almost all countries continue to decrease, those in Australasia, which are still some 18,000,000 below the year 1895, and 31,000,000 below the record year, viz., 1891, are increasing at present at the rate of from 8,000,000 to 10,000,000 net per annum. The only countries which can possibly produce any appreciably greater quantities of wool than at the present are, firstly, Australia; secondly, the Argentine; and thirdly, South Africa. Any increase from the Argentine must be slow and entirely of cross-bred growth, by reason of the expansion of the freezing industry and the large population of the country, where their slaughtering amounted last year to over 10,000,000 head—nearly half of which quantity was exported. In fact, the similarities in that country are so alarmed that their flocks will decrease, instead of increase, that they threaten to prohibit the export of ewes and ewe lambs—a state of affairs which would have been brought about by similar causes in New Zealand had not the common sense of breeders come to their rescue just in time to arrest depletion of flocks and serious depreciation in the quality of those remaining.

THE INCREASE OF WOOL PRODUCTION in Australia continues to be principally of merino sorts. There is not much room for extension in the southern States, while the northern ones are better adapted for merinos, and, at any rate, the bulk of the cross-breeds are slaughtered for local use or export. There is certainly room for considerable expansion of production in South Africa, and when it does occur, it will, like Australia, be almost entirely in fine wool. In this connection it is interesting to note that envoys from the Orange River Colony are at present in Australia with the object of buying staff and flock merinos with which to increase and improve the flocks of that country, and if they show good judgment in their selection a very satisfactory

improvement will be made possible in the South African sheep, which today do not show half the monetary return per head that the Australian sheep do. While, therefore, it is possible and probable that there will be some increase in wool production from the great wool-growing countries named in the near future, the flocks of other territories must continue to decrease, and it seems certain that the net increase in the world's wool production will not decrease.

All things considered we take the view that while the production during the next 12 months will not result in any plethora of stocks, either of the raw or manufactured article, the use of substitutes and firmness of money are likely to act as barriers to any

further increase in values, and may, in fact, cause a moderate lowering of the present level. One thing can be guaranteed, and that is that stocks have probably not been so low as at present for quite 30 years, and that trade is good and shows signs of remaining so. It would appear, therefore, that a ready demand is likely to welcome the coming clip, but that as the present state of affairs is perhaps the climax to a period of a fairly gradual increase in the price of wool, values can hardly be expected to be maintained for a long period at the present level, though any decline should be gradual. Not only should the clip of 1906 be cleared at comparatively high prices, but wool growing ought to be a profitable industry for some years to come.



A summer scene on an Ontario sheep farm.

THE SHEEP INDUSTRY AND ITS IMPROVEMENT

Ewes and Rams in Demand—Every Farmer Should Keep Sheep

Sheep keeping is probably subject to greater and more frequent fluctuations than any other branch of live stock husbandry. When times are slack sheep are easily got rid of, and when a good turn comes the demand is general, as a beginning in sheep can be made with comparatively small capital. At present we are in the midst of a time of strong demand, and the foolishness of sacrificing sheep stock in a temporary glut is plainly manifest. Canada reflects quite strongly the realization of a dearth of sheep stock which is felt the world over. This is the case both on the farms and on the ranges. There is a strong call for breeding stock among the farmers and a good call for male stuff for export purposes.

WOOL AND MUTTON

are high both in the east and in the west. Range wool has reached a higher point this year than it has in any previous year, being worth about seventeen cents. Mutton in Winnipeg is worth approximately twice as much as butcher cattle. United States prices are high for both wool and mutton, and there is little prospect of an increase in western sheep stock from United States in the face of a twenty per cent duty. There is not sufficient mutton available in the west for local demand. Already feeders from as far east as Port Arthur have contracted for sheep for the fall—in one case at least—to the number of 6,000. As the total sheep on the ranges in the two provinces of Alberta and Saskatchewan number only

about 130,000 and approximately only a fourth of this number are available for mutton in a single year, it is plain that the range men will have no trouble in selling their goods.

EWES STOCK IN DEMAND

The general stringency is apt to set one thinking about the best means of improving the industry. It is plain that ewe stock of all kinds, good, bad and indifferent, will be in demand, and though the beginner should try to get a few good ones, it is good advice to get some anyway. The sheep has undergone as great improvement in conformation as any other class of live stock, and it is probably the case that none of them are so bad but that the shepherd can make money on them. Though live



A trio of Hampshire Down Sheep, property of Telfer Bros., Paris, Ont.

stock of a real good kind is not plentiful, there is a good chance to work satisfactorily by the selection of a suitable male, and Ontario is raising hundreds each year that cross the boundary, some of which should be kept at home. If ram sales were instituted they would serve to educate to better selection and give opportunities to critical buyers already "in the know" to pick up good ones. These should be held at a large number of places for the sake of economy. A man can afford to add considerable to the price of a bull by travelling some distance to buy one, but in the case of sheep the high relative cost of the animal arising from expense in travelling makes it inadvisable to limit such sales to a few large centres at great distance from each other or from the people in search of rams between such places.

RAM SALES

in connection with small fairs would be a good thing to encourage careful selection.

The plan adopted by the Territorial government to encourage the swine industry two or three years ago was a good one, and there is some prospect that a similar plan will be followed in Alberta with respect to sheep. This plan consisted of the purchase of a couple of cars of eastern pure-bred hogs of the most popular breeds and bringing them into the Territories and holding sales at certain points until the demand was satisfied, and then proceeding to the next point. By this plan there was no surplus and no shortage. In the case of sheep it may be said that as a farm industry in the west there is much to be desired in conditions. Fencing is expensive, but most farmers would stand the expense of fencing if the coyotes did not periodically clean out the lamb crop. A bounty on coyotes and a travelling

sale campaign, not only in rams but likewise in ewes, would be a useful class of work for the government of the two western prairie provinces.

The east should not require this pioneering work. Sheep lore is common and there should be required no other stimulus than demand. There is no difficulty about satisfying demand, as few neighborhoods in the eastern provinces are without one or two superior breeders of sheep.

EVERY FARM SHOULD HAVE ITS FLOCK

Mixed husbandry is good husbandry on the whole. At the same time there is room for some specialisation in mutton production. Sheep feeding enterprises on the farm are altogether too scarce. There are plenty of cases in which the feeding of from one to five hundred lambs or wethers would mean the highest economy and profit. There is a good future for the meat business for the next three or four years in both the east and west, and the sheepmen are going to be right in the best of it.

A HANDY SUMMER MEAT

Sheep have not ceased to be the handiest and most wholesome farm meat in summer. Sheep have not yet got over their habit of grazing on and fertilizing the high places of the field or of eating bitter weeds. They have not changed their constitution or organism, and can still change waste roughage into good dollars. They can live in cheap homes and can be kept in good condition without the use of the currycomb or the wheelbarrow. They will always begin to yield at a year old, and will give the farmer two crops a year. "Get rich quick" schemes are fashionable with everybody, but "get rich sure" schemes are the best for the farmer. Get some sheep, take care of them and stay with them.

J. McCABE.

The Swine Industry of Ontario

The Government Bulletin Criticized—Favors the Cross-bred Hog

Editor of THE FARMING WORLD.

I feel safe in saying that many readers of THE FARMING WORLD, who were guided by your advice last fall, when you took such a wise stand in reference to the agitation raised by the press between the farmer and the packer, have profited very much by it.—Your advice at that time to the

farmer was not to be carried away by any wild statements as to the robbery of the farmer by the packer, but to continue in the hog business in a moderate way, and I am sure those who did so are now more than satisfied with the prevailing prices and with the prospects for a fair price during the fall. I have always main-

tained, and think I have just grounds for so doing, that taking one year with another, there is no branch of farming pays better than a limited number of carefully selected and carefully fed hogs, but like everything else, a man must not go to extremes and try to handle more than he has facilities for taking care of.

I presume many of your readers have seen the bulletin entitled "Swine Industry," issued by the Ontario Department of Agriculture in July last, a summary of which appeared in THE FARMING WORLD on August 1st. A copy of this bulletin reached me a few days ago, and has been read with great interest, and I hope not without some profit.

SOME STATEMENTS QUESTIONED

The compiling of this bulletin has certainly necessitated a very great deal of care and labor. In it they have undertaken to give an idea of the condition of the hog raising industry in each county in the Province of Ontario. No doubt in many instances it has been difficult to procure reliable answers to questions submitted, and in some cases, at least, the information given is not accurate. For instance, in the county of Renfrew the cost of feeding hogs in summer is given at \$5.50 per cwt, and for winter, \$8.13 per cwt. Now, Renfrew farmers are pretty near neighbors of ours, and your readers can trust them, that the average hog is not grown at any such cost.

I was somewhat astonished to find how, what are called the "bacon" breeds, predominate in every county, and could not help from asking myself why the packers should have any difficulty in discriminating in price between the bacon and the other breeds, as this report would lead one to believe that there would be so few offered to the packer of an unsuitable sort that he could easily say, "Take that stuff away, or take half a dollar per hundred less for it," and if he did this for one year, it would simply put an end to the breeding of anything but the desired bacon hog.

PARTISAN TO THE BACON HOG

But when the reader comes to the concluding pages of the book, or, in other words, to the general summing up of the whole thing, he cannot fail to see that we have some Government officials who are intensely partisan to the hog that has carried the banner from the first to the last page. Now, I do not mean to insinuate that the compilers of this bulletin have reported anything other than that given by their correspondents from the different counties, but I am inclined to think that the correspondents did not look far afield before making their reports.

The writer has been over the greater portion of this province, and has been a close observer and inquirer into the hog industry wherever he has been, and his observation has led him to believe that this province has not adopted

THE YORKSHIRE HOG

to anything like the extent this bulletin indicates, nor, further, can he agree with those Government officials who so loyally support the adoption of the purely bacon type of hog.

I note the very carefully worded argument given by Professor Day, on pages 34 and 35 of the bulletin, as to the comparative cost of the feeding of different breeds, where, after quoting from experiments conducted at Guelph, Ottawa and Iona Experimental stations, he concludes by saying that it has never been proved

(other things being equal) that the bacon hog is any more expensive to produce than the fat hog.

While I believe Prof. Day is perfectly sincere and honest in his remarks, and I agree with him, that to place the bacon hog and the thick fat hog under conditions existing at such stations as above named, where both the feed, surroundings and care are perfect, that under those conditions, which are all favorable to the bacon hog, he will there equal or outdo his "despised" neighbor. But your readers, Mr. Editor, and Prof. Day also must not lose sight of the fact that perhaps ninety-nine per cent. of the hogs grown for market in this province are grown under entirely different circumstances to those prevailing at experiment stations, with the result that the bacon hog does not, nor cannot be expected to thrive equally as well as his shorter-legged and more thickly set brother.

CROSS-BREDS

I am glad to see among the reports from different counties that farmers are becoming more inclined to cross the thicker breeds with the bacon types. They are the people who are in a position to know which breed of hogs makes the most profit when the market price is identically the same.

The writer has a good illustration of this close by. Two of my neighbors on adjoining farms on which Yorkshires were being bred up to last year, when one neighbor used a Chester White boar and the other a Poland China on his Yorkshire sows, and I just wish your readers could see the improvement in the pigs both

men now have. They are about four months old, are running on grass and rape paddocks, and being fed a small ration of grain twice a day. In other words, they are receiving the same treatment the strictly bacon type previously received, and instead of being long-legged looking creatures, that would require three months stuffing to get into condition, they are

A NICE, SMOOTH, THRIFTY LOT

that can be taken up the middle of September, and with four weeks' feeding, be in prime market condition, and I feel sure no packer will call them anything other than first class bacon.

Of course, I am aware that if those men had followed the principle of keeping their hogs confined and highly fed from weaning time right through that the pure Yorkshire would have been, under these conditions, a much better type of bacon hog than the cross-bred. But the intelligent farmer of Ontario knows pretty well to-day that to make hogs pay he has to give them a chance to hunt a part of their living, at least to hunt enough for exercise. And if the hogs at experiment stations were placed in conditions prevailing on the majority of farms, I feel sure that the results of experiments would be of much more value to the farmers.

I hope the writer will not be accused of advocating anything that would be detrimental to the standing of our bacon trade, but my first interest is my own and that of other farmers, and I know from many years experience that the so-called perfect bacon hog cannot be raised on the average

farm as cheaply as a cross with it and the so-called thick, fat hog, despite any claims made from experiment or other stations to the contrary.

CARLETON COUNTY FARMER.

The Market Side of Hog Raising

The high prices of the present season have greatly increased the deliveries of hogs at country points. Last week, though quotations here were \$1 per cwt. lower than a month ago, the deliveries were larger than they have been for some time. We have now reached the season of the year when the supplies of Danish and American hogs begin to increase very rapidly, and a further lowering of prices is likely to come. The hogs being bought at the present time will reach England in a cured form about the first and second week in October, when the bacon market begins to decline. This fact, coupled with that of increased supply both in Denmark and the United States, is bound to bring prices down. A week ago American shipments of bacon reached the very large total of 20,000 boxes, equivalent to the product of 100,000 hogs, as compared with their normal weekly shipments of 12,000 boxes. These figures seem to indicate that the Chicago packing house exposure has not interfered to any great extent with the exports of bacon products from the United States.

It should be remembered in this connection that the retailer in England is not wedded to any particular brand of bacon. It does not make any difference to him from what coun-

Money Making Facts

about the

Melotte Cream Separator

- 1.—The Melotte skims cleaner than any other separator.
- 2.—The Melotte wears much longer than any other separator
- 3.—The Melotte is more easily cleaned than any other separator.
- 4.—The Melotte uses less oil than any other separator.

It is **QUALITY** not **PRICE** which tells with all machinery in the long run, but with cream separators especially, owing to the high speed at which they turn and the fact that they are used twice daily throughout the year and not for a few days or weeks only. This is where the Melotte saves you so much money.

Try a Melotte and let it speak for itself.

Write for blotter and descriptive booklet.

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Size 1 to 6. Capacity, 60 to 120 lbs. per hour.



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try it comes so long as he can make his regular profit on its sale. If, therefore, he can make more profit by selling American he will push it in place of Canadian. If, on the other hand, it will pay him better to handle Canadian, then our bacon will gain the preference. This is the situation in a nut shell, and if the price of American or Danish comes down in price, down must come the price of Canadian also, if we expect to do business. Outside, perhaps, of the south of England, where Canadian bacon has secured a strong foothold, and is in greatest demand, we have to take chances with the other fellow, and undersell him, or supply an article which the people will take at a price that will return the retailer a profit.

This, in brief, is the market situation as it faces the hog producer at the present time. While the

REGULAR FALL DECREASE

in prices is before him, still the outlook is a hopeful one. A price of \$7 to \$8, f.o.b. at country points for live hogs is too good a thing to last very long, and a slump of a dollar or two per cwt. was bound to come sooner or later. Even at the reduced value of the past week or two for hogs, some packers tell us that the present prices for bacon will hardly let them out even, with the chance of losing considerably before the product is ready for market. But, be that as it may, present prices can afford to drop considerably before the profit and loss line in hog feeding is reached, and from present indications, it is not likely that line will be reached this fall. In the first place, notwithstanding recent increases in supplies, there are not sufficient hogs in the country to entirely meet the wants of the packer, and, therefore, competition is bound to keep prices up above the profit line for the producer.

PACKERS DISCRIMINATE MORE IN BUYING

A feature of the trade just now is a tendency on the part of some of the packers to discriminate more at country points in buying hogs. We are informed by one firm that they made a cut of 50c per cwt recently on light hogs, there being too great a tendency on the part of farmers to market light ones. Previously to that a cut of \$1 per cwt. was made by the same firm on unfinished hogs, with the result that since then they have received few, if any, light or unfinished hogs. This is the kind of thing THE FARMING WORLD has been contending for some time. If the packer wishes to maintain quality he must pay a premium for well-finished hogs of the bacon type, and the discrimination in favor of the right quality must be sufficient to induce the farmer to produce that quality.

No one thing has done more to make the farmer suspicious of the packer and his methods than this lack of discrimination in price, as between the select bacon hog and lights and fats, that has continued for several years back. While the packer has made a small discrimination at the packing house in favor of selects, it has not been sufficient to induce the drover to make any distinction when buying in the country. The consequence has been that the farmer who has been endeavoring to produce the highest type of bacon hog, became discouraged and ceased to give the business the attention which its importance warrants. Careless methods of breeding and raising were bound to follow, and though their influence is not felt yet very much it may show itself more in the future. The instance of discrimination by the

packer, as given above, shows that the trade has begun to realize the need of more drastic measures in maintaining quality. This will do as much to keep the quality in line as a year's educational campaign in the way of lectures, distribution of literature on the subject, etc.

THE QUALITY PROBLEM

The Wm. Davies Co., Toronto, report that the percentage of select bacon hogs this year keeps up to a high level, in fact, higher than it has ever been in the history of the trade, and that the bulk of their supply is coming "white." This is all the more remarkable in face of the many reports from all over the country of



A good Wiltshire side of bacon.

farmers changing over to the thicker breeds of swine, and of a growing carelessness in regard to the feeding and finishing of hogs for market. The Ontario Government bulletin on the swine industry, a summary of which appeared in our last issue, states that there is a growing tendency to produce more hogs of the bacon type, and also to cross the bacon breeds with some of the others to get this type. If this be true, and as is stated above, hog arrivals continue to improve in quality, then we would naturally infer that judicious crossing say the Yorkshire with the Berkshire or some other breed, does not tend, at least, to lessen the percentage of select bacon hogs marketed if it does not increase it. And this leads up to another question, and that is whether the quality of the finished animal does not depend more on the feeding, care and handling of the animal from the time of birth till maturity, than most authorities have heretofore given to it. But we will know more on this subject a year or two hence when the growing tendency to more cross-breeding has had a chance to show its effect upon the finished product.

The series of

FEEDING TESTS

at the farms conducted under the supervision of Prof. Day and the Wm. Davies Co. is likely to provide a lot of valuable data on this important subject. A large number of farmers have taken up this work, and while a number of reports are in they are not yet sufficiently complete to report definitely upon. In the meantime, our advice to the farmer is to raise more hogs. There are many farmers to-day without hogs and who are afraid to start in again for fear low prices will come along just about the time their supply is ready for market. But such a contingency is likely to arise in the raising of horses, cattle, sheep, etc., and our advice to such is to get into the "game" and raise a moderate supply of hogs every year. If the price goes up increase the supply a little, if it goes down decrease it somewhat, but never go entirely out of the business. The conditions that will induce you to go out of the business will induce hundreds of others to do the same thing, and eventually result in a shortage and high values. The experience of the past two years in Canada gives a striking example of this. It should pay the Canadian farmer well to grow hogs so long as he can get about \$3 per cwt. live weight, and a little higher price in winter.

J. W. W.

Advantages of the Soiling System

It may be claimed in favor of the soiling system that stock will be more comfortable; that when reared for beef the greatest weight could be secured in the shortest time, and this nearly always means the largest profit. Looking at it from a dairyman's standpoint the gain would be even greater than on a farm where beef and mutton were the chief considerations—greater for the reason that dairy cows require less exercise than almost any other class of farm stock, and climatic conditions are more under the control of the feeder. In corroboration of this statement it can be said that the proprietors of some of the largest dairy establishments in the United States and Great Britain claim that the produce of one acre fed to cows in the stalls will produce as much milk as four acres in pasture. There would not only be a greater production of meat and dairy products, but there would always be a corresponding increase in the quantity and quality of the manure made, adding greatly to the productiveness of the soil, and at the same time increasing the average for growing grain and hay to the extent of at least two acres for every acre used in growing soiling crops.

The growing of green forage crops has proved quite popular wherever it has been tried. The experiment stations scattered over the country have tested the adaptability of the various fodder plants and are able to furnish information as to the best varieties which should be selected for the different localities and for whatever system it is intended to follow.

By a judicious selection of fodder crops not only can a much larger number of cows and other stock be kept on a given area of land, but the land may be brought into a higher state of cultivation for the production of crops for much grain can be spared. Soiling is not a system of more intensive farming, dividing the labor of the farm over the whole year.

Some Suggestions for the Dairyman

Dairyman are having a most successful year. In fact, if present prices for cheese keep up till the end of the season it will be a record breaker. During one year only since the beginning of the industry has July cheese sold at 12c, and that was in 1897. This year, however, better than 12c per lb. has been reached for July cheese, and indications at present are that 12c, and, perhaps, higher will be reached before all of this season's make is disposed of. Butter prices are also good, though not relatively as high as cheese, but still sufficiently so to make butter-making a profitable business. Dairyman, therefore, have little to complain of, so far as the market end of the business is concerned. The task devolving upon them just now is that of importance of keeping up the quality. While an inferior article can be disposed of with greater facility when the market is high and the demand is keen, at the same time this should not be taken as an excuse to neglect quality.

Elsewhere in this issue Chief Instructor Barr, referring to the work of instruction in Western Ontario, points out that a great many patrons are still keeping milk overnight near the barnyard or some other source of infection. Surely such practices are not carried on through ignorance of what is required to care for milk in the proper way. The patron's own sense of what is

SANITARY AND DECENT

should teach him that milk cannot be kept pure and sweet and fit to make a good article of cheese and butter if allowed to stand for any length of time near a filthy stable or hog-pen. The milk stand on which the night's milk is kept till morning should be built in a location where pure air will be assured at all times.

Another feature of the cheese business that needs some attention at the present time is that of paying for milk, or, in other words, the adoption of some system that will remove the temptation to add water or to take the cream off milk for cheese-making. Here again Mr. Barr sends a warning note that both patrons and makers should give heed to. The inspection of milk and prosecution of those who tamper with it may deter some, but the nefarious business will never be stamped out altogether till the temptation to do so is removed by exchanging the "pooling" for a more rational and just method of paying for milk for cheese-making.

A few weeks ago we published several letters from dairy instructors in Ontario on the subject of paying for milk by the Babcock test. These instructors had supervision over 167 cheese factories and only 26 of these paid by the Babcock test, or a shade over 15 per cent. As the factories employing instructors are the most up-to-date and more likely to pay by test, we may safely conclude that taking all the factories the province over only 10 per cent. pay for milk according to its quality. With one or two exceptions these replies showed that where the test was properly conducted patrons were well satisfied with this method of paying for milk. This question is important, and some effort should be made to induce factories to take up this method of paying for milk for cheese-making.

A feature of

THE CREAM-GATHERING SYSTEM

of butter making that is bound to bring that system into disrepute is the persistency with which creameries

will cling to the plan of hauling cream only once or twice a week, especially during the hot weather. In the cream gathering plan the dairyman of this country have a system of butter-making that will enable them to obtain the greatest economy in cost of production, and in the use of the by-products, and at the same time give them a large return in hard cash. But it will not do to economize too much, and unnecessarily injure the product by so doing. Gathering the cream a little oftener will not increase the cost very much and insure a sweeter cream being delivered to the creamery.

In our opinion the building up of a large export trade in Canadian butter will depend very largely upon the extension of the cream-gathering system, notwithstanding what some of our exporters say to the contrary. It is the only method by which the creamery can successfully compete with the cheese factory, and in the extension of any trade the farmers' point of view must be considered, and he can utilize and make more out of the by-products in this way than by the whole milk creamery. But be this as it may, the cream should be handled in the very best way and delivered at the creamery in as sweet a condition as possible. If this is done, and every effort made to keep up the quality, the exporter should have little ground for complaint on that score.

IMPROVED DOCKING FACILITIES IN ENGLAND

A gratifying feature of the dairy trade just now is the increased attention given to the handling and caring for our products when they land in Great Britain. Up to quite recent years everything that has been done to improve the handling and carriage of our cheese and butter from the factory or creamery to the consumer in the old land has been done by the Canadian authorities and by those in-

terested in the business on this side of the water. But these could go so far and no farther. As soon as the goods were placed on the docks at Liverpool, London or elsewhere their authority ceased. For years our cheese and butter was taken from the steamer and left lying on the docks, chiefly at the larger ports, for days at a time, subject to all sorts and conditions of weather. A few of the smaller ports, such as Bristol and Manchester, have had improved landing and storage facilities for some time, but at the larger ports, and principally at Liverpool, the landing and storage facilities have been very far from being what they ought to be. But there is an awakening across the water, and even that autocratic body which controls the great Liverpool docks is beginning to see the need of better accommodation for perishable food products after landing. Arrangements have recently been completed for the cool storage of cheese at the London docks, and hereafter colonial products will receive more attention at that port.—J. W. W.

