

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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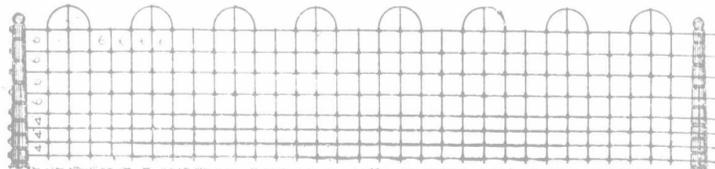
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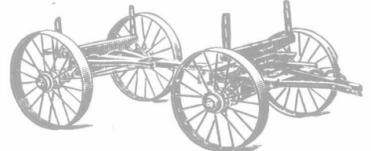
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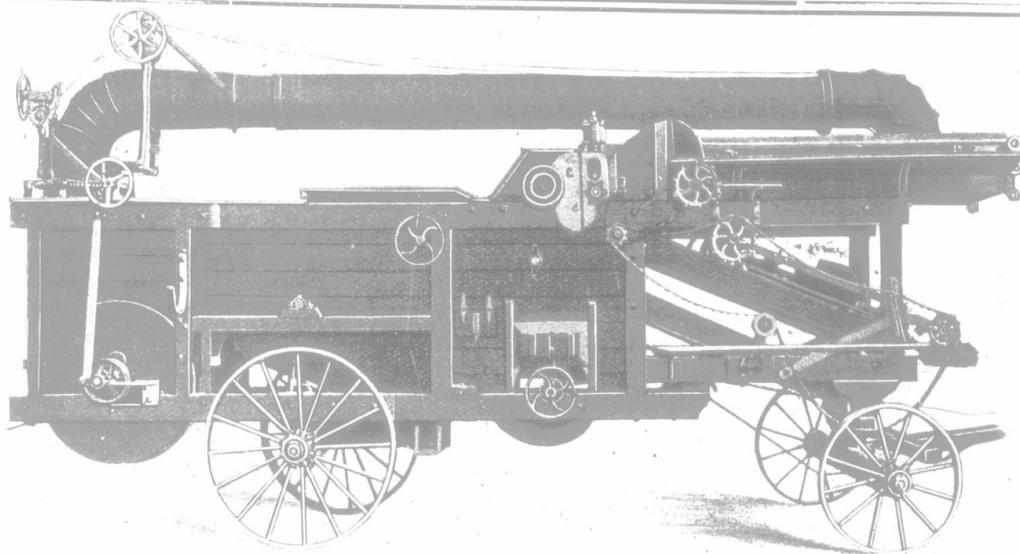
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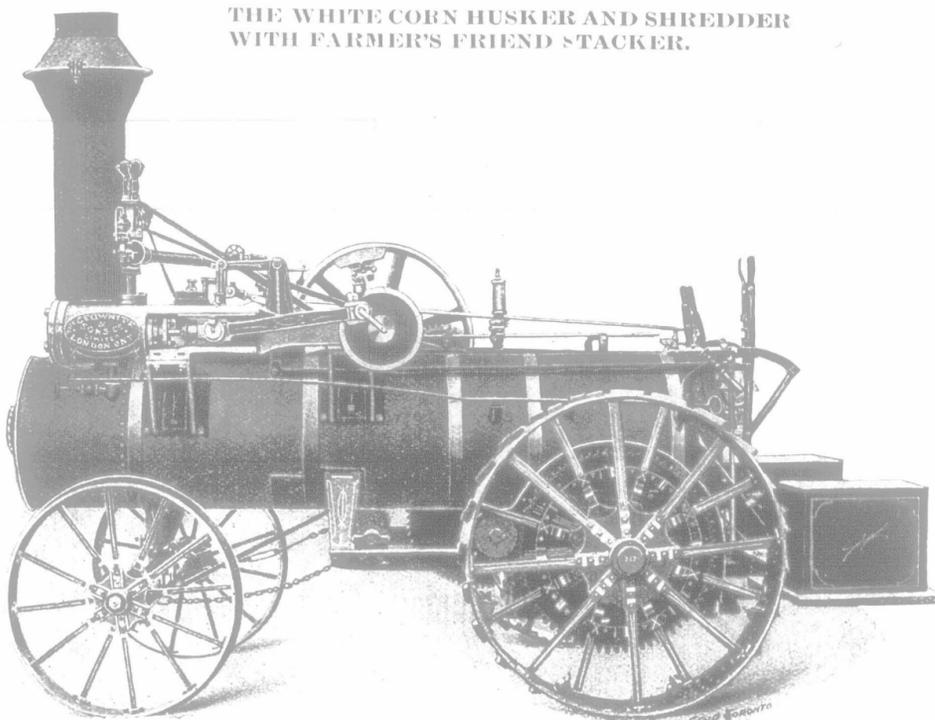
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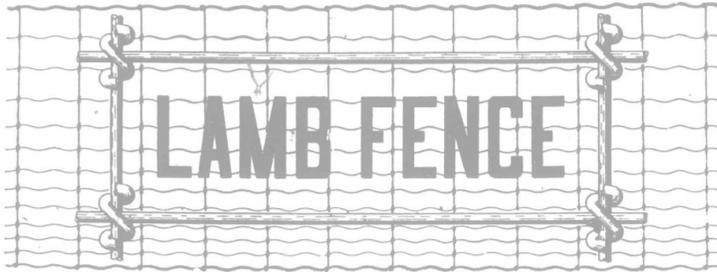
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By referring any advertisement on this page kindly mention the FARMER'S ADVOCATE.

WESTERN FAIR

LONDON, SEPT. 11 TO 19, 1903.

Entries will positively close on Sept. 10th.

A big entry list is assured; send yours in.

This, the 36th year, will be a record-breaker

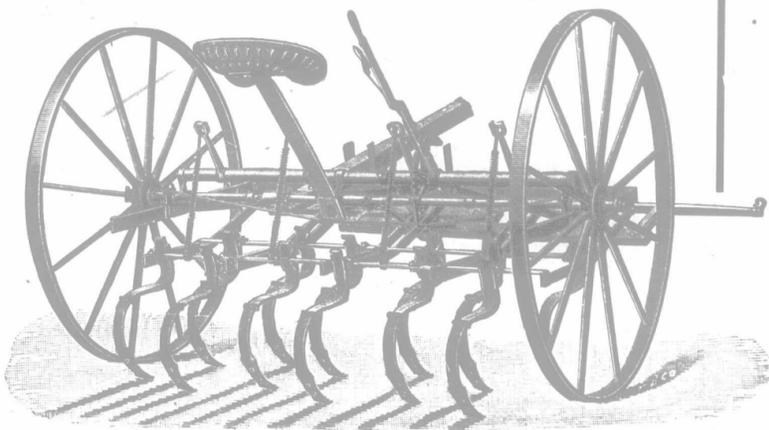
The following is a partial list of attractions: The marvellous Gilmore Family, aerialists supreme; Seymour & Dupre, funny acrobats; balloon ascension, a parachute drop from a parachute; Humes & Lewis, gymnasts; Buckner, world's champion cyclist; Orville & Frank, equilibrists; "La Perche Equipoise;" Ryder's Monkeys; the great Athos Troupe, 6 dandies; Pantzer Trio, contortionists; fireworks setting, "Bombardment of Alexandria," 5 evenings; great speed events.

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\$6.00 Lands: 160 acres, or one-quarter section, of \$6.00 lands may be bought for settlement with a cash payment of \$143.80 and nine equal annual installments of \$120.00 each, which include interest at 6 per cent. Purchasers who do not undertake to go into residence on the land within one year from date of purchase are required to pay one-sixth of the purchase money down, and the balance in five equal annual installments, with interest at the rate of six per cent. per annum.

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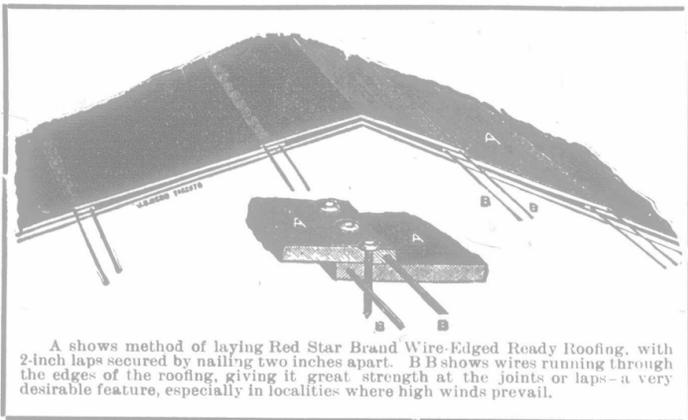
F. T. GRIFFIN,

LAND COMMISSIONER,
WINNIPEG.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE

PATERSON'S RED STAR BRAND

Patent Wire-Edged Ready Roofing and Heavy-Tarred Felt Paper.



A shows method of laying Red Star Brand Wire-Edged Ready Roofing, with 2-inch laps secured by nailing two inches apart. B B shows wires running through the edges of the roofing, giving it great strength at the joints or laps—a very desirable feature, especially in localities where high winds prevail.



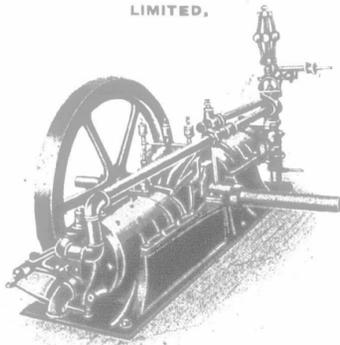
LEAKY SHINGLE ROOFS May be made WATER-TIGHT and DURABLE, without removing the shingles, by covering the roof with Red Star Brand Ready Roofing, as shown in above cut.

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You've got some old or new roofs to cover, haven't you? You're not satisfied with shingles, but think there is no reasonable-priced substitute for them. You may be afraid to leave the old rut by trying a roofing material with which you are not familiar. In any case, permit us to say our WIRE-EDGED READY ROOFING is not an experiment, as we have been selling it in Canada for 20 years. Our annual sales now amount to over 100,000 rolls. When we tell you this roofing is superior to shingles in every respect, we know what we are talking about, and mean what we say. Our roofing costs less than shingles, and is more quickly and easily put on. Nearly all hardware merchants sell our WIRE-EDGED READY ROOFING and BUILDING PAPERS. Samples and further information from

The PATERSON MANUFACTURING COMPANY, Limited., TORONTO, MONTREAL, ST. JOHN, HALIFAX.

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Our threshing engine, friction pulley and fly wheel removed. Write for prices, etc.

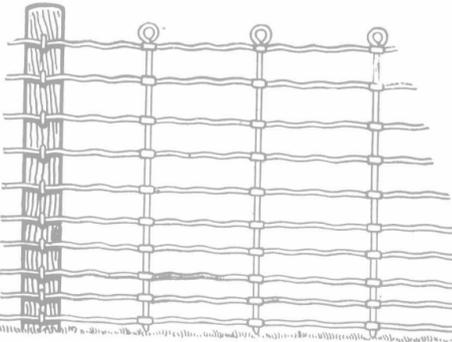
McLachlan Gasoline Engine Co., Ltd.
201 QUEEN STREET, EAST,
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BRITISH COLUMBIA.
"Fruitland," Kamloops, B. C.
Newly-developed irrigated lands in the beautiful fertile valley of the Thompson River, on the main line of the C. P. R., within half a mile of the City of Kamloops, the island capital of British Columbia, and a well-known health resort. Magnificent soil for fruit of all kinds: Apples, pears, cherries, plums, peaches, grapes, strawberries, and all kinds of vegetables grown in abundance. Perfect climate; air dry and bracing. Good schools, churches, boating, shooting, fishing, etc. For full information apply to: **Manager, Canadian Real Properties, Ltd., Box 185, Kamloops, B. C.**

R U P T U R E
If you want the neatest, lightest and best T. W. B. send to
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THE FROST

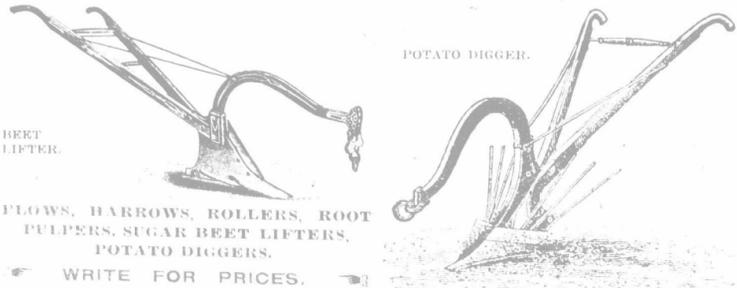
is King
Why?



Because it's made of wire that is heavy enough and hard enough to withstand the usage to which a fence is ordinarily put. No Soft Wire used.

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Rest for Mother Pleasure for the Children The New Century Washer

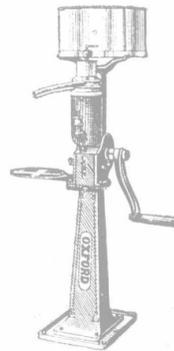


affords the children an opportunity of rendering effective help, and at the same time delight themselves. Ball Bearings and strong spiral springs reduce to a minimum all the work usually necessary. Five to six minutes does a tubful.

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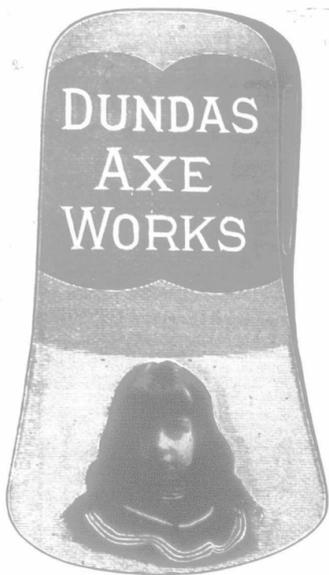
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skims cleaner, is easier to wash, better constructed, turns earlier, and is handsomer in appearance than any other cream separator built in Canada, or elsewhere. Don't buy any other until you have seen it. It is the best and cheapest in the world. Manufactured by

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\$3 a Day Sure
Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully, remember we guarantee a clear profit of \$3 a day every day's work, absolutely sure, write at once **IMPERIAL SILVERWARE CO., Box 606, WINDSOR, ONT.**



"MY FACE IS MY FORTUNE."

It would steal into the hardest heart. If you cannot get "DUNDAS AXE" from local stores send us one dollar and we will send you an axe, express prepaid, to any part of Ontario.

The Dundas Axe Works
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The Berlin X-Ray and Electro-Therapeutic Laboratory.
X-RAYS—Electricity in all its varied forms and high frequency currents used successfully in the treatment of cancer, fibroids, goitre, sciatica, asthma, chronic rheumatism, all forms of nervous ailments, rectal diseases, rupture, varicocele, tubercular glands and joints, paralysis (some forms), facial blemishes, superfluous hair, etc., catarrh of the nose and throat, and other chronic ailments. For further information address,
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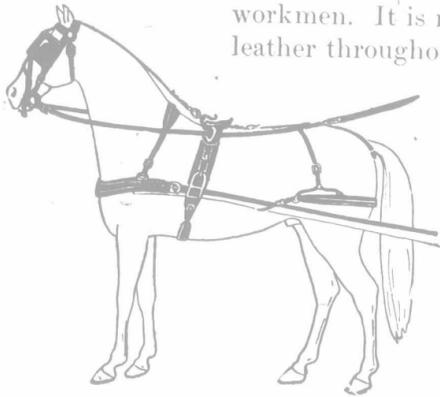
London Printing & Litho. Company, Ltd.,
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EATON'S CANADA'S GREATEST STORE TORONTO

This Buggy Harness \$9.95

NOT EQUALLED IN CANADA, FOR

This special set is one of the many styles we carry. It is our own make, the product of expert and reliable workmen. It is made of first quality leather throughout.



Bridle— $\frac{5}{8}$ inch boxed loop checks, neat leather blinkers, over-check, chain front and rosettes.
Lines— $\frac{7}{8}$ x 1-inch all black.
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This \$12.50 Harness for \$9.95

Mail Orders filled promptly. Money refunded if Harness is not perfectly satisfactory. When in Toronto be sure to visit our Harness Department.

Have you sent us your name for a Fall and Winter Catalogue? If not, do so at once.