Instruction in Cheese Factories and Creameries in Western Ontario

By G. H. BARR, Chief Instructor

Ten instructors have been working steadily in Western Ontario since May 1st. Seven are visiting cheese factories and three visiting creameries. One hundred and sixty-one cheese factories and fifty-seven creameries are being visited regularly by the instructors. Up to the present time the instructors have visited 1,032 patrons to give information regarding the care of milk and cream at the farm.

There is no doubt much good has been done by these visits, but in too many instances little attention is paid to the suggestions made, and the milk is still kept beside the swill barrel and in the barn yard, and is coming to the factory tainted and gassy, causing the cheese maker endless

YOU GET MORE For Thick Cream

There's a chance for you to get 2 cents a pound more for your cream—\$4 to \$6 a year more from each cow. Creameries are commencing to grade cream—to pay 2 cents more a pound for No. 1 cream than for No. 2. As No. 1 cream must be thick—must contain at least 30 per cent. butter fat—you see how necessary it is, when buying a cream separator, to get one that will be certain to skim a thick cream, for you surely intend to get the extra profit No. 1 cream brings. If your creamery is not already grading cream, it probably will within a year or two. Isn't it wise to think of that, and get the right separator when you buy? This is a sure guide when buying a separator—the simpler the separator bowl, the easier to skim thick cream. The Sharples Dairy Tubular Separator is the simplest made—nothing inside to clog.

Cream Thick Enough to Cut

The Sharples Dairy Tubular Separator can skim cream as thick as 60 per cent.—puts you on the safe side.

Gentlemen: I purchased a Tubular Separator. My cream has tested as high as 60—the richest and best that has ever been brought to the store.
MYRTLE E. AUSTIN. (Address on request.)

Remember! The easy way to get No. 1 cream is to get the simple, easy-to-clean Sharples Dairy Tubular Cream Separator—the only simple separator made. Write for catalog L 292 and get our valuable book, "Business Dairying," free.

THE SHARPLES SEPARATOR CO.

West Chester, Pa. Toronto, Canada Chicago, Ill.



Shelburne Bell No. 852 and her happy Colie family. Property of J. F. Breen, Melancthon, Ont.

trouble, and in too many cases loss in price on the cheese.

Many of our cheese makers are too weak-kneed to return this kind of milk, and in some cases where it has been returned the opposition factory has been mean enough to accept it, or has taken the patron on the next day.

I am pleased to note, however, that it is becoming plainer each year that the maker who is refusing to take in sour and tainted milk is making fine cheese, while those who take in anything that comes along are having lots of trouble with fast working and bitter curds.

The same may be said of the creameries, where the makers are insisting on a rich cream, the per cent of fat in the cream is gradually rising. Some creameries last year were receiving cream running from 18 to 20 per cent of fat. This year the cream is testing from 25 to 28 per cent, and is in sweeter condition.

I find that where the makers or proprietors will support the efforts of the instructors among the patrons, there are splendid results, but where they continue to take in anything, the patrons pay little attention to the instructors.

I would draw this conclusion from the instructors' reports, that rusty cans are the cause of bitter flavored milk. In nearly every case when bitter curds are reported the reports show there are a number of rusty cans.

Our makers are to be congratulated on the fact that there are very few acidy cheese this year, notwithstanding the very hot weather. This shows a decided improvement in the method of handling fast milk, for the patrons are still neglecting to cool the milk sufficiently to keep it sweet, and although the cheese are not acidy, the patrons are losing hundreds of dollars, because the curds have to be handled in such a way that it takes more milk to make a pound of cheese than if it were sweet.

I regret very much that we are finding even more patrons tampering with their milk this year than last; it would appear that it will be necessary to adopt more stringent means regarding this part of the instructor's work.

Taking the dairy industry as a whole in Western Ontario, there is a decided improvement in the factories and equipment. Our cheese and butter makers are adopting more uniform and better methods. The patrons, as a whole, are taking better care of the milk and cream, especially in getting new cans and cooling the milk.

The weak points in our dairy work are: Makers taking in milk they know will not make fine cheese and cream that will not make fine butter. Patrons refusing or neglecting to cool the milk and cream sufficiently to keep it sweet—milk should be cooled to 65 degrees and cream to 55 degrees.

are fed the year round. If the farmer were to build a barn that will hold hay for 20 cows, even for a winter, can he build it for \$300? Not at all. He would have to invest very much more than that sum in a barn to hold the hay for that number of cows. So we see that silage is the cheapest thing possible to feed if we are to consider the cost of the structure that contains it.

The farmer who intends to largely increase the number of his cows will have to put hundreds of dollars into a barn structure if he intends to confine himself to the feeding of hay for roughage. It will be far easier for him to extend his stables and build a silo than to construct a stable sufficiently high to hold the hay. When a man is freed from the necessity of providing for bulky feed he can then construct his

DAIRY STABLE

with the object of getting cleanliness and light. He can build his stable long and low, and secure a flood of light from three sides. His foundation does not have to be as heavy as it must be if it is to sustain a heavy superstructure.

A silo is thus not expensive, and moreover, it is a great factor in the development of dairying. It solves the problem as to how a dairyman can make a living from 50 to 100 acres of land. That is going to be the great question in the not distant future for the farms are already being cut up into smaller ones. If any man doubts whether or not he can pay a dairyman to build a silo let him look into the cost and benefits by actually getting estimates on the cost of construction.

I make silage my main cow food. I feed from 30 to 40 pounds of silage per day in proportion to the cow. It is my intention for the cows to have all they want and in the best condition.

THE SILAGE RATION

is balanced with bran and clover and alfalfa hay. The bran is fed in proportion to the period of lactation of the cow, and as much as she will consume at a profit. I feed silage and bran the first thing in the morning, then do the milking and separating, then feed as much clover and alfalfa hay as the cows will clean up before noon. The same method is followed in the evening, feeding hay the last thing at night. I do not depend on grass alone more than 90 days in the year. Then if I have any silage left over from winter, I feed about 25 pounds per day. If I have no silage I plant a small plot of early corn in the spring and sow oats and peas. Begin feeding as soon as it will do, cutting from the field and hauling to the pasture each day. This is a more expensive way of feeding than the silage, but it is far better than to let the cow go hungry, for a hungry cow won't give milk. No man is in a better position to build up his soil than a dairyman, if he uses wisely the forces at his command. You can not afford to raise Timothy, which impoverishes your soil, and buy high-priced fertilizers for your land.

RAISE LEGUMES

to replace your concentrates and add nitrogen to your soil, and save both a fertilizer and a feed bill.

A cow that comes in from September to November, according to my experience, will make ten per cent more butter in the year on the same kind of feed, and the same amount of care than if she came in in March, April or May. There are a number of reasons for that. Cows that come

A Successful Dairyman's Methods

The Silo His Mainstay—Clover and Alfalfa—Has Cows Freshen in the Fall

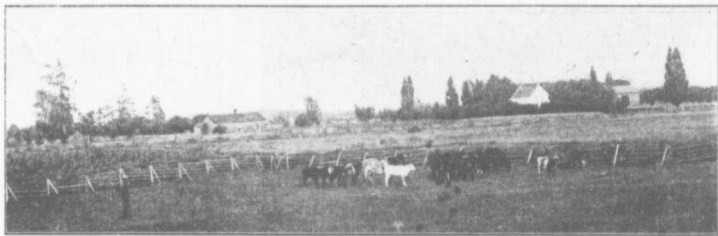
(Written for THE FARMING WORLD.)

Milk is more cheaply made by good grass than in any other way, and next to grass comes silage, because it furnishes the cheapest and most desirable substitute for grass. It is true that it costs considerable to make silage, but careful tests show quite conclusively that silage from corn is a more desirable feed for cows than the corn crop preserved and fed in any other way, and this after allowing the cost of harvesting and storing the crop. There is nothing like silage to keep the dairy cow's appetite on edge throughout the long winter period. It also keeps her system in good condition, which is a very important matter, and gives her a relish for her food. In fact silage well made

can be fed in the summer to great advantage, as we have demonstrated in our own work. The dairyman who proposes to maintain the milk flow of his herd will find either

SOILING CROPS OR SILAGE

a necessity during dry seasons, for even on the best managed farms the grass if utilized to best advantage will become dry and short from one to three months, depending on the season. A well built, permanent silo can be put up for about \$1.50 per ton capacity. That is a cost of \$300 for a silo that will hold 200 tons of feed. This amount of feed will supply 20 cows with all the silage they should have, even if they are big cows, and



An Ontario Farm Scene.

in in the early spring will give a good flow of milk when put on grass. They will give a good flow of milk through June, but when the feed begins to shorten and the heat of summer comes and the flies annoy them they will certainly shrink, frequently one-half, and you cannot get them back. They have given you a good flow for perhaps four or five months a year, and they will give a small amount, say from twelve to fifteen pounds a day, clear along into the winter. They will give you that almost half the year, while, if a cow

COMES IN IN SEPTEMBER

when you have plenty of green feed of all kinds, you can keep that cow up to the full flow, and when she comes to the barn give her good feed, as we dairymen do in the winter time, and she will hold that flow right up until April. It is astonishing how these cows will run clear through the winter for five months. If they are in a condition to start in at 20 that right through the winter. They will give a good flow of milk from September to April. They will shrink then somewhat, but when they get out to grass they will give you a fairly good flow through June, and the period when they are dry comes in the heat of summer, with the flies and scarcity of grass and when you are busy about your work, cutting your hay and grain. Dry them off then and they will rest through the summer season, and will certainly give you ten per cent. more than the same feed will produce if you have them come in in the spring, and your care and trouble comes when you can attend to it a great deal better.

J. P. FLETCHER,
J. Falton Co., N.Y.

Daily Care of the Cream Separator

In the first place the separator must be washed every time it is used. The washing should be done methodically, rinsing off the milk in tepid water, then washing with very hot water containing a cleansing powder or borax, then rinsing in boiling water and steaming if possible.

Let the bowl dry without wiping. Wash the tinware in the same way, doing the work most thoroughly.

Next the separator stand must be kept clean, free from dust. All exposed parts should be wiped clean, the surplus oil removed and the whole surroundings maintained in sweet and sanitary condition.

Experiment stations have shown that the foul bowl will increase the bacterial content of milk to an incredible extent. When the separator is washed but each alternate day the number of bacteria in the milk forced

through it is so large that the skim-milk is unfit to feed to pigs. If the separator is clean, running milk through it reduces the number of bacteria fully a fifth and often a fourth.

The slime collecting on the inside of the bowl should be burned as it contains the bulk of the germs contained in the milk.

Places should be provided for the parts of the separator when taken apart. They must be kept out of dust.

Four C's of the Dairy Business

The four C's of the dairy business are Cows, Comfort, Cleanliness and Cold. The matter of cleanliness is suggested the moment we think of milk and milking.

Whole volumes have been written

about the necessity of everything being clean about milk because that fluid is so impressionable, not alone to tastes imparted to it by filth in solid and liquid forms, but to odors as well, coming into it through the air.

Cleanliness begins, therefore, in the stable and is continued through the entire history of the milk.

An Englishman was driving through Dublin on a car, and whilst doing so was expatiating on the merits of a famous firm's stout. "You're very fortunate to have such beer to drink," said he, "for I'm told it's food and drink in one." "Faith it is, sorr," responded the jarvey, "an' a night's lodging as well if: you only take enough of it!"



For many years the U. S. Separators have been tested under all conditions, and have proved to thousands of satisfied users that they are the best machines of their kind. There are good reasons for their superiority. With only two simple parts inside the bowl the U. S. skims so thoroughly as to hold the **World's Record** for clean skimming.

All parts of the machine are strong, simple and easy to get at. The gears being entirely enclosed are protected from dirt and dust. The bowl having only **two simple parts inside** is easily and quickly washed. The whole machine is very light running because the working parts run in oil, and are accurately made and fitted. No other separator has all these advantages. The U. S. is the cream separator for you to buy.

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ADDRESS ALL LETTERS TO BELLOWS FALLS, VT.



Interior of a typical Swedish Cow House. This one is at Bjarka Saby.
Note the channels for the manure.

Agriculture in Sweden*

Dairying the Chief Industry—An Eight-year Crop Rotation

By Our English Correspondent

After a three days' visit to the National Swedish Agriculture Show, we had an opportunity of visiting a number of agricultural centres. The first of them was the Adelsvard Barony. This estate is of an unusual character in Sweden, as it is held direct from the Crown under certain peculiar conditions, which we believe has no parallel in any other part of the country. A drive round the estate gave us a wrinkle which, although a common thing in Sweden, struck us as being capable of adoption in this country. We refer to a speedy method of getting hay into the barn. The cart on which the hay is loaded is provided with a net spread over the bottom, and when the necessary quantity of hay has been put on the wagon a rope is run through the four corners, and it is hoisted by a travelling pulley fixed in the roof of the barn, and it is slid along until the desired spot is reached, where the rope is released and the net pulled from underneath the hay.

Where hay is stored in the barn, the second operation of shifting the hay by manual labor is avoided, and this simple labor saving device seems to be worthy of adoption. The power, we may add, to raise the load to the necessary height is provided by gears, but in Sweden all work of this character is done by the bulls.

The Barony is very extensive, running to over 23,000 hectares, or upwards of 50,000 acres, and naturally the farm stock is extremely numerous. The present owner, Baron Theodore Adelsvard, only keeps a small part of the land in hand, but he maintains a fine herd of Aiguau cattle. This is a Swiss breed of nice type and pale silver color, and the Baron is the only breeder of this particular variety in Sweden; but as a dairy cattle they give good results, yielding on an average generally 5,000 lbs. of milk per annum with a fat percentage of 3.60. There is a small stud of horses of different breeds, including an English Thoroughbred stallion, while the herd of large Yorkshire pigs, aggregating 350 strong, go to supply local needs.

*This is the second of a series of articles on Agriculture in Sweden by our regular English correspondent, who visited Sweden this summer at the invitation of the Swedish Govern-
ment.

schools are practically supported by the State, in order to give practical and theoretical instruction in butter and cheese making. The principle output is butter, which is exported to England, but there is also a considerable quantity of Swedish and Gauda cheese made, all of which is consumed in the neighborhood.

A MODEL ESTATE—FEUDAL CONDITIONS

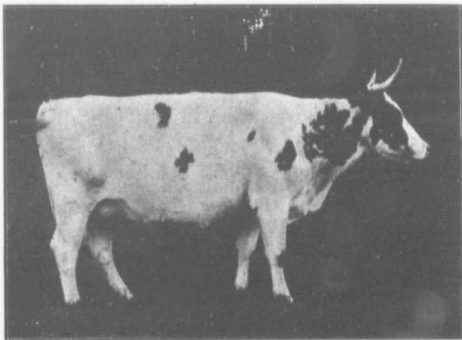
Our next visit was to the estate of Mr. Oscar Ekman, at Bjarka Saby, who being a wealthy proprietor, devotes his time and attention to rendering his estate and buildings as perfect as they can well be. A large portion of the estate, however, is let to small tenants, who pay their rent in kind. The bulk of the payment comes to the proprietor in the form of milk, although a considerable portion is paid by giving so many days work to the owner of the soil. The principle involved is precisely the same as the old feudal system, which at one time existed in this country.

To revert to the estate itself, the land is managed on strictly scientific principles;

AN EIGHT-YEAR ROTATION

being in operation. The potatoes grown are planted according to a system first used in Sweden at Bjarka Saby. The method is as follows: The soil is left unplowed in the autumn. In the spring it is harrowed and plowed thoroughly, and manured with potash and phosphate. Then the planting is performed by means of two plows, the one shallow and the other deep. The potatoes are laid in the shallow furrow and covered by turning over the deeper furrow, and then the field is rolled. It is claimed that this method has very great advantages, as the planting may be done before any other spring work, and as soon as the ground has thawed. The crops grown on this system certainly looked well, and it is said that the tubers are of better quality than those grown in the usual way.

The cattle kept are all Ayrshires; the stock is principally for breeding purposes, and it is found that there is a keen demand for the young bulls, which are sold at an average of £25 (\$125) apiece. Considerable attention has been paid to freeing the herd from tuberculosis, and they have all been tested with tuberculin. In order to insure freedom from this trouble, every summer the cow-houses, etc., are washed out with hot soda and lysol solution, and then whitewashed.



A Swedish bred Ayrshire cow Milk yield in 1905, 8,000 lbs. Per cent. of fat, 3.52.

ALL CROPS DEMAND POTASH

which may be applied either in the form of

SULPHATE OR MURIATE of POTASH

The POTASH in fertilizers for TOBACCO and POTATOES ought always to be in the form of SULPHATE of POTASH.

The mixture should contain not less than TEN PER CENT. of PURE POTASH, or the equivalent of 150 to 250 lbs. of SULPHATE of POTASH per acre.

Get a good catch of CLOVER and insure good HAY CROPS and PASTURES by applying a fertilizer containing a large percentage of POTASH, which may be in the form of MURIATE of POTASH.

ORCHARDISTS, apply large amounts of POTASH to your FRUIT TREES if you would secure ANNUALLY LARGE YIELDS OF FRUIT OF FINEST QUALITY.

REMEMBER, it is impossible to obtain a maximum yield of any crop unless a SUFFICIENCY OF AVAILABLE POTASH be present.

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During the past few years the herd has taken part in a competition controlled by the State to ascertain the milk yields of different herds. According to these returns the cow yielding the highest quantity gave 11,539 pounds of milk with 3.31 per cent. of butter fat, while the cow showing the highest production of butter gave 10,324 pounds of milk, which, however, showed 3.92 per cent. of butter fat. In the summer the cows are grazed, and the principal milk production is confined chiefly to the winter. It is generally managed that they shall calve down in sequence, beginning in the autumn. The food during the winter consists of roots, straw and cake. Cows in milk get daily about 44 pounds of roots and 10 pounds of hay and straw, while cake is given to the cows according to how long they have been in profit and their milk yield.

AN UNIQUE SMALL HOLDING

I was much interested on this estate to see a survival of a small holding held under the feudal system, which in this instance gave admirable results to both landlord and peasant. The holding consisted of two and a half hectares, or just over six acres, and in payment for this the tenant has to work two days in the week for his landlord, the remaining four days being left for him to cultivate his own holding. Inquiry showed that the average rate of wages in that locality was approximately 60 cents a day—a figure that will be found to work out at something like an annual rent of \$2.50 per acre. The tenant in this case was a remarkably able and hard-working man, and the fertility to

which he had brought the soil was a striking testimony to his courage and endurance in overcoming natural difficulties.

The land in all places was well worked, and the crops promised a better return than on adjacent soil, which was cultivated by a large farmer. There was a very comfortable house, which had been recently put up, the work, we believe, being principally done by the tenant, while

good and substantial outbuildings provided accommodation for the stock, which consisted of five cows, four sheep, and three pigs.

The visit to Bjarka Saly was of an exceptionally interesting character, showing, as it did, what science can do for farming, and on the other end of the scale a relic of feudalism, which to an Englishman's mind was a survival from a remote age.

A.W.S.

Agriculture in Ireland—No. 1

First Impressions—The Jaunting Car and Its Origin

By the HON. JOHN DRYDEN, of the Irish Agricultural Commission

(Written for THE FARMING WORLD)

When the stranger lands for the first time at a railway station or wharf in Ireland, he is at once attracted by the peculiar style of vehicles awaiting orders from the passengers. Instead of the four-wheeled cab of Canada or the "Hansom," so common in England, he will find the greater number to be what is called here in common conversation "a car," the more complete name being "a jaunting car." A modern one is seen in Fig. 1. They are made to carry two persons on each side, which with the driver makes five. They are more commonly used for carrying one or two persons for a short journey. In that case the driver sits on one side and the passenger on the opposite. When more are carried the driver sits in front, as shown in illustration.

EVOLUTION OF THE JAUNTING CAR
One wonders why in England, for such purposes, only a "hansom" would be found in use, while here they are seldom seen, but instead in every part of the country the "car" is the common conveyance. The "car" appears to have been evolved out of a very common conveyance in the earlier days. It consisted in trailing shafts on which was fastened a basket or wooden box for carrying the load. Then followed low, wooden wheels, in which the square shaft or axle was securely fastened. The wheels did not turn on the axle, but the whole axle revolved (Fig. 2). In turning, one wheel could not move backward while the opposite moved forward, as on the modern car. This objection was met by making the



Fig. 1.—Modern Irish Jaunting Car.



Fig. 2.—Old Wheel Car.

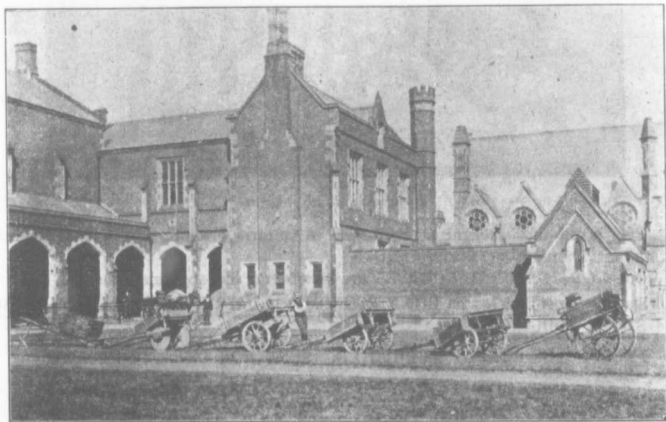


Fig. 3.—A view showing the evolution of the Irish Jaunting Car.

axle solid and allowing the wheels to revolve. Next came the step extending over the wheel, which allowed a considerable load inside while the driver and others could sit comfortably with his feet hanging safely over the wheel on either side. Then came a better wheel, followed at a later date with springs, until the present handsome vehicle, with high wheels tired with rubber and having easy springs, has been evolved. Fig. 3 shows very well the different stages.

THE UBIGUITOUS DONKEY

In moving into many parts of the country one is amused to see such vast numbers of donkeys in use everywhere. It will not do to despise them, for it is easily seen that the farmer endeavoring to live on a small bit of land which may be of none too good quality, could not support a horse. These little donkeys are put to a variety of uses. I have seen them carrying on their back the load of peat for the fire (Fig. 4), and I have seen them pulling a light scuffler through the potatoes or turnips, but if you are in many small towns on market day, where they are used, you would see scores hitched to the little carts and carrying the different members of the family, or perhaps some produce for sale. It is astonishing to the stranger how fast the little things will take along their loads (Figs. 5 and 6). It is not easy securing good photos, as the people seem to have a prejudice amounting to fear lest some harm will come to them. This is noticed in some of the illustrations. Where the donkeys are the carriage horses of the family, you will discover that the land is not of the best quality, and the farms are probably much smaller on the average. But that they have a proper place in many parts of Ireland, where their usefulness is recognized, is proved by the fact that the Department of Agriculture has already expended considerable sums in importing superior Spanish Jacks for their improvement. The motive in this is to increase their size without destroying their speed, and thus give added value in the operation of the farm.

GOOD SOIL AND CLIMATE

Let no one imagine because in some

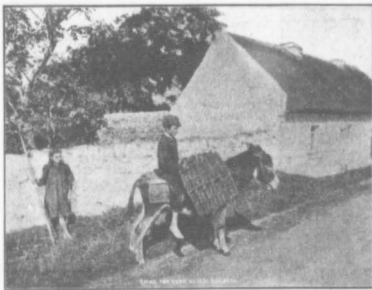


Fig. 4.—Going for turf.



Fig. 4.—An Irish donkey and creels.

parts of Ireland these donkeys are found at every farm home that agriculture everywhere is in a backward condition, or that a lack of intelligence is everywhere prevalent. The very opposite is the case. Much of Ireland is good soil, producing splendid grass, and where tillage is followed abundant crops. The climate is among the best in the world. In no part of Ireland do they suffer from extremes in weather. There is little or no frost, and sufficient heat to mature most of their crops satisfactorily. There are no extensive manufactures in different places, as in England, hence the market for most of their agricultural products is outside of their own boundary.