THE T. EATON CO. LIMITED
TORONTO, ONTARIO

Reading and Its Results.

Reading induces thinking, and the reading man's mind is much broader than the mind of the man who does not read. Still there are many men, especially among farmers, who read and read and yet never apply what they read. In order to reap the full advantage of reading, it is necessary to carry the knowledge gained by reading into practical, every-day life.

For instance, you read the following report on feeding calves and poultry, and you have a point to start from:

"We tested Herbageum thoroughly on poultry and got remarkably good results. We also fed it with skim milk to calves, and they did better on that feed than we ever had calves do on new milk. It prevents all scouring."

"Oakville, Ont. BELYEA BROS."

It will benefit you, personally, to a far greater extent than it will the manufacturers of Herbageum, or anyone else, if you test the statement of Belyea Bros. by an actual experiment along the same line. If Belyea Bros.' testimony is true, you will receive direct benefit in dollars and cents by using Herbageum, and in any case you will have asserted your individuality, and will have by your own effort arrived at the truth.

WANTED ON FARM

A young married man with small family, who is holding a responsible position as farmer in England, is desirous of securing a similar position in Ontario. The undersigned will be glad to place him in correspondence with any responsible farmer requiring the services of such a man. He is expected to arrive here about the first of September.

THOMAS SOUTHWORTH,
Parliament Buildings, TORONTO.

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ARE THE BEST
Walkerville Wagon Co. LIMITED
WALKERVILLE, ONT.
WRITE FOR CATALOGS.

In order that the Farmers of Canada may have an opportunity of learning of some of the improvements being made in Farm Machinery

THE FARMERS' CO-OPERATIVE HARVESTING MACHINE CO.

will exhibit their CLOKEY BINDER at this year's Toronto Industrial Exhibition, in the Implement Hall, thus, as far as in their power, making up to the farmers for their having been deprived by manufacturers from comparing exhibits of Farm Machinery during the past few years at the Industrial. Every farmer is invited to inspect our machinery and learn the aim and objects of this great farmers' company.

FARMERS' CO-OPERATIVE HARVESTING MACHINE CO

HEAD OFFICE: TEMPLE BUILDING, TORONTO.

LIMITED.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED SEMI-MONTHLY BY
THE WILLIAM WELD COMPANY (LIMITED).

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JOHN WELD, MANAGER.

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Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

"Coming Back to Canada."

There's a bustle on the border, there's a shuffling
of feet,
Where the greatest of Republics and the big
Dominion meet;
For the sons of the Dominion, who have wandered
far away,
Are coming back to Canada to-day.

True, their children sang America and Hands
Across the Sea,
And they themselves have learned to love the
Land of Liberty;
But it's feet across the border now, with toes
the other way,
They are coming back to Canada to-day.

Yes, they're coming back to Canada, although
there's nothing wrong
With the land of their adoption, but they've been
away so long;
And some of them have soldiered there, and some
of them are gray,
But they're coming back to Canada to-day.

—Warman, in the filler.

Back to the Farm.

Every farmer boy wants to be a school teacher, every school teacher hopes to be an editor, every editor would like to be a banker, every banker would like to be a tract magnate, and every tract magnate hopes some day to own a farm and have chickens and cows and pigs and horses to look after. We end where we begin, in the farm house (Kan.) Index.

The best thing to be done through the eye. No paper is so widely published in Canada. It is the only one that carries such a wealth of practical information, such as engravings as the best of the male and female progeny. You enjoy them. So extend its circulation.

Live Stock, the Canadian Farmer's Ally.

The growing of grain principally for sale as a source of revenue has ever been the first thought and effort of Canadian pioneer farmers. With a virgin soil, rich in vegetable matter and needing no manuring, grain-growing presents the readiest means of making a living, and of paying for the land, and to this system of farming in the early years of settlement must largely be credited the success of the colonists in providing comfortable homes for their families, and, in many instances, laying the foundation for a competence. But even in those early days the cow and other live stock, to a greater or less extent, followed closely on the heels of the plow, and soon played a considerable part in bringing in money to supplement the returns from the grain bin, and in a few years from the start was recognized as an essential ally to agriculture in consuming much of the rough products of the farm and turning them into salable products such as beef and butter, pork, mutton and wool. As the land became older, and the original supply of vegetable matter in it became exhausted, the necessity of a rotation of crops, in which grass must have a prominent place, became apparent, and live stock to consume the grass and hay, and make manure for fertilizing the land, was gradually increased until a system of mixed-farming took the place of exclusive grain-growing, and was generally recognized as being the best for the double purpose of growing profitable crops and maintaining the fertility of the soil. The same process is being repeated in the new Northwest Provinces now being rapidly brought under cultivation, and although their agricultural history is yet young, live stock is already taking a considerable place in working out a successful experience and record for an ever-increasing number of the courageous, industrious and enterprising settlers who have undertaken to develop the resources of this grand inheritance of the Empire, of which it forms a part. And more and more as the years go by will live stock be regarded as not only necessary and indispensable to the maintenance of the crop-producing capabilities of the land, but recognized as the right arm of successful farming. Already in most sections of the older provinces the cow and the sow, and animals of other classes, have usurped the principal place in the revenue of the farm, their produce having been found to be the surest crop, and one which, at the same time, yields the best returns of grain and grass or other varieties of crops. And it is only a question of time when in the newer districts the same methods will be adopted and the same experience repeated.

A glance at the figures in the official reports of farm products from Canada readily serves to dispel the delusion entertained by many that the production of wheat is the principal source of the wealth of the country. The value of our exports of live stock and live-stock products in 1902 was \$59,161,209, while the value of our export of wheat in the same year was \$18,688,092, and the value of our exports of all classes of grains and their products, including flour, bran and meal, was \$28,088,081, or little less than one-half what we received from live stock sold to leave the country. When we reflect that every bushel of grain sold from the farm carries off with it a portion of the fertility of the soil, while every animal fed on the farm adds to the fertility of the land and to its ability to grow larger crops, the comparison of the two systems is startling, and should effectually settle any doubts that may exist, and dispel all doubt upon the subject. The difference is so great with the large proportion of improved and inferior stock in the country, that the greater might it become in a few years. In nearly all, our farm stock well bred and improved, with a view to yielding the largest amount of the products for which they are raised.

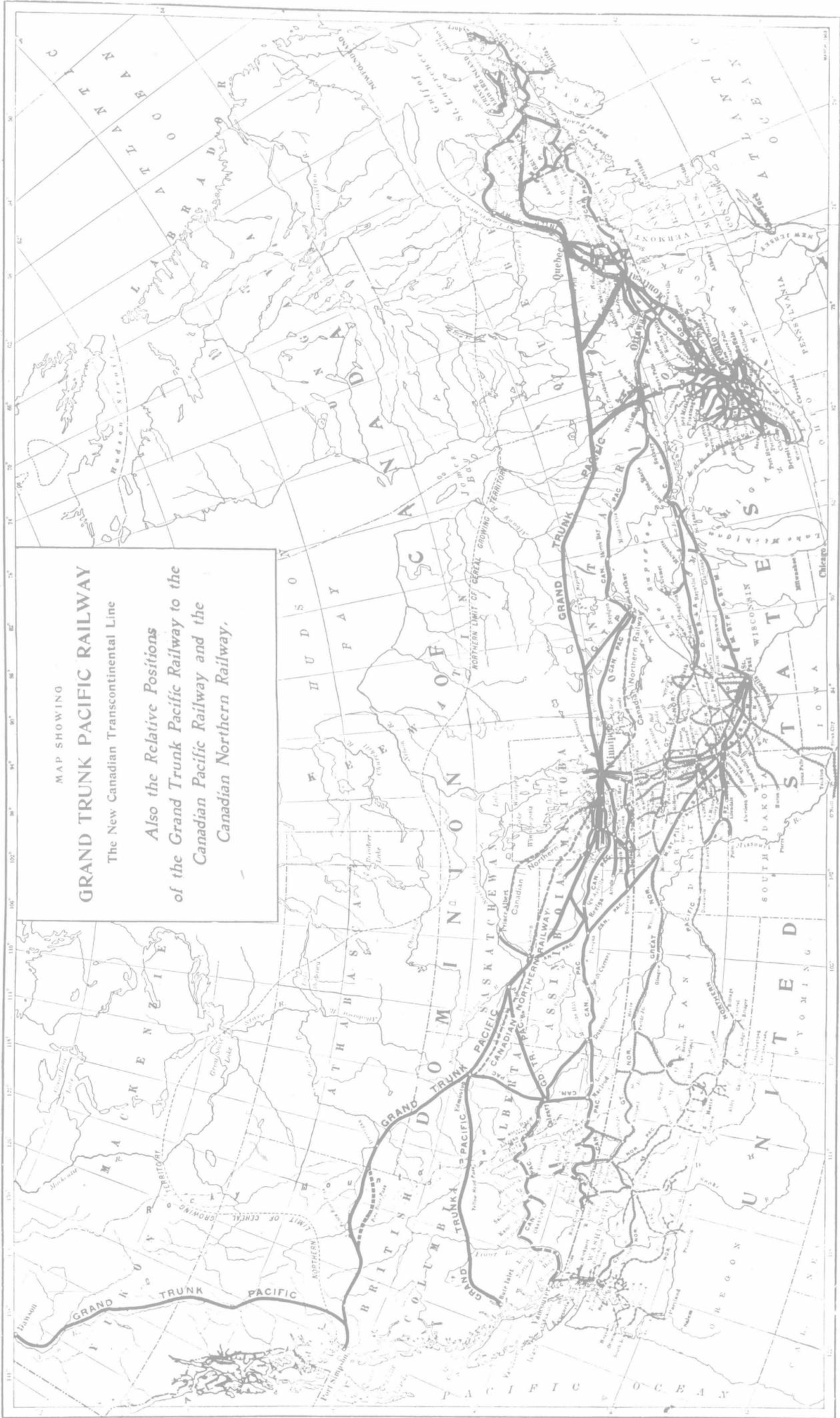
It is not possible to conclude that their value was increased by at least one-fourth, and that a very large percentage of the farmers are going into the business of breeding and raising stock, but by all availing themselves of the best pure-bred males of the best breeds, and the best of the female progeny, they will improve. This improvement is

easily within the reach of the majority of Canadian farmers without any heavy outlay, the services of pure-bred sires being available at a moderate fee, or the purchase of useful male animals possible at prices which men of moderate means can afford to pay, as in the majority of cases the animal may be sold for nearly, if not quite, the original cost at the end of his term of service.

Fall Plowing: Why and How.

The harvest being over, the problem of plowing as a preparation for next year's seeding presents itself, and the questions, "Why plow in the fall, and how should we plow?" call for consideration. The advantages to the following crop, of fall plowing in the case of heavy clay soil, are obvious, the beneficial effect of the winter's frost in mellowing the land and rendering it easy to work in the preparation of the seed-bed in spring-time being indisputable. Moisture is also more readily retained in fall-plowed land should the weather in spring be dry. In the case of light or sandy soils the advantages in these respects may not be so apparent, but we are of the opinion that even in these moisture will be found to be better conserved in lands plowed in the fall than in the case of spring plowing. Many advanced farmers advocate and practice plowing twice in the fall, once immediately after harvest, a shallow plowing, for the purpose mainly of germinating weed seeds to be destroyed by the later plowing, and of preventing growing weeds from maturing. This is doubtless a good practice, especially where such conditions exist, as also in the case of clover sod plowed early and cultivated on the surface to hasten decomposition of the sod, with a view to plowing it later as a preparation for certain crops the following spring. But where land is tolerably clear of noxious weeds, as is generally the case where good farming is practiced, two plowings in the fall are not considered necessary, and it is doubtful whether the advantages from such course are sufficient to pay for the outlay of labor required. The necessity for early fall plowing is greatly lessened where a flock of sheep is kept, as they are excellent scavengers, eating many varieties of weeds and thriving upon them.

As to how plowing should be done, it depends much upon the composition of the soil. Light land may, with fair results, be turned over flat in comparatively wide furrows, as in summer plowing, but clay land needs to be turned in narrower furrows, well set up, leaving more surface exposed to the influence of frost, and preventing the running together and packing of the soil by heavy rains, leaving it sodden and difficult to work in spring. Deep plowing is no longer considered advantageous, as a rule, about six inches being the approved depth. If for any reason it is thought desirable to go deeper, it is not wise to increase the depth by more than an inch at any one plowing. We have known fields to be damaged for years by turning up an undue depth of cold clay, having a tendency to bake and to impoverish rather than improve the character of the land. The question of ridging the land depends largely upon the quality of the soil. In light or loamy land having good natural drainage, it is not generally considered necessary, while on heavy clay soil, unless it is thoroughly underdrained, it is usually necessary to ridge in order to set the land up for throwing off the excess of water, and to prevent the heaving of clover or winter wheat from alternate freezing and thawing. In the case of land cultivated in the fall, with a view to using it for roots or corn the following spring, it is good practice to throw it up in narrow ridges of two furrows together, which facilitates early spring cultivation, keeping the land dry and mellow and in the best condition for working to a fine tilth. In any case, surface water furrows having a good free outlet should be run through all low or slack places in the fields for the purpose of carrying off surplus water and rendering the land fit for cultivation early in the spring, since experience has plainly taught that, as a rule, the early sown grain crops thrive and yield decidedly the best.



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Death of Senator Cochrane.

AN APPRECIATION.

The decease of Hon. Senator Matthew Henry Cochrane, at his home at Hillhurst, Quebec, on August 12th, at the advanced age of 80 years, as announced in our last issue, removes a prominent figure from the ranks of Canadian stock-breeders. Born on the farm on which he died, his early manhood was devoted to commercial enterprises, which, though begun in a humble way, by industry and good business habits proved exceedingly profitable, securing him, while yet in the prime of life, a competence. At the age of 45 his ambition to own the home-farm was gratified, and his natural love of country life and of high-class animals was indulged to the full on the Hillhurst estate of 650 acres in Compton County, one of the most picturesque portions of rural Canada. Here, in a surprisingly short time, by the masterful energy and enterprise of the owner, a herd of Shorthorn cattle was established, the fame of which became world-wide, making records unequalled in the history of the breed up to that period. It was in 1867 that Mr. Cochrane began his memorable series of importations. The initial shipment consisted of two of the greatest show-yard celebrities known to American Shorthorn history, namely, Baron Booth of Lancaster and the cow Rosedale, which proved the sensation of their time, and were practically invincible. Noting the rising popularity and prices of the Duchess tribes, in 1868 Mr. Cochrane, a young breeder in a young country, made a record by paying 1,000 guineas, or \$5,000, for Duchess 97th, purchased from Col. Gunter, of Wetherby Grange, Yorkshire, the highest price up to that date ever paid for a cow or heifer of any breed, and the highest price ever paid by a single individual for a Shorthorn. And the sequel showed that the transaction was not a deed of reckless daring, but a well-considered business venture, as the first calf of Duchess 97th, Duke of Hillhurst, was sold as a yearling to Col. Kingscote, an English breeder, for 800 guineas. In 1871 the two heifers, Duchesses of Hillhurst 1st and 2nd, were sold to Lord Dunmore for 2,500 guineas, the price paid for their dams, imported to Hillhurst the previous year. In 1872, Third Duke of Hillhurst was sold for \$5,000, and in the following year ten head were sold to one English nobleman for \$50,000. About this time, having imported some high-class cattle of Booth breeding, which were admired for their individual merit, and finding that America was not taking kindly to them, owing partly to their light colors, he began turning them back upon the English market, and in 1875 sold to Mr. A. Browne, of Northumberland, five Booth heifers at a reputed price of \$17,500. During that same year he exported Royal Commander (29857), and sold him at auction for 1,150 guineas to Mr. Hugh Aylmer, of Aylesby. In 1877 he sold at auction at Windermere, in Cumberland, thirty-two head, principally Booth cattle, and two Duchesses, tactfully bringing together the devotees of the two great rival families, Booth and Bates, where a battle-royal was fought for supremacy of prices, the Duchess of Hillhurst selling for 4,300 guineas to Earl Beattie, the highest price ever

paid for a cow in Great Britain, and the yearling 3rd Duchess of Hillhurst to Mr. R. Loder for 4,100 guineas, or a little over \$44,000 for the pair, the average for the 32 head sold figuring out at \$2,550 each. At a public sale in Toronto in 1875, Mr. Cochrane sold the cow Airdrie Duchess 5th for \$18,000, and the three months bull calf, 5th Duke of Hillhurst, for \$8,300; and at a sale in Toronto in 1876, he sold Airdrie Duchess 2nd for \$21,000, and Airdrie Duchess 3rd for \$23,600, to Albert Crane, of Kansas. From Airdrie Duchess 10th and her five daughters, for which he paid Mr. Geo. Murray, of Wisconsin,



HON. M. H. COCHRANE.

Born November 11th, 1823. Died August 12th, 1903.

\$30,000, Mr. Cochrane sold in six years \$180,000 worth, and two of the family had died in the meantime. Mr. Cochrane was one of the few breeders who figured in the speculations of that perilous period of boom prices and safely survived it. While many staked their all and lost, his good judgment and prescience led him to unload in time to escape the crash that followed, as it must inevitably follow as a sequel to inordinate inflation of prices. But the indomitable spirit of the man, and his innate love for good stock, led him in the eighties to make extensive importations, and to establish high-class herds of Herefords and Aberdeen-Angus cattle at Hillhurst, which for several years were brought out at the leading Canadian shows in the pink of condition, sweeping the prize-lists and selling for good prices, several auction sales showing averages of \$400 to \$700. The Hereford bull Cassio, imported and exhibited by Mr. Cochrane, is generally acknowledged to have been the most perfect beef bull of any breed ever shown in Canada. The remainder of these cattle were subsequently transferred to the Cochrane ranch in Southern

Alberta, which has also proven a very profitable venture. In the nineties Hackney horses and Shropshire sheep, and later a flock of Hampshire Down, were imported, and to meet the improved demand and prices for Shorthorns in the last years of the old century, a new herd of these was built up upon importations from Scotland and England, high-class sires being selected from leading herds. The aged Senator's health having failed in the last few years, and having been deprived of his sight, he sought to close up his business affairs, and on the day before his death a dispersion sale of the herd was held at Hamilton, Ontario, under the supervision of his son, Mr. James A. Cochrane, at which 57 head were sold, without special preparation, for an average of \$307. The older generation of breeders will remember Mr. Cochrane as the genial, generous, kindly man he was, and his native country has profited more than can ever be estimated by his enterprising spirit and labors in disseminating high-class stock, the influence and inspiration of which will live long past the limit of his life.

The Alternative Railway Proposition.

Hon. R. L. Borden, leader of the Opposition in the Canadian Parliament, in a carefully-prepared and well delivered speech on August 18th, proposed an alternative policy to the Grand Trunk Pacific proposition of the Government. His speech was an argument for the extension of the principle of Government ownership. Following is an outline of Mr. Borden's policy:

"Extend the Intercolonial to Georgian Bay by constructing a line from Montreal to Coteau, where the Grand Trunk and Canada Atlantic intersect, and by acquiring or paralleling the Canada Atlantic from Coteau to Parry Sound.

"Acquire and improve the Canadian Pacific from North Bay to Fort William, operate it by commission, which shall handle all traffic delivered at either end by the Intercolonial, Grand Trunk, Canadian Pacific and Canadian Northern.

"Improve the grades of the Canadian Pacific or Canadian Northern, or both, between Fort William and Winnipeg, the road or roads to grant in return Government control of rates, running rights and haulage powers to the Grand Trunk and Intercolonial.

"To assist the construction of the Grand Trunk, running north of the Canadian Northern, to Edmonton.

"To effect between the Grand Trunk and Canadian Northern an arrangement by which only one line shall be constructed from Edmonton to Port Simpson, in default thereof the Government to build the line.

"To build the proposed line between Quebec and Winnipeg through Northern Ontario and Quebec as a colonization road, and as information and necessity may demand.

"To develop Lake Superior and Georgian Bay ports, the lake waterways, the St. Lawrence route and the ports of Montreal, Quebec and the Maritime Provinces, on the same scale as that of the American equipment."

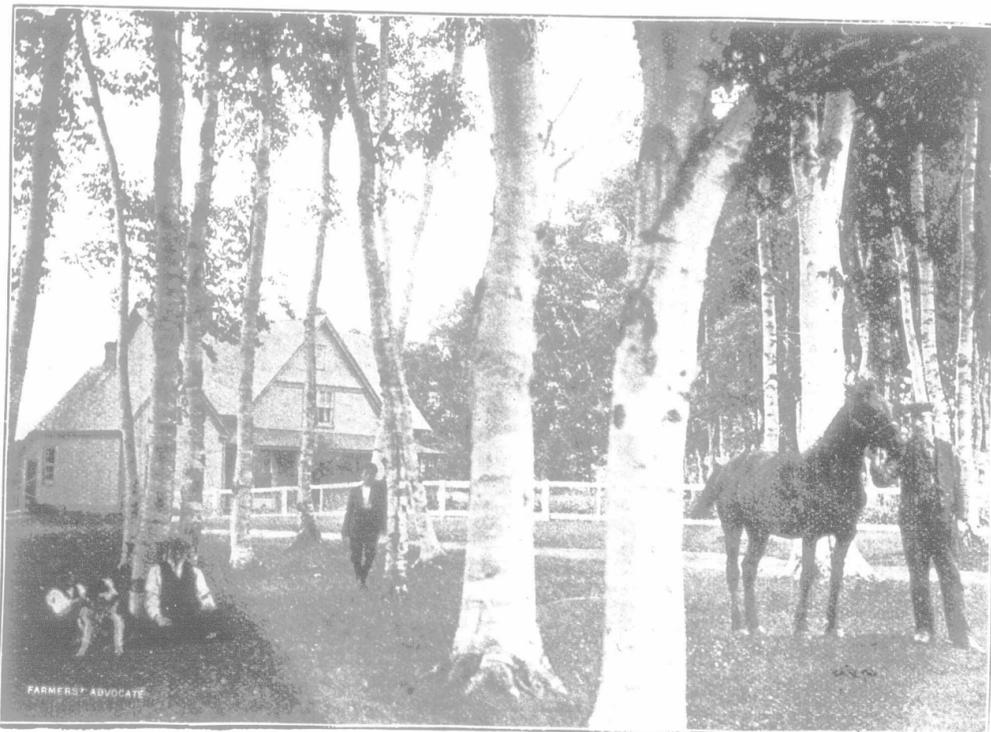
Fall Fair Features.

The exhibition in West Oxford, which will be held at Fryeburgh, Me., will have some of the following interesting educational features:

The entire equipment for a model kitchen and dining-room has been furnished free of cost by enterprising local merchants. Another interesting feature will be the model sick-room, with all necessary equipments and necessary articles for the family medicine chest. Prizes are offered for best exhibits of flowers, insects, etc., by children, and Secretary McKeen intends to offer a handsome photograph to the school children who drive to the grounds in the most nicely gotten-up van or wagon. The children will be required to sing in front of the grand-stand, and all taking part will be admitted to the grounds free.

At a convention of 1,200 farmers in East Tennessee recently, great enthusiasm was aroused over the subject of better rural schools and better roads. What is called the Brownlow Bill was unanimously endorsed. The measure was especially commended as a means of improvement of rural schools. One of the principal reforms throughout the country districts consists in the consolidation of the rural schools so as to do away with the greater number of small, unsatisfactory schools and replace them with centrally-located schools of greater efficiency and affording increased educational advantages to the rural children. One of the drawbacks to the adoption of this system is the lack of better roads.

Kindly send the Farmer's Advocate to my son, _____, who is just beginning to farm for himself. I do not know what I could do better for him just now than give him the Farmer's Advocate for a year." This is a plan that many another reader might follow with advantage.



(Photo by W. S. Louison.) MCGREGOR'S GROVE, MONTAGUE, P. E. ISLAND.

A Glimpse of New Ontario.

BY FRANK LAWSON.

"And so you came up to New Ontario expecting to take up a farm at 50c. an acre, convenient to a town with cheap supplies, and ready to bring your family to settle down and live comfortably."

The young man addressed reddened a little, stammered about something he had read in "the paper," and admitted that from what he was learning on the ground the prospects seemed discouraging.

"The fact is," went on the old settler, "these newspapers down at the front think more about hitting their political opponents and stirring up sensational scandals than they do about giving their readers useful information. These fellows that are writing all about New Ontario know no more about it than you did before you came up."

At this juncture, the boat hands, who had finished emptying their cargo on the Haileybury wharf, signified that they were ready to pull back to the steamer, and the crestfallen tenderfoot and the writer jumped into the rowboat and were soon put aboard the steamer (over Lake Temiscaming, a long, narrow sheet of water) for New Liskeard, where we arrived before dark, and, together with the other passengers, were received at the dock by almost the entire population. The town boasts something over 1,200 citizens, and has sprung up, practically, during the present year.

I felt drawn toward the young prospective settler, whom I had first met at the hotel in Haileybury, because of the bright, ambitious plans he had for making a home in the new country for the wife and young family he had left behind at his father-in-law's down in Western Ontario, and I felt truly sympathetic on account of the discouraging talk of the gruff old settler with whom he had been conversing.

At New Liskeard, we both became acquainted with at least a dozen people before we reached the hotel, and in the course of a week's stay fully half the population of the town had become our personal friends. Whatever may be said of the loneliness and monotony of the life, especially in the farming sections, of a new country, the hospitality and sociability of the comparatively few inhabitants would seem to compensate for the scarcity of friends.

I had gone to Mattawa, via North Bay, on the C. P. R. main line, and my young friend had reached the same point via Carleton Place. From North Bay (a ten-hours ride from Toronto) you may reach New Liskeard between daylight and dark. The new railway will shorten this to one-third or less time. We had both been wonderfully impressed with the grandeur of the Laurentian Mountains and the wild scenery that borders Lake Temiscaming, which presents an appearance in many places similar to the Hudson River. The Montreal River, emptying into this lake a little south of Haileybury, boasts scenery as majestic and beautiful as almost anything in the Rockies.

My new companion, pursuing his quest, soon learned that all the Government land within forty or fifty miles had been taken up, and that, in spite of the statements of some political papers, most of it was being protected by the necessary settlement duties, which consist of paying 50c. per acre, building a house at least 16 x 20 feet, and clearing ten per cent. of the property during the first four years. There appears to be some evasions of these regulations, however, and there are newcomers who have no hesitation in "jumping" claims which other supposed owners are neglecting.

We drove together in different directions from New Liskeard, and were surprised at the good roads which have been made by the Government far back into the forests. The improvement in road-making facilities over the machinery used a generation ago is one of the important advantages of new settlements. The land, we found, for the most part, gives every promise of making good farms. Apart from a couple of limestone ridges in this locality, it is absolutely free from stones, has a clay-loam surface, with under strata of red and white clay, the depth of the loam varying considerably in different sections. The natural grass, the abundant production of fire-weed, raspberry bushes with abundance of fruit, and other products common to slashings, seemed to indicate great fertility. Indeed, the crops themselves, which are already being produced on the small clearings, give more than a promise of the value of the land. Hay, oats, barley and wheat, as well as potatoes and other vegetables, show good crops this year, and small fruits are exceptionally abundant where cultivated. We interviewed one settler who had been raised in Middlesex County, Ontario, had gone out to North Dakota, suffered two years in succession from crop failures, got an opportunity to sell his land there, and came to New Ontario two years ago, and he was loud in his praises of his new surroundings. He claims that there are no summer frosts, that the winters are more steady, but quite as comfortable, owing to the dry atmosphere, as in Western Ontario, and he appears to be well satisfied generally with his surroundings.

The timber in the immediate section of New Liskeard is of rather small size, owing to a fire some years ago having swept the entire district, and, in spite of the fact that we heard of two or three farmers who had done well in selling cedar during the winter, I do not think the average settler could count on getting any more for wood and timber than would pay him for taking it off. There seems to be very little pine on the most desirable land, but spruce, cedar, tamarack, poplar and birch are very abundant. Where pine exists,

outset, and truly not very brilliant prospects for some years to come. But the object of providing their children with a safe and valuable inheritance had become the paramount object of their lives.

The new Government railway is being constructed from North Bay to New Liskeard, a distance of some 90 miles, and this will probably be the terminus for a year or two; though it is the intention to continue the road to the foot of James Bay in the near future, and it will probably intersect the Grand Trunk Pacific some 60 or 80 miles north of New Liskeard. The possibility of the Hudson's Bay being a summer outlet for the transportation of grain to Europe from our vast Northwest makes this a desirable objective point for railways, and the fact that Hudson's and James Bay are known to abound in fish, which are always of the best quality in northern waters, may, with transportation facilities, add greatly to our national wealth. These bays are as great in area as the German Ocean, the annual fishery output from which is forty million dollars.

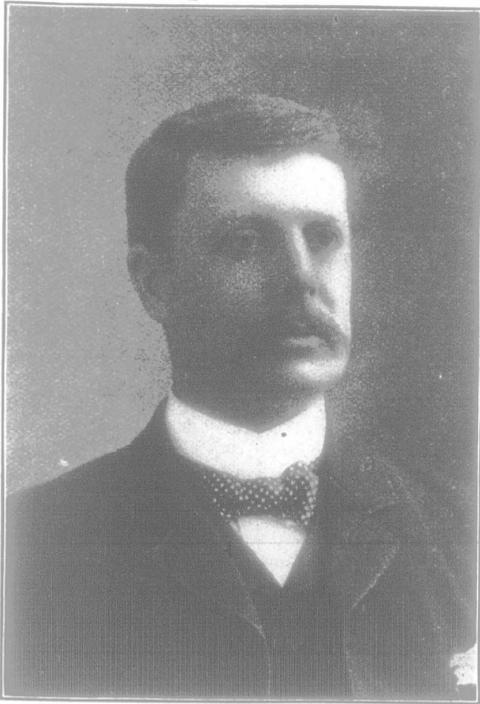
Prospective settlers, expecting to take up Government lands, would do well to write the Commissioner of Crown Lands at Toronto, and, procuring the agent's name in the locality that they are looking towards, find out as to whether townships have been surveyed ahead, so that they know the possibilities of procuring Government lands before leaving home. There is little doubt that all the district of Algoma, Nipissing and the adjoining territory in Quebec Province will be under cultivation before many years. Hon. Mr. Latchford, a member of the Ontario Government, stated, the other day, that there were in New Ontario 16,000,000 acres of agricultural lands south of the latitude of Winnipeg.

The country is booming now, perhaps over much at points, but what will be the situation when the 800 or 900 miles of the new transcontinental railway across it is under construction?

The young companion of my drives about New Liskeard had been very communicative on his way up to that country, but it was remarkable how quiet and serious he became while investigating. He was, indeed, slow to arrive at conclusions, but he was awake bright and early on the day I left, and, as I bade him good-bye on the wharf at five o'clock in the morning, he said:

"It makes me homesick to see you starting for the south again. It's going to be harder than I expected. I may have to leave my family where they are for some time, and I'll have to buckle in and work in the sawmill or on the railway or for some other farmer to get ready cash at times before I can see my way clear with a living-producing homestead of my own, but I am going to face it, and I'll be able to look forward to having something for my children when they grow up."

I have said the young man when discouraged had elicited my sympathy. As he stood there in the strength of his practical and manly resolutions, he became a giant in the command of my respect. I have since thought of many nice things I might have said to him. As it was, I let the steamer-whistle take the place of any words, but my hand tingled long after with the



DR. J. G. RUTHERFORD, V. S.

Chief Veterinary Inspector for Canada. Instrumental in securing the annual meeting of the American Veterinary Medical Association at Ottawa, September 1 to 4, 1903.

the settler can only cut it for his own use in building, except on payment of \$1.25 per thousand feet, Government dues, while clearing. When he has completed his settlement duties and obtained his deed, the pine then passes into his ownership.

The experience of two or three settlers whom we interviewed was that they had become discouraged at first in undertaking to clear their claims, and, abandoning them, had gone back to their old homes; but in each case they had returned to New Ontario quite reconciled to the rough work for comparatively slight returns at the



NEW LISKEARD.

A town on Lake Temiscaming, New Ontario.



STRATHCONA, ALBERTA, WHEAT FIELD.

pressure of the shake I gave him while the gang plank was drawn in, and I had to hastily jump aboard.