In some parts of England, notably in Lancashire, the manufactures have become so extended that there is little or no room between for farming operations. Many years ago, by a change in the fiscal policy, the industries then in operation in Ireland were crushed out. As in Canada, the small flouring mills, once doing well, were all closed, and to-day are standing idle, or have been put to some other use. All this has tended to decrease the population and reduce the home market for farm products. In addition, many years ago, when beef was much higher than at present, a very large number of the tillage farms were put down to grass and have been ever since devoted to

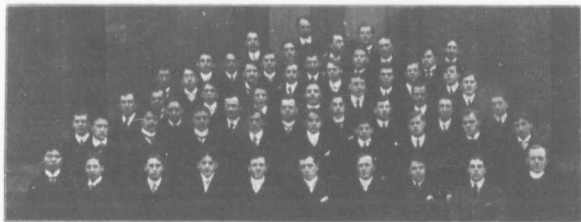
grazing. In the beginning the returns from this form of agriculture were large, but at present, and for some years past, it has been greatly reduced. Yet it is an easy mode of farming, and the farmers are loath to drop it and return to tillage. Meantime the persons formerly employed in the cultivation of the land have removed to Canada or elsewhere, thus causing a still greater depreciation in the population. At present there is much agitation for

A RETURN TO TILLAGE
in order to find employment for a greater number of the inhabitants. Some are ready to reason with the farmer, others seem to think he needs

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G. C. CREELMAN, B.S.A., M.S.,

PRESIDENT



Fig. 5.—Connemara natives "afraid to look at the photographer."

information, while others still would hold out some extra inducement in order to coax him to his former methods. But all of no avail. The farmer in Ireland does his own thinking, and knows better than any one else what is best for himself. If he can have his liberty he may very well be trusted to do the best thing in his own interest. He is not so stupid as some wise people think and this is true in Ireland as in Canada.

But these changes are going on in Canada, in our own Province of Ontario, and many are deploring it. But when men can make more by ceasing their labor and living an easy life, mere sentiment about waving fields of grain and the general beauty of the landscape in a grain-growing district, will have no effect on them. Neither will well-written articles or strong speeches by prominent men. They leave their buildings to drop out of repair and their fences to go to ruin, as though nothing had been said or written about it. There are counties in Ontario, and they are not among the worst either, where this process is going on at the present moment. One of the drawbacks in Ireland is the prevalence of the small holding. It is said that three-fifths of the land is divided into less than 20 acre plots. A good average for this country would be 50 to 70 acres. I have visited farmers tilling 70 acres and doing splendidly. Bringing up their families respectably, with a good education, drinking their wine if they desire it, and laying up a competence for old age. This cannot be done on land that is unproductive, as much of the land on the west coast is (called here "the congested districts"), and of which I shall have something to say in another article. The one crop grown everywhere is

THE POTATO.

In some places immense sums are realized per acre for this crop. These are generally for the early varieties, I have heard of \$1,000 being taken from a four-acre field and that amount paid for the crop in the ground. Most of the potatoes are grown in drills, which are cultivated as in Ontario, and at the proper time billed up with a double mold board plow. But traveling through on the railway you

notice frequent patches grown in another form. These are well adapted to wet, boggy soils, but are often used on other lands. Suppose the land is grass, they would not plow it but plant the potatoes on the surface, then at intervals of three or four feet they dig a trench about 12 or 14 inches deep and cover the potato with earth from this trench. The potatoes being thus covered and growing up, so shelter the land that the grass is destroyed and the potatoes grow on this decaying sod. No more is seen of the grass, nor is there ordinarily any weeds to worry the owner. For this reason they are called "lazy beds," because they do not need cultivation.

In my next, I shall show in part what is being done to develop and improve agriculture in Ireland.

✽

"Have you filled the bath as I told you?" inquired a young fellow who had returned home from a bachelor party extremely late. "Yes, sir," replied his valet. "With cold water?" "Yes, sir." "Then lead me to it." "Water's very cold for a bath, sir." "I don't want a bath. I want a drink!"



Fig. 6.—The cockle man—a very common farmers' conveyance.

Some Phases of the Apple Trade

By A. McNEIL, Chief of the Fruit Division, Ottawa.

The value of the apple products exported from Canada is in the neighborhood of five million dollars. The export of apples in barrels varies, of course, with the crops at home and abroad, but a noticeable feature is the decided increase over a series of years. The crop of 1895 furnished only about six hundred thousand barrels for export. Coming down to the year 1905, with a very short crop in Canada, one and a quarter million barrels were exported. This illustrates the advance which the apple industry has made in ten years.

The question naturally suggests itself: "Can we maintain this advance, and, if so, along what lines?" I have no hesitation in answering that with the markets that are now in view and with the advantages which we possess, natural and acquired, in apple growing, we can look forward with confidence to the doubling of our apple industry during the next ten years. It is the purpose of these notes

to point out the lines along which these increases may most profitably take place.

So far OUR COMPETITORS

in long-keeping winter apples have been the apple growers of the United States. Noting the relative advantages of the apple growers on both sides of the international boundary, a careful survey would show that the Canadian growers have decidedly the best of it in the matter of building up a large export trade. In the first place, the export trade in apples of the United States is something less than 1 per cent. of the total production. As a matter of fact, they come very nearly being an importing nation in the matter of apples rather than an export country. It is true, however, that this may react, and in a season of exceedingly high prices in Europe the United States might easily double its exports without the difference being seriously felt in the

domestic markets. This, however, could not operate except under the conditions that would make apple-growing in Canada still more profitable.

The Canadian grower has his prices for winter apples fixed by the export price. He, therefore, pays special attention to this market, and as a consequence, has developed a quality of apple that has received special recognition in European markets. As a second advantage I have no hesitation in quoting the good effects of the Fruit Marks Act, which has standardized grades to such an extent that this alone gives Canadian fruit a preference of at least one shilling per barrel.

This preference is in all probability a permanent advantage for Canada. Americans appreciate the good effects of the Fruit Marks Act, but are powerless to copy it till their constitution is changed, giving the central government more power—a very remote contingency.

OUR CLIMATIC ADVANTAGES

There still remains another great advantage in point of climate. To produce a long-keeping winter apple of good flavor it is essential that the period of growth be as rapid as possible, with plenty of sunshine and heat during the early part of the summer, to be succeeded by cool weather just as the apple approaches matur-

ity. These conditions are not fulfilling to any great extent in the apple growing districts of the United States. The apple, indeed, comes to perfection, and nothing can be said against the quality of the apple as to size, color or flavor, but it matures too early in the season, so that its ripening is followed by two or three weeks at least of very warm weather. In order to avoid very serious losses in holding apples ripened under these conditions, it is absolutely necessary to have artificial cold storage. This adds from forty to fifty cents per barrel to the cost of growing the apples, that is practically one-half the value of the apples on the

(Continued on page 612.)

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IT is but fitting that Gourlay Pianos, representing the highest type of Canadian piano building, should be manufactured in art cases, designed and decorated in the pure style of the different art periods of the seven-teenth, eighteenth and nineteenth centuries.

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Sunshine

The air is full of a witchery, silent,
unfelt and unseen;
Yet it touches the black pine woods,
and they flash to a riot of green;
It breathes on the different birches,
and lo! they are dancing in
white.
And it paints on the slopes of the
barren fields a picture of de-
light.

I do not know what the magic is,
but I think I have seen the same
In a quiet life, a transparent life, and
the world knows not her name;
But, herself unnoted, a touch, a breath,
where the sad and the sullen
were,
And the dark is light, and the gloom
is bright, at the very thought
of her.

I do not know what the magic is
that dwells in her quickening
face,
No book have I to the witchery that
wraps her around with grace;
But this I know, be it mirth or woe,
where her blessed feet have
trod,
There widens out in the hearts of
men the beautiful peace of God.

My First Housekeeping

THE early experiences I went through in housekeeping were varied, because I did not begin and continue in the one home, learning and unlearning in the same path. As with many young women, my housekeeping was much broken into by removals, travel, changes in business and family arrangements, so that there was a rather frequent "beginning over again" in those early years. It is easy to see the disadvantages of this system of training for a young housekeeper; but it had one great advantage—it gave opportunities for rectifying mistakes. Each time—after the first—I began my career confident that now I had learned the secret of victory.

I think the quality most lacking in beginners at housekeeping is courage. They have had no experience, and many of them, alas! no knowledge, and they are so afraid of making themselves ridiculous.

In my childhood I had been taught a good deal about cooking; but years of school life and study had driven most of this teaching out of my head. Now it was a pleasure to recall it. I managed pretty well with bread-making, which caused my ambition to leap to pie crust, and I volunteered to make apple turnovers for a party of boys to take on a picnic.

I was proud of the turnovers when they came out of the oven so firm and brown. Firm they certainly were, for even the jaws of those boys, supposed to be able to masticate anything except tennenny nails, could not manage them. The use they made of them was to "shy" them at one another, and they averred that even then they did not break. I was mortified,

but also puzzled. What could be the matter?

It was some time before I learned that I should have worked in the coldest place in the house, wet the crust with ice-water, scarcely rolled it at all on a marble slab, and frozen it on a block of ice. When I did know all this, I must say I thought the process very absurd.

It was in my next house, where wagoons came with provisions and the grocer sent for orders, that I, having acquired a fresh stock of courage, determined to keep a sharp eye on expenses. I purchased three pretty little books in which to enter the accounts of butcher, grocer and fishman—who also sold vegetables. Thus I should know daily how expenses were running, and better control the monthly bills.

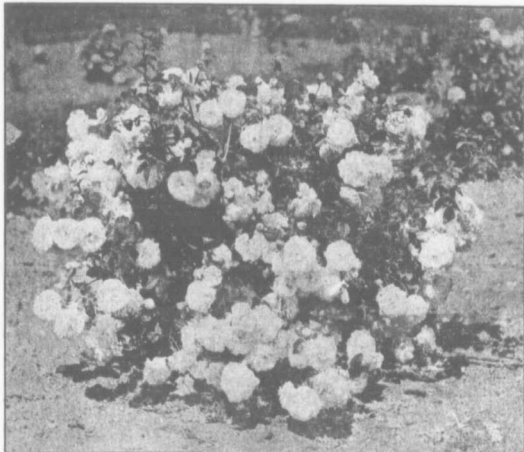
But my three pretty books became three torments to my unmathematical mind. It was in vain that I tried to translate the Egyptian hieroglyphics of the butcher into English; they always baffled me, and I wondered if I really had bought such queer articles, for we certainly had never eaten them. His pounds were generally more than my pounds; and I never could make

one-sided business, and that the heavy side was mine.

The groceries were easy enough to enter as far as the weekly order was concerned, but I was likely to forget something absolutely necessary, which had to be obtained from the store, and I would forget to enter this in the book, which, consequently, lagged behind the grocer's bills in a most exasperating way.

It was a pleasure to enter fish and vegetables—they were so cheap—and when my eye caught the amount of a daily bill it seemed so very small I was tempted to indulge the next day in something more costly, a small item even then. But as this went on from day to day, my surprise would be great at the respectable size of the monthly bills.

So we housekeepers go on, struggling and learning, as I suppose people do in every business, only I think we are not apt to consider it a business. But it is, nevertheless, and one well worth learning. When we encounter the frequent disagreeable incidents, we can console ourselves with the thought that they will vanish, one by one, but our home will remain to us.—Youth's Companion.



A mass of summer bloom.

bone and gristle bear the proper proportions to the eatable meat.

This butcher was learned, and carefully explained to me that the loss in the waste of bone and gristle was equally divided between seller and purchaser—half fell to him and half to me—which sounded fair enough. But as he did the weighing and fixed the prices, which were high, I could not but feel that, somehow, it was a

Good Use for Eggshells

Always save your eggshells and use them for the purpose of cleaning bottles and cruet. Store them in a box, and when you wish to wash the bottles crush the shells up very fine, partly fill the bottles with them, pour hot soapsuds over them, and then shake well. Rinse out in clear water, and bottles will be bright and clean.

The Fellow Who Whistles

The fellow who can whistle when the world is going wrong
Is the fellow who will make the most of life;
No matter what may happen, you will find him brave and strong—
He's the fellow who will conquer in the strife.

The fellow who can whistle when the whole world seems to frown
Is the kind of man to stand the battle's brunt;
He's got the proper metal, and you cannot keep him down;
For he's just the sort that's needed at the front.

The fellow who can whistle is the fellow who can work,
With a note of cheer to vanquish plodding care;
His soul is filled with music, and no evil shadows lurk
In his active brain to foster grim despair.

The fellow who can whistle is the "trump" card of the deck,
Or the "whip-hand," in the parlance of the street;
No petty cares nor trifes can his buoyant spirit check,
For a sunny heart can never know defeat.

The fellow who can whistle—he is built on nature's plan,
And he cheers his toiling fellow-men along;
There is no room for pessimists, but give to us the man
Who can whistle when the world is going wrong.

The Summer Boarder

"Are you folks reckonin' on takin' boarders this summer, Luke?" inquired Seth Turniptop of Luke Leatherbottom, when the two met, the other Saturday, at the post office.
"Hey—boarders did you say? Humph! Wa-al, I should reckon not. I d'want none of them city folks 'roun me ag'in, arter las' summer. If the warn't the peskiest lot o' critters I ever did see! They cum all chuck full of highfalutin' notions, but I guess they got some o' 'em tuk out of 'em 'fore they went back. They bothered ma to death, an' made her nervous—my! They wanted a separate spoon fer the sugarbowl, b'gosh! Tew high-toned to stick their own spoons in! Ever hear the like of it? No; I reckon not! Then the table-

cloth had to be took off right in the middle of the week—mornin' so's to hev the spots on the under side warn't enough. Ma mus' hustle it off an' lay a bra'n clean one. An' the napkins! One spot on a napkin made 'em sick, an' that napkin had to go. Sunday cleannin' warn't often enough.

"What else? Plenty. They wanted me to give 'em helpin's, stead of passin' the platter an' lettin' each feller dish his own mess. Wa-al, I kicked on that. I was there to eat, not to scrape for other people, and I don't put a collar on, neither, week-day meals, tho' one of the boarders—
—a man b'gosh!—was that finicky he hinted to ma to ask me to. I had somethin' else to do besides dressin' an' undressin'. They wouldn't wash in the basin where the res' of us did. Sh'd say no! They made ma lug water clean up stairs, fer their private use, by jinks! An' each room used three or four towels a week! Poor ma 'bout broke her back washin' things.

"Sundays they wanted risin' bell at seven, 'stead of five, tho' how a body kin lay a-bed till near noon is more'n we kin figger. Durned if some of them people didn't try to eat peas with a fork! Shelled peas, mind ye! An' the fool talk, an' the way they thought they knowed everything. But not one of them could tell which end of a horse or a cow riz first from the ground, gittin' up. Wa-al, they 'bout wore out our folks an' feelin's, an' didn't go any tew soon. No more city folks fer us—no sir! They're more bother than they're wuth."

One Thing at a Time

When I was a little boy helpin' mother to store away apples I put my arm around ever so many o' them an' tried to bring them all. I managed for a step or two. Then one fell out, an' another, an' two or three more, till they was all rollin' over the floor. Mother laughed.

"Now, Dan'el," says she, "I'm goin' to teach you a lesson." So she put my little hands quite tight around one.
"There," she said, "bring that an' then fetch another."

I've often thought about it when I've seen folks who might be doin' ever so much good if they didn't try to do too much all at once. Don't go tryin' to put your arms round a year an' don't go troublein' about a week. Wake up in the mornin' and think of this:

"Here's another day come. What-

ever I can do and whatever I don't do, Lord, help me to do this—help me to live to Thee." One day at a time, one hour, one minute—yes, one second—is all the time we get at once. So our best course is to do the next thing next."

Keep Cool!

"Ain't that chap that fusses round, gets the most work done,
Tis the steady chap I've found,
That success has won.
Cultivate calm equispose—
Live your life by rule;
Calmly take your griefs and joys—
Take your time! Keep cool!"

Fret and fuss are tommyrot!

Think, and save your legs.

Rooster crows an awful lot—

Chicken lays the eggs.

Live a life of blissful calm—

Be no fellow's fool;

If for fame you'd take the palm,

Take your time! Keep cool!

Follow all the rules you know,

Spout philosophy!

Swear that old you'll never grow!—

That from care you're free!

Then will Fate, a rascal slick,

Kick you out of school;

Punctuating every kick

With "Take your time! Keep cool!"

Footscap Paper

All know what footscap paper is, but no doubt the reason for its name has puzzled many eager inquirers. Charles I, of England, granted many monopolies for Governmental support, among which was the manufacture of paper. The water-mark of the finest sort was the royal arms of England.

The consumption of this article was great, and people who secured the sole right to sell it soon acquired immense fortunes. Parliament set this monopoly aside, and when Charles I was brought to the scaffold they ordered the royal arms taken from the paper, and a fool with his cap and bells to be substituted.

It is now about two hundred and fifty years since the fool's cap was taken from the paper, but that size of sheet still retains the name.

Little Alice, much disturbed, begged her mother not to let remarks be made about her doll when it was present, "because," she said, "I have been trying all her life to keep Dollie from knowing that she is not alive."

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Please mention The Farming World when writing Advertisers.

WITH ANOTHER'S HELP

YES, they've some nice spring goods over at Bettman's, but I declare I was so taken up with hearing about Clem Darrel that I forgot to bring you samples." Mrs. Borgen mopped her face with her pink bordered handkerchief. The April day was warm, and the walk from the village trying to one of her ample proportions.

Mrs. Miles looked up at her caller from the towel she held. "What about Clem Darrel?" she asked.

"He's going out west to be manager of some large hotel at a fine salary. Some people do have the greatest luck."

"Clem was always ambitious," observed Mrs. Miles. "When is he going?"

"To-day, I believe. I suppose that he and Lista Williams will be getting married now. I guess they would have done it long ago only that old man Williams wanted some one with more money for Lista."

"Lista is a bright, capable girl, and pretty, too. I didn't know that there was anything between her and Clem," returned Mrs. Miles, folding her finished towel, and taking up another.

"Oh, I've been hearing of it for the last six months. But there I must be going, I only stopped to tell you about the goods at Bettman's. I'm sorry I forgot the samples."

Mrs. Miles' glance thoughtfully followed the form of her departing visitor through the open door way.

"Now, I wonder if Letty heard her talking about Clem and Lista," she muttered. Then aloud she called "Letty."

A girl appeared from the adjoining room. She was slender, dark-haired and with deep blue eyes. Mrs. Miles held out a roll of towels.

"Letty, just put these away, please. I'm going into the kitchen to try that new sponge cake."

The girl took the towels mechanically. Mrs. Miles looked at her curiously.

"What is the matter?" she asked. "My head aches. I think I'll go down to the river a while," was the reply, in a strained voice.

"Yes, go," assented Mrs. Miles. "You have been staying in the house too much lately. The air will do you good."

As Mrs. Miles began her preparations for her cake-making she said to herself, "Yes, I know she heard Mrs. Borgen. And she's prettier than Lista Williams any day."

Letty More hurried down to the river. Though the day was so warm, she was shivering. She folded closer about her the light silk scarf she had caught up on leaving the house.

"I must be quiet and think," she muttered as she directed her steps to a sheltered spot behind a clump of willows, now in their fresh lively of spring. She sat down on a log and burying her face in her hands, burst into a storm of tears.

"I can't bear it, I can't bear it," she moaned. "How could he? To go without a word—And oh, it can't be true about Lista Williams!"

A man plowing in a neighboring field was whistling cheerily.

Everything so bright—and she so wretched. She had thought herself miserable during all those wretched months of their estrangement, but there had always been the hope that some day—no—she had felt certain that some day he would come to her and she would be happy once more. But now, he was gone. She had never thought that there could be anything so dreadful as his ceasing to love her. And Lista—Oh, it couldn't be.

Letty arose suddenly, a wave of different feeling surging over her. "Let him go," she said aloud scornfully. "Have you no pride Letty More? Will you break your heart for a man who cares nothing for you?" She turned to ascend the river bank. Her scarf, which had become loosened, slipped from her shoulders to the ground. She did not notice it. "I'll leave this place. I hate it. I'll go to Montreal as Aunt wanted me to do last month."

An hour later Jan Higbee had finished his plowing and was passing by the willows. His glance fell on Letty's scarf lying on the ground. He picked it up. "It must be Letty More's. I saw her down here a while ago. I'll just hang it on this tree till I am coming back her way." He hung the scarf securely on a branch and went on to the village.

Clem Darrel had passed a long day. His summons taking him west had come unexpectedly and he had many matters to arrange for his absence, which might be permanent. In the middle of the afternoon the last detail had been settled, and he was free until his departure the next morning. How should he put in his time? It was a fine afternoon for the river. He would run down to the village and back.

As he walked down to the river bank and while he was getting his

boat ready, he carefully avoided letting his glance reach the opposite bank.

"She must know that I am going, and she has made no sign," he muttered. "What a fool I am to care about her. She never cared for me or she would not let me go without a word. Bah! I'll not look."

He squared his broad shoulders, set his lips firmly, and impelled his boat into the middle of the stream. As he was rounding the bend of the river, his eyes turned toward the spot he had resolved to avoid.

A woman was mounting the bank. Though her back was toward him, and the distance was considerable, he recognized the slender figure.

"Letty!" he ejaculated. "I suppose she saw me, and is going off in that way to show me how little she cares. She may spare herself the trouble. She has already shown me plainly enough."

He gave some vigorous strokes with his oars sending his boat swiftly down the stream.

Some two hours later as he was about to leave the village, Jan Higbee came along.

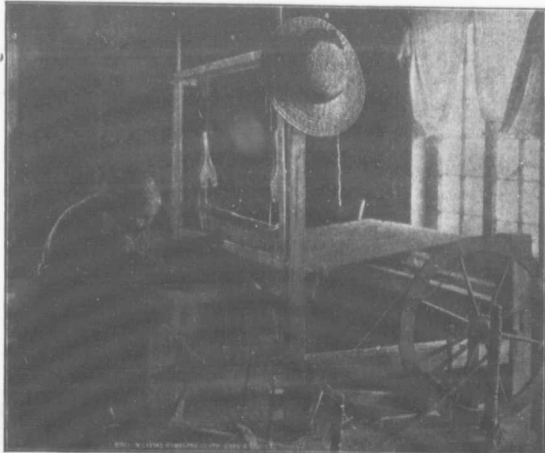
"Why Clem!" he exclaimed, "I thought you went yesterday. I couldn't get ready. I'm going to-morrow."

"Say, there'll soon be none of the young folks left, between marrying and dying, and going away. Tom Collins and his sister went to Toronto last week, and I expect Letty More will be going to Montreal some of these days, from what her aunt told me the other day."

"Ah! Well, time brings changes. Good bye, Jan." Clem's tone was elaborately careless.

"Good luck to you, Clem," returned Jan, heartily.

Clem rowed slowly. His thoughts were revolving around the remark Jan had made about Letty going to Montreal. Then she was going to marry that fellow! He was from Montreal. His attentions to her that summer had been the cause of their quarrel. And how she had denied having encouraged him. What a fool he was to care! He'd not give her



Weaving as still carried on in French-Canadian homes.

another thought. In pursuance of this resolution, he began to row faster and to whistle.

When he reached his landing place, and had drawn his boat up, he stood a moment to look around the well-known scene. Along the line of distant hills and back to the river with its familiar turnings his glance wandered, and then fell on the clump of trees on the opposite shore. He was all at once in a tremor of excitement. A handkerchief or scarf fluttering from one of those trees had been the signal agreed upon between him and Letty in the old days when she wanted to see him particularly. And the signal now could surely not mean that she wanted—

With feverish haste he pushed the boat into the water, and rowed with his best effort across the river.

When, the next week, Jan Higbee heard that Clem Darrel and Letty More were to be married in June, he little thought how important a part he had played in their reconciliation.

What It Wouldn't Do

"Madam," said the young man who had called at the back door on Monday, "I have the pleasure of introducing to you our new, automatic house-cleaning machine—a simple little thing which does the whole work of house-cleaning, leaving to you merely the general supervision."

"Does it all, hey?" demanded the woman of the house. "Will it wash the outside of the upstairs windows?"

"Why, no, madam, but—"

"Will it take down, wash, stretch to dry, iron and hang up the parlor curtains?"

"Well, of course—this machine—"

"Will it gild the chandeliers, paint the kitchen, make my daughter help with the dishes, persuade my husband to be contented with cold dinners, get out the screens and patch them up?"

"O, madam, this machine—"

"Will it take down the parlor stove and set up the refrigerator, wash the winter bedding and put it away, lay down the furs with moth balls, paper the hall bedroom, wash down the paper in the bathroom, wash, fold, starch and iron and put away the family clothes, darn, patch and sew on buttons, wash dishes, set three meals a day, and pacify the household?"

"No, madam, you have misunderstood the limitations of this machine."

"Limitations?" demanded the woman of the house. "I guess it has limitations. It will be a long time yet before any man will get up a machine that will do all a woman has to do in housecleaning time."

She took a fresh mouthful of tacks and went back to the dining room carpet, and the agent faded sadly away.

In Fly Time

Flies are an abomination unto mankind. They have no regard for cleanliness or sanitation, or for sleeping babies or snoozing grandpas.

The farm is a breeding place for the pests—not necessarily but usually—and the kitchen affords a continuous banquet for them.

To get rid of them is desirous of course. To prevent them is the best. But you are too busy to keep the manure away from the barn so clean that no flies can hatch. Besides, your neighbor will hatch them and loan you a few million anyway. Turkeys and guineas will catch all they can, and the pestered dog may snap one or two a day, but like the poor they are always with us—in summer.



If you only knew how much money you could save and how durable it is, you would surely use

PAROID ROOFING

For roofs and sides of all farm buildings. Easily applied by any one. Water, snow, acid, gas, heat and cold proof. Light stain color; contains no tar; does not take rain water. Illustration above shows largest stock barn in Minnesota, covered with Paroid.

Send for Free Sample.

Book of poultry and farm building plans for a 2 cent stamp and name of nearest dealer.

F. W. BIRD & SON, Makers.

Hamilton, Ontario.

Originators of complete roofing kit in every oval.

FARM LABORERS

Farmers desiring help for the coming season should apply at once to the GOVERNMENT FREE FARM LABOR BUREAU.

Write for application form to

Thos. Southworth,

Director of Colonisation,
Toronto.

Sticky flypaper catches them of course. And sometimes you, or some one else in the family, sit down on a sheet, or lay some article upon the tanglefoot and ruin more than the flies would. Poisoned flypaper gets a few, too. But it is not very appetizing to see the puffin up, pickled flies lying around the house. Sometimes the children get poisoned with the stuff—so we rule that out.

On cool days and along in the evenings the flies swarm upon the screen doors of the kitchen and dining room. They don't bother the screen of the "spare parlor" very much for there ain't anything there that would attract even a fly. But one fly in the parlor is a big nuisance, when you want to take a Sunday nap.

But if we can't or will not prevent their hatching, and if we can not neatly and cheaply catch the flies, we can do the next best thing, and that is prevent their coming in the house to any great extent by screening the porches. You know that a screen door or window is the favorite loafing place of a thousand flies. Some get in at every swing of the door. Screen the porch and the flies are not smart enough to know where the door is. They will scatter out all over the porch screen and will not be stirred up every time the screen door opens. Of course, have the house door screened also and use sticky flypaper to hang in the porch to catch those few that do get in that far.

How Fishes Talk

Fishes undoubtedly communicate with their fellows. Even if they cannot "talk," they have other means of communication that are better adapted to their needs. We know how readily fishes recognize their mates and how quickly brooding fishes repel intruders of their own or other species. Something besides seeing them, perhaps some sense of which we have no conception, may do this. Many fishes communicate with their fellows by means of sounds produced through the medium of their air-bladders, by grinding their teeth together and in various other ways.

THE NORDHEIMER PIANO

Represents the best type of elegance and the standard of musical excellence, and will hold its own in a comparison with the very highest product of the art.

Illustrated Catalogue on Application.

Head Office and Warerooms
15 King Street East, Toronto

THE BOYS AND GIRLS

Three Little Kittens

Three little kittens, so downy and soft,

Were cuddled up by the fire,
And two little children were sleeping aloft,

As cosy as heart could desire;
Dreaming of something ever so nice,
Dolls and sugar-plums, rats and mice.

The night wore on, and the mistress said,

"I'm sleepy, I must confess,
And as kitties and babies are safe
in bed,

I'll go to bed, too, I guess."
She went upstairs, just a story higher,
While the kittens slept by the kitchen fire.

"What noise can that be?" the mistress said.

"Meow! meow!" "I'm afraid
A poor little kitty-cat's fallen out of bed."

The nice little nest I made!"
"Meow! meow!" "Dear me! dear me!
I wonder what can the matter be?"

The mistress paused on an upper stair,

For what did they see below?
But three little kittens with frightened air,

Standing up in a row!
With six little paws on the step above,
And no mother cat to caress or love!

Through the kitchen door came a cloud of smoke!

The mistress in great alarm,
To a sense of danger straightway awoke;

Her babies might come to harm,
On the kitchen hearth, to her great amaze,

Was a basket of shavings beginning to blaze.

The three little kittens were hugged and kissed,

And promised many a mouse;
While their names were put upon honor's list,

For hadn't they saved a house?
And two little children were gathered tight

To a mother's heart ere she slept that night.

Worse Than the Measles

TEDDY was pointing. Aunt Helen was singing, trying to sing the pouts away, so she said. But either the music of Aunt Helen's voice, music which Teddy dearly loved, or his own good temper coming back to him, made first one corner of his mouth turn up, then the other; so that by the time Aunt Helen's hat was securely pinned on, "Smiling Face" Aunt Helen's pet name for Teddy when he was in his usual good humor, was hunting for his cap.

"What! want to go with me?" Aunt Helen exclaimed, in a surprised tone.

"Yes, if you please," was Teddy's rather timid answer.

"I shall be very glad of your company. I am going up on the hill to watch my little goldfinches."

Aunt Helen's voice was so bright and cheery that Teddy could not help wondering if she ever had pouted when things went wrong.

"I think I did have a spell of it, once on a time," Aunt Helen replied in rather a musing tone of voice, when Teddy ventured to question her.

"But you never do, now!" Teddy's tone was so confident that Aunt Helen hastened to assure him that pouting is a disease, worse, even, than the measles or scarlet fever and that it is contagious, just as they are.

"How did you find that out?" questioned Teddy.

"Well, I think I found it out when I was quite a little girl. I had spells of pouting just like a little boy I know of. One day my cousin Margaret came to visit me. I wanted to take her out in the woods to see my pet squirrel. My mother did not think it wise for me to go that day, as I had been sick all night. So down I sat and pouted. I knew it would not do any good, or make my mother change her mind—it never did. But Mr. Pout pounced right down on my face when my mother said "no," and there he stayed.

"Pretty soon I looked at Margaret, who stood by the window, and to my surprise, she was pouting, also. I did not understand how that could be, for no one had said "no" to her.

"Then a very strange thought came into my head. I imagined that Mr. Pout must have jumped from my face

just a change of thought was all that was necessary to effect the change of looks."

"I am going to try it, too, Aunt Helen. It will be almost like playing a game," Teddy exclaimed, as they started out the door, hand in hand.

How Large is Canada?

Canada is larger than the United States by 250,000 square miles.

Canada contains one-third of the area of the British Empire.

Canada extends over twenty degrees of latitude—from Rome to North Pole.

Canada is as large as 30 United Kingdoms.

Canada is as large as 18 Germanys, 20 Spains, 33 Italys.

Canada is larger than Australia and twice the size of British India.

Canada has a boundary line of 3,000 miles between it and the U.S.

Canada's sea coast equals half the earth's circumference.

Canada is 3,500 miles wide and 1,400 miles from south to north.

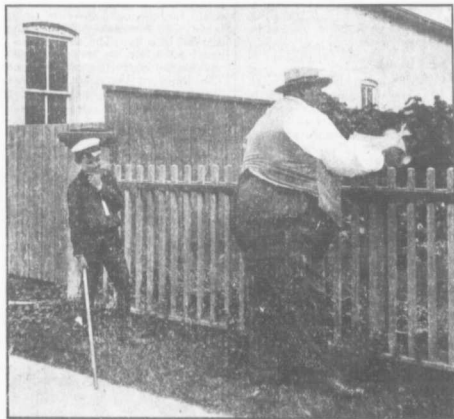
A Lesson in Bird Nests

1. What bird builds no nest, but puts her eggs in the sand?

2. What birds lay their eggs in the nests of other birds?

3. What birds lay their eggs in heaps of dead leaves?

4. What bird builds a nest like a long pocket with small opening but where the eggs are laid the nest is quite roomy? This nest is sewed in



"I'd like to, but I dassen't."

to Margaret's. I went to the mirror. My face looked just like Margaret's, and I at once concluded that pouting must be catching. I asked my mother and she assured me that I was right.

"I think I began to recover from the disease on that day. I thought how bad it was going to be for a little girl like me to be the means of making other little girls so very unpleasant to look at."

"What did you do, Aunt Helen?" Teddy's voice was full of eager interest.

"The cure was very simple," Aunt Helen replied. "Every time Mr. Pout came creeping along I called upon Sunny Face to chase him away. And very soon, to my surprise, I found that

between forked twigs at the end of a tree.

5. What bird uses her bill for a needle and bits of fibre for thread and sews the edges of large leaves together for a nest? Sometimes she sews the edges of one large leaf together, and fills this pocket partly full of cotton-like down from plants.

6. What bird builds her nest in chimneys?

7. What bird builds her nest under overhanging eaves of barns or houses?

8. What birds build nests in holes in trees?

9. Name some birds that nest in holes in the ground.

10. Name some birds that build nests in clefts of rocks?

IN THE SEWING ROOM

May Manton's Hints

SAILOR BLOUSE 5375

The sailor blouse makes one of the most thoroughly satisfactory garments that a woman can possess, is loose, comfortable, allows of free movement yet is always becoming and smart in effect. This one shows several of the novelties of the season without losing any of the essential qualities that belong to the style. In the illustration it is made of white linen and is banded with blue and worn with a blue silk tie, but it is appropriate for all the simpler washable fabrics and also for the flannel and the serge that are so desirable even during mid-



5375 Sailor Blouse,
32 to 40 bust.

6420 Blouse or Shirt
Waist,
32 to 42 bust

summer when the outing is to be taken by the sea shore or in the mountains. The sailor collar is always becoming, but is not obligatory as the model can be made plain, finished with a yoke only, while again the shield can be omitted if a cooler blouse is desired, and there is a choice allowed of elbow or full length sleeves.

The blouse is made with a plain back and full fronts, that are gathered and joined to a smoothly fitted yoke, and is fitted by means of shoulder and underarm seams. When used the collar is joined to the neck and front edges. The shield is entirely separate and closed at the back while the blouse closes at front. The sleeves are simply full and can be finished with the deep cuffs or cut off below the elbows and gathered into bands.

BLOUSE OR SHIRT WAIST 5420

The plain waist with roll-over collar makes one of the latest variations of the favorite Peter Pan or tennis model and has a great many advantages. It is simple and easy to make while it is becoming to most figures and can be laundered with perfect ease. This one includes the characteristic elbow sleeves which either can be closed or made with openings at the outer portions as may be liked, the lower edges being finished with bands and cuffs. As illustrated it is made of pale blue linen chambray but it is appropriate for all the season's waistings and is quite as attractive for thin lawns and batistes as in the heavier linens, Madras and the like.

The waist is made with fronts and back. The front edges are finished with wide hems and the patch pocket is arranged over the left front. The roll-over collar is joined to the neck and the fulness at the waist line can

be regulated by means of tapes or straight bands. The sleeves are gathered at both upper and lower edges and are finished with bands and cuffs.

BOY'S RUSSIAN SUIT 5428

Nothing ever devised is more becoming to the small boy than just such a Russian suit as this one. It is exceedingly becoming and has enough of the skirt effect to do away with the absurdity of trousers on tiny legs while it is sufficiently masculine to satisfy his own ambitions. The model is made of blue linen trimmed with white braid, but white linen, white taffeta and Madras and all the various similar washable materials are correct, while for the really dressy costume white silk and white serge are well liked, and a bit later when cooler weather shall have reached us, shepherd's checks and light weight wool materials will be appropriate.

The suit consists of the blouse and knickerbockers. The blouse is made with a separate shield that is closed at the back and itself consists of the fronts and the back. It is finished with the big sailor collar and beneath this collar is buttoned to the shield while the closing below the collar is made with buttons and buttonholes worked in a fly. The sleeves are the usual ones but are tucked to give a box plaited effect at their lower edge. The knickerbockers are simply full, drawn up by means of elastic inserted in the hems.

MEN'S OUTING SHIRT 5427

The outing or negligee shirt is absolutely necessary to masculine summer comfort. This one can be made from Madras, from chevot, from the various silks, linen and cotton shirtings and also from the light weight flannels that are so well liked for athletic sports. It is shapely and can be made either with or without the yoke and



6428 Boy's Russian
Suit, 2 to 6 years.

6427 Men's Outing
Shirt, 34 to 44 breast.

with the roll-over collar or neckband to which removable ones can be attached, while also the sleeves allow a choice of the attached cuffs or of wristbands. In this instance one of the pretty striped vicellas is stitched with holding silk, the closing being made by means of pearl buttons and buttonholes.

The shirt consists of fronts and back. When the yoke is used it is plaited over the back and the turn-over collar or neckband is seamed to the neck. The sleeves are in regula-

You don't wash with the box!

Both box and wrapper of Baby's Own Soap are plain, business like and cheap. All the money is in the Soap itself, which is as "wholesomely" pure and fragrant as money can make it.

Baby's Own Soap

is much limited as to appearances, but delicate skins soon show the difference. "Baby's Own" costs YOU no more than the imitations.

Albert Soaps Ltd., Mfrs. - Montreal.

tion style and there is the usual box plait effect at the centre front.

The price of each of the above patterns postpaid is only 10 cents. Send orders to The Farming World, Morning Building, Toronto, giving the size wanted.

Pat's Request

An Irishman was in the habit of going home tipsy every night and beating his wife. Finally she appealed to the priest of the parish. He called that evening, and Pat came home drunk as usual. "Pat," said the priest, "you're drunk. If you ever get drunk again I'll turn you into a rat—do you mind that? If I don't see you I'll know about it just the same, and into a rat you go. Now you mind that!" Pat was very docile that night, but the next evening he came home more intoxicated than ever; he kicked in the door, and his wife dodged behind the table to defend herself. "Don't be afraid, darlint," said Pat, as he steadied himself before dropping into a chair, "I'm not going to bate ye. I won't lay the weight of my finger on ye. Ye know his reverence said last night if I got drunk again he'd turn me into a rat. He didn't see me, but he knows I'm drunk, and this night into a rat I go. But watch me, and, when ye see me gettin' little, and the hair growin' out on me, and me whiskers gettin' long, if ye ever loved me, darlint, for Hivin's sake keep yer eye on the cat!"

Saving—"My dear man," said the physician, "I am exasperated with you. Here you have deliberately drunk water from the spring which caused your wife to have typhoid fever, and no sooner is she able to be up and around than you are down with the same disease. I should think you would have known the risk you were taking after my warning. Why did you do it?" "Well, doctor," exclaimed the patient, who was somewhat noted for his economical disposition, "there was about half the medicine we got for my wife left, and I hated to see it go to waste."

"How stupid it is for people to speak of 'dull care!'" remarked a man with emphasis. "Every care I've had has been awfully sharp!"

Sunday at Home

Sorrows and Joys

Our greatest joys flow from the consciousness of having made others joyful. When we have reason for joy on our own account, our joy is enlarged by the thought of the joy which others have because they gave us our occasion of joy. And even when we sorrow because we have lost those who gave us our joy, we can be joyful in the thought that where they are, they rejoice that we are what we would not have been without their help. "And to me," wrote a young man whom a young girl had brought to Christ, and who mourned over her early death, "a great sustaining thought lies in the fact that Gertrude is permitted now, even from afar off, to see the results of all the prayers which went from her to her Father during her little span of life, and to rejoice with exceeding great joy over one star in her crown for which she toiled so long and earnestly." So near allied are our present sorrows and joys. It is always in the true life as Jesus told His disciples it would be with them. His death would be both their sorrows and their joy. His sorrow and his joy. All our sorrows should be also joys.

Each in His Own Way

Men are very much like trees. Some stand best alone. Others fail unless girt around and supported by other trees. A yellow birch or a fir tree which was splendid and powerful in the forest when other trees crowded around it on evening of its life, and die if the other trees are cut down and the great tree left alone; while an elm or a maple, which the thickness of the forest would stifle, spreads out into a splendid tree if allowed to grow alone in the sunshine and the free air. So some men need the close pressure of society upon them if they would develop their full power and abide in strength, and other men want separation and seclusion. To each tree its own necessities; each man to his own requirements. Only let the social man not lean too much upon his supports and protection and the separate man not hold aloof from his duties and relationships.

Faith In Tribulation

Never, perhaps, do we feel so bitterly the reality of the tragedy of life as in the presence of shallow, light-hearted, easy-going cheerfulness. It certainly has no power to ease the load of care or to lift the gloom of sorrow. But the cheerfulness which really cheers is that which we feel to have come "out of great tribulation," with the marks of struggle still upon it, and yet the strength of victory.

There are always two ways in which the tribulation of the world can be met. The one is to bend beneath it so that it kills the heart of hope and the will to energy. The other is to rise above it so that the spirit, at the best, refuses to surrender; at the best, rises to the purpose which lies behind, and in the light that returns to the tribulation and transforms it, and thus, in the fullest manner, overcomes it.

Hard, indeed, it must be for a man to bear up against the tribulation of the world if he can see no purpose behind it.

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Health in the Home

Rheumatism

Formerly all painful affections of the muscles or joints were grouped together under the one title, rheumatism; but now one after the other has been found to be a distinct disease, until, in scientific phraseology, although not yet popularly, the term rheumatism is coming to be restricted to acute rheumatism of the joints, or rheumatic fever. This disease is of uncertain nature, although it is generally believed to be of bacterial origin. How the bacteria act is what has not been determined. Some investigators think that they are carried by the blood to the affected joints; others believe that they are confined to the tonsils, and that the joint inflammation is caused by the presence of the poisons elaborated by these bacteria and transported in the blood stream.

Rheumatism seems to bear some relation to climate, as it occurs most frequently in the winter and early spring, and exposure to damp cold seems, at least in the predisposed, to precipitate an attack. Men suffer more often than women, probably in some degree because they are more exposed to the inclemencies of the weather. One attack seems to predispose to another, and not to confer immunity, as happens in typhoid fever and most infectious maladies.

The disease usually begins with pain and stiffness in one of the joints, following a cold in the head or sore throat. In a day or two the joint swells, becomes red, and the pain grows agonizing. After lasting for a while in one or more joints, the inflammatory symptoms often stop suddenly and go to another joint—and so they may play back and forth through all the joints of the body, the disease persisting interminably. The membrane lining or covering of the heart may also be attacked.

The treatment of rheumatism is, of course, a matter for the doctors. The affected joint should be handled as little as possible; attempted massage, or even the lightest friction, may greatly increase the pain. The joint should be embedded in cotton and protected by a wire screen from the pressure of the bedclothes and everything else that may hurt it.

A Mother's Nerves

A nervous mother infects her baby. She should practice rigid self-control for his sake, if not for her own. Many women are nervous because they take pride in it. They have a silly idea that nervousness indicates some sort of superiority—refinement, delicacy, or some other such rot.

If the average nervous woman, instead of going around whining, "Oh, dear, I'm so nervous;" would brace up and say, "I won't be nervous;" she would be cured in short order; and her baby's chances for success in life would be greatly increased.

Meanwhile, take care of yourself. As you are so is your child likely to become. It is useless to teach your child to be one thing and remain another thing yourself. The child is influenced by what you are, not by what you say. May this be your motto: My baby first and last, but myself for my baby's sake.

IN THE KITCHEN

How to Can Corn

Cut the corn from the cob and scrape the cob with a knife. There is one thing to be observed with care before this process is gone through with, and that is, select the corn with great care. Do not use any that is hard or too old to be tender and good for table use. If it is too old, no amount of canning will make it palatable or fit for use. When the corn is taken from the cob fill your cans with it, pressing it as closely as possible, using a potato masher if you have one small enough, or use the small end of a large one. It will take, perhaps, a dozen ears to fill one can. The can should be perfectly sweet and clean. All cans that have stood with the cover screwed down should be scalded. Even those put away scrupulously clean will, if covered, have an unpleasant odor. If the cans are not new, be sure the rubber rings are in good condition, not hardened by use. Many cans of fruit and vegetables are lost through the lack of using this precaution. If you do use old rubbers and the corn spoils, lay the blame at your own door and not say the recipe is a failure. When the jars are full, screw the covers down. Wet a large towel or any cloth and fold so there will be several thicknesses, and lay it on the bottom of your boiler, add a layer of cans, then another layer of wet cloth and another layer of cans. Repeat this proceeding till your boiler is full. Then cover with cold water and put over a good fire. Let them come to a boil and keep them boiling for three hours. Keep the fire at a steady heat and do not let the water stop boiling. After they have boiled three hours, lift the boiler from the fire and let it cool gradually. When cold take the jars from the water, screw the covers closely and put away in a dark place. Some wrap them in paper. One housekeeper buries her cans in earth to exclude the light. Her canning is a success. Do not open the cans till wanted for use. The corn may not fill them after cooking, but don't try to refill.

Jelly Making

Equal parts of grapes and apples make a well-flavored jelly, nice to serve with game and meats.

In making apple jelly, use the effect of the juice and the thin yellow rind of a lemon to each pint of apple juice. Skin out the bits of lemon rind when the jelly is put in glasses. Apple jelly to serve with roast goose or pork is flavored delicately with mint.

Jellies are so rich in sugar that they are protected from bacteria and yeasts, but they must be covered carefully to protect them from mold spores and evaporation. The following methods of covering jellies are all good: Have disks of thick white paper the size of the top of the glass. When the jelly is set, brush the top over with brandy or alcohol. Dip a disk of paper in the spirits and put it on the jelly. If the glasses have covers, put them on. If there are no covers, cut disks of paper about half an inch in diameter larger than the top of the glass. Beat together the white of one egg and a tablespoonful of cold water. Wet the paper covers with this mixture and put over the glass, pressing down the sides well

to make them stick to the glass, or the covers may be dipped in olive oil and be tied on the glasses, but they must be cut a little larger than when the white of egg is used.

Good and Practical

HOT MUFFINS—Beat the yolks of four eggs very light, add one cup of milk, two tablespoons of melted butter and 1½ cups of flour sifted with one-half level teaspoon of salt, two level teaspoons of baking powder and when well mixed fold in the stiffly beaten whites of four eggs. Bake in small tins and serve warm with butter.

CUSTARD PUDDING—Rub two level tablespoons of butter to a cream, add two rounding tablespoons of flour, then pour on one cup of hot milk. Cook 10 minutes. Beat the yolks of four eggs, add two rounding tablespoons of sugar and add to the first cooked mixture. Cook one minute, stirring well, and set away to cool. Three-quarters of an hour before the pudding will be needed beat the whites of four eggs stiff and fold into the mixture. Butter a baking dish, pour in the batter and bake half an hour. Serve with creamy sauce.

LEMON-FOAM—An excellent dessert for summer. Put two cupfuls of hot water and one cupful of sugar into a double boiler or saucepan. When it boils add two rounded tablespoonfuls of cornstarch wet in a little water. Stir, and after it has cooked four or five minutes squeeze in the juice of one large lemon, stirring thoroughly. Now whip to a stiff froth with a wire spoon the whites of three eggs in a large earthen dish. By this time the cooked cornstarch, which has been stirred occasionally, is cool enough to be poured over the whites of the eggs. Beat rapidly, and in a few minutes the whole mass will be light and foamy and ready to be set away to cool. The colder it can be kept, the better. A custard made of one pint of milk, two tablespoonfuls of sugar, the three beaten yolks of the eggs and one-half teaspoonful of vanilla is to be poured over the lemon-foam.

Household Hints

If a little vaseline is rubbed on the shoes once a month, it will keep them much softer and prevent the leather or kid from chafing.

Cotton and linen articles will iron much easier and better if sprinkled and left folded over night. Calicoes will iron better if sprinkled only a few hours before being ironed.

A few thin strips of bacon over roast lamb will improve the flavor. Silver may be easily cleaned by rubbing it with a piece of potato dipped in common baking soda.

The easiest way to clean the inside of lamps is to pour out all the oil, and put in some strong salsoda water. Shake it about, then pour out and rinse.

Try putting a little salt in the water in which your matting is washed.

To get rid of ants, mix equal parts of sugar and borax and sprinkle shelves and floors.

A new method of blanching almonds is to soak them over night in cold water. This is said to be an improvement on the usual method of throwing them into boiling water.

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Experiments With Breakfast Foods

By R. Harcourt, Professor of Chemistry, O.A.C., Guelph

During the last few years a great variety of "breakfast foods" or "breakfast cereals" have been placed upon the market. Many of these foods form valuable additions to our diet, but the prominent place many of them occupy in our dietary is nevertheless due, in a large measure, to the method of advertising. According to the claims made for them, they are not only perfect foods, but they are also brain tonics and have a great variety of wonderful virtues. Some of the claims made for them are founded on fact; others are extreme and are apparently made to attract attention. In spite of all that is said with reference to these substances, the fact remains that none of the newer breakfast foods are superior in nutritive value to the old "porridge" with which many of us are so familiar.