The Ideal Modern Exhibition.

The history of exhibitions on this continent and in Europe has shown them to be powerful factors in the education of the people and the development of the country's industrial arts. The beneficial influence which they have exerted in encouraging the production of high-class live stock and agricultural products, and the invention and manufacture of labor-saving machinery, can never be fully estimated. Year by year the leading shows of this country have been gradually improving in attendance, extent of exhibits, and financial receipts. While this has been true, some, however, have retrograded to some extent in general quality of exhibits and in influence for good, by pandering to a certain class who revel only in exciting attractions and circus performances. A policy that caters very largely to the sentimental element in humanity may be successful for a time, but inevitably it must come to ruin. As an example, the Pan-American emphasized attractions, fireworks and the midway, and was a failure, while Glasgow emphasized the industrial arts and was a success.

What Canada needs at the present time is real industrial exhibitions; shows that will exemplify and encourage the chief industries of the country, and serve as an advertisement of what the land can produce. The assertion is frequently made that without the horse race, the side-show and similar features it is impossible to get the crowd, and it is noticeable that in several cases this year these are being more largely advertised than other departments of the fair. This is a great mistake. Exhibitions, when established upon a sound basis and with a proper ideal, have more than paid their way when properly managed. All that is required is the confidence of the people, including exhibitors, and they have always shown a disposition to support shows calculated to promote the best interests of the country in developing its resources.

The real function of the ideal modern exhibition is to educate and enlighten, rather than merely entertain or afford enjoyment, which can have no lasting effect upon the country's progress. Such an exhibition is one in which the managers and directors are imbued with motives true and lofty, and calls for the highest exertion of their constructive energies. The financing must be liberal, and the moneys judiciously expended. It must also have a properly classified prize-list, one in which the greatest financial encouragement is given to the industry or production deserving of the most support, and which will result in the most good to the country. A criticism has been offered that in several instances this year more money was being given for the horse-racing than for any other department. Where an exhibition assumes the name of industrial, or purports to be industrial in the character of its exhibits, a classification admitting of such comparison would be not only inconsistent but an evidence that the management were not aiming at the realization of the highest and best ideal. Horse racing has its place, but that

should not be the most prominent one at a show designated as industrial, nor should it be carried on at a time when attention is likely to be drawn from the judging of live-stock or agricultural products. In some cases, where it has been found expedient to have racing events in connection with agricultural shows, the last day has been set apart for that purpose alone. This system has proved most satisfactory, and is undoubtedly the only proper method, but it must be remembered, nevertheless, that the ideal exhibition has no speeding events, and in towns where there is a demand for them a separate time should be set apart when nothing else is claiming public attention. A good substitute, and one that is deserving of support, are competitions among hunters or hurdle jumpers, and the various carriage classes, shown before the grand-stand.

In a well-managed show the rules as laid down in the prize-list will be enforced. Too often this is not the case and results in dissatisfaction to those who aim to come near the mark. The judges, too, will be chosen because of their ability to give satisfaction. Many local shows in the past have perished upon this rock. In too many cases the selection of men to grant the awards has been regarded as a comparatively unimportant matter, and persons have been chosen to fill these important positions more because of their popularity as citizens than otherwise. As a consequence, the best has not always received the highest honors, and its producers learned to stay away, the show being the final and principal loser. If an exhibition board feel that they cannot pay the expense of having competent and conscientious men to occupy the capacity of a judge, it is time for them to consider what duty they owe to the community, and why such an institution as the exhibition of which they are in charge should exist.

Every effort should be made to have exhibits placed in the best position for inspection. They are there to be seen, and the people who come to learn should have a chance to gratify their desire. In live stock, the numbering of the stalls, with a corresponding number in a neatly-printed catalogue, giving the age and breeding of each animal, is a most useful and instructive system of assisting the visitor to gain information.

This plan will enable the onlooker to form an intelligent idea of what is going on in the ring, and will at least tend toward eliciting the interest of the uninitiated in live-stock lore. A covered judging barn or pavilion is another feature of the ideal show, but it entails an expenditure that is not justifiable unless where the available finances are strong, or when ample accommodation has been provided in the way of stock barns and floor-room for the exhibition of manufactures. A good substitute for this, however, is ample seating capacity provided by the edge of the open ring.

Among the principal features of the ideal show, practical demonstrations in live-stock judging should occupy a prominent place. Contests in judging live-stock, and in buttermaking and various industrial processes, are also interesting and attractive, and when properly conducted do much to create a desire for information that is useful and overcome the demand for light or frivolous attractions.

HORSES.

Canadian Horse Breeding.

The Tendencies, and the Classes to Which Farmers Should Give their Most Careful Attention.

In my travels through different sections of our Dominion, I have paid especial attention to the horse interests, and have noticed that the farmers, especially in the large agricultural sections, are paying more attention to the production of the draft breeds than to light horses. With the average farmer this is probably a wise course, as horses of the heavy classes, by reason of their quieter and more phlegmonous dispositions, are less liable to become injured or blemished during colthood than the lighter, more active and impulsive breeds. Then, again, the heavy mare, if well fed and cared for, can do a reasonable amount of work on the farm during the period of lactation, and at the same time supply a sufficient amount of nourishment to the offspring, while the farmer who breeds light horses must make provision for work horses without calling upon his brood mares to any considerable extent. Again, the draft colt will sell without training. So long as he has the necessary size and the desirable conformation, we are safe in assuming that he will make as good a horse of his class as his appearances indicate, provided he is serviceably sound; while the light horse requires training, which, in many cases, the breeder is incapable of giving, or, if capable, has not the time to devote to it in order that he may sell for his real value.

Unlike the heavy colt, we cannot judge the light fellow so well from general appearances and soundness. He must, in order to sell well, show his ability and willingness to perform well at the gaits peculiar to his class. Whether he be a road horse, carriage horse, saddler or hunter, of the desired size, conformation, general style and appearance, his value depends to a great extent upon his education and ability to perform, with speed, grace, courage, ambition and promptitude, the functions demanded or looked for in horses of his class. As regards soundness, we may say that it is not as essential in heavy as in light horses. Slight blemishes, such as scars, bunches, puffiness, etc., are not considered as serious in the heavy classes. In other words, an unsound or ill-formed heavy horse is more salable than a light horse with the same blemishes or ill-conformation.

Taking these facts into consideration, I think we must admit that the average farmer, who has no particular fondness for any special class, but who breeds especially for the market, is safer to breed heavy horses. But the breeder who has a decided preference for some special class of horses, and I think that every man who is essentially a horseman, will probably succeed better in breeding his favorite class, as he will, in all probability, have the ability to educate his colts for their special purpose, whether it be for roadsters, carriage horses, saddlers or hunters. In regard to the latter classes, I think it is a pity that the average man on farms do not take more pains to educate horses to the saddle. In most cases, where horses suitable for the saddle are bred,

they are taught to go in harness, but are sold, at four or five years old, practically green as far as saddle work is concerned. I say it is a pity that such is the case, as the education of the young horse would also be an education to the young man, and teach him how to ride. No class of men have as good an opportunity to learn to ride as the farmer who produces his own horses. Yet, even on farms where half-breds are raised, how seldom it is that a prospective purchaser can get a decent saddle and bridle to try a horse he is about to buy. There will be good harness and rigs, both single and double, but seldom a saddle. Then, again, how often do we notice in the showing, where the farmer or his son is exhibiting a saddle horse, probably the best horse in the ring, that he is so handicapped by the absence of proper appointments, lack of education, and by poor riding, that he has no chance of winning. He is purchased by a dealer or private individual, given an education, and exhibited in a few months in the same company, and is an outstanding winner. His former owner is probably present, and declares that it is the owner, not the horse, that wins, and attempts to prove his statement by stating that he showed him in the same company a few months before and got nothing.

THE SADDLE FOR BOYS AND GIRLS.

If farmers would provide suitable appointments for saddle work, and encourage their boys to ride more and drive less, they would become fond of the exercise and good riders. At the same time, he should not neglect his daughters; he should also provide them with saddles. There is no exercise so good for either boys or girls as saddle work, nor none that the young folks (with few exceptions) enjoy so much. The pleasure can also be made profitable. If a saddle horse is well trained the farmer does not need to sell to the dealer, but can get the dealer's price from the consumer. A saddle horse of the proper size and conformation, that can be recommended as a lady's horse, will sell for double the amount that he is worth green, and there is no reason why the breeder should not receive this profit in addition to rendering his daughters a great deal of pleasure and healthful exercise in training the colt. For the other classes of light horses the same remarks as regards education apply to a greater or less extent. I have rather left the line of breeding, and taken up that of education.

THE AUTOMOBILE FAD.

Present conditions appear to indicate that the horse interests are about to be seriously influenced by the automobile, but I do not think that we have much cause for alarm on that score. The automobile is at present a fad with the wealthy classes in cities, and as it is an expensive and we may say an unreliable toy, and probably will continue to be so, it is hard to say to what extent it may, at least temporarily, interfere with the popularity of the light harness and riding horse, but I cannot see that there is any danger, at least for some considerable time to come, of the heavy horse interests being influenced by these machines. This class, at least, I think is safe until automobiles can be built with less complications, more reliable, more easily handled, with less expense, and sold for much less money. If the time ever comes when satisfactory machines for the performance of heavy work can be built and operated at a reasonable cost, the heavy horse will be in more danger than the light, as a true horseman will never allow an inanimate concern to take the place of the animal he admires so much. Those who use horses simply for the service they can get from them, will doubtless be satisfied with an automobile if it gives satisfactory service, but those who like horses will never derive the same pleasure in an automobile that they do in the saddle or in a carriage behind one or a pair of good horses. "WHIP."

How Road Horses Sell.

The following table, from the records of the Fasig-Tipton Co., American horse salesmen, shows the prices they have received for speed horses during recent years:

- 100 trotters and pacers realized \$516,210, an average of \$5,162.
- Twelve stallions realized \$120,600, an average of \$10,050.
- Seven geldings (with records) realized \$72,600, an average of \$10,371.
- Six mares (two green) realized \$45,100, an average of \$7,516.
- Six brood mares realized \$21,825, an average of \$3,637.
- Five yearling trotters realized \$21,700, an average of \$4,350.
- Six two-year-olds realized \$21,900, an average of \$3,650.
- Six three-year-olds realized \$36,500, an average of \$6,083.
- Six four-year-olds realized \$27,750, an average of \$4,625.

If your friend is not at home when you call with a sample copy of the Farmer's Advocate, show it to his wife or daughter, who will see and appreciate its merits at a glance.

A Magnificent Horse Display Promised.

At the exhibition now being held in Toronto, the exhibit of horses promises to eclipse anything before seen at the Industrial. The ring of particular interest will be that of ten horses owned by the exhibitor. Many of the best horsemen in Canada have entered in this section, and it is expected that there will be upwards of one hundred horses in the ring, representing one of the most valuable rings of live stock ever drawn together in a single competition. Horse men should not miss this feature of the exhibition.



CHAS. H. HIGGINS, B. S., D. V. S.

Secretary Local committee of arrangements for annual meeting A. V. M. A. at Ottawa.

The Two-minute Horse.

Lou Dillon, 2.02 1/2! Another nail in the coffin of the anti-two-minute idea. Of course it does not follow that because the Dillon mare has beaten the 2.03, she will trot in two minutes, but the manner in which she trotted her mile does show that she may be regarded as almost certain to dethrone Cresceus, 2.02 1/2. How fast she will trot this year is a matter of conjecture, but almost every good judge who has seen her go her fast miles is of the opinion that she will beat

2.02, and some of them think she will trot in 2.01 or better.—[Horse World.]

The foregoing forecast was soon fulfilled. At Readville, Mass., on August 24th, before a large crowd of spectators, Lou Dillon trotted a mile in two minutes, breaking the world's trotting record previously held by Cresceus (2.02 1/2). Lou Dillon was driven by Millard Saunders, and he thinks she will go the mile in 1.59 or better before the season closes. She is a handsome chestnut, and did the last quarter in 29 seconds.

STOCK.

Our Scottish Letter.

A TIME FOR FISCAL INQUIRY.

This is an old country, but we are just beginning to discover that we have not solved all problems. A big fight is brewing over the fiscal proposals of Mr. Chamberlain. One does not require to be a profound student to see that the policy which he has outlined is fitted to be of considerable advantage to the Empire as a whole. The primary question, however, is not that, but what is likely to be its influence on the particular part of the Empire called the United Kingdom? Those who suppose offhand that farmers are favorable to anything that savors of protective tariffs are likely to find themselves in error. Forty years ago farmers possibly cherished such views, but the lessons of the intervening period have not all been on one side. Farmers have adjusted themselves to the new conditions. Land is much reduced in value. Landowners have suffered greatly. The farmers who held land under leases of the old sort, and during the transition period, also suffered greatly. Much capital was lost by all interested in land. But the transition period is over. New conditions have been created, and a very large body of farmers are as much interested in cheap imports as any dweller in the big cities. Dairy farmers use large quantities of imported feeding stuffs. Those engaged in feeding for the fat market are similarly situated. It is only among the wheat-growers of Lincoln that a vote could be got right away in favor of a protective tariff on wheat. Everywhere, almost, there is a prevalent feeling that Mr. Chamberlain's policy is more likely to secure adherents among the artisans and manufacturing classes than in agriculture. Farmers put it bluntly when they say that they can see how Chamberlain's policy would help our wheat-growing colonies, but they don't quite see how it is going to help those who long ago ceased to be wheat-growers. The question is a very big one, and it will not be settled in a day. Sensible men everywhere agree that no harm can come of investigation and exhaustive enquiry. After a trial of one particular fiscal policy for half a century, there can be no possible harm in asking whether there may not be points in the policy capable of improvement?

VETERINARY EDUCATION.

One of the big questions of the immediate future in connection with agriculture is the consolidation of veterinary education. It would be absurd to affirm that education of this kind is on a satisfactory footing in Scotland. We have three good colleges—two in Edinburgh and one in Glasgow. They are to all intents and purposes private ventures, and largely owe their measure of success to the individuality and force of character of their respective founders. Depending almost wholly on the fees of students, these colleges are not self-supporting. They are not able to pay salaries to teachers which would make them independent of private practice, and nearly all of them have to engage in that work. This has its advantages, but one need not expect from Scottish colleges any contribution to research work while such conditions prevail. Of the three colleges, the



VILLAGE BOSS, IMP.

Sweepstakes Clydesdale stallion at Killarney Fair. Sired by Prince Pleasing, he by Cedric, by Prince of Wales.

OWNED BY WILLIS & FOWLIE, BOISSEVAIN, MAN.

oldest is the Royal (Dick) College in Edinburgh. It was founded by the late Professor Dick, and when he died he left considerable sums as an endowment. This is administered by the Town Council of Edinburgh, along with some other trustees. These endowments are to be still further augmented by funds provided from the capital sum set aside by Professor Dick to provide an income for his sister, Miss Mary Dick, who died some time ago, and by a substantial sum set aside by Mr. A. Inglis McCallum, a practicing V. S. in Edinburgh. Altogether the Dick College will soon be in a sound financial condition, but even then it will not be possible to claim that the provision for veterinary education in this country is adequate. We want one thoroughly good veterinary college for the whole of Scotland, literally endowed, and able to command the services of the very best men in their respective departments. Whether we will get this is another matter. Certainly it will not come our way unless we agitate for it.