THE VARIOUS TYPES

of breakfast foods may be roughly divided into the following classes: First, the uncooked, such as the coarsely ground oats and wheat farinas, which require long cooking to make them palatable and more readily digested. Second, the partially cooked, to which the rolled and flaked grains belong. In the preparation of these latter foods the grains are softened by steam and then rolled and dried. In this process they are partially cooked and the cell walls are ruptured by the crushing, consequently they may be prepared for the table in much less time than those of the previous class. Third, the cooked foods, such as shredded wheat. These may be served at once without any special treatment. The fourth class are the malted or so-called "pre-digested" foods, of which Norka, Force, Malta Vita, etc., are types. The foods of this last class are supposed to be both cooked and pre-digested, but the extent to which digestion is carried on varies greatly with different brands. Undoubtedly many of the numerous preparations of this type have a portion of the carbohydrates broken down into soluble forms, but experiments do not prove that they are any more completely absorbed by the human system than are the unprepared foods, and it is doubtful if a healthy individual with normal digestion is the better for having this work done for him.

DIGESTION TESTS

During the last year we have spent considerable time in studying these foods. The chemical composition of a large number of samples of different brands have been determined, and in all some fifty digestion experiments with the human subject have been made to determine the relative digestibility. The results indicate no wide variation in chemical composition between the various classes of foods; in fact, there is no apparent difference except that which is due to the different kinds of grains from which they are prepared, as, for instance, oats are naturally richer in fat than wheat and the various products of these grains maintain the same characteristics.

With reference to the digestibility we found much greater variations in the amount digested from the same food by different individuals than between different kinds of breakfast foods. The extremes of variation in our work were in corn meal

and Force, 96.2 per cent. of the total organic matter of the former was digested, whereas only 91.1 per cent. of the total organic matter of Force was absorbed by the system. If we consider foods on their ability to produce heat, oats stand at the top of the list with Norka, an oat product, a close second, and corn meal third.

A study of the chemical composition, digestibility, and fuel value of the different foods necessarily forms a prominent part in arriving at a basis of comparison of these various foods, but to find the relative economy of these goods, their cost should be considered. If, then, we calculate the fuel value and digestible portion obtained from ten cents worth of each of these foods, we should have a fair basis for making comparisons. This has been done and the results are found in the following table:

PRICE OF FOODS AND CALORIES OF HEAT OBTAINED FROM TEN CENTS WORTH OF FOOD

Holloid oats	2 lbs., 10c.	371.8
	2 lbs., 25c.	319.9
	2 lbs., 15c.	217.2
Farinax	2 lbs., 15c.	319.7
	in bulk	301.7
Harley crispies	2 lbs., 15c.	291.4
	8 lbs., 75c.	291.4
Corn meal	10 ozs., 15c.	288.9
Orange meal	21 ozs., 15c.	138.7
Norka	22 ozs., 15c.	288.9
Corn meal	10 ozs., 15c.	112.0
Force	14 ozs., 15c.	119.4
Graham Nuts	10 ozs., 15c.	141.7
Wheatena	2 lbs., 15c.	260.0
Graham bread	2 lbs., 15c.	358.0

The above figures show that ten cents worth of corn meal will give a greater number of calories of heat than any other food, with oatmeal in bulk a close second. It is also plain that buying oatmeal or wheat farinas in package is very much more expensive than buying in bulk. The material in the package may be cleaner, and it is certainly more conveniently handled, but if these foods can be got from a dealer who is selling sufficiently large quantities to insure a fairly fresh supply, it is very doubtful if anything is gained by purchasing in the package.

WHITE AND GRAHAM BREAD COMPARED

For purposes of comparison, white bread and Graham bread have been placed along with the breakfast foods, and it is worthy of note that the

relative economy of white bread, as indicated by the calorimetric value, is high. Graham bread is made from flour which is richer in proteins and fat than white flour, but the presence of the coarse bran particles decreases the digestibility to such an extent that it stands lower in nutritive value and in calories of heat than white bread.

It is true that the above comparison is not strictly correct, as some of the foods have to be cooked while others are ready to serve. As the cost of cooking will vary very widely under different circumstances, it is impossible to give any estimate of the cost of doing this part of the work.

Another point which cannot be got at very readily by experiment is with reference to the ease of digestion. All foods require an expenditure of energy in their digestion, and it is only natural to suppose that in the pre-digested foods the amount of energy required for this purpose will be less than with foods of the nature of rolled oats.

THE THOROUGHNESS OF COOKING

has doubtless a very marked effect upon the actual food value of the raw preparations, but from our experimental work it would seem as though this must affect the ease of digestion, for long cooking does not greatly increase the total amount digested. Experiments were carried out in triplicate with two samples of rolled oats and two samples of wheat farinas fed to human subjects. In both the short and the long cooking the results show that not more than one per cent. more was digested as a result of the long cooking. All of the experiments showed a slight increase in digestibility, but the amount was small.

In general it may be stated that all of the cereal breakfast foods are wholesome and nutritious, and when reasonable in price, are an economical source of nutriment and energy, especially when compared with meat and vegetables. According to our results, cornmeal and rolled oats are among the most economic of these foods. It is, however, true that rolled oats, or even wheat farinas, do not agree with everyone, and that the pre-digested foods may be useful foods for people who have difficulty in digesting starch. They may also have a place in the "hurry-up" breakfast. It is evident that a peculiar name,



Louis Baptiste and his numerous family in charge of Trout River stock farm, owned by W. F. Stephens, Huntington, Que.

given to a highly advertised food, does not indicate a high nutritive value, and the intelligent buyer, who has to consider economy, will hardly pass by the old forms of breakfast foods to purchase the more expensive varieties of foods, unless their own experience has demonstrated that these newer foods have a superior value to them.

Some Phases of the Apple Trade

(Continued from page 602.)

trees. It can readily be seen, then, what a handicap this matter of climate is for the United States grower of winter apples.

It must not be supposed that the whole of the apple growing districts of Ontario are free from this handicap. The proper climate is found in a very narrow strip from north to south, but extend from the eastern end of Lake Ontario to the borders of Lake Huron, and as far north as the shores of the Georgian Bay. The southern portion of Ontario has a climate similar to New York State, and cannot be depended upon for long keeping apples. During a very cold fall the apples grown in this district may keep well, but no dependence can be placed upon this district, as the character of the weather cannot be predicted.

CANADA'S LIMITATIONS

The northern boundary of the favored strip for apple growing is determined by winter conditions. It extends as far north as the winter varieties, such as the Baldwin, Spy and Greening, are hardy. Even the higher portions of this strip of country in the interior counties of Wellington, parts of Grey and Perth have too severe a climate in winter to be classed as large winter apple producing countries. As a matter of fact, the best winter apple districts are confined to the margins of Lake Ontario, the Georgian Bay and Lake Huron. Here, probably, can be grown winter apples cheaper than anywhere else in the world. They can be shipped with perfect confidence without cold storage to the end of March. The obvious conclusion to be drawn from this is that in this district growers should confine themselves largely to the winter varieties, and should plant with special reference to the markets for long keeping fruit. The standards, no doubt, everywhere in this district will be the Baldwin, Spy, Russet and Ben Davis and apples of this class.

But what is to become of apple growing in southern Ontario, which is just out of this belt? Two courses are open, first, do as the growers of New York State have done; adopt cold storage for all fruit to be marketed in the months of January, February and March; or second, devote themselves exclusively to the production of early apples for which there are now opening up, I believe, some ample markets. There is some courage even at the present time to recommend an orchardist to plant early apples. For the past fifteen years early apples have been a drug upon the market. Last year, however, the early apples were in somewhat better demand. This was attributed—and no doubt it was one

element in the case—to the short crop. Nevertheless, I would like to emphasize the fact that

TWO VERY IMPORTANT MARKETS

have opened up for early apples, both markets and both capable, if properly catered to, of taking an immense quantity from Canadian growers. The first and most important to the Ontario shipper is the market of the North-West. So long as the towns and villages and railway stations took their supply of apples by express or as they could be distributed from Winnipeg, the consumption was comparatively small. During the last two years the growth of the towns and villages has been so phenomenal that there are now scores of places capable of distributing apples in car-load lots, and these places are particularly good markets for early apples. These can be supplied partly from British Columbia and partly by the growers in southern Ontario. Both combined will not be able to supply the rapidly increasing needs of the great North-West.

The second market is that of Great Britain. Here we come into direct competition with the English grower, but the experience of the last two or three years has shown us that there is still room for a very large import trade, notwithstanding the home-grown fruit. The quality of our early apples, the manner in which they are packed and graded and the encouragement of the large dealers in the Old Country quite offset any slight disadvantage we may be at in point of freight rates and the time it takes to reach the market. It is fortunate that the transportation facilities for fruit are now so complete that it can be asserted without fear of successful contradiction that the safest period in the history of the apple is while it is on board ship. There is the further encouragement from the Department of Agriculture of the bonus of five dollars per car for ice on refrigerator cars used for early export fruit, which will, no doubt, direct attention to the necessity for cold storage at all stages in handling this crop. The conclusion, therefore, for southern Ontario is: plant early varieties such as Astrachan, Duchess, Wealthy, Colverts and apples of similar type, and develop cold storage.

There still remains in the valleys of

the Ottawa and St. Lawrence, including the eastern townships of Quebec,

A SPLENDID APPLE GROWING DISTRICT

which could not take advantage of either of these two lines of apple growing, nor should the growers of this district attempt to do so. They cannot grow long keeping winter varieties, nor can they furnish the markets with early varieties, but they can grow the finest dessert apples in the world, and it is to these that they should devote their attention. The McIntosh Red and the Fameuse will make as much money for the apple growers here as the winter varieties and the early varieties will for the other sections. The special needs of this trade are extra care in the growing of the apple and a system of packing equal to the best in the world in fancy boxes, appealing to the very highest class of customers.

The apple growers of the Annapolis and Cornwallis Valleys in Nova Scotia are fortunate in being able to combine the choicest early dessert and winter fruit growing all in the one district. The Greenstein offers a splendid opportunity to the grower of a dessert apple. It is necessary in order to overcome the reputation which it has gained by being packed in barrels that the greatest care should be taken to pack only the choicest specimens, all neatly wrapped in fruit paper, in boxes. The texture of the apples is too soft to stand shipping in barrels with the best results, and is too subject to the apple scab to be trusted without very careful attention in spraying, but the reputation of it is such that it will pay for the greatest care both in culture and in packing.

The apple growers of British Columbia have a wide field before them. With the variations in climate within limited districts, owing to the mountainous character of the country, all varieties of apples can be grown most successfully. A grower has simply to choose his forte in apple growing and the opportunity to indulge his taste can be gratified.

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Poultry Fattening and Co-operative Selling

By F. C. ELFORD, Poultry Manager, Macdonald College, Que.

In 1809 an investigation was made by Prof. Robertson, then Commissioner of Agriculture, of the method followed in Great Britain for the special fattening of chickens. This method, with a few minor changes to suit local conditions, is now being followed by a number of feeders in Canada. The Department of Agriculture has been instrumental, through its fattening stations, in raising the standard of dressed poultry by the illustration of this crate feeding method. In its experimental stage many of the birds were fed at a loss, but lessons were being learned, and well learned, as was shown by the results of the fattening operations last season. The 2,109 chicks fattened, valued at 7c per lb. live weight, when put into the crates, the results showed a revenue over cost of chicks and feed of \$539.30, or equal to 25c a chick.

Many instances could be given of private individuals who testify to the

VALUE OF CRATE FEEDING

as a money maker, to show that it is the crate fed bird the consumer wants, and is willing to pay for. Let me quote three of the leading Montreal dealers—Messrs. Westgate & Lewis, of McGill College ave., say: "Three or four years ago we were obliged to purchase chickens that were stunted and ill-bred, badly and insufficiently fed, killed with crops full of food, and most of them spoiled in getting the feathers off, either by being scalded or being badly torn. We have had hundreds of pounds of chickens sent to us unfit for food, never having been bled at all and shipped in dirty barrels and boxes without paper to keep them clean. We were really

ashamed to offer even the best to our customers. During the last two or three years, in addition to the chicks we have purchased from the Department, we have received many small consignments from farmers, and most of these have been well bred and well fed. They have been fasted before killing, properly bled and plucked and shipped to us in a clean, creditable condition. We cannot account for the change, unless it be owing to the efforts of the Department to instruct and direct in the raising and handling of their chickens. Now our customers must have this or none, and farmers must feel the necessity of adopting new methods or going out of the chicken business."

Mr. Henry Gatehouse, Dorchester Street, says, in a letter to one shipper of crate fed birds: "I am highly pleased with your shipments of chickens this year. I can find no fault with them. I hope your neighbors will take advantage of your work, so I can buy a larger quantity of the same quality."

McDuff Lamb, of Lamb's Market, was asked what he would give for 300 growthy Barred Rock cockerels unfattened, but weighing about five pounds each. His answer was, "I do not want them at any price, if they are not fat, but if you will feed them in crates for three weeks, I will give from one dollar to one dollar and a quarter each for them."

This gives an idea of what the market end think of properly fed birds, and shows why buyers are beginning to discriminate between fed and unfed stock.

I mentioned that some lessons had been learned in this gradual develop-

POULTRY EXCHANGE

One Cent a Word Cash With Order

BUFF ORPINGTONS—8 breeding pens this season, headed by imported and prize stock. Eggs \$1.00, \$2.00 and \$3.00 per setting. Incubator eggs \$3.00 per 100. Write at once for free catalogue describing them. J. W. CLARK, Pres. Orpington Club, Importer and Breeder, Calverville, Ont.

BARRED ROCK and **Houdan Eggs** at \$1.50 per setting. The Rock pen is headed by a winning bird purchased from C. H. Thompson, Amenia, N.Y. The Houdan pen a grand lot. **SMITH & BHOWNE**, Columbus, Ont.

HARVEY PERKINS, Oshawa, Ont., B. H. Orpingtons, B. P. Rocks, Pekin Ducks. Eggs for sale.



MORGAN'S CHICK FEED

Makes chicks grow and keeps them healthy—it pays—ask for free article on "Feeding Chicks and Poultry." Use Morgan's Linn Cure 25 cents postpaid. Use Morgan's Meat Meal, Leg Brands and Markers

BLACK MINORCAS, Old and young, fit for early shows. Tumblers, Magpies and Archangel Pigeons, \$2.00 a pair. Order early. E. B. FRITH, Maxville, Ont.

WHITE WYANDOTTES and **White Rocks**, young stock from prize winners for sale. Write for prices. J. E. WEBSTER, Box 108, Whitby, Ont.

ment of the present system of fattening and marketing our chickens, and a short review of some of these lessons may not be amiss.

THE BREED

There are to be found some breeds that never will give satisfactory returns to the feeder. Breeds such as the Leghorn, Andalusian, Hamburgs, etc., in fact, the Mediterranean classes, as a rule, are failures in the feeding crate, as also are many of their crosses. I remember two crates standing side by side that illustrate well the difference. One crate held 15 pure Barred Rock cockerels, about 4 months of age. Another



A typical farm poultry yard.

THE INVESTED DOLLAR IS A WORKING PARTNER--never sleeping
WHILE
THE SPENT DOLLAR IS A FRIEND LOST--gone forever

Every man is desirous of making money, but it is a problem which becomes more difficult and more complex each year. You have the money that you want to invest, and you must have a sure and profitable investment.

Did you ever know of any man who got big money by putting his savings into a bank? All you get is 3% per annum, that is, every dollar you put in brings you **THREE CENTS** every year. If you know of anybody who got rich on that system, he must have a method worth knowing!!!

You know of rich people who have means. Pick up say Ten of those rich people, and you will find that in each case, some years ago each one of these persons or their ancestors learned how to make a little money, do a whole lot of work, and they are now enjoying the benefits of their investment.

We have a proposition to make to you by which you can invest \$5.00 or invest \$1,000, but one dollar will be just as surely invested and looked after as if it was a thousand.

Our business is to raise thoroughbred chickens and Scotch collie dogs. We do nothing else. Our plant is situated two miles from the city of Chatham, in the province of Ontario.

We have the largest plant of its kind in the world. We sell more dogs yearly than all the other kennels together. Our stock is all high priced animals, still the demand is unlimited, and we find good and constant buyers at good prices, leaving us a good profit, but the price is cheap for buyers considering quality.

We publish a large illustrated catalogue which describes all our plant, and we will be pleased to send you more information if you care to send us your name and address on a postal card. Get acquainted with the largest pure-bred poultry farm in the world, and find out how you could invest a few dollars in a company that promises very large and honest returns to its shareholders.

Do not delay, delays have dangerous ends, but write to-day. Bear in mind that if you place your money in a bank on the **THE THREE PER CENT. BASIS** you are simply giving somebody else a chance of making money out of your savings. If your dollars can be made to grow some, get the benefit yourself.

READY MONEY IS A CONSTANT AND SUBSTANTIAL FRIEND and you can have constant money if you invest in our company, as two large dividends will be paid yearly and you will enjoy receiving such large and honest dividends.

Don't put this off, but find out all about our proposition. Get our literature and learn more about poultry and dog raising.

Address all correspondence to—

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CHATHAM, ONTARIO, CANADA

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DO NOT FAIL—WRITE TO-DAY.

crate held 15 cockerels that had a slight mixture of rocks in their blood, but about three parts of eight they were fed practically the same for one week, after which the cross-breeds were weighed and found to have gained 4½ lbs. for the crate, while the Rocks had gained 14 lbs., the next two weeks the cross-breeds did not gain anything, while the Rocks continued to make satisfactory gains.

If you want poultry that will feed satisfactorily, get proper breeds, such as the American classes, Orpington, and some others.

However, all birds of these breeds will not fatten. Even greater than the difference in breeds is the difference in the

TYPE OF THE BREED

As a rule the medium sized representatives of any breed will give better results than the large, overgrown specimens. Birds of a good, active disposition, compact frame, short, straight legs, set well apart; birds free from any deformity, long straight breast bones, and above all

GOOD CONSTITUTION

Having the breed and type the next essential, if not the essential, is constitution. This can not be given to a bird in a day, nor can it be supplied by the use of food, but it requires careful selection for generations back. Nothing but the very best of breeding stock must be used. Constitution in the breeding stock is the keynote of success. It means everything. A hen without a constitution cannot produce a chick with one, and a cockerel will not make satisfactory gain if it has not abundant constitution.

INDIVIDUALITY

We speak of this in milch cows, horses, etc., and to the same extent it is present in the fowl. To get the best results this must be known. Some chicks will eat more, fatten in less time than others; some are more nervous than others and should be placed in the quietest corner of the shed. Some are quarrelsome, and will not get along with their mates. Some require a little stimulant, etc.

CLEANLINESS

Keep the coops clean and the atmosphere pure; have the food clean and wholesome, and especially keep the chicks free from vermin. Chicks may get so lousy while in the crates that instead of gaining in flesh they will lose. If the chicks put into the crates are all your own raising be sure they are clean. Dust them well with dry sulphur before putting them into the crates, and watch them carefully after. If you are putting into your crates a mixed lot bought from your neighbors, double care must be exercised. I know if your neighbor's wife or daughter brings her chickens to you, you might as well tell her her butter is not as good as her next neighbor's, as infer that her chicks have vermin, by insisting on dusting them. Nevertheless, take no risks, treat them all as if they required it. And if you have any regard for those who do the plucking, dust the chicks several days before feeding also.

THE FEED

Finely ground oats have given the best results, as a single food when mixed into a mash with milk. Still it does not pay to give a high price for oats when other feeds are cheaper in comparison. Any single food becomes tiresome. A mixture of food usually gives better results. The mash must be palatable, something the chicks like, and it must be cheap and of a flesh-forming nature.

THE KILLING

Two hours starving is sufficient. Allow the chicks a drink of water six hours before killing, and when killed press out anything that may remain in the bowels. In killing, if the head is dislocated, be careful and break the neck quickly. Have the neck broken before the chick realizes his wind is shut off. If the neck is pulled and stretched the tendons of the neck and shoulders are ruptured, which causes the unsightly appearance of many chickens marketed. A quick, clean break has a tendency to loosen the feathers, while a strangulating break has the opposite effect.

According to advices from the British market much of the Canadian product has been cooled too rapidly, driving the heat into the bones and resulting in putrefaction of the bones.

Poultry should not be packed until thoroughly cooled, however, and the boxes should be tightly filled, allowing no chance for the contents to shake.

THE MAN

Some men will never make any money out of poultry, and should stay out of the business. The man need not know all about every breed, but he should know enough of the



A first prize English Wyandotte Cockerel.

breed he is raising to have the right type for his purpose. He need not be able to diagnose all ailments peculiar to poultry, and have to effect a cure, but he should know how to keep his poultry in such health that they will not require doctoring. The good feeder has an ideal and intelligently strives for it. He does not persist in breeding the wrong type and blame luck for his lack of success. He knows what types will make a profit; he knows at a glance when his chicks are feeding well and when they are not. When it is best to change the feed. When fit to kill and when to feed a week longer. These and many other lessons the intelligent feeder learns.

At present there are many requests re the feeding of poultry. Some persons have made good profits, others think they should make them also, and anticipate the feeding of probably hundreds or thousands of chicks this autumn. And many of these same men will lose money instead of making it. It is safe to say if you have not made anything out of feeding your own birds you will not out of those you buy. It is easier to feed 50 of your own raising than it is 500 of some other person's. I don't think it is to the large feeders we must look

for the elevation of the standard of dressed poultry, but to the farmers who raise from 25 to 200 good, blocky cockerels. He can feed cheaper than anyone else and with less risk of disease. But when it comes to killing and dressing, the specialist must come to the front. Many farmers would raise and fatten more chicks if it were not for the bother of killing and marketing, and for this purpose a

CO-OPERATION

such as they have in several European countries, Denmark in particular, might be an advantage in Canada.

Not only should excellence be one of the essentials of all dressed poultry, uniformity is almost as important. With simple instructions, easy to follow, most raisers could fatten their chicks uniformly well, but killing and dressing has not been so much in their line, nor do they have enough practice to keep efficient. And even if they had, a dozen poultry men will have as many styles of dressing and packing, so that the general output will lack uniformity.

If, say 25 farmers would form a co-operative society and appoint one man, centrally located, to transact the business, collect chicks when fat, kill, grade and market, there would be more uniformity and better prices. The dealer would rather buy the product of a neighborhood from one man than from every farmer there.

Women and Banking

Wage-earning women have done much for their sex in the past few years, during which they have shown that their ability for business is as great as it is for housekeeping—and not among the few. One of the good doings has been the recognition that has come to them from financial institutions in Canada.

A woman used to spend her pocket-money as fast as she got it, or, was she able to earn something from the sale of butter, eggs, flowers or fancy-work, she put it away in some odd place where she could get it when she had saved sufficient for a special purpose. The idea of opening a bank account and enjoying the sensation that her money was not only safe, but was adding to itself, had not occurred to her. The men had bank books—but the women—never!

Now a large percentage of women keep their own bank accounts. In the cities the number of women who deposit their money, be it earnings or pocket-money, is large. They take their money to a bank as naturally as a man does, and their payments are by cheque—thus saving time and money—for there is no waiting for change nor spending it upon articles tempting but not necessary.

One bank in Toronto—The Crown Bank of Canada—not only tells women that they will take charge of their accounts, but lets them know that their deposits are appreciated, so much so, that they have opened a department especially for women in their King Street building—a delightful sitting and business room combined, leading direct from the bank vestibule, and having in connection with it a comfortable retiring room. The savings teller and ledger-keeper are both young women, their counters opening into the "women's room," and the woman manager has her desk there, where she can easily be consulted by customers upon matters of business. There are women in other departments of the Crown Bank and in other Toronto banks as well, but the Crown bank is the first that has made a specialty of women's accounts.

QUESTIONS AND ANSWERS

Wild Buttercup

Please tell me how to destroy wild buttercup, where the land is too rough and strong to plow?

CHAS. BUCHANNAN,
Grey Co., Ont.

As your land cannot be cultivated you will find destroying the buttercups rather a "hard proposition." Try sowing salt on a small plot of the land, say one-fourth of an acre, at the rate of one ton per acre, and see if that will help you out.

Knuckling Over

A two-year-old driver colt knuckles over in front of fetlocks. He was affected this way when a year old, but was all right last fall and winter. When let out this spring I trimmed his feet; but he does not improve.—S. W.

Blister the back tendons, take off the shoes, and turn out for a run on the grass.

Kicked in the Hock

1. I have a mare that got kicked on the hock. The joint swelled and broke and then apparently healed. In about a week it began to swell again and has been swollen ever since. It goes down some when the horse is worked through the day, but swells up again at night.

2. A mare sprained her fetlock about two years ago, and for a year stood almost entirely on the other hind leg, and now this leg is also lame and has been so for nearly a year. The trouble seems to be in the stifle or somewhere in the hip.—A. R. L.

If the mare is not lame keep her at work; bathe the hock with icy cold water every night for five minutes, and then rub it well with the following:—Iodine crystals half an ounce, sulphuric ether two ounces, methyl alcohol one pint.

Scurvy

Part of a litter of pigs after weaning made no growth. The skin became hard and wrinkled and came off in yellowish colored scales. The disease began in one pig and was spreading. I killed the afflicted ones, and the rest are doing all right. They were kept in pens in a farm building and fed on crushed oats, barley and wheat screenings.—Subscriber, Man.

These were early symptoms of scurvy. A change of diet with some roots or green fodder might have set them right again.

Catarrhal Pneumonia

I had a cow that was in good health Monday, but took sick and died by Saturday night. I first noticed a trembling in the muscles of the front and hind legs. Water began to run from the eyes, and there was a dark, foul smelling discharge from the nose. Breathing was short and heavy, but there was no bloating, and the cow did not appear to be in pain. She would

not eat, and seemed almost to starve to death. What is the disease and its treatment: is it contagious?—Subscriber, Que.

Treatment of these cases usually consists of applications of mustard to the chest, inhalations of steam medicated with creosote or other medicament, and internally, the administration of stimulants. It is not contagious.

ABOUT RURAL LAW

In this column will be answered for any paid-up subscriber, free of charge, questions of law. Make your questions brief and to the point. This column is in charge of a competent lawyer, who will, from time to time, publish herein notes on current legal matters of interest to farmers. Address your communications to "Legal Column," The Farming World, Toronto.

Recovering Debt

I sold a horse to a young farmer for which he was to pay in six weeks. The time is up and he says he is not able to pay it all now but will pay me sums on account, as he gets the money. Have I to accept payment in this way?—W. B. (Dundas).

No. You need not accept his offer to pay by instalments. A creditor has the legal right to demand payment of his claim against the debtor in full as soon as the debt is due. If you do not wish to wait for payment by instalments you can take legal proceedings at once to recover the amount he owes you.

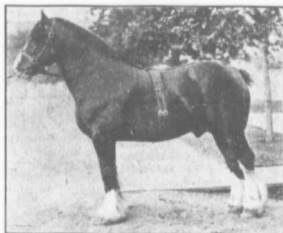
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To make stock raising profitable and pleasant is to feed

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Note that the most successful men in every neighborhood, and at almost every exhibition in Canada, use and recommend CARNEFAC. If you have not used it, send at once for our booklet.

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Please mention The Farming World when writing Advertisers.

PURE-BRED STOCK

NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and purchase of stock and the condition of herds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The Editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.

The Farming World Man on the Wing

The recent importation of Clydesdales made by Mr. Thomas Mercer, of Markdale, comprises a lot of splendid animals of the right kind, both for the east and west of Canada. Animals with good size, in some cases of extreme draft scale, with good action and the right kind of underpinning is what Mr. Mercer must have every time, and many of the individuals have grand conformation and excellent style as well. They are all well bred, being by leading horses in Scotland and from dams of excellent parentage. In his barns at the present time are to be seen about a dozen head of Clydesdale stallions, nine Clydesdale mares and fillies, with two very fine Hackney stallions just landed. Among the stallions is still the splendid smooth horse, Knight of Glamis, in grand shape after a heavy season. He will not be shown this fall, as he is not for sale, but it is to be hoped that next spring will see him out in all the bloom which he carried a year ago. Aberdour is a light bay, foaled in 1903, sired by Marmion, who was in turn a get of

the Prince Alexander colt, Prince of Brunstane. His dam was by Lawrence Again, he by Prince Lawrence, and Aberdour thus shows strong Prince of Wales-Darnley blood on both sides. Sir Sidney is a nice drafty and smooth stallion, foaled 1903, sired by Baron Stewart, a son of Baron's Pride, and his dam is by the Prince of Wales-bred horse, The Regent. Still another is a fine horse imported a year ago, and he has just finished



Bog Spavin

Cure the lameness and remove the bunion without scarring the horse—have the part looking just as it did before the bunion came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid swellings—Bog Spavin, Turnswaditch, Splint, Corn, Capped Hock, etc. It is neither a liniment nor a salve to be used, but a remedy unlike any other doesn't irritate and can't be smothered. Easy to use, only a little required, and your money back if never fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you need to know before purchasing or buying any kind of a horse. Mailed free if you wish.

FLEMING BROS., Chemists,
71 Church Street, Toronto, Ont.

No More Blind Horses For Specific Ophthalmitis and other Sore Eyes, Harry Co., Iowa City, Ia., have a sure cure.

THE BISSELL STEEL ROLLER



With Three Drums and Strong Rigid Frame. Some improvements are: Heavy Steel Axle, Thick Heavy Steel Plate, Drums Riveted up to stand any strain, Roller Bearings. Runs like a bird. Full particulars free by mail, or ask your dealer. None genuine without the name "BISSELL." Look out for it.

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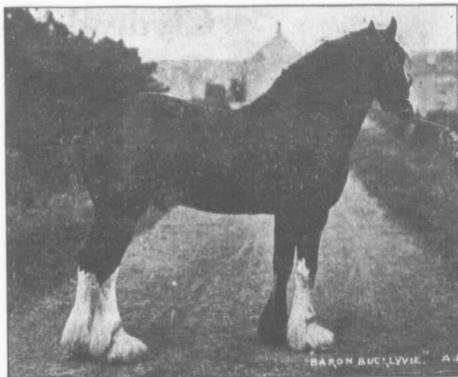
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Call and meet us at Toronto Fair, in the New Process and Implement Building; also at Ottawa Exhibition. See "HARROW" ad. on page 578

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We have just landed a choice and carefully selected lot of grand, big horses, of the splendid quality which Scotland's best blood alone can impart. Come and see them on the Fair Grounds at Toronto and Ottawa, or at their stables at

Columbus, Ont.

**Oshawa Station, G.T.R.
Myrtle, C.P.R.**

a very heavy and very satisfactory season, and is in every way proving a good horse. He is a son of Pride of Blacon, a horse that is proving a grand sire of good ones in Scotland. His dam is a good mare rich in the best old Clydesdale blood of Scotland. Cawdor Castle (12320) is a fine brown, foaled in 1903, sired by that great sire of big, heavy and good Clydesdales, Sir Hugo, a horse that is fast claiming a leading place among the sires of Scotland. Sir Hugo is, like Baron's Pride, a son of the great Sir Everard, and has been such a success in the stud that his service fee is announced for next year at £20. The dam of Cawdor Castle also shows magnificent breeding, being by that best of all Prince of Wales' sons, Prince of Kyle, while again his grand-dam is Lady Lawrence, one of the noted breeding mares, being the dam, among others, of the noted horse, Cawdor Cup, imported two years ago by Mr. Hasard, while her sire, Prince Lawrence, is also noted as the sire of many good ones, Lawrence Again, Lawrence's Heir, Eastfield King, Eastfield Laird, Eastfield Model and Eastfield Chief, while not the least among his prize-winning progeny was the mare Lady Lawrence herself. A fine flashy two-year-old is the Pride of Drumburle, a nice brown, with pleasant white markings, sired by the grand horse, Baron o' Buchlyvie. He is of the smooth, sweet type, with the finest kind of underpinning, and he promises to attain to heavy scale as well. His dam is also a good show mare, sired by the grand premium stallion, Montrose Mac, a son of the great McGregor. His maternal pedigree for generations shows a wealth of Prince

of Wales and Darnley blood that goes far to assure his prepotency as a breeder himself. Pride of Bootle is a big, heavy two-year-old that shows every promise of attaining to very heavy scale. He is well turned and with the development which age will bring, gives promise of maturing into a big useful horse. He is sired by Lord Graham, a grandson of Topgalant, and he has been a winner of considerable note, and the dam of Pride of Bootle is a mare of good Prince of Wales breeding. Among the fillies is Lady Rozelle, sire the

Baron's Pride stallion Rozelle. She is a nicely turned and colored bay, three years of age, and with fine showy action and grand underpinning. Her dam is Jean of Drummuir, by Prince of Malmanno, a son of Prince of Carruchan, and her g.d. of Jean of Pierbanks, by Prince Robert, the sire of the great Hiawatha. Tina Grant is a fine three-year-old, and of the kind which cannot fail to develop into a right good one. She is sired by the champion horse, Labori, who was in turn a son of the champion Hiawatha. Her dam is by



Seldom See

a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle, Knee or Throat.

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will clean them off without laying the horse up. No blister, no hair gone. \$2.00 per bottle, delivered. Book 8-C free. **ABSORBINE, JR.**, for mankind, \$1.00. Removes Soft Bunches, Cures Varicose Veins, Varicocele, Hydrocele, Ruptured Muscles or Ligaments, Enlarged Glands. Allays Pain. Mfd. only by

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Dunrobin Stock Farm



Clydesdales Shorthorns Yorkshires

Thirty head of imported and Canadian bred Clydesdales on hand. Our latest importation has just landed in fine condition, and we have some good ones to offer that you will say are worth the money. Come and see them. Also a few choice Shorthorns and some first-class Yorkshire Boars.

D. GUNN & SON, - Beaverton, Ont., G.T.R.

Lord Erskine, and she shows in her maternal ancestry a number of leading names in Clydesdale lore. Blossom of Shallock is a very nice and flashy bay, two-year-old, sired by the Baron's Pride stallion, Dunnure Castle, and she is from the same dam as Tina Grant. Miss Kyle is also a fine flashy three-year-old, sired by King of Kyle, a son of the famous Prince of Kyle, one of the very best of the sons of the Prince of Wales-Darley cross. Again on her dam's side she is a granddaughter of Prince of Kyle, and her pedigree is rich in the best Clydesdale blood that Scotland knows. Fanny of Greenfield is a dark brown filly of grand Clydesdale character and good size. She is a get of Royal Citizen, a very popular horse by Clan Chattan, imported by Mr. Mercer a year ago. The success which Clan Chattan is achieving in the stud should be borne in mind, as he is the sire already of at least one Glasgow premium horse in Royal Carrick, and of one H. & A. S. champion in Royal Chattan. Rosie of Newmains is a fine filly, very flashy at the ground, a fine mover, and full of Clydesdale quality from end to end. She is a get of Prince of Balmanno, and her pedigree reads like poetry, he being by the Prince of Carruchan, while her dam was also by Prince of Johnstone, one of the best sons of the Prince of Carruchan, while she inherits a strong dash of Darley blood through a grandson of McGregor, as sire of her granddam. In Hackneys Mr. Mercer has two very fine individuals in a two-year-old by Rosador and a fine upstanding, showy and very high going five-year-old.

A firm that is showing a keen appreciation of what stock means to Ontario is the firm of D. Gunn & Son, of Beaverton, Ont. For some years past both members of this firm have shown an enterprise in buying what they found best in Canadian offerings, among others being the two top priced fillies at Mr. Platt's second sale, and the second highest priced male at his dispersion sale of Short-horns. This summer, however, the younger member of the firm paid an extended visit to Scotland, where he purchased a fine consignment of Clydesdale fillies, which, together with those they already have at their farm make a list that should guarantee the confidence of the purchaser in this popular sire, and making the kind which he wants at the Dunrobin

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We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any treatment or surgery mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most grand need horses may do it. Price, \$1.50 per bottle, sold by druggists, or sent by express, charges paid, with full directions for its use.

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Always Reliable.
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Finds Caustic Balsam to be Reliable.

I can say that I have for the past three years been a user of GOMBHAULT'S CAUSTIC BALSAM and have found it to be all that is claimed for it, and have in a great many instances recommended its use to others.—D. KING, Antigonish, N.S.

Canadians Appreciate Caustic Balsam

I have been selling GOMBHAULT'S CAUSTIC BALSAM for years, and it is giving my customers the best of satisfaction. I have also used it myself on different ailments with the best results. You must not be sold in its name.—W. T. PRICH, Berkeley, Ont.

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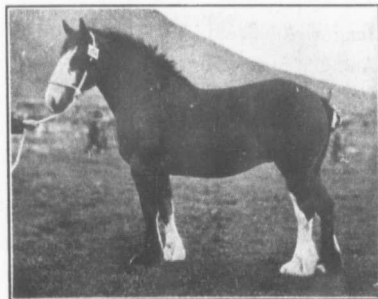
Stock Farm at Beaverton. Among the fillies on the farm may be mentioned a splendid five-year-old mare, of great draft, a mare that will scale easily nineteen hundred pounds, and of fine conformation and substance.

with lots of bone and fine quality. She is a get of that sire of big drafty horses, Gold Mine, the sire of T. J. Berry's Gartly Gold, to whom, in size, quality and activity, she bears a close resemblance. Her dam is by

It Pays to Breed the Good Ones

It has paid me and it will pay you to breed good ones better than the other kind. I can now supply you with the means of breeding something gilt edged and HIGH PRICED in pure bred Clydesdales. From my recent importation of nearly fifty head of Clydesdale Fillies, you have a wide selection. Some are prize winners in Scotland. Some others can be bought for less money. I am selling all at a very low price for the goods.

G. A. BRODIE, Bethesda, Ont.



the good horse Mains of Airies, and she is as smart and active on her feet as a Hackney. If there is gilded breeding in the stud book it should be her claim. Her g.d. is by that great sire Prince of Carruchan, and her g.g.d. by Prince Lawrence, and she has seven registered dams to her credit in all. Dunrobin Flora, is a fine drafty filly, black in color, with white markings and every promise of turning out a great breeding dam. She is one of the very few gets of the champion Everlasting, that has as yet been imported, and the reason is not hard to find, as they are the choicest of Scotland's choice goods. Her dam is by Merry Hampton, g.d. by Mains of Airies, and g.g.d. by the famous Darnley. A maternal sister is Dunrobin Mabel, a fine blocky, good limbed and active three-year-old, sired by Prince of Roxburgh, the son of the Prince of Wales. Fancy Free is a mare of good type, now two years of age, and a get of Gold Link, and with such sires to her credit as Crown Royal and Superior. The two-year-old Abegail is a very smoothly turned, even, stylish and active mare, with the best of underpinning, sired by Up To Time, dam by Royal Reward. She is a show ring mare all over. Rose, is a good, drafty three-year-old mare by the premium horse Rozelle, and her dam is sired by the good horse Prince Shapely. Another remarkably good, drafty mare is the Davies bred Loretta, sired by the well-known Lyon McGregor. She is a mare typical of the blood of which her pedigree is full, that of old McGregor. One of the mares sired by Acme, which was purchased by Mr. Gunn at Mr. Flatt's sale, has now a fine yearling stallion, sired by the pre-

mium horse Majestic. He is a smooth colt, with lots of snap and vim. There are altogether, about thirty head of Clydesdales on the farm, and no Clydesdale man will be disappointed in seeing what suits him at Dunrobin.

✽

Clydesdale Importations

Saturday last was another big exporting day. The steamer sailing was the Marina, of the Donaldson Line. She carried a large number of Clydesdales and other horses for different buyers in different parts of the Dominion. Mr. T. H. Hassard, Millbrook, Ont., had twelve Clydesdales, and almost as many Percheron horses, the latter bought in France. Four of the Clydesdales, chiefly mares, were bought from Mr. Walter S. Park, Hutton, Bishopton, and eight stallions were secured from Mr. Peter Crawford, Dargavel, Dumfries. In Mr. Park's contribution there were three first-class mares, viz. the mare bred by Mr. Ritchie, and got by the noted premium horse Elator, which was first last year and second this year at the Greenock Show; also the celebrated Kintyre champion mare Nora of Baraskomel, by the great Sir Everard, recently owned by Mr. Robert Renwick, Buchley, and in his hands first at Kirkintilloch and Shettleston this year; and, third, the first class three-year-old mare by Prince of Airies, which was first this year at Bishopton Show. It is seldom three such mares are exported, and with them Mr. Hassard will be rather a hard nut to crack at the autumn fairs in Canada. The stallions from Dargavel were a good useful lot, with good backs and ribs, and like selling

easily in Canada. Among them were horses by the Cawdor Cup champion, Prince Alexander (8899); two by the celebrated prize horse Baron o' Buchlyvie (11263), whose stock were winning strong at Perth on Saturday; one by the handsome big Sir Everard horse, Sir Lachlan; one by Dunure Castle, which we rather think was first at Ayr; another by the good-breeding horse Hillhead Chief; and the last by the well-bred horse Crown Derby. These horses are out of mares by sires as noted as their own, including Royal Gartly, Darnley, Flashwood, and horses of equal reputation for breeding purposes.

Mr. John A. Boag, Ravenshoe, Ont., had eight head, viz. six fillies and two colts. He had one stallion from Mr. Peter Crawford, Dumfries, got by the splendid breeding horse Baden Powell, sire of the Glasgow prize horse Memento. He had a two-year-old filly from Messrs. A. & W. Montgomery, Kirkcudbright. She was got by the great breeding horse Marmion, and bred in the Doune district. A capital two-year-old from Mr. David Logan, Hightown, was got by Dunure Castle, and four superior animals—three fillies and one colt—were got from Mr. Alex. Fleming, Raith, Bothwell. The colt was got by Good as Gold, out of a mare by the H and A S. first prize winner, Rosedale, which had the Duke of Hamilton's and other premiums. One of the fillies was by the Lesmahagow premium horse Baron Alistair, which stood first at the Royal. The other two were uterine sisters from a Prince of Galloway (8919) mare—the one being got by the Lesmahagow premium horse Frivolity, and the other by the well-known Glasgow,

Horsemen

I can supply you NOW, with just what you are looking for. A young, big and handsome Clydesdale or Hackney Stallion, he kind that will

**Get the Business,
Improve the Breed,
And Make You Money.**

I have just landed a very choice importation, COME AND SEE THEM at Toronto Industrial, or at their own stables at Millbrook, Ont.



T. H. Hassard, V.S., Millbrook, Ont.

Dumbarton, and Hamilton premium horse Sir Simon.

Mr. Harry G. Boag is a new shipper. He had three stallions from Mr. Peter Crawford, and three fillies from Messrs. A. & W. Montgomery, Kirkcubright. His stallions were the well-known Sir Lachlan (10460), Erskine's Hero (11700), and the Nobleman (12770), a son of the great Hiawatha (10067), the most outstanding champion Clydesdale of modern times. The fillies were a well-bred lot, one of them being got by Royal Gift, out of a mare by the Rhins of Galloway premium horse Ornament, and descended from an excellent tribe of mares on Clendrie.

Mr. B. Rothville, Ottawa, had two colts, one from Mr. P. Crawford, and the other from Messrs. Montgomery. The former is by the good breeding horse Hillhead Chief, which leaves exceptionally good selling stock, and the latter is a well-bred colt got by M'Rath, one of the best bred and best breeding sons of Macgregor, out of the noted mare Hecuba, by the renowned Baron's Pride.

Mr. Allan Mill, Maple Creek, Assa., had four well-bred fillies, purchased from Mr. David Riddell, Blackhall, Paisley.

The largest number of Clydesdales on board were in the hands of Messrs. Smith & Richardson, Columbus, Ont. They had 14 stallions, seven of which were from Messrs. A. & W. Montgomery's stud at Netherhall and Banks, and seven from the Dargavel stud of Mr. Peter Crawford. The Montgomery lot were by the leading breeding horses of the day, including the H. and A. S. first prize horse Moncreiffe Marquis (9933), whose

stock are well and favorably known on both sides of the great lakes; the champion, Baron's Pride, and the three noted premium horses by him, Up to Time (10475), Baron Robgill, and Baron Mitchell; Mr. Park's celebrated breeding horse Marmion, sire of the champion Rosador, and many other prize winners; and two are by the H. and A. S. champion horse, the great Prince Thomas (10262). Amongst these seven horses are the product of mares by the Cawdor Cup Champion Prince Alexander (8899) the dual Cawdor Cup Champion Royal Garty (9844), the H. and A. S. first prize horse Darnley's Last (6663), McNair's Good Hope (2146), and the unbeaten champion horse Prince of Carruchan (18151). Two of the horses bought at Dargavel were got by the noted Baron o' Buchlyvie (11263); a third was by that excellent breeding horse King o' Kyle; a fourth by the Dumfries and Fyvie premium horse Royal Edward, one of the most promising sires among the younger horses of the day. Amongst them also are horses out of the pick of mares got by leading sires. This is one of the best shipments made by Smith & Richardson. They seem to have got into a very good trade, and are buying a high-class type of horse for the Canadian market. — Scottish Farmer.

Have you seen the Clokey binder for 1906? Everyone is speaking well of it. They are being extensively used in the vicinities of Whitby, Oshawa, Aylmer, Atwood, etc. It now looks as though the Farmers' Company would come to the front in a very satisfactory manner.

Clydesdale and Hackney Importations

The Donaldson liner "Parthenia," which sailed on Saturday last, carried two valuable shipments of Clydesdales and Hackneys for Canadian buyers. Messrs. Gramam Bros., Claremont, Ont., had eight Clydesdale stallions and three Hackney fillies, as well as nine Hackney stallions. Messrs. Graham & Renfrew, Bedford Park, Ont., had 10 Clydesdales and 12 Hackney stallions. The Clydesdales, in the case of both firms, and some of the Hackneys, were purchased from Messrs. A. & W. Montgomery, Netherhall and Banks, Kirkcubright; a few of the Hackneys were also bought from Mr. Peter Crawford, Dargavel, Dumfries, but most of the light-legged horses in Graham Bros.' shipment were bought in Yorkshire, and several of those in Graham & Renfrew's shipment were bought from Carr & Co., Clydevale Stud, Carlisle.

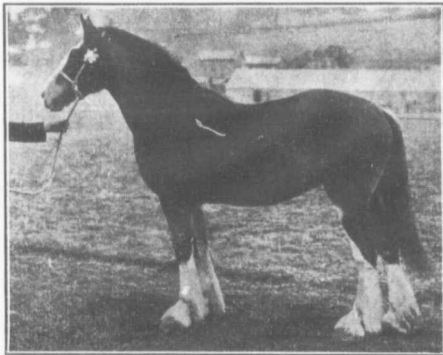
Prominent among the Clydesdales in the Claremont lot was the noted premium horse Durbar (11695), own brother to the early unbeaten Baron's Pride filly Empress, and winner of third prize as a two-year-old colt at the H. and A. S. Show at Dumfries. He was the Machars of Wigtown, West Lothian, and Bute premium horse in three successive seasons. His dam is one of the best breeding mares in Galloway, got by the good St. Lawrence horse Scottish Pearl (2949). Two three-year-old horses of very good breeding will command a ready sale. They are got by Up-to-Time (10475), a noted breeding premium horse, and the well-bred Gold as Gold (11733). The Up-to-Time colt is own brother to Mrs. Curr's

Clydesdale Men, Attention!

I will offer at Public Auction my entire consignment of imported Clydesdale Fillies, at

**Woodstock,
October 25, 1906**

These fillies have been carefully selected by myself, and are well bred, big, drafty animals with lots of substance, bone, and first-class underpinning, action and quality. Come and see them, you will be pleased. Terms of sale: Cash, or approved joint notes for reasonable terms, at 5 per cent. per annum.



For further information and catalogue, write to


Capt. T. E. Robson,
Auctioneer,
Hilderton, Ont.

J. R. Johnson, Prop.,
Springford, Ont.

horse Magnate, a useful horse which won prizes. A yearling colt by M'Raith (10229), so long Lord Polwarth's stud horse, and out of the noted Blacon Point Prize mare, Jean Macgregor, should make his mark on the other side. Three two-year-olds, got by the popular Woodend Gartly (10663), the unbeaten Everlasting (11331), and the well-known premium horse Rosario (9996), are of the sort which win favor with buyers in Canada. One of the best in the shipment is the yearling colt which won second prize at the Aberdeen summer show. He was bred by Dr. Wilson, and got by the well-known premium horse Mains of Airies (10279). Three superior fillies complete the Clydesdale section of this shipment. One is a two-year-old by the noted Royal Favorite (10630), out of a Baron's Pride (9122) mare, and another is a yearling, her full sister. A big-sized two-year-old, bred in Fife, and got by Time Enough, will command favor in Canada. Among the nine Hackney stallions exported by Graham Bros. are several of outstanding merit and breeding. One is Dalton King, which stood second in one of the aged classes at London this year, and third in harness. He is also a noted prize winner in other classes, taking no fewer than six or seven other prizes. He is a great goer, of the true harness type, and is exceptionally well-bred. His sire was Garton Duke (3069), his dam by Danegelt (174) and his gr.-dam by Lord Derby II (417). Another named Colorito, was reserve number at London, second at Market Weighton, and first at Driffield as a two-year-old. He was got by cham-

pion Rosador. Another, by the same sire, is the three-year-old Baltimore, full brother to Rosary, a big 15.3 hands horse. Of the Hackneys bought at Netherhall, one is by the good-breeding sire St. Thomas, out of a Rosador mare. Another, as a two-year-old, was second at London, second at Pocklington, and second at Market Weighton, as well as third a week or ten days ago at Birkenhead. He was got by the famous Garton Duke. Finally, there is Mr. McAllister's first prize yearling colt at the H. and A. S. Peebles, and the Royal Northern, Aberdeen. He also was got by St. Thomas.