COUNTY SHOWS have been all the rage during the past few weeks. Grand collections of stock have been seen at Perth, Forfar, Dingwall, Keith and Elgin. In these northern latitudes the leading features are always Shorthorn, Aberdeen-Angus and cross cattle. Clydesdale horses are as popular in the north as in the dairying districts of the southwest and west. In Peebles and the upper ward of Lanarkshire the leading features are invariably the sheep classes. The three breeds, Border Leicesters, Blackfaces and Cheviots, are about equally represented. At Peebles this year a pleasing variety was introduced in a sheep-dog trial. No form of exercise at a show attracts one-half as much attention as does this. Tweeddale, as Peebles of old was called, is a great Cheviot pasturage. The quality of sheep reared on its hills is excellent. Teviotdale, or Rosburgh, perhaps, excels it, but in the Merse or Berwickshire, the sheep industry has fallen on evil days. It used to be the headquarters of the Border Leicesters, and Kelso is still the great rendezvous of the breeders of that variety. But so far as show-sheep are concerned, almost any part of Scotland excels the Merse. This year Angus or Forfarshire has been the leading county in the show-yards alike for Scottish Shorthorns and Aberdeen-Angus cattle, as well as for Border-Leicester sheep. The show at Forfar extended over two days. It was the jubilee celebration, and a great success in every way. Of all these shows, Dingwall, the capital of Ross-shire, had the

greatest variety. In place of holding half a dozen smaller shows from Inverness to Cape Wrath, all the northern societies combined to hold one big event at Dingwall. The effort was well sustained, and the results altogether gratifying. Easter Ross is one of the finest agricultural districts in Scotland, and the stock exhibited at Dingwall reached a very high standard of merit. One of the most successful exhibitors was Mr. Jas. A. Gordon, of Arabella, whose beautiful two-year-old Shorthorn bull, Prairie King, championed his sec-



GORE'S BOAST.

Shire stallion, three years old.

IMPORTED BY J. H. TRUMAN & SONS, BUSHNELL, ILLINOIS.

tion. Mr. Dyson Perrins, of Ardross, showed very fine Aberdeen-Angus cattle, and championed that section with the Ballindalloch-bred bull, Rosador.

THE CLYDESDALE TRADE.

Canadian buyers of Clydesdales have been very active of late. Mr. George Isaacs, who ships Shorthorn cattle as well as Clydesdales, took away a useful shipment of over half a dozen Aberdeenshire Clydesdales about a month ago. Some of them had been winning prizes at the north-eastern shows, and altogether they looked like doing some good in Canada. Mr. Tom Graham, of Graham Bros., Claremont, Ont., paid us his first visit, and if he is spared, we are pretty confident it will not be his last. Mr. Tom knows a horse, and some of the best judges here have a notion that he is the best Graham of the bunch. Anyhow, he made a fine selection of really high-class horses and mares. Messrs. Mowat & Babe, Shelburne, sailed by the same steamer with a smaller lot, but they will not be long in finding homes. Dalgety Bros., London, continue to send steady shipments of serviceable, well-bred, big stallions. One of these shipments left a week ago. To-day (15th August), Mr. Hogate, Sarria, is to start with ten stallions, and Mr. Neil Smith,

Brampton, and Mr. George Nixon, Mitchell, have horses going by the same ship. Orders have been booked by Mr. James Kilpatrick for the Australian market, and the Messrs. Montgomery have sold their first-prize two-year-old colt at the Royal, Premier Pride, to a buyer from New Zealand. Several U. S. buyers are in the country, including Mr. Alex. Galbraith, from Jamesville, Wis., and Mr. Turner, from Pennsylvania. There appears to be a big dispute in the Northwest about the Clydesdale and the Percheron. It's all right. The Clydesdale has never been boomed as the Percheron has been, but if work requires to be done the Clydesdale is the horse to get through with it. The extent to which buyers are thronging us at present is proof that the Clydesdales is in demand. The best aged gelding of the season, Mr. Hastie's four-year-old horse, Ly Mellroy, has been bought for the Chicago market, and leaves this country next week.

Ayrshire cattle breeders will regret to learn that the doyen of that cult, Mr. John Murray, Carston, Ochiltree, died in the third week of July. He had reached the extraordinary age of 99, and up to the very last had an unclouded intellect, and was able to take an interest in all that was going on. He was one of the leading men of the Ayrshire trade, and his mantle fell on his sons, Mr. James Murray, Muir, Cumnock, and the possibly better known John Murray, of Carston. Carston Ayrshires had a world-wide reputation, and won the laurels in many a keen fight.

"SCOTLAND YET."

Outlook for Feeding Steers.

A prominent Iowa stockman, in discussing the outlook for feeding steers during the coming winter, makes the following points:

As we look into the question of value, we find that corn is very high, being about one cent a pound, with other feeds in proportion. The price for medium quality of fat cattle is about \$5 per hundredweight in the market, with the same quality of feeders only fifty cents per hundredweight cheaper. Therefore, it would be impossible for a feeder to buy such cattle, ship them home and fatten them on high-priced corn and sell at a profit, unless the price makes a sudden advance.

Under the most favorable circumstances I do not see how we can have cheap corn during the coming year. We are continually using more, and the surplus on hand of old corn is very small at the present season. The feeder must look for his profit elsewhere than in the corn-market.

The trouble in the cattle-market seems to lie in the cost of the feeding steer. It is my opinion that a man can make beef more cheaply the balance of the year than up to this time. Grass is abundant, and we have the best feeding month of the year before us, and if one feeds at all, now is a good time to start.

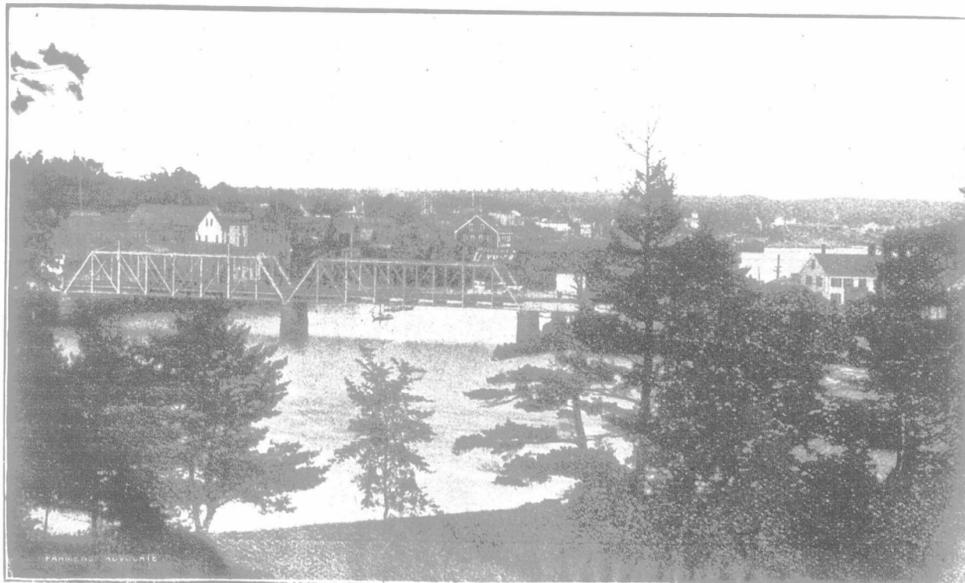
The problem of feeding on a steady market can easily be solved. You know the cost of feed, the number of days you want to feed, the cost of your cattle, the pounds gain you can make in a given time, and can estimate the price you must have per hundredweight to cover your expenses. If the margin is wide, feed; if not, sell, and grow more feeders. It is simply a business proposition that must be met in a matter-of-fact way. Shun speculation. It is as bad in its results, proportionately, in the feed lot as elsewhere.

Milk Fever Prevention.

The following quotation from a letter by an East Kent farmer, in a recent issue of the Scottish Farmer, is quite in line with the contentions of the "Farmer's Advocate," as repeatedly published during the present year:

"In your issue dated 27th June you had an article on the treatment of milk fever by the oxygen treatment. Prevention is better than cure, and there would be none of this required if owners of milking cows would give nature a little better chance. Did anyone ever know a wild animal to suffer from that complaint? If it is absolutely necessary to take the calf away from its mother soon after it is born, she should be milked a little at the time and often, in exactly the same way as she would be by her offspring if it were left with her. But far the better and safer plan is to leave the two together for the first three or four days. If the calf takes but little milk, the cow can be made comfortable by its attendant also drawing a little milk from the udder at fairly short intervals. Never milk a cow dry until the calf is at least three days old, and she will not suffer, nor will you, from milk fever."

"Stockman" writes: "Permit me to congratulate you on the steady improvement made in the Farmer's Advocate during recent years. I know of no paper that has made such strides. It is far excellence the stock breeders' journal, and, in my humble judgment, has done more to further their interests, and those of the farmer as well, than any other agency in the country."



VIEW OF RIVER AND BRIDGE AT ST. STEPHEN, NEW BRUNSWICK.

Dairy Cows for St. Louis.

At a meeting of the executive committee of the Dominion Shorthorn Breeders' Association, recently held in Toronto, the "Farmer's Advocate," through the Secretary, Mr. Henry Wade, was requested to call attention to the dairy cow demonstration to be conducted at the St. Louis Exposition next year, and to urge upon Shorthorn breeders the importance of a representation being made of high-class milking members of the breed in the milking test to be held there. Mr. H. H. Hind, of Stanton, Mich., who so ably superintended the dairy test at the World's Fair at Chicago in 1893, has been appointed Shorthorn Commissioner at the St. Louis Exhibition, and is already alert and active in locating cows likely to make creditable candidates in the dairy demonstration. The work could not be in better hands, and Canadian Shorthorn breeders, for the honor of the breed and of their country, cannot afford to be indifferent to the call to provide cows that have proven themselves worthy to enter the list in competition with the best that can be found. The matter of expense we are assured will be taken care of, either by the Canadian Government or the American Shorthorn Association. The cows to give the best results should produce previous to May 1st of next year, preferably in March or April. It is in contemplation to assemble these cows at St. Louis two or three months before the opening of the fair, so that they may become accustomed to the climate and environment, and produce their calves on the grounds. Every breeder who owns a deep-milking Shorthorn cow, or knows of one or more belonging to others, should write Mr. Henry Wade, Toronto, giving particulars, and the sooner the better, as it will take considerable time to locate all the best prospects, from which selections may be made. The other Breed Associations in Canada will, no doubt, take similar action at an early date. If Canadian breeders decide to go into this competition they cannot move too soon, for it requires all the time that is left to make adequate preparation.

Methods of Steer Feeding.

In steer-feeding experiments at the Pennsylvania station, with steers confined in single stalls as compared with others confined in a large box stall having as many square feet of space per steer as was contained in each single stall, there was found to be no difference in the amount of bedding required to keep the animals clean. Neither was there any difference in feed required to produce a pound of gain that could be attributed to a difference in the method of confinement. There was found, however, a marked difference in the amount of labor necessary to care for the two lots; being 50.83 per cent. greater for those kept in single stalls than for the others. A comparison of different methods of watering was made where one lot was kept in stalls and supplied with water constantly before them, and another lot was kept in similar stalls, but received water but once a day, when they were turned into a yard that contained a large tank. Of these two lots the one having water constantly before it maintained a better appetite and made somewhat more economical gains than the other lot. There was also a difference in amount of labor necessary to care for the two lots. The report states that "steers in pens furnished with automatic watering basins require about one-half as much time of the attendants to properly care for them as was required to attend to the same number of animals kept in stalls and turned out in a yard to water." This difference is, however, largely covered by the difference between the pen and the single-stall system, only about six per cent. of extra labor being required to accomplish the watering where the steers were turned out from single stalls.

Time Will Tell.

It has been declared in some circles that unless feeding cattle can be bought on a three-dollar basis there will not be a normal number of young cattle put into feed lots this fall. Between recent cattle history and corn crop prospects the American steer is not a popular quantity in farming and feeding sections at present, and with the country in a selling humor, there is every prospect that even a three-dollar basis for a good class of feeding steers will not stir up much of a demand from the small feeders. There is also a prospect that nine months hence will see more or less men wishing they had put in a carload or two of cattle. Keep your eye on the big feeders this fall and you may get a pointer.—[Live-stock World.]

It is better for country boys generally to remain where they were reared than to remove to the city. In the country some degree of success is certain, in the city all is uncertainty.

Lesser Lights in Shorthorn-dom.

All up-to-date stockmen, especially the North American animal husbandmen, know that judicious advertising is necessary, no matter how good the animal they produce may be, in order to reap the maximum financial benefit from it. Such advertising may be by means of the agricultural press, in both reading and advertising columns, or through the show-rings, in either breeding or fat-stock sections. At the present time there are a few fortunate British breeders, such as Mr. Deane Willis, of Bapton Manor; Mr. Duthie, of

Craigie, of Pennan; Granger, of Pitcur; Cameron, of Balnakyle; McWilliam, of Stonytown; Anderson, of Saphock; Anderson, of Fingask; John Young, of Tilbouries; Geo. Walker, of Tillygreig; Alex. Crombie, of Woodend; John Cran, of Keith; Sylvie Campbell, of Kinellar; George Campbell, of Harthill; Simmers, of Whiteside; Morrison, Phingask; Lord Rosebly, represented by Geo. Sinclair; Beillie Taylor, of Pitlivie; A. M. Gordon, of Newton; Lady Cathcart, of Cluny; and Lord Polwarth, of Mertoun. There are numbers of others, especially to the south of the Scotch and English border-line, but we have not time, space nor inclination to mention them just now, which is the era of Scotch blood!

Beginning with the first listed, we have Auchronie. In Scotland a man among his neighbors and acquaintances is often spoken of by the name of the farm he occupies. In Canada the person wearing the aforementioned name is best known as the breeder of Lord Banff, who did so much in the hands of Mr. W. D. Flatt. Watson is a brother-in-law to the Campbells, so is a Shorthorn enthusiast, and bound to the calling by many ties. In his herd are to be found Maids of Promise, Craib-



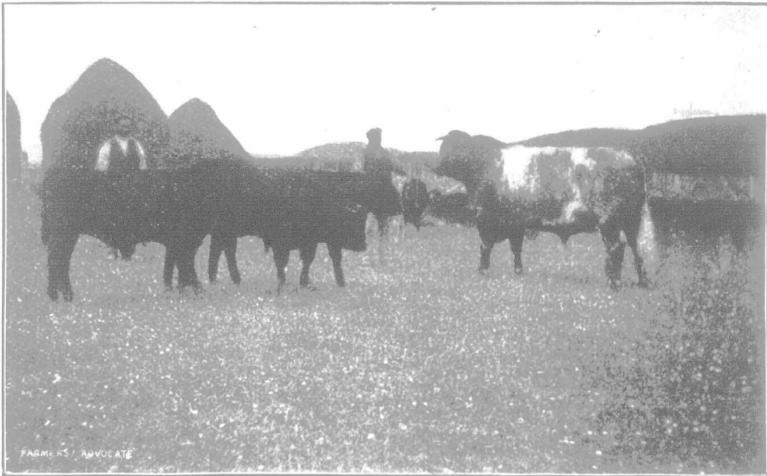
BALBEGNO.

The residence of Mr. James Thomson, a noted Scottish breeder of Shorthorns.

Collynie; and Wm. S. Marr, of Uppermill, who have reached such an altitude in the breeding of that cosmopolitan breed, the Shorthorn, that they are independent to some extent of the ordinary avenues of live-stock advertising. Such men may be termed the great lights of Shorthorn-dom! There remains, however, in Great Britain a host of breeders not as well-known by foreign breeders, yet none the less estimable, successful in varying degrees as breeders. Many of these men blaze out their own pathways, and do their own thinking and solving of knotty breeding problems. Others, recognizing the success of the sage of Collynie, follow his cult as closely as possible by buying all their herd-headers from him, not always with the best results, and there are others again who buy herd-headers and breed Shorthorns on the hit-and-miss principle, seemingly being satisfied if they ensure the coupling of two pedigreed animals of opposite sexes. A man of note as a breeder, now in the "Great Beyond," who made his reputation by utilitarian methods, namely, demonstrating that his strain of Shorthorns were winners at the fat shows, was

stones and Brawith Buds, and it might not come amiss to mention a criticism or two of this breeder. "Brawith Buds are nearly all bare on the loin and sharp over the crops, albeit good milkers," which rather savors of what our authorities on dairy form might term a question and answer in dairy conformation. He states "Craibstone was a bull with plain horns;" his progeny, as seen by the writer, certainly show his prepotency in this respect. At Auchronie just now as one of the sires is Waterloo, a son of Choice Goods, a roan bull of fair quality, and not overburdened with size. Clan Alpine was a sire here. From this herd hails Scottish Prince, a roan bull, heading the herd of John Gardhouse, Highfield, Ont.