Graham & Renfrew are a new firm,



Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

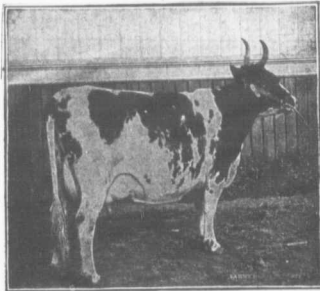
and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what size you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with extensive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser.

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,
71 Church Street, Toronto, Ont.

but the Graham in the firm is no new hand in the Clydesdale world. He is Mr. Robert Graham, the eldest of the Claremont brothers. All the 10 Clydesdales in their section are from Netherhall. One is the four-year-old stallion Caliph (1074), a son of Baron's Pride, and the Hexham premium horse in 1905 and 1906. Another is the beautiful, clean boned three-year-old Evander, bred by the late Sir Michael Shaw Stewart, Bart., and got by the premium horse Elator, out of a Prince of Cathcart mare. This beautiful three-year-old was champion at the Aberdeen spring show, and the Biggar and Peebles premium horse this season. A choice two-year-old is own brother to the renowned champion mare, White Heather, in her turn dam of Minnewawa, first as a yearling at the H. and A. S. in Glasgow, in 1905, and champion at the Kilmarnock Show in April last. Of the same age is a full brother to the third prize aged horse at the H. and A. S. Peebles. This colt is by Baron's Pride, and is well named Flash Baron. He was second at Castle-Douglas in spring. Yet another two-year-old was got by the noted Baron o' Buchlyvie, and was first at Girvan last year. A fourth was got by the Glasgow premium horse Marconi (11817). There are two three-year-olds, got respectively by Mains of Airies (10379), and the successful breeding horse Argus (10492). The female in this shipment is Mr. George Findlater's well-known prize mare Lanark Queen. She has won over 20 first prizes, and was fifth at the H. and A. S. Peebles, in a very strong class. She is exception-

Great Sale of Ayrshires



IT WILL BE SOLD BY PUBLIC AUCTION

50 HEAD

of High-Class Ayrshire Cattle

ALSO

Agricultural Implements

etc., property of HON. W. OWENS

Riverside Farm, Montebello, Q.

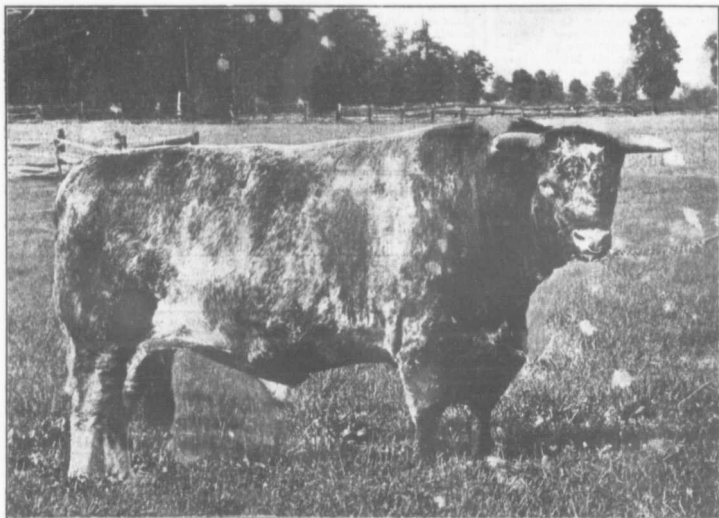
On C.P.R., North Shore Line,
between Ottawa and Montreal

Sale October 17th, 1906

AT ONE P.M. SHARP

Send for Live Stock Catalogue.

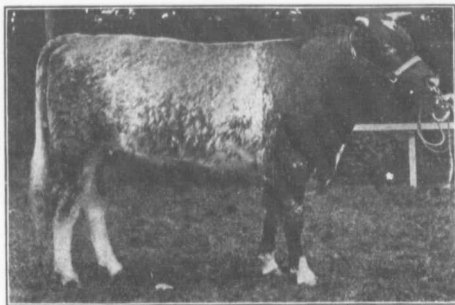
CAPT. T. E. ROBSON, AUCTIONEER
ILDERTON, ONTARIO



The three-year-old Shorthorn Bull "Hot Scotch" 52996. Champion London Fair 1905. Sire Imp. Rustic Chief 4019; dam the Imp. Miss Ramsden Cow Celia 19th 4356. To be sold at Captain T. E. Robson's dispersion sale, on October 23rd.

Great Dispersion Sale

I will sell by Public Auction, at London, Ont.



**Oct. 23,
1906**

My entire herd of imported and home-bred Shorthorn cattle. Also one grand, imported Clydesdale Stallion, four years of age, and one four year old Hackney Stallion. For catalogue and further particulars apply to

Capt. T. E. Robson, - Ilderton, Ont.

ally well bred—her sire was Baron's Pride, her dam by the H. and A. S. first prize horse Montrave Sentinel (10094), and her gr-dam by the renowned Sir Everard (9353). These notes require no embellishment. They sufficiently prove that Mr. Robert Graham has fully maintained his reputation as a judge of Clydesdale horses.

Among the ten Hackneys purchased by Graham & Renfrew is Bingham Radiant, by Rosador, first prize three-year-old, and reserve champion at the Royal, Derby. Altogether, they have of this breed five stallions and three mares, one pony, and one gelding, a "stormer." Among the stallions are horses by Dissenter, and Garton Duke, a pony stallion by the famous London winner, Woodlands Eaglet. There are a pair of matching four-year-old mares by Garton Duke, and a beautiful prize mare named My Honey, by the celebrated Bonny Danegelt. The ponies are of a beautiful saddle type. The shipment concludes with a nice Shetland pony and a jack-ass. Good luck to the new firm! May they soon return.—The Scottish Farmer.

It is said that the new Clokey binder for 1906 has the largest drive wheel of any binder on the market, also the longest drive chain from master wheel to cross shaft. These are good points to have on a binder.

Gossip

Mr. H. K. Fairburn, Theford, Ont., writes: "Visitors to the Canadian National Exhibition should not fail to

see the Rose Cottage Stock Farm Shorthorn exhibit of young bulls and heifers. All for sale."

Mr. Geo. B. Armstrong, Teeswater, Ont., writes: "Many thanks for my advertisement in your paper. I have recently sold three shearing Leicester ewes and one ram lamb for the Wyoming Experiment Station for experimental purposes. My shearing rams are doing finely."

The herd of Ayrshires offered for

sale by public auction on October 17 (see ad, page 622 of this issue), bred and raised on the farm of the Hon. W. Owens at Montebello, Que., are noted for their deep milking qualities.

As this auction offers a favorable opportunity to secure high class milking Ayrshires at commercial prices, we trust our farmers will avail themselves of it, and not allow our superior dairy stock to cross the line.

FARMERS AND DAIRYMEN

when you require a

TUB, PAIL, WASH BASIN or MILK PAN

ask your grocer for

E. B. EDDY'S

FIBRE WARE ARTICLES

YOU WILL FIND THEY GIVE YOU

SATISFACTION EVERY TIME

THERE IS NO SUBSTITUTE

Insist on being Supplied with Eddy's Every Time



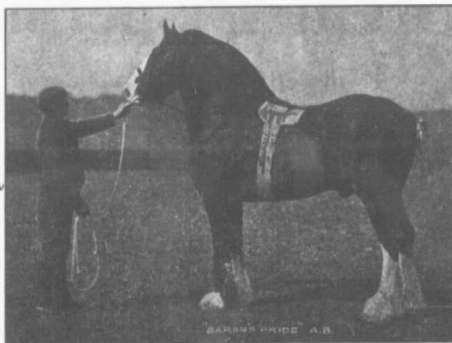
GRAHAM & RENFREW

CLYDESDALES HACKNEYS

The highest type, the purest blood and the best individual, is the kind of goods we handle.

If you want that kind of horse you are the man we want to talk to.

Our latest importation includes winners in both breeds at the leading shows in the United Kingdom.



We have also a few handsome and stylish HACKNEY PONIES and some high-stepping HARNESS AND CARRIAGE HORSES.

YONGE STREET CARS PASS THE DOOR EVERY HOUR. PHONE NORTH 4483.

GRAHAM & RENFREW
BEDFORD PARK, NORTH TORONTO, ONTARIO

The movement of the binding attachment on the Clokey binder is much greater than on any of the old line machines, making it possible to tie in the centre of the grain, whether it be 16 inches long or 6 feet.

Hillhurst Shorthorn Sale

The following additional notes regarding some of the groups or tribes in the Hillhurst Shorthorn herd, to be sold by auction on the exhibition grounds, Sherbrooke, Que., on Sept. 7th, will be found of interest: Lovely of Pine Grove 3rd is as near perfection in the beef breeds as can be produced. The two-year old bull, Broad Scotch (a home-bred son of Imp. Scottish Hero and Imp. Butterfly 49th, bred by Marr, of Cairnbrogie) is deserving of special mention. Then there is Missie Maid 2nd, Ruby of Pine Grove 4th, and Pine Grove Mildred 6th (own sister to the highest-priced cow at Col. Lowden's recent sale). The above, with Ruby's own sister and Bessie of Pine Grove 2nd, were six picked heifers bought at W. C. Edwards & Co.'s 1905 sale, five being by the great sire, Marquis of Zenda; Lovely 3rd, which topped the sale, being a daughter of Village Champion. Five of the above are due in September and October to the fine young red bull, Golden Carol, by Imp. Golden Drop Victor, selected last August as the best bull calf in the Carrill herd.

The next group comprises four families bred from the Hillhurst importation of 1898, selected by the well-known English auctioneer, Mr. John Thornton, from some of the best

English milk-and-beef producing herds which are fast coming into favour when topped with the fleshy Scotch bulls. Among them are the Frosts, the imported cow, Frost 52nd, and a two-year-old daughter, Frost Queen, from Mr. D. Arkell, of Gloucestershire; Alpine Belle, Alpine Belle 2nd, and Alpine Maid, of the P. or Pink family, so long bred by Mr. T. Garne, of Gloucestershire; Imp. Diamond, her daughter, Hillhurst Diamond, and granddaughters, Donald and Dame Diamond, are descended from the famous Knightly Herd, which "The Druid," in Saddle and Sirloin, describes as having "beau-

ful fore quarters, general appearance, . . . and their fine milking powers placed them (like Cold Cream and Alix, which proved a perfect cornucopia of calf and dairy produce at the Royal Home Farm) at the head of many a dairy.

"A Fawsley fill pail" soon passed into a herd proverb, and a dip into the blood of the Earl of Dublin and the Friars—white or grey—was pretty sure to make one." Imp. Welcome Honor and her daughters, Welcome Dawn, by Joy of Morning, and Welcome Lass, are from a North Country dairy herd, Mr. H. Cock, of Coat Green, Westmoreland, who for nine years won the late Lord Bective's annual ten-guinea prize for the best general farm stock specially adapted to the purposes of a dairy farm, and in 1888 the £20 prize for the best three dairy cows.

Lady Ingram Hillhurst, a granddaughter of the grand Bow Park Imp. Baroness Butterfly, is a typical general-purpose cow, a deep-milker, fat-

Glenhodson Yorkshires

Some bred or ready to breed. Young pigs from three to six months old. Pairs not akin. Satisfaction guaranteed.

GLENHODSON COMPANY, Myrtle Station, Ont. Long-distance phone at farm. LOBNE FOSTER, MGR.

Oak Lodge Yorkshires

A large herd of choice Pigs of all ages on hand, quality guaranteed. No other herd has such a record in the show ring, covering several years. Oak Lodge type of hogs are profitable breeders and ideal bacon hogs. Correspondence solicited.

J. E. BRETHOUR, BURFORD, ONT.

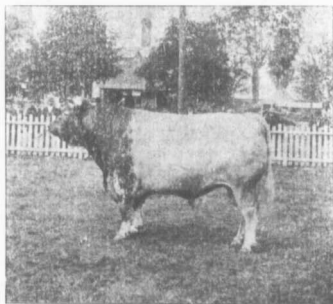
CHAMPION BERKSHIRE HERD OF CANADA. Winner of Championship at leading shows for several years. Splendid importations of new blood, the championship winners of England. Young pigs, imported and home-bred for sale. Pens at Islington, near Toronto. **W. H. DURHAM, Box 1052, Toronto**

IMPORTANT AUCTION SALE

SHORTHORNS YORKSHIRES

I will sell by public auction at Woodstock, October 24th, 1906, my late importation of pure bred Shorthorn Cattle and Yorkshire Swine.

Choice Individuals, strictly bred.



For particulars and catalogue apply to

CAPT. T. E. ROBSON,

Auctioneer,
ILDERTON, ONT.

H. J. DAVIS,

Proprietor,
WOODSTOCK, ONT.

tening rapidly on grass when dry. Her breeding in beef and milk blood lines cannot be excelled, her sire, Elvina's Patriot, being descended from the noted Imp. Pansy, by Blaze, dairy family, while she also has the Beau Benedict cross to which the success of Lord Lovat's great bull, Master Millicent, sire of the 1,500 guinea bull calf at Perth is thought to be largely due, and in the maternal line she comes from the Duchess of Lancaster, one of the best families in the second Townley herd, one example of which Duchess of Lancaster 6th, is thus referred to by "The Druid": "She was three weeks and four days on her Birmingham, London and Liverpool travels, and took the extra stock prize for females in every place. She went on the weigh-bridge directly she was sold, and had only lost 16 lbs., or just a pound a day since she weighed out (3,023 lbs.) at Islington, with Mr. Chas. Howard and Mr. Duckham as joint clerks of the scales."

Next came the Fillegrees, descended from a cow bought by Mr. Alexander, of Kentucky, for 150 guineas at Mr. R. W. Saunders' sale, at Warwick Park, Westmoreland, one of the deepest milking strains of the breed. Of these there are four, Famous 5th, Victress, Viscountess and Vera of Hillhurst.

Three Princesses, descended from Imp. Princess, by a son of Lancaster; three Beatrices, from Imp. Britannia, and four from Imp. Beauty, by Snowball, well known throughout Canada as deep milkers and producers of show animals, complete the female portion of the herd—33 lots, four with calf at foot. There are also nine young bulls and bull calves in the sale, Scotch and Scotch-topped, and of excellent individuality.

T. E. Robson's Dispersion Sale

We have this week to record the closure of another of Canada's foremost herds of Shorthorns, with the retirement of Capt. T. E. Robson, of Ilderton, Ont. For many years, succeeding his father as a breeder of Shorthorns, Mr. Robson has kept his name in the very front rank. Born to the business, a keen, shrewd judge, a careful but enterprising purchaser, his abilities claimed for him early recognition. For many years he has been not only accorded a warm welcome in front place, but has been easily Canada's leading and most popular auctioneer of pure bred live stock as well. The herd which he will offer to the highest bidder at London, October 22nd, is an aggregation of what Mr. Robson has found best among the animals that have passed through his hands during his experience, and one need only visit the farm and see the kind and quality to be convinced that his own interests cannot be better served than by availing himself of the judgment and skill which has made the Springbank Stock Farm for so many years famous.

At the head of the herd at the present time is the three-year-old bull Hot Scotch, a grand, smooth, stylish and massive roan, a scion, on his dam's side of the deservedly popular Miss Ramsden strain, and undoubtedly one of the best Canadian-bred bulls to be found to-day. His dam is Celia 10th Imp., and he is sired by the imported Bessie bull Rustic Chief, and, like his sire, and more than one or two others of similar pedigree, he is proving an extraordinarily successful getter. Among the young stock bred by him is noticeable a thick, low set type, together with smoothness, style and character,

which stamps him as an impressive scion of a virile race. He was champion at London Fair a year ago, and looks to-day like a fitting candidate for the honor a second time. Another fine young bull, also to be offered, is a deep red yearling, Sittytown Marquis, a straight Cruickshank Amaranth, sired by Senator W. C. Edwards' grand Missie bull, Marquis of Zenda, dam Imp. Amaranth 6th, whose sire was Rosicrusian, bred by Queen Victoria, and sold at a long price to Mr. Duthie to head his herd. The Amaranth family has always been one of the most popular, having to its credit among other leading prize winners in the north of Scotland, the great Field Marshal, as well as Athabasca, being among the number. There are a number of choice imported cows in the lot, also a large number of equally choice well bred individuals, of which further notes will appear in our next number. Catalogues enumerating the good things to be offered at this sale at length can also be had by application to the proprietor.

Live Stock at Ottawa

The Central Canada Fair directors have ever catered to the wants of the live stock men. This year there has been no exception. Indeed the inducements offered to the farmer and

CLYDESDALES — HACKNEYS.

I have a large consignment of stallions and a few fillies, of good lines of right kind at right prices. Come and see what I have to offer.

O. SORBY, Guelph, Ont.

CLYDESDALES — Winners at Toronto, London and other leading shows. Some choice young fillies. Pair young stallions, sired by Pearl Oyster and Prince Romeo, for sale. J. S. Henderson, Belton, Ont.

CLYDESDALES

Stallions and Fillies by Scotland's leading sires. Terms right and a square deal. Call or write.

JOHN BOAG & SONS, Ravenshoe, Ont.



ROCK SALT for horses and cattle, in tons and carlots. Toronto Salt Works, Toronto

breeder show a greater improvement than in any previous year. New buildings, accommodation re-arranged, and a large addition to the premium list are testimony of the anxiety of the directors to please this class of their patrons. By a re-adjustment of the conditions also, the amateur will not be obliged to compete with the men who make a specialty of breeding and who are looked upon as professionals in their class. This should encourage both classes of breeders. The best judges to be secured in America will officiate this year. The judging will be done before the grand stand and no animal found to be unsound will be permitted to compete. As usual the directors have provided a highly creditable program of specialties to please the amusement loving patrons of the great fair. In front of the grand stand there will be hurdle races, hurdle jumping, chariot races, Roman standing races, trotting races for most generous purses, running races and a baloon ascension and other specialties. Elsewhere there will be vaudeville performances with the best specialties that money can secure. One of the days of the week there will also be a great championship lacrosse match between the Capitals and Shamrocks. The night entertainment will be the popular comic production of the popular comic opera "The Gingerbread Man," in the new theatre hall erected on the grounds for such purposes. Certainly

MY NEW IMPORTATION OF

CLYDESDALES AND HACKNEYS have just arrived. I have this year a grand importation. They combine size, action, conformation, style and quality. A number of them have been prize-winners in the old country. Parties wanting something in this line will find what they want at a fair price and a square deal.

THOS. MERCER, Markdale, Ont.

Long distance phone at residence.

CLYDESDALES

I have for sale a few grand young stallions and several splendid fillies, which I offer at reasonable prices considering breeding and quality of good.

Write for prices and particulars or call at my stables at HOWICK, QUE.

GEO. G. STEWART, Long Distance Phone. Importer and Breeder.

BURNSIDE AYRSHIRES.

My new importation comprises a number of the deep, smooth, stylish cows with dairy qualities strongly developed. I can furnish showing cattle and grandly bred bulls and heifers of the right kind at a reasonable price. If in want of something good and something useful drop me a line.

R. R. NESS, Howick, P. Q.

Shire and Clydesdale Horses, Shorthorn Cattle

Choice Stock on hand at all times. Customers never disappointed.

Phone

J. M. GARDHOUSE, Weston, Ont.

CAIRNBROGIE

The home of The Matchless MacQueen, and more of America's Champions than all others combined.

Breeders of CLYDESDALES and HACKNEYS

GRAHAM BROS., - - Clarendon, Ont.

P. O. and Sta., C.P.R. 25 Miles East of Toronto.

LONG DISTANCE TELEPHONE.



the Ottawa Fair will provide a splendid holiday outing for all classes of people. The dates are September 7th to 15th.

A Dual-Purpose Cow Test

At the Chicago International Show to be held Dec. 1-8 next, a test has been inaugurated for milking Shorthorns that is somewhat unique in its way. All cows shall be clean milked out to the satisfaction of the superintendent at 6 p.m. on the evening previous to the show. On the first morning of the show all cows are to be milked in the ring in the presence of the judge, who shall see each animal's milk weighed, and this shall be done for three consecutive days, morning and evening, at hours to be fixed by the superintendent, and any animal that does not yield up to the following standard, when milked in the ring, shall not be awarded a premium: Cows 3 years old or over, not less than 23 lbs. of milk, if she has calved within three calendar months of the first day of the show, and 17 lbs. if she has calved more than three months before the first day of the show. Cows under 3 years old must give not less than 16 lbs. and 13 lbs. respectively.

As the object of this class is to show the adaptation for both beef and milk production, judges shall have regard for the size, shape and general appearance of the udder, both before and after milking, and also for the size, quality and general appearance of the animal from the standpoint of beef production; and shall also allow 50 points for each of these dual purposes.

The outcome of this test will be watched with interest. If it turns out satisfactory, the work might with advantage be taken up at some of our shows here.

Ottawa Correspondence

Ottawa, Aug. 27.

A good sign for the apple growers of the province was noted in Ottawa recently. Mr. J. P. Taylor, a prominent merchant of South Africa, called at the fruit division of the Department of Agriculture to learn the best districts where a steady supply of fruit could be obtained, and the names of the most important growers and

shippers. Mr. Taylor has already sent to the Cape a consignment of early fall apples from Nova Scotia, and is looking out for suitable shipping fruit of all varieties that will stand the voyage. The presence of the Cape Town buyer in Canadian orchards is looked upon by many fruit men as the beginning of what may grow to a large and active trade with South Africa. Certainly the chances are good for the Canadian apple in that country, where orchards are scarce, and where there is a large mining population to cater to. There is one thing that will tend to affect the trade for good, and that is that the buyers will have nothing but the best, because the laws of the country require all apples affected by worm or scab, or any other disease or pest to be destroyed at the port of debarkation without recourse to the owner. The importation of the best Canadian apples into the country will naturally build up the reputation of the fruit, and this, in time, will surely build up the demand to the benefit and increase of the trade. Mr. Taylor will buy a large amount of fruit in Ontario.

While speaking of fruit, it may be mentioned that the Department of Agriculture has secured an expert apple packer to give demonstrations this fall in packing apples in boxes. It has been the aim of the fruit division for some time to introduce box packing, especially for fancy fruit, it being thought that this style of packing is more suitable for the home trade, and in some varieties for the foreign trade also. Practically all the local trade on the Pacific Coast is done in boxes, and this style of packing has been carried to the

greatest perfection in Oregon, from which State the demonstrator has been brought.

The Ottawa Cheese Board, at its meeting last week, approved the proposal that the Government appoint an official referee to be stationed at Montreal, and settle disputes as to quality. The matter was brought to the attention of the various boards of the province by Mr. J. A. Ruddick, Dairy Commissioner. Though by no means unanimous, it seems that the majority of opinion is in favor of the appointment of such an official.

Inquiries have been received by the dairy department as to the possibility of the shipment of Canadian canned butter to Italy. The inquiries were the result of an exhibit of that commodity in the Canadian section of the Milan Exposition, Italy. Copies of the letters have been sent to Canadian creamerymen, who will likely make investigations that may lead to the opening up of a trade, if it can be made sufficiently profitable. A certain amount of trade in canned butter is enjoyed by the Alberta creameries, which have shipped their product as far west as Japan.

The Eastern Ontario Dairymen's Association has asked for a grant from the City Council of Ottawa and the County Council of Carleton to assist it in the expense of holding the annual convention at Ottawa next January. It is probable that the request will be granted, though to what extent has not been intimated. Both Cornwall and Belleville, it is understood, are desirous of having the convention.

MAPLE SHADE SHROPSHIRE

We have for sale some excellent homebred yearling rams and ewes. Also one of the best lots of imported sheep that we have handled for some years. We can sell you a ram for a flock header or a few ewes to add to your flock.