Campbell, of Deystone, is a brother of the present occupant of Kinellar, and is a cousin of those well-known Canadian stockmen, the Isaacs. A Duthie-bred bull, Golden Fame, a mottled red, good in his head, heart, neck, crops and loin, withal a little small and lacking in flank and thighs, is lord of the harem, which contains Nonpareils, Minas, Clarets and Ythans. Bruce of Byres, near the Duke of Richmond and Gordon's place, at Lochabers, has a large herd on a farm in a bleak, exposed coast situation, and while not as well-known, perhaps, in Canada as he deserves to be, has none the less a name as a breeder whose stock has journeyed far afield. He is a cousin and son-in-law of Bruce, of Dublin, another Shorthorn stalwart and authority. This herd was started in 1835, and to the bovine enthusiast many pleasant hours can be spent in the company of this genial gentleman, for delvers in Shorthorn lore. He has bred Polled Angus as well, with success, winning at the Highland in 1892 the prize on aged bulls in both Shorthorns and Angus, a record to be proud of. His store of knowledge, catalogues and other records causes him often to be drawn upon from the Shorthorn headquarters in Hanover Square, London. Mr. Bruce knew that great Yorkshireman, John Outhwaite, the breeder of Verhena, the ancestress of St. Valentine. From



A STOCK BULL AND HIS PROGENY AT BALLACHRAGGAN, SCOTLAND.

Bruce, of Inverquhomery, whose Augustas are talked of, and quoted in catalogues, reports of shows and sales. It might be well to enumerate a few breeders whom we have classed as "lesser lights." In the list we find Alex. Watson, of Auchronie; Geo. Campbell, of Deystone; D. C. Bruce, of Byres; the two Bruces, father and son, of Heatherwick; Anderson, of Ballachraggan; Thomson, of Balbegno; Turner, of Cairnton; Marr, of Cairnbrogie; Peterkins, of Duglass; Burno, of Jackston, and Burno, of Westerton;

Outhwaite he hired Baron Killerby, an unattractive bull, with, so it is expressed, "a cat's face and the horns taking opposite directions, one up, the other down," but, withal, an extra getter, and unpurchasable from his owner. The hiring fee was £50 (\$250) for a season. When discussing the crazes for family pedigree and color, Mr. Bruce told the story of a once-noted bull, Baron Oxford 5th, bought by Sir Wilfrid Lawson from the Duke of Devonshire, Holker Hall, for £500. The bull died soon after his purchase, and on the new owner being advised of it, he went to see the remains, and on the spot composed the following lines:

"Here lies Baron Oxford, stark and cool,
Bred by a duke and bought by a fool."

In the herd at Byres, Lochaber s, are Broadhocks, Circes and Syringas, the herd bulls being from the Sittyton Orange Blossom and Clipper families. The narrator was also given the method by Mr. Bruce by which he prepared and kept the bland oil-like cheery fluid, whiskey, but being a temperance man withholds these methods as not relevant to this paper.

Bruces are legion, and at Heatherwick there are two, father and son, who manage a farm of 300 acres in sight of Sittyton. This farm has been worked by the Bruces and their ancestors for 107 years, and the rent has risen in that time from £70 to £460. Bruce major has retired from active participation in farm duties, and the burden now falls on the son, who is also Secretary of the Aberdeen sales of pure-bred stock. At Heatherwick is Prince of Archers, a massive, well-covered roan bull, with a good touch; he is by Scottish Archer. In the herd of over 100 head are Nonpareils, Augustas and Marigolds, and from this herd many have journeyed to Canada.

Anderson, of Ballachraggan, is the type of farmer which we in Canada can afford to be better acquainted with; he combines business principles with his farming. Two herds are kept, one Angus, the other Shorthorns. With the latter we are more concerned at present. At the head of the herd is Challenger, illustrated in the "Advocate" some time ago, a stylish roan, with an extra covering of flesh over his lower ribs, which are well spring, a bull masculine in appearance, wide and thick in his crops, square rumped, and with deep thighs, perhaps a bit high on the leg and bare on the front of the shoulder, but a breeder, as his stock show. The average price got for bulls from this herd at the Inverness sale in 1902 was £35, and, if my memory serves me right, John Graham, of Carberry, is the authority for the statement that Wm. Duthie purchased a bull from this herd at the Perth sale and gave a long price. Mr. Anderson fed many a Canadian store, as did D. C. Bruce, and liked them. He also breeds Clydesdales and Border Leicesters. In addition to his own business, he manages 1,500 acres for others. Speaking of stockers or store cattle, he is much opposed to Ayshire blood in them, especially the shallow Ayshire cross. Thomson, of Balbegno, is one of that fine old type of British farmer yet to be found in those isles. He has bred Shorthorns in

Aberdeenshire, and still continues to do so. His residence is part of the old castle of Balbegno, which has a banqueting hall whose vaulted ceiling has no doubt rung with the acclaim of doughty knight on his return from a successful foray. This venerable pile dates back to 1560. Not far away is Feltercairn and Queen Victoria's arch, built to celebrate a cross-country drive of her late Majesty with the Prince Consort.

ENTER PRIMOS.
(To be continued.)



THE SUPERINTENDENT'S HOUSE.
Experimental Farm, Agassiz, British Columbia.

The B.C. Experimental Farm at Agassiz.

The wisdom of a Government in providing for the expense of experimenting, and thus save the farmer from pecuniary loss, is not questioned in these practical days, unless it be by a political fanatic or a hardshell back number. Stretching across Canada we find located at Nappan, N.S.; Ottawa, Ont.; Guelph, Ont.; Brandon, Man.; Indian Head, Assa., and Agassiz, B.C., a system of farms, each differing in some respects from the others, yet all working on the same plan of experimentation. The most western of the farms is just as useful as are the others, but is probably not as well known, on account of several reasons, few modes of access to it, and the smallness of its constituency. While British Columbia is a country of considerable area, the amount of



DORSET SHEEP.

At the Experimental Farm, Agassiz, British Columbia.

land under cultivation by farmers, ranchers, dairymen and fruit-growers is comparatively small, yet bound to increase as the years go on. The correspondence of the farm shows that the definition applied by the present Minister of Agriculture in his report, "laborious of information," is lived up to by it.

A visitor to the farm, which lies in the valley of the Fraser, and is overlooked by Mt. Cheam, is at once struck by the fruit trees in various stages of growth. Fruit culture is the agri-

cultural industry at which B.C. excels, and it is a growing one, on account of the Manitoba and Territorial markets to the east; consequently, a great deal of attention is given to the introduction of new varieties and their fitness for the country, as well as usefulness as producers of what the markets call for. In this respect the experimental farm is particularly useful; the newcomer engaging in fruit-growing cannot afford to plant worthless varieties, and if he avails himself of information gratuitously supplied from the farm at Agassiz, he can save himself loss of time and money, and a lot of annoyance. Diseases of fruit trees are attended to, new remedies tried and reported on, a watch being kept incessantly for parasitic or fungoid pests, and the conclusion one comes to quickly is that the Superintendent is a busy and versatile man; by the queries submitted to him the questioners evidently accord him encyclopedic qualities.

Among other things being tried is the suitability of the benches (to the tenderfoot, these might be described as shelves or terraces on the mountain ranges) for fruit-growing, the comparative inaccessibility making these places of little value unless for such purposes. Vegetation is exuberant, the fern (bracken) being several feet in height in June, a hard plant to get rid of, the dead roots being very slow to rot. Other weeds are also very persistent, the mild winters proving harmless to them. Nature gives very little aid here in weed suppression, the humidity supports the plant through infrequent sun-scorchings.

Farming in this country of mountains and valleys, dyked lands and meadows, is not a profession to be trifled with, although such is the impression one who is used to the strenuous farm life of Ontario or the Northwest gets. Excuses may be mentioned for such a condition of things, namely, the persistency in weed growth, the lack of humus in the soil, and its natural sequel, soil leaching, and a climate conducive to taking life easy. I am referring to the lower mainland country, and I might add another excuse, the heavy work to be undertaken in order to clear the land.

Amongst other difficulties is the tendency of a crop of the preceding year to appear out of its turn, buckwheat being a bad offender. If the fertility of this land is to be kept up and increased, clover-growing and plowing under to get humus is essential, and it is not hard to get this valuable legume to work. Manure is best applied as a top-dressing on the grass; the method, as above described, being followed by Mr. Sharpe, the superintendent, with success, as is evidenced by the growing crops. The Superintendent recommends drawing away the manure to the field as it is made, a method suitable in this wet climate for the farmer without a manure-shed. By this means the valuable soluble constituents of the manure are not lost entirely, being arrested on the downward passage by the grass roots. The keeping of live stock is evidently part of the scheme of agriculture to be followed, and, as is to be expected, at the Experimental Farm we find a small working herd of useful-looking Shorthorns, and a flock of Dorsets thriving on the clover aftermath, which some three weeks previously had yielded heavily. Sheep do well, and when asking about the prospects for working with the golden-hoofed, Mr. Sharpe expressed the opinion that the lower mainland was especially suited to winter or early lamb raising, climatic conditions being so favorable; yet, withal, a word of warning, well worth consideration, was given: "Stock can no more suffer exposure here than elsewhere, the cold, wet fall rains being just as detrimental to the live stock, or more so, than a much lower temperature under bright, dry conditions!" The B. C. farmer does not begin to supply the Province with small ruminants, thousands of muttons being imported yearly from the States.

Bees and poultry are also kept, and fill out a plan of diversified agriculture well within reach of an energetic farmer. The Agassiz farm buildings are not built on an extravagant plan by any means.

The avenues, sheds and tree belts were at their best on the occasion of my visit, some of the ornamentals being especially attractive, a light-colored leafed relative of the Manitoba maple and the Caragana being very noticeable. The soil in this part of the country seems to be deficient in mineral constituents, notably lime and potash; the water is very soft. The growth of grass under the sprayed (with lye) trees was much more vigorous than out from under the area on which the spray would drip.

"NOMAD."

While keeping step with the most advanced agricultural thought of the age for the benefit of progressive students, it is at the same time the policy of the Farmer's Advocate not to "shout over the heads" of the rank and file to furnish information that can be applied with success in everyday practice. Point this out to your neighbor who is not yet a reader, and induce him to subscribe.

The Best Judging School.

It may be taken for granted that though a young man may read a score of books on the science of equestration, each having illustrations showing how to sit under position of ease and difficulties, he will never be much of a rider till he gets on a horse's back. Hard study and theory given full consideration, one buckjump and off goes the schoolmaster. It is a little different as regards the picking up of the points and conformation of a horse, though a good horseman comes to more rapid conclusions than a man who mostly stands down yet is well up in the anatomy. The horseman is apt at times to dogmatize from his own experiences, but good judgment and horsemanship generally go very well together.

As to the judging of draft horses there is no well-established rule. The chief part of education regarding this is the learned "Professor Price," for the horse that the contractor gives the money for is the one which sensible farmers set themselves to produce. The big town gelding, with good hoofs and pasterns and flat bones, always ready to feed or to pull, is the object-lesson. We must have as many like him as we can get, if we want to hold the ground against the many varieties of heavy motors now being produced, and it is of importance that those who mean to breed such animals should be instructed in this direction.

Of late, both in this country and abroad, it has become common for professors of agricultural colleges to take their students out for an airing, accompanied by skilled experts, or at least recognized judges of live-stock and horses. The animals are generally showyard representatives of some noted herd, flock or stud, and the best of their kind. The merits and demerits of all are expounded in turn, the latter, unfortunately, too mildly if the owner or manager is present. As regards the work-horses, there is shown out clearly where one animal is better than another: Why this form of bone is better, and the sweep of hock, and this set of pastern. As the comments are truthful and honestly made, the student will, no doubt, get a thorough idea of what a good one is or ought to be like. His education will then be negatively improved by taking a good look at every bad one he meets. A run round the fairs will not do harm, but, on the other hand, give him confidence, and so when he starts breeding for himself he will be able to avoid a good few pitfalls he might otherwise have stumbled into. Of course, the great school, after all, in breeding or buying is experience.—[L. J. S., in Live-Stock Journal.

Show Classes of Sheep.

An aged ram is a ram too old for the yearling class, or, in other words, a ram two years of age or over.

A yearling, or shearing ram, is a ram that has not as yet got more than his first pair of incisors, or permanent front teeth, or a ram that is over one year old, but under two.

A ram lamb is a male lamb under a year old, or one that has not as yet got any of its permanent incisors.

The ages of the female classes are governed by exactly the same conditions as are the ram classes.

A pen, unless otherwise stated, consists of three individuals, either males or females.

A pair is, generally, two of one sex.

A flock usually consists of an aged ram, yearling ram, ram lamb, aged ewe, yearling ewe, and ewe lamb, but may consist of one ram and two or more ewes.

A "special" means a special premium offered outside of the ordinary list of premiums, such as special for best flock, special for best ram, etc.

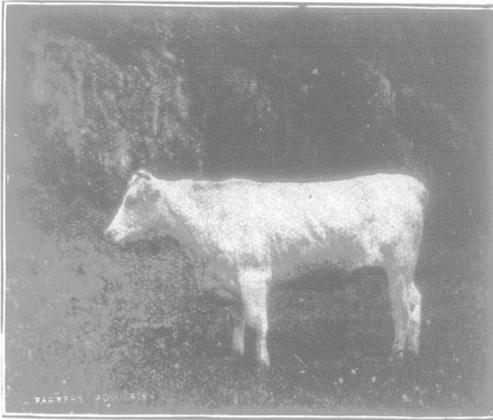
Sweepstakes or champion means the best animal of a given breed, either male or female, or the best of either sex, as the case may be.

Cattle Trade with Britain.

At the recent Imperial Trade Congress, in Montreal, Mr. Robert Bickerdike, M.P., moved the following resolution as to the cattle trade: "That the present restrictions on the importation of Canadian cattle into Great Britain are unjust so far as they are based on the dread of disease existing among such cattle, since any outbreak of disease is as rigidly guarded against in Canada as in the mother country, and no infectious diseases exist in Canada; and that such restrictions are also undesirable, as they result in interference with the free development of trade, decreased supply of cattle and increased cost of meat to the British consumer, and that in the opinion of this Congress the present resolution of H. M. Board of Agriculture, so far as they relate to the importation into the United Kingdom of Canadian live cattle, under reasonable precautions, should at once be reconsidered." Mr. J. Lockie Wilson seconded the resolution, which was adopted.

Did Old Breeders Pamper?

John Hewer, who brought the Hereford breed to a fame unexampled in his day, by rearing and letting out on hire so many magnificent bulls, was accustomed to give his young stock rather harsh usage. In the history of the breed appears the following: "Mr. John Hewer did not pamper his cattle. He kept them on plain fare, and aimed at developing robust constitutions. It is believed, indeed, that his system of management was of a somewhat rough description. At any rate, there were never any complaints as to



A 15-MONTHS SHORTHORN HEIFER. In the Agassiz herd.

his animals being delicate." The following is from another source: "As a keeper of stock, Mr. Hewer was not a good manager. The only redeeming feature in his management was that he never pampered an animal, but on the other hand, he almost starved some of his grandly-bred bulls when under his care, and before they were of age for service. Many amusing stories are told of his unique method of managing his herd." Yet some of his bulls developed to immense substance, one weighing up to 32½ cwt.

Bakewell, the leading breeder of his day, of cattle as well as sheep, kept the former almost entirely on straw in winter. Arthur Young, on visiting Dishley, admired the high condition of the herd, entirely due, according to Mr. Bakewell's declaration, thoroughly believed by Young, to the superior breed of the animals, their hereditary fineness of bone and correlated disposition to fatten rapidly. He wrote: "The general order in which Mr. Bakewell keeps his cattle is



SHORTHORNS ON CLOVER AFTERMATH. British Columbia Experimental Farm.

pleasing; all are as fat as bears. If the degree of fatness be considered, and that he buys neither straw nor hay, it must appear that he keeps a larger stock on a given number of acres than most men in England." The farm comprised 440 acres, of which 110 were arable, the rest grass and irrigated meadows; the stock kept on an average sixty horses, 150 cattle, 400 sheep; but sometimes as many as 170 cattle had been wintered.

He was enabled to keep this large collection owing to two features in his management. He

had laid down about 200 acres of his grass land into watered meadows, which yielded him three or four times more grass than the crops of the neighboring farms; and nearly the whole of his straw was consumed as food instead of being trodden into dung. In his biographical sketch of the great man, in the Royal Journal, Mr. Houseman wrote as follows: "All lean cattle in winter—from November to the end of March—had had straw as their only food. Young cattle requiring to be kept in a growing state, and cattle in process of fattening, had straw and turnips until the turnips were finished in spring, and afterwards hay as the sole substitute of roots. Neither hay nor straw was bought, yet the cattle always looked well."

Sheep Dog Trials.

In a racy report of a sheep-dog trial at Peebles, Scotland, last month, a correspondent of the Scottish Farmer, after describing several performances that were but partially successful, and one good enough to secure the third award he writes:

By this time we were ripe for a change. We had laughed and pitied enough. And the change came. Thomas Gilholm, East Fortune, with Ben, soon made the onlookers draw long breaths. Away Ben went like an arrow, with a searching eye scanning the whole field. The moment he caught his lot he swept round them, shedding the grass with his nose—a display which only the word beautiful can describe. No rough "butchery" turn, no excitement, no hurry—he knew his art thoroughly. At once the sheep had confidence in him, and quickly showed signs of obedience. Between the dog and master there was evident the most absolute trust. Few words were spoken, few turns made, for at every point Ben's eye was a focus which permitted of no escape. A piece of splendid work; he completed his task without making a single false point. When James Scott, from Pinnacle, stepped forward with Cep, the word was passed round that a daring challenger had entered the lists. A whisper from his master was all that Cep needed. Very few seconds elapsed before he was in touch with the five fleecy innocents. He seemed to repeat the performance of Ben, and while it was extremely hard to note the slightest difference, there was a superior "finish" about the movements of Cep that merited the premier honor. Rightly the judges placed him first and Ben second. Had a second trial taken place two hours afterwards, the judges might—very likely would—have seen reason for changing the tickets, so near did both dogs come to the high standard of perfection. Three failures again lent variety to the proceedings. Appreciation, mixed with genuine sympathy, was evoked when "Bobby" Hardie, from Highlandshiel, made for the starting post. A round-faced, honest-looking boy of seventeen, he seemed a trifle timid, but nobly determined. His youthful backers gave him a good "heartening" cheer, which made "Bobby's" step a little more confident. Perhaps in that burst of applause he heard one sweet voice which meant more to him than all the rest. With manly gesture he commenced, and soon showed that both he and his dog were not without "steel." "Bobby" seemed to say, "We may not do it as neatly as some of them, but by jove we'll go through it, and in right rattling style, too." And he did, carrying off the fourth ticket with subdued and blushing pride. Loud and long was the applause which greeted "Bobby's" finish, and no doubt the voice that was always so sweet would be sweeter still that night, for her gay young mountaineer now stood fourth in the annals of glory.

Once a reader, always a reader, is the way with subscribers to the Farmer's Advocate. Why? Because it pays them to do so. Induce your neighbor to try it.

The Head of the Flock.

In buying a pure-bred sire get a good individual with a good pedigree, but never a good pedigree with a poor individual. The man looking for a sire to head a flock that is to produce mutton should not pay much attention to fancy points. He rather wants good mutton form. If the animal has a strong constitution it is not so particular that he have a certain sized ear, or his nose is a certain color, but be sure that the sheep has lots of vigor. The heart-girth should be large, indicating a large chest and lung room; the eye bright and prominent, carriage and step bold and active, a good temperament, wide between the ears, skin of a healthy pink color, and the wool soft and silky. A mutton sheep wants to have a mutton form, wide at the shoulder, the back wide and the width well carried to the tail-head, a well-filled leg of mutton, and the body should be wide and thick on the highest-priced cuts. In buying a sire, do not look for the biggest you can find, nor the smallest, but rather for the medium-sized animal, for he will always beget the most uniformly sized and most satisfactory stock. When you get a good sire do not feed him too much so as to keep him too fat, nor starve him, but keep him in vigorous, healthy condition. It is to be remembered that the meanest kind of a scrub can be made of an animal, no matter how good he is, by starving him; his ribs have been sprung by generations of good feed, and lack of it will let him back to slab sides again. There are times in the year when the flock seems to go back in condition. That is the time that you want a little extra feed. When changing from grass to dry feed, and from dry feed to grass, it is often well to feed a little grain. The breeding flock in winter wants lots of exercise and a variety of feed—clover, straw, and a little grain if they need it. If the ewes are fed right they will feed their lambs right, but if not they will not always care for them.

GEO. MCKERROW.

FARM.

Winter Wheat.

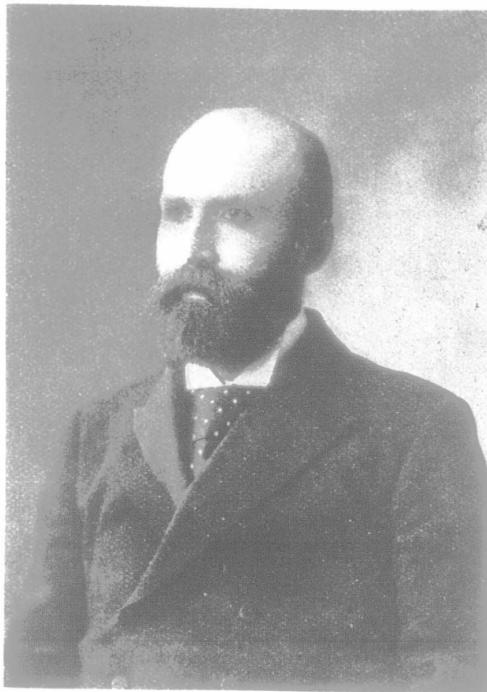
The winter wheat harvest for 1903 has been completed, and seeding time has arrived again. As about one-tenth of the cultivated land of Ontario is devoted to this crop, it is seen that there is still a keen interest in wheat growing in this Province. The crop of the past year has been good, the grain was saved without being sprouted, and, apparently, the Hessian fly has disappeared for the present. It is, therefore, quite probable that there will be a considerable area sown to winter wheat this autumn. As the future crop depends largely on the conditions of the soil, seed and sowing, close attention should be given to those conditions likely to give the best results.

Generally speaking, it is, perhaps, safe to say that no soil is better suited to the successful culture of winter wheat than a clay loam. Heavy clay soils which have been well underdrained usually produce excellent crops also. On the lighter soils, however, winter wheat is greatly influenced by the conditions of the season. In Ontario, winter wheat usually thrives much better on a bare summer-fallow, a cultivated pea stubble or an inverted clover sod than after cereal crops, such as oats, barley, and wheat. The bare fallow, however, is expensive, and has been discarded in many parts of the Province. The plowing of clover sods, or the turning under of green crops, should be done fully a month before the time of wheat sowing. After the land is plowed the surface should be stirred occasionally, in order to conserve or even increase the moisture in the soil.

It is usually not advisable to use coarse manure on winter wheat land just previous to the time of sowing. A top dressing of manure, placed on the growing crop either in the autumn or the spring, often gives very excellent results.

In the tests made by the Experimental Union during the present year, it was found that spring applications of twenty tons of well-rotted cow manure per acre increased the average yield of winter wheat from 26 to 41.3 bushels per acre.

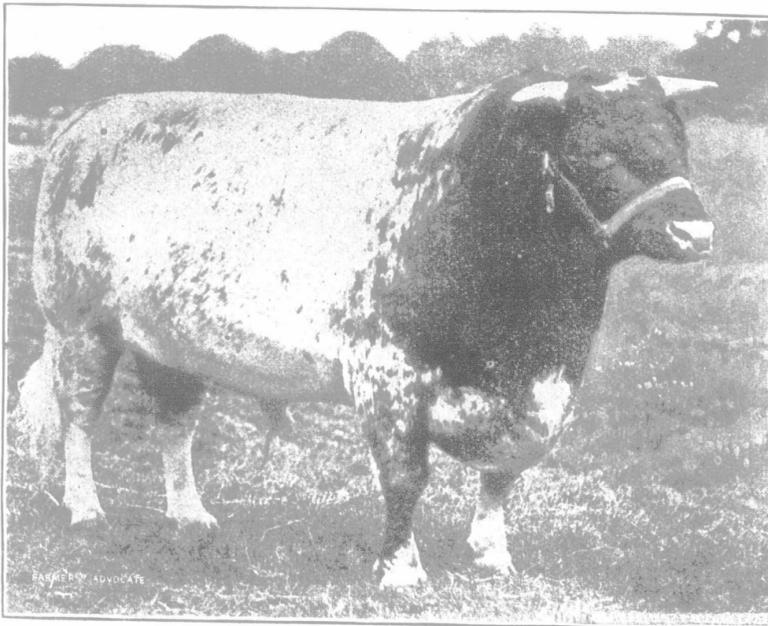
In preparing the land for winter wheat the object should be to form a seed-bed which will be fine, mellow and moist on the surface, and firm but not hard underneath.



DR. J. O. ORR.

Secretary and Manager Dominion Exhibition, Toronto.

In all, about two hundred varieties of winter wheat have been tested at the College for at least five years. The Michigan Amber, Imperial Amber, Early Genesee Giant and Bulgarian varieties have shown themselves to be general-purpose varieties of good standing. The Dawson's Golden Chaff has, however, become the farmer's favorite, owing to its great strength of straw and its high yielding powers; while the Turkey Red has become the miller's favorite, owing to the superior milling qualities of its grain. A number of



ROYAL ARCHER (82127).

Champion Shorthorn at the Highland Show, 1903. Born February 11th, 1900.

BRED AND OWNED BY SIR J. GILMOUR.

crosses between the Dawson's Golden Chaff and the Turkey Red have been made at the College during the past two years with the object of producing a new wheat which will unite within itself the good qualities of both these varieties.

The results of numerous experiments, extending over several years, show the great importance of using large, plump, sound and thoroughly-ripened seed of good vitality and free from smut.

Seed wheat containing smut should certainly be treated before it is sown. This can be done by using any one of the following methods: (1) soaking the seed for twelve hours in a solution made by dissolving one pound of copper sulphate (bluestone) in 24 gallons of water, and then immersing the seed for five minutes in lime water made by slacking one pound of lime in 10 gallons of water; (2) immersing the seed for twenty minutes in a solution made by stirring one pound of formalin in 40 gallons of water; and (3) placing the seed for fifteen minutes in water kept at a temperature of 130° to 135° F. After each treatment the grain should be spread out and stirred occasionally until dry enough to sow.

Good seed will be distributed this autumn for co-operative experiments with winter wheat, winter barley, winter rye, winter vetches and crimson clover. Material will also be furnished those wishing to conduct experiments with different kinds of commercial fertilizers on winter wheat. For full information apply to the writer.

C. A. ZAVITZ.

Agricultural College, Guelph, Ont.

Care of Farm Implements.

To the Editor "Farmer's Advocate":

Sir,—How is it that in the Agricultural College at Guelph, an institution doing such good educational work, there is no department for teaching students how to set up and operate binders and other intricate farming machinery. Of course it has not heretofore been in the interests of manufacturers of the machinery used by farmers that the farmers should know how to set up and fix their machinery. Their not knowing this enables the manufacturers to make more money out of them by keeping a staff of men to do such work, which the farmers should and could easily do themselves if they were once taught. But now that the farmers of Canada are preparing, through the Farmers' Co-operative Harvesting Machine Co., to make their own machinery, it would surely be but fair on the part of the Government, that farmers' sons, and every student at the agricultural college, should be taught this, one of the most important branches of farming. The writer has in mind several instances where new binders have been purchased, and their old ones consigned to the scrap heap and afterwards bought for a few dollars by a more skillful farmer along the line of repairing, and made to perform nearly as many years of service as it did for its previous owner. I would like the views of other farmers throughout the Dominion on this question, which seems to me to be of the most vital importance. A binder properly operated and taken care of would last very much longer than one not so well looked after. Farmers and their sons are quite as intelligent and capable of learning to set up and operate all kinds of farm machinery as are those who are at present doing such work, employed by the manufacturer and paid by the farmer, if they had an opportunity to learn.

Huron Co.

S. M. SANDERS.

Waste Fertility Again.

It seems rather peculiar the way Ontario people shut their eyes to the certain wastes of fertility that are continually going on around them. Some time ago we called attention to the loss to our people of fertility through the sale of wood ashes and the by-products of our packing houses. Just recently another instance has come to our notice, namely, the active trade in bran between Ontario dealers and New England buyers. In August bran in Ontario could be bought for sixteen dollars per ton for the farmers about Boston, who paid twenty for it. The reason for this difference in price may be due purely to the fact that there is a better market near the large New England cities for dairy products, to produce which our bran is used. But while we are selling bran to New England, we are at the same time buying corn from the Central States, and paying more for the food constituents of this corn than we get for those of the bran. It, therefore, does not require much study to see who are the losers in these transactions. The New England farmer gets good bran at a low rate from us, while the corn-grower finds here a good market, and we part with bran, the manurial value of which is about thirteen dollars per ton, for corn whose value in fertility is only about (looking only to the immediate feeding value of the two commodities) one-half that much. Corn, to be sure, is useful to feed with our oats, but we surely have use for our bran with dairy products and hogs selling at such good figures; and even for fattening cattle on grass, some feeders claim that bran gives equally good results as a mixed-grain ration. There certainly must be a market for our bran in Canada, and if not we cannot develop one too soon.

If woman did turn man out of Paradise, she has done her best ever since to make it up to him. \$3.33.

Sugar Beet Labor.

Letters to the Galt, Ont., papers regarding the sugar-beet industry in that locality contain the following gratifying statements:

In the Township of Waterloo, several farmers were called upon. The first, Mr. Shantz, had 25 acres under cultivation, and it presented a clean, luxurious growth. Mr. Shantz owes a great measure of his success to a machine invented by himself for blocking the beets. The cost of thinning the crop was about \$2.25 per acre. The same remarks of a luxurious growth and careful cultivation would apply to all the fields inspected, and in every case where the crop last year was sugar beets and this year oats or barley, an abundant crop was produced, proving that the sugar beet is not an exhaustor of the soil. The general testimony of the farmers themselves tended toward this fact, and also toward the gratifying fact that when fed to cows the pulp increased the flow of milk.

In every village or town there are many people who are employed in regular trades who will readily hoe in the sugar-beet fields when once they know what the work and pay are. A Mr. Weir, who rented land near Mitchell, Perth County, was told that he could not secure labor. Nevertheless, by thinning time the number of hands working daily was increased to 50 or 60, and more were still applying for work. Mr. Weir is a firm believer in the success of sugar-beet cultivation, but recognizes that it is a profession, and can only be learned by practice. Upon the fact that the crop employs labor and will pay for it, Mr. Weir's confidence in the crop as one which will better Ontario's condition is based; always regulating the acreage to be planted by the available labor. He thinks that in a few years it will become a common practice for the farm and village hands to go out and work for sugar-beet cultivators. This kind of work among the unemployed villagers, that has been so well begun by the above-named parties and many others, and which is of mutual benefit to farmer and villager, and of general benefit to business, should be heartily encouraged throughout the country where sugar beets are and can be grown.

More About Ginseng.

The interest of our readers in ginseng growing seems unabated. Up to this time it is said that \$30,000,000 worth of the roots of the plant have been exported from the United States, practically all to China, where the demand is constantly increasing. Chinamen have unlimited faith in ginseng as a preventive and cure for nearly every human ailment. That some enterprising Canadian or American patent-medicine man has not yet exploited ginseng as a remedy, passes the comprehension of the "Farmer's Advocate." Just why the Asiatics prize it so highly is not clear. According to a recent analysis, the roots were found to contain five per cent. nitrogen, eighty per cent. lime, fifty per cent. phosphoric acid, seventy per cent. potash, and the balance water. The chemists could not understand why Chinamen would pay \$10 per pound for it, but still they do. Will they continue to do so, and will a demand also spring up in America? Good matured roots sell at \$6 to \$8 per pound in the United States, and a Canadian who is interested in its culture told us the other day that "germinated" seed was worth \$250 per pound, and quotations were not easy to get. The seed will not germinate for eighteen months after being matured, and during all that time it must have been kept moist, stratified in fine woods mold. Plants are best grown from roots, as our readers are aware, and also must be grown in the shade, and it takes five years to fully mature a plant. The root being removed and sold, that is the end of a plant, consequently, new plantations must be kept going. Ginseng growing, therefore, means a lot of patience and skill, which readers will do well to bear in mind in starting out after the \$3,000 per acre net return, estimated from the yields of small plots in the past.