Our young Shropshire bulls are growing well, and we shall be ready for a big trade next season.

JOHN DRYDEN & SONS, Brooklin, Ont.

FARNHAM FARM RUM OXFORDS

We have for sale some grand yearling rams, by imported sires, for flock headers. We also have 50 yearling ewes and 100 ram and ewe lambs.

We breed only the best, using the best rams that can be obtained in England.

Guelph, G.T.R.

Arkell, C.P.R.

Telegraph, Guelph.

HENRY ARKELL & SON,
ARKELL, Ont.

W. G. PETTIT & SONS FREEMAN, ONT.

Scotch Shorthorns

Present offering—30 young bulls, 10 imported cows, with heifer calves at foot, and again bred to Imp. Prime Favorite and Imp. Scottish Prize. Also 50 head of one and two-year old heifers. Drop in a line and receive our new catalogue, just issued. Burlington, Ont. Sta. G.T.R. Long distance telephone at residence.

Maitland Bank STOCK FARM

Choice bred Shorthorns. A fine crop of young stock bred on chassis. Also a crop of pure. Can supply a number of fine young bulls at square prices.

D. MILNE & SON, Ethel P.O. and Sta. G.T.R.

HOLLYMOUNT STOCK FARM

MITCHELL, ONT.

A choice lot of Young Bulls for sale—promising herd-headers, of the most desirable breeding.

W. J. TRONBOW, Mitchell, Ont.

DAVID MCGRAE, Jansfield, Guelph, Canada. Importer and breeder of Galway cattle, Clydehead horses and Cotswold sheep. Choice animals for sale.

GLEN PARK FARM Scotch Shorthorns

Matchless, Jill, Nonpareil, Mina and other popular strains. Herd headed by the grand Imp. Beattie bull, Pride of Scotland (42213); dam, Ross Beattie (42033), dam Lord Banff (7701). Some choice young stock for sale.

W. DOHERTY, Prop.,
CLINTON, ONT.

CHAS. RANKIN, Wyebridge, Ont., importer Cattle and Cows. Dewey sheep headed by Pride of Scotland (Imp.). For Sale

—Females and bulls of all ages, from noted Scotch families.

Ashland Stock Farm

Pure Scotch-Topped Shorthorns. Cows bred from imported stock of grand Scotch breeding. Young stock of both sexes for sale.

J. HARRIS, Jackson, P.O. Ont.
Sta. Station G.T.R.

JOHN GARDHOUSE & SONS, Highfield, Ont.

Breeders of Scotch and Scotch-topped Shorthorns, Blue Heifers, Lincoln and Leicester Sheep. A good selection of young stock of both sexes for sale. Farm 3/4 miles from Weston station, G.T.R. and C.P.R., and electric cars from Toronto.

MAPLE LODGE STOCK FARM

Scotch Shorthorns, Choice Milking Strains. Prize-winning Leicesters. Young Stock for sale.—imported and home bred.

A. W. SMITH Maple Lodge P.O., Ont.

Pine Grove Stock Farm

Breeders of High Class Scotch Shorthorns, Choice Shropshire Sheep, Clydehead and Hackney Horses.

G. W. WILSON, W. G. EDWARDS & CO., Limited
Superintendent, Proprietors.
Rockland, Ont., Canada.

MAPLE GLIFF DAIRY AND STOCK FARM

Breeders of CLYDESDALE HORSES
BERKSHIRE AND TAMWORTH PIGS.

FOR SALE, TEN TAMWORTH SOWS—Bred to farrow in May.

R. REID & CO., Hintonburg, Ont.

Ontario Veterinary College, Ltd.
Most successful Vet. Institution in America.
Prof. A. Smith, F.R.C.V.S., Principal,
Temperance St., Toronto, Ont.

BREEDERS' DIRECTORY

CARDS under this head inserted at the rate of \$2.00 per line, per year. No card accepted under two lines, nor for less than six months.

HORSES

S SMITH & RICHARDSON, Columbus, Ont. See large ad.

O. SOBRY, Guelph, Ont. See large ad.

M. GARDHOUSE, Weston, Ont. See large ad.

T HOS. MERCER, Markdale, Ont. See large ad.

G B. O. STEWART, Howick, Que. See large ad.

R. R. RESS, Howick, Que.

G RAHAM BROS., Claremont, Ont. See large ad.

W. H. PUGH, Clarendon, Ont. Imported and Canadian-bred Clydesdales and Hackneys.

W. COLOUBOUH, Mitchell, Ont., P.O. and Hackney Horses.

D AVIS & GRAHAM, Schomberg, Ont. Clydesdales, imported and Canadian-bred. A few good bargains on hand.

W. J. WELLS, Temperanceville, Ont., mile from Bond Lake, Toronto and Metropolitan Railway. Some grand offerings in Canadian-bred Clydesdales, gets of Young McQueen and Laird of Argo.

HODGKINSON & TISDALE, Beaverton, Ont.—Clydesdales—Stallions and fillies for sale.

DONALD GURN & SON, Beaverton, Ont. Clydesdales.—Choice young stock.

LAVIN & RICHARDSON, Harrison, Ont. High class Clydesdales for sale.

SHEEP

J. LLOYD JONES, Burford, Ont. A fine selection of choice home-bred and imported Shropshire Sheep.

J. A. JULL, Burford, Ont. Oxford Downs. About 25 head of choice young Lambs, also a few breeding Ewes. All by imported Rams.

J. C. ROSS, Jarvis, Ont. Cotswold Sheep. Prize-winners at America's leading shows. Imported and home bred. Also some good Clydesdale Horses.

T ELPER BROS., Paris, Ont. Hampshire and Southdown sheep.

JOHN GARDHOUSE & SONS, Highfield, Ont. See large ad.

J. M. GARDHOUSE, Weston, Ont. See large ad.

JOHN DRYDEN & SON, Brooklin, Ont. See large ad.

G B. O. ARMSTRONG, Bowhill Stock Farm, Teeswater, Ont.—Choice Leicester sheep. Prize winners.

PETER ARKELL & SONS, Teeswater P.O. and sta., C.P.R., Midway, G.T.R., Oxford Down sheep, shoving and breeding stock. Imported and home-bred.

T HOS. ARKELL, Teeswater, Ont., sta. C.P.R., Midway, G.T.R. Choice breeding stock, Oxford Down Sheep.

G B. O. SNELL, Veoville, Ont.—Shorthorns, Newton Prince and Lady May types. 3 young bulls for sale. All imported stock.

G E. N. HARRIS, Lynden, Ont. Southdown sheep and Berkshire pigs.

W. M. MCINTOSH, Burgoyne P.O. Clydesdales, Shorthorns, Leicesters. Good breeding stock on hand.

SWINE

J. E. BERTHOUD, Burford, Ont. See large ad.

W. H. DURHAM, Toronto. See large ad.

H. M. STOCKTON, Redgrave P.O., Harriston and sta., C.P.R., Yorkshire Swine, breeding stock from imported sows and boars. Pairs not skin furnished. Write for prices.

J. COWAR, Donagel P.O., Atwood sta., G.T.R. Choice breeding stock in Leicester Sheep and Berkshire Swine.

DONALD GURN & SON, Beaverton, Ont. Yorkshire swine.—Young sows and boars of approved beam type.

CATTLE

J. D. MCARTHUR, Paisley, Ont. Some good young shorthorns.

W. J. THOMPSON, Mitchell, Ont. See large ad.

JOHN DRYDEN & SON, Brooklin, Ont. See large ad.

W. G. PETIT & SONS, Freeman, Ont. See large ad.

JOHN GARDHOUSE & SONS, Highfield, Ont. See large ad.

H. SMITH, Exeter, Ont. See large ad.

JOHN BRYDON, Milverton, Ont., G. T. R.—Shorthorn cattle. 11 young bull calves from well-bred imported dams, and sired by imp. Sittytown Victor—5000—.

G B. O. ARMSTRONG, Teeswater, Ont.—One imported and two home-bred Shorthorn bulls for sale.

W. H. FORD, Dutton, Ont. Shorthorn cattle, Scotch and Scotch-topped. Good individuals. Prices right.

BROWN BROS., Lynn P.O., Ont. A number of young Holstein stock of both sexes for sale, from prize-winning and advanced registry parents.

W. SUHRING, Sebringville, G. T. R. Ont. Holsteins of best milking strains. A number of young breeding stock to select from.

MACDONALD COLLEGE, Ste. Anne de Bellevue, Que.—Ayrshires.—The famous Redford Herd at Ste. Anne de Bellevue, Que., now owned by Sir William C. Macdonald. Several yearling bulls for sale; also a number of bull calves. Quality and appearance extra good; bred from the best milking strains, noted for robust constitution and large teats. Write for particulars.

AMOS SMITH, Trowbridge P.O., Ont. Short-horn cattle—pure Scotch breeding from popular and prize-winning strains.

W. HAY, Tara, Ont., Clydesdale Horses. See Shorthorn Cattle, best Scotch strains. Present offering, some choice young bulls, also a number of females.

W. F. STEPHEN—Box 103, Huntington, Que. A Stringstock Ayrshires—for sale—some young stock, both sexes.

J. A. GOVERNLOCK, Forest, Ont. Herefords, young stock from carefully selected imported and homebred cows, prizewinners at leading shows.

H. K. FAIRBAIN, Theford, Ont. Shorthorns, some of the very fine of the breed. For sale, six heifers and two red bull calves.

R. J. PENNALL, Nober, Ont. Hereford Cattle. Young bulls for sale.

GOULVIE'S Ayrshires—Lachine, Que.—Calves for sale, both sexes, also a few splendid cows. Robt. Hunter, Manager. Phone M 222.

R. A. and J. A. WATT, Salmo, Ont. Shorthorn cattle imported and home bred. See choice herd here.

D. DECORREY, Hornholm P.O., Mitchell Sta., G. T. R. Improved Ojester White Swine, Shorthorn Cattle, Leicester Sheep.

JOHN WATT & SON, Salem P.O., Ont., Elora Sta., G.T.R. Pure bred Shorthorn Cattle. A few choice females.

DONALD GURN & SON, Beaverton, Ont. Shorthorns.—Young stock on hand.

W. CLARSON, Malton P. O. and Sta., G. T. R. Pure bred Scotch Shorthorn Cattle and a cown Sheep. Some choice young stock for sale.

GLEEN GOW SCOTCH SHORTHORNS, from such choice strains as imp. Wedding Gift. Young stock sired by Killbuck Beauty bull, imp. Ben Lomond and imp. Joy of Morning. Some fine young bulls from six months to nine months of age; also some very fine females. Prices right. **Wm. Smith, Columbus, Ont.**

W. W. BALLANTYNE, Stratford, Ont. Ayrshires of the best milking strains. Some choice young bulls for sale.

D. SINCLAIR, Keady P.O., Ont. Shorthorns of best beef and milking strains. Young stock from choicest strains. Close to imported stock.—Tara station, G. T. R.

MISCELLANEOUS

D. GURN & SON, Clydesdale Horses, Short-horn Cattle, Yorkshire Swine, Beaverton, Ont.

JAMES DOUGLAS, Caladonia, Ont. Short-horn Cattle, Leicester Sheep. Stock for sale.

ROBT. RICHOL, Brussels, Ont., P.O. and sta., G.T.R. A few good Shorthorns, also a limited supply of choice Yorkshire breeding stock.

T. GIBSON, Denfield, Ont., sta. G. T. R. Imported and home bred Shorthorns, also a limited supply of choice Yorkshire breeding stock.

CHAS. CALDER, Brooklin, Ont. Shorthorn & Shropshires. Good selection in young bulls.

G B. O. ARMSTRONG, Bethesda, Ont. Shorthorn cattle, Shropshire and Clydesdale fillies, a few good imported and homebred ones at right prices.

S. J. PEARSON, Meladown, Ont.—12 Shorthorn cattle and Clyde horses.

RICHARD GIBSON, Desjardins, Ont.—Short-horn cattle and Clyde horses, Yorkshires. We guarantee satisfaction on all mail orders.

F. & G. PARKIN, Oxford Centre, Ont. Berkshire Swine, Barred Rock Poultry. Prices right.

Crops in Prescott Co.

Mr. Stewart C. Allan, Prescott County, Ont., in renewing his subscription for two years, says: The hay crop here was very light, only about one-third of a crop. The grain crop was saved in good condition, and is a good crop. Roots and potatoes are about half a crop, on account of the continued dry weather. Cattle are in fine condition and are milking well.

Farmers' Institute Convention

Representative of the various farmers institutes of the province will meet in convention on September 5 and 6 at the Ontario Department of Agriculture tent during Toronto Exhibition. Hon. Nelson Monteith, Minister of Agriculture, will preside. Among the subjects to be discussed are: Reports of the year's work, etc., farmers' institute clubs; special lines of agriculture for various sections; the need of prohibiting meetings, expenditure of surplus funds, legislation for the protection of sheep, seed fairs, farm help problem, and what can be done to stem the tide of emigration to the western provinces.

Sessions will be held at 2 p.m. Wednesday and at a.m. and 2 p.m. on Thursday.

Demonstration in Boxing Apples

The fruit division of the Department of Agriculture, Ottawa, has arranged a series of demonstrations in boxing apples, to be given by an expert at the following places: August 22nd, St. Catharines; 24th and 25th, Chatham; 27th and 28th, Forest; 29th, Grimsby; 30th, Winona; 31st, Burlington; September 1, Oakville; 3rd and 4th, Toronto; 6th, Walkerton; 7th, Owen Sound; 8th Thornbury; 10th Orillia; 11th, Brighton; 12th, Newcastle; 13th, Oshawa.

Fall Fairs in Ontario

The dates for fall fairs for the next fortnight are as follows:

Alexandria.....	Sept. 11, 12
Aylmer.....	Sept. 9, 10
Bellefleur.....	Sept. 12, 13
Berwick.....	Sept. 10, 11
Brookville.....	Sept. 12, 13
Carleton Place.....	Sept. 6, 7, 8
Elmvale.....	Sept. 8, 9, 10
Guelph.....	Sept. 11, 12
Harrowsmith.....	Sept. 13, 14
Inverary.....	Sept. 13
London.....	Sept. 13, 14
Madoc.....	Sept. 13, 14
Owen Sound.....	Sept. 13, 14
Perth.....	Sept. 12, 13, 14

The new Clokey binder will be exhibited at the Toronto Exhibition. Be sure you see it if you are interested in this class of machinery.

Market Review and Forecast

The Trend of Markets—Supply and Demand—The Outlook

TORONTO, Aug. 31, 1906.

Business houses are rushed now getting ready for the fall trade, which promises to be large. A feature in the money market just now, more particularly in the United States, is the ease with which call money can be secured, while time loans are hard to negotiate.

WHEAT

Wheat cutting is now in full blast in the West, and while the crop will not yield up to the estimates of a month or two ago, it will be a fair average. Threshing has begun in many centres, and considerable grain has been received at the elevators, and the quality is reported good. The market generally is a little draggy, with prices lower than at last writing. No. 2 white is quoted here at 95½ to 79½c; red, 80 to 79c, and old wheat at 70 to 71c at outside points. At lake ports No. 1 Northern is quoted at 82c.

COARSE GRAINS

The oat market rules fairly steady here at 30½ to 31c for new, and 33½ to 34c for old, at outside points. Peas are quoted at 68 to 70c, shipper's prices. American No. 2 yellow corn is quoted here at 38½ to 39c, Toronto.

HAY AND STRAW

The hay market is a little firmer, and the outlook for better prices brighter. Old hay seems to be scarce here, and there is little, if any, coming to market. This has created a better demand for new hay, which is quoted here at \$9.50 for No. 1 Timothy, and \$8 for No. 2, in car lots on track, Toronto. Receipts are not large. On Toronto farmers' market loose hay, No. 1 Timothy, sells for \$14 to \$15 per ton.

Straw is dull at \$3.50 to \$6 per ton in car lots on track, Toronto.

EGGS AND POULTRY

The egg market is a little on the heavy side, with the quality of the offering not first class. Prices here rule at 16 to 17c in case lots. On the farmers' market here eggs bring 20 to 22c.

On Toronto farmers' market spring chickens, dressed bring 15 to 16c; live, 10 to 12c; old, dressed, 13c; live, 9 to 10c; turkeys, dressed, 14c; live, 10 to 12c; ducks, young, 14c, and old, 10c per lb.

FRUIT

Receipts at Toronto have ruled heavy. The good quality of peaches are now arriving and prices are better. Peaches, yellow, are quoted at 50c to \$1; white, 30 to 50c; pears, 30 to 60c; plums, 50 to 75c; grapes, 20 to 25c, and apples, 15 to 25c per basket.

SEEDS

Business in clover, especially Alsike, is moving a little. Reports indicate a good crop, both in Canada and the United States. No interest is being shown by foreign buyers, and dealers are looking for prices to go lower. Quotations here rule as follows: No. 1 alsike, \$6.50 to \$6.75; No. 2, \$5.10 to \$5.40; No. 3, having slight sprinkling of white clover, \$4.65 to \$4.75; alsike samples containing trefoil and Timothy seed, from 3 to 6c per lb; samples badly mixed with weed seed at a larger discount. There is no red clover offering.

DAIRY PRODUCTS

The cheese market continues firm in tone under a good demand. At Montreal quotations are 12½ to 13c for finest Westerns, and 12½ to 12¼c for Easterns. At local markets this week sales at 12½ to 12 11-16c are reported.

Butter prices are improving. Quotations here are: Creamery prints, 23 to 25c; solids, 22 to 23c; dairy pails, 18 to 20c, and dairy tubs, 18 to 20c per lb.

LIVE STOCK

Receipts at the city market rule fair. The quality of the fat cattle offering, with the exception of a few lots, is not good. There are too many half-fat, heavy steers being offered on the fat cattle market. Prime fat cattle are in good demand, but the common to medium lots are slow and draggy. The highest price of the week is \$5 per cwt. for a load of prime shippers'. The bulk of the cattle sales on Tuesday last were at \$3.25 to \$3.80 per cwt. Few exporters are offering and few are wanted. Prices are reported all the way from \$4 to \$4.75, though more sold for export at \$4.25 than at any other figure, with the exception of a few choice lots that sold at from \$4.25 to \$4.50 per cwt, the bulk selling under \$4. The trade in stockers and feeders is dead, at least, there are few coming and less wanted. A few choice quality steers, 900 to 1,000 lbs, each, were sold at \$3.40 to \$3.60 per cwt. Stockers range all the way from \$2.25 to \$3.25 per cwt. There has been a fairly

good demand for milkers and springers, quotations running all the way from \$40 to \$60, with one choice cow reported sold at \$70. Veal calves are not too plentiful, and the market has ruled strong at \$6 to \$6.50 for good vealers, and \$7 per cwt. for prime.

The sheep and lamb market is as strong as ever, and prime quality ewe and wether lambs are selling at \$7. There are a lot of poor lambs offering, which bring from \$6 to \$6.50 per cwt. Many farmers are waiting for feeder lambs.

Hogs—Receipts rule light, and though packers seem to be attempting to get prices down to suit the fall market, selects rule steady at \$6.65, and lights and fats at \$6.40 per cwt. At country points dealers are paying from \$6.25 to \$6.40 per cwt.

HORSES

The horse market here is active, though there are not enough offering to supply the demand, especially anything of a heavy nature. In carriage horses the trade is a little slack, though it is likely to improve in a week or two.

The death of Lord Rothschild's Shire mare, Blythwood Guilder Rose, at the Exhibition grounds on Tuesday last, will prove a serious loss to the Shire horse contingent. She was a noted prize winner in England, and came from the best Shire stock in the old land.

A Gentle Hint—"Steward," inquired a miserly passenger, "what causes this ship to tip so much?" "Couldn't say, sir," responded the steward dryly, "unless she is setting an example to some of the passengers!"



I SAW IT IN THE FARMING WORLD!

One of the assets of a publishing business such as **THE FARMING WORLD** is the good-will of its advertising patrons. This can be obtained only by a showing of results—returns in the way of enquiries and orders, directly traceable to the paper. But it is this thing of property tracing results and giving proper credit for them that is the stickler. It is hard to key advertising so that each paper will get just the credit that is coming to it, and so some of them sometimes suffer and others get undue credit.

In the case of **THE FARMING WORLD** this matter of tracing results would be simply solved if every reader on writing to an advertiser would simply add the line, "I saw it in **THE FARMING WORLD**." It will help us, help the advertiser, help you, and take but little additional time.

Please Do It, Just To Oblige Us

Balance of this Year **60c.**
And all of 1907 for

[[Now is the time to subscribe for the]]

FARMING WORLD

Canada's Favorite Stock and Farm Paper



If you are not now a reader of the FARMING WORLD, do not fail to take advantage of this special offer. You will be pleased with every issue which you receive. Twice a month it will reach you, and you and all the family will find it interesting from cover to cover.



Here is a Little Better Offer

If you will send us another new subscription along with your own we will send the two papers for one year from Jan. 1, 1907, for \$1.00, and will mail the PAPER FREE to both subscribers for the balance of this year.

Persons subscribing now will receive a copy of this Exhibition number.

Write to us for a FREE sample copy to show your friends or send us their names and addresses and we will mail copies to them.

Agents Wanted

We desire to arrange with capable and responsible persons to represent the FARMING WORLD at the Fall Fairs and through the country in general. Write for our proposition—it will interest you.

Remainder of the Year Free To New Subscribers

CUT THIS OUT

THE FARMING WORLD,
90 Wellington Street West, Toronto.

Dear Sirs—Please send the FARMING WORLD regularly from the present date to 1st January 1908, for which I enclose 60 cents.
1909, for which I enclose \$1.00.

Name.....

P. O..... Prov.....

THE FARMERS' EXCHANGE

One Cent a Word
CASH WITH ORDER

Advertisements under this head one cent a word. Cash must accompany all orders. No display type or cuts allowed. Each initial and number counts as one word.

REAL ESTATE EXCHANGE

FOR EXCHANGE—Southern Plantation for desirable farm between Kingston and Toronto, suitable for summer home. Property on lake, bay or river preferred. Address FRED. J. B. GRANGE, 1105 East Duval St., Jackson vils., Florida.

FARMS FOR SALE

WE HAVE SOLD the 118 acre farm which we advertised in the last issue and now propose to sell a fine 200 acre farm at the thriving village of Burford, to close our estate and soil, very complete set of buildings. For full particulars write to or call upon S. G. READ & SON, Brokers, Brantford, Ont.

WANTED—Information regarding good farm for sale with good title, somewhere near Toronto. Give price and description and character of soil. Also state when possession can be had. Owners only need answer. State how far from town, and mention improvements. Address: W. C. CUNNINGHAM, Andrus Bldg., Wellington, Minn.

NURSERY STOCK

WANTED—Men possessing character and fair ability to sell to farmers and townsmen, pay weekly. By applying to address below, such persons will be offered an opening in a reliable company. We are not in the Book, Tea or Medicine business. I. J. NICHOLSON, 49 Wellington St., East, Toronto, Ont.

HELP WANTED

WANTED—A competent manager for my dairy farm; married man preferred. Address, DR. MANCHESTER, Port Hammond, B. C.

WANTED—Reliable agents to sell Fruit Trees, etc., during fall and winter months. Terms the best in the business. Established over thirty years. PELHAM NURSERY CO., Toronto.

The Cheese Outlook

The Canadian Grocer, in a recent issue, says: We find only one year or season nearly equal to our present condition in the cheese trade. This was the year 1879, when July cheese sold above 12c. in the middle of August. Up to the middle of August of that year the demand was so keen that the goods sold in Great Britain as quickly as they were landed, when all at once the demand dropped off. August cheese then sold at less than July's, and when no improvement in the demand came on, September cheese sold at lower prices even than August, and in the spring of 1888 many thousands of boxes of cheese were sold at ruinous prices. So far we have nothing but, but, as arguments, we have had the canned meat scare, and a long spell of drought, which has seriously affected the production of milk; against all this we have only one bear argument, which is the high prices ruling, and high prices are always a "danger signal," even in cases of famine. So far we cannot say that there are any positive signs of a famine, but as long as the British markets will take our goods at current prices we cannot expect a decline.

As the weather gets cooler the milk becomes richer, and it takes less milk to produce a pound of cheese than it does during hot weather, and we may look for a fairly full make of fall cheese, say August, September and October. Then, if prices are kept high, farmers may insist on making cheese during the winter months, which would naturally be of inferior quality, selling at lower prices and affecting the value of full grass goods, meaning possibly a lower level of prices next spring.