The sure way to win in the sheep business is to stick to it. In times of adversity will be a good time to prepare for prosperity, and vice versa. The man who manages well will have plenty of sheep to sell when prices are good, and when they are ruinously low he will be buying or holding what he has. Of course, there goes with this some allowance, for it does not pay to keep unprofitable sheep, and some will be unprofitable in times of depression. Then is when a man can ill afford to keep a non-paying sheep.

The domestic economy and literary features of the Home Department of the Farmer's Advocate commend it to the wives and families of our subscribers above all other periodicals of its class. Introduce it to other homes.

The O. A. C. Graduates.

Mr. C. C. James, Deputy Minister of Agriculture, writing in Toronto University Monthly of the work of the Ontario Agricultural College, says: "In the sixteen years (1888-1903) 139 students have passed their examinations and received their degree at the O.A.C. An interesting article might be written on the careers of those



MR. J. A. NELLES.

Secretary Western Fair, London, Ont.

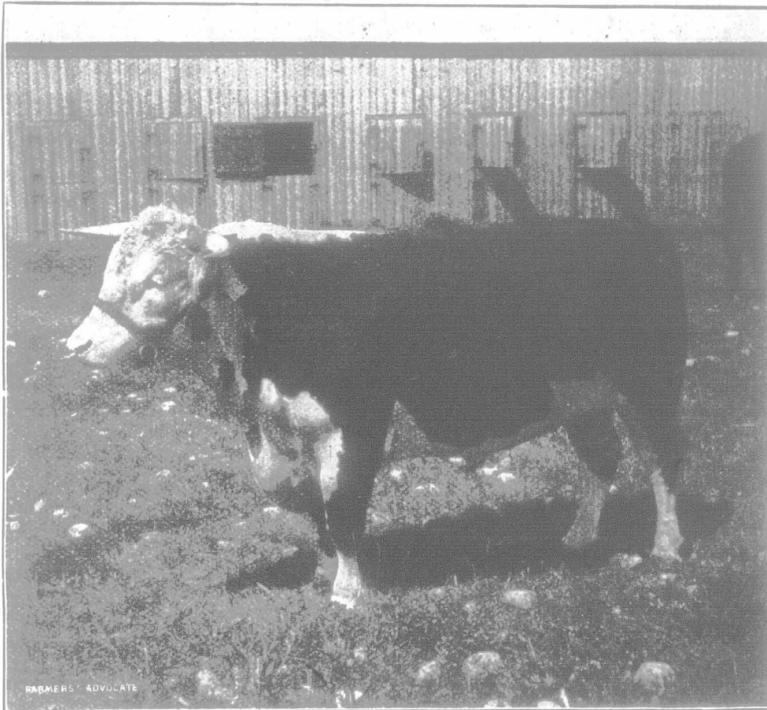
139 young men. They are to be found in responsible positions, doing splendid work. Many of them are working out the problems of life on Ontario farms, one of them has occupied a seat in the Legislature, three of them are directing work in the Provincial Department of Agriculture, no less than twelve were on the staff of the Agricultural College, 1902; four are in the service of the Dominion Government, thirteen are filling professors' chairs in American agricultural colleges, several are managing large agricultural estates in Canada and the United States, and two

The Corn Crop.

Owing to the coolness of the weather this summer corn in many districts has made slower progress than it would otherwise have done, and will be later in maturing than usual, although the crop, generally speaking, will bulk more largely for ensilage purposes than was at one time expected, and will be in that respect a fair average crop in most districts. The only serious drawback will be that the corn will not be sufficiently matured to make good ensilage if harvested as early as usual. There is, we believe, a general impression that corn touched by frost before being harvested is damaged for ensilage purposes, and that for best results it must be secured before frost comes, and for this reason cutting is often hurried on, though the crop is green and far from maturity. We are convinced that this is a grave mistake, as green corn almost invariably makes sour ensilage, lacking in palatability and in nutritive qualities. Experience has clearly taught that for best results the grain should be full and beginning to harden, mature but not dried out, before harvesting; and experience has also confirmed the opinion that two or three light frosts do not materially affect the quality of the ensilage. We have known a number of cases in which the crop of 1902 was not harvested till the middle of October, having been frozen more than once or twice, and yet made first-class ensilage, much better, indeed, than most of that cut a month earlier in the same neighborhood. In view, therefore, of the lateness of the crop in general this year, we feel safe in counselling our readers against too great haste in cutting their corn for ensilage, but rather to give it time to have the benefit of possible fine maturing weather throughout September. In case of unavoidable delay in harvesting, and where the crop has become unduly dry, it has been found advantageous to water it as it goes into the silo, in order to avoid moulding, and to make it pack closer, but we are inclined to think this is seldom necessary if the corn is cut into half-inch lengths, which we strongly advise, and well mixed and tramped as it goes in. Water is most conveniently applied by having a barrel with a spigot-sprinkler placed either at the foot of the carriers, where these are used, or over the feed-box if blowers are used.

Silage Quality.

The results of experiments at the New Hampshire Station and others invariably agree that the best silage is obtained from corn that has nearly reached maturity, with ears fully formed and well filled. At this stage of growth, also, a corn plant has reached its maximum of food production. Varieties of corn should be selected which yield the largest crops at this stage, rather than those which produce large plants, but are yet immature at cutting time. This practice is already followed by many farmers, but should be by all. For New Hampshire a standard variety is the Leaming dent corn, while in those portions of the State with too short a season for that variety to reach the proper stage, the Sanford flint corn is advantageously used. The sugar in the green fodder is practically all destroyed in the silo, and since it is most abundant in the early stages of ear development, it is an additional argument for postponing cutting until the grain is full size and the sugars have changed largely to starch. The amount of seed per acre affects the yield of green fodder, and also its composition. A medium stand is essential for the best results in both quantity and quality. The practice of using a half-bushel of seed per acre is good. In a favorable season, with plenty of fertilizer, more seed could be profitably used, but the tendency to inferiority in quality, in decreasing the protein and increasing the sugar and fiber, render it inadvisable.



PREMIER 119705.

Hereford bull, two years old. First at Winnipeg, Calgary, and Regina, 1903. Bred by J. Longabach & Son, Bettlesville, O.

OWNED BY R. SINTON, REGINA, ASSA.

are filling Government positions even in far-away India and the Philippines. Through the press, on the platform, in practical farm life, in experimental work, along all lines of progressive agriculture in this country, the graduates and associates of the Ontario Agricultural College are to be found to-day. The college is advertised by its students.

Pointers for Western Beginners.

BY ANGUS MACRAE, SUPERINTENDENT INDIAN HEAD EXPERIMENTAL FARM.

SELECTION OF LAND.

In choosing a grain farm or one intended for mixed farming, it is advisable to select soil that will withstand dry weather. A clay loam, eight inches to two feet or more in depth, on top of clay subsoil, is the best for this purpose. Sandy loam, with clay subsoil, is some earlier in maturing grain, but not so sure in dry weather for crop. Sandy soil, with sandy or gravelly subsoil, should not be taken.

WATER AND BUILDING SITE.

If possible, select land with a water supply visible, or reasonably sure. When there is doubt, land with a coulee or ravine on it, in which snow water can be retained, should be chosen. Erect buildings near water supply. Face them south or east, and as soon as possible grow a wind-break of maple trees on west and north side for protection. When grain-growing is to be carried on extensively, select the open prairie, with few or no bluffs or slough holes. Seasons are too short to waste time working about such places. On large farms, buildings should be as near center as possible, to save loss of time in going to and from work.

BREAKING LAND.

Breaking the land is naturally the first matter to engage the settler's attention, after shelter has been provided for himself or family, and it is better to defer anything but mere shelter until the breaking season is over. A house can be erected at any time, but breaking must be done at the proper season to ensure good results. The best breaking season is the month of June, but May breaking also gives good returns, and the work should be commenced at the earliest possible date. After July sets in, if weather is dry, the sod will not rot, and breaking may be discontinued with advantage to both land and settler.

Breaking should be done as shallow as the land permits, 1½ to 2 inches is best, turn furrow flat over, and if roller is available, use it to hasten the rotting process. With ordinary horses or oxen, a plow turning a 12-inch furrow should be used; with more force a 14-inch plow is preferable. A plow with breaking and stubble attachment is cheapest, and does as good work as one for each operation.

Backsetting consists of turning the sod back to its original place, and at the same time bringing up a few inches of soil to cover it. The plowing requires to be done in same direction as the breaking, and as near as possible the same sized furrow turned over.

Usually six weeks is required for the sod to rot after it is broken, before it can be backset to advantage. After the backsetting is through, the surface cannot be made too fine, and any work done on it with a disk harrow will be repaid by extra crop.

SOWING ON NEW BREAKING.

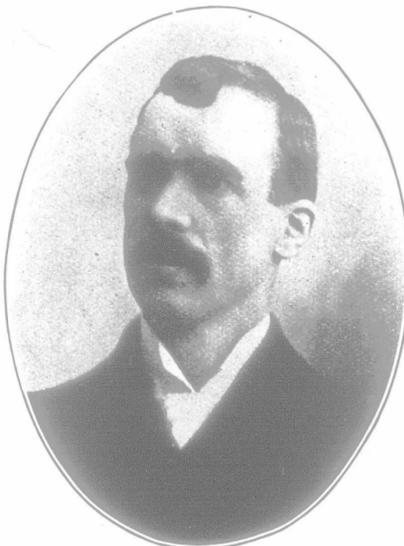
To a new settler, with perhaps a family and little means to carry him over a year, the temptation is strong to sow as much as possible the first year. There is, however, great risk in doing much in this line, and except in cases of absolute necessity, the risk should not be taken. Flax, potatoes and vegetables may succeed in ordinarily good years. A grain crop rarely pays more than the cost of seed, while it injures the land for the next year's crop, and should not be tried.

For flax, the breaking should be done 2½ or 3 inches deep, the surface made as fine as possible, and seed sown with shoe drill at rate of 30 to 40 pounds per acre, from 15th to end of May. Every day after 1st June increases the risk, from fall frosts.

CULTIVATION OF SOIL.

Usually, two crops can be sown upon, with little or no cultivation after the land has been broken and backset. After the two crops are

taken off, the land must be fallowed every third year to ensure good returns in favorable and unfavorable seasons. Fallowing means allowing the land to remain idle, and working it during the season to conserve moisture and kill weeds. In addition to these two important points, the land can be prepared for the next crop at a time when other work is not pressing, and left in the best possible condition for early seeding, which is



MR. E. McMAHON.

Secretary Central Canada Exhibition, Ottawa.

one of the main considerations a settler should never forget. In no part of the Territories is there time for much fall or spring plowing, even if advisable to have the work done during these seasons. One deep plowing before the end of June, with shallow surface cultivation to kill weeds as they germinate, has given the best results in all kinds of seasons, and can be recommended. Fall plowing is not advisable, unless the soil is moist, which it seldom is. Spring plowing for oats or barley can be done with a fair measure of success. Stubble, if possible, should be burnt before plowing. If heavy, when turned under, the soil will be kept loose, and dry out when rains are over.

SEEDING AND VARIETIES OF GRAIN TO SOW.

Seeding is one of the most important works in farming operations, and unless done at the proper season had better be left undone. No

sown by drill, and put down from 2½ to 3 inches deep. Broadcast seeding is not advisable under any circumstances. Wheat requires 1½ to 1¾ bushels seed per acre; oats 2 to 2½ bushels; and barley 2 bushels. Red Fife wheat is the best variety to sow in Assiniboia and in the southern and more open part of Saskatchewan. Earlier sorts, such as Preston, Stanley, Percy, Dawn, etc., are safer for Alberta. Banner oats have given best returns in Assiniboia, while for Alberta and Saskatchewan, Wide-awake and Improved Ligowo are better suited. Six-rowed barley matures six to ten days earlier than two-rowed, and except on fallow land is more reliable. Mensury is the best six-rowed, and Canadian Thorpe the best two-rowed. Both are stiff in the straw, and on good fallows produce heavy crops. As stated before, two crops are reasonably sure after backsetting, with little or no cultivation after the backsetting is completed. The same or better results are obtained after the land is fallowed. In all districts where fallows are made, the first crop is usually heavy. When harvested, the stubble of this crop is left as high as possible. In the following spring this stubble is burnt on a warm, windy day, and the second crop sown without cultivation. After seeding a good harrowing is advisable.

STOCK.

It need not be said that mixed farming should be carried on by new as well as by old settlers. In many districts, however, this is found at present difficult, if not impracticable, from insufficiency of water; but in the great majority of districts cattle, swine and poultry can be raised, and for a new settler, these should be his chief reliance, for a few years at least.

Vegetables of all sorts can and should be sown by every settler, and for this there is no preparation better than backsetting or fallowed land. Both insure good returns from the least work, no matter how unfavorable the season may be. No work is required in the spring except sowing the seed, and with one or two cultivations weeds are kept down.

Protection is required for vegetables on the open prairie to secure the best results, but no one need defer growing them until this can be provided. Potatoes, cabbage, cauliflower and the more robust varieties can be raised on the open field. Early or medium early sorts of all vegetables should be grown; this is especially the case with potatoes, beans, etc. Onions, carrots and parsnips can be sown from 1st to 10th of May. Potatoes and all sorts of field roots from 15th to 25th of May.

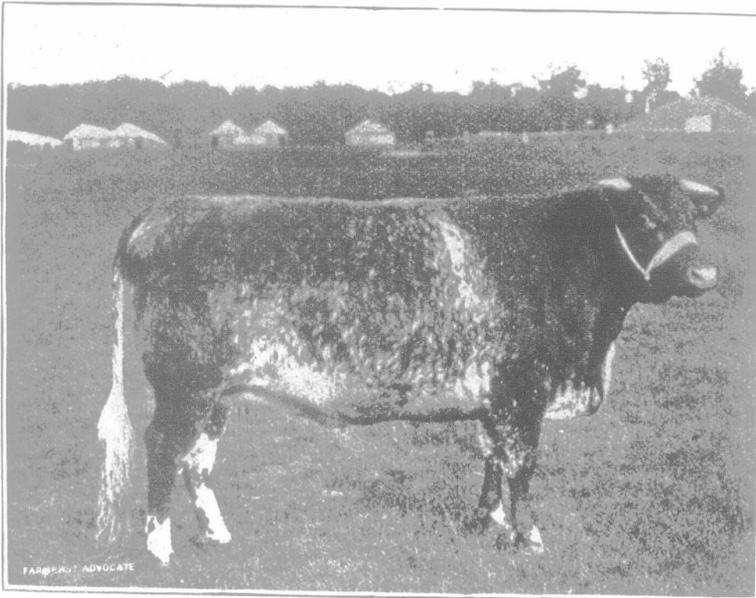
A Boon to New Brunswick.

In re the proposed Quebec-Moncton division of the Grand Trunk Pacific, from Moncton to Doaktown, as per old survey, the route traverses a fine farming country which would be opened up, and also fairly wooded, pretty heavily, in fact, with pine and spruce. Northward from Doaktown to Edmundston, at the north of New Brunswick, the old surveyed route will travel as fine a country as ever laid outdoors, a fine soil, heavily wooded with spruce and cedar, with a variable quantity of pine and hard woods, such as birch, maple and beech. I have covered a great portion of this country in my lumbering, and know that it is as stated. With this beautiful expanse of country opened up by railroad, it would surely occur to capital that here lies a field for operation. Doaktown, where the surveyed proposed route will pass, is about equal distance from Chatham and Fredericton, on the Canada Eastern Railway. It would thus be in a central position with reference to these two towns and Moncton and Edmundston. With its position in relation to other towns, and to country undeveloped, this proposed route appeals to the whole public with such a force that we will feel deeply grateful to the Government that opens up this country.

The mineral wealth of this country is unknown, but it is within the range of possibility that nature has provided some when she has given to it such a wealth of forest. This fine farming country is all undeveloped, and must remain so unless the road be built, which we hope will be speedily. W. T. ROBINSON. Northumberland Co., N.B.

The best men are those self-examining, and, consequently, self-reforming. They look beyond and not behind. They are willing to correct their errors and discard their misconceptions. The issue now, as always, is between progress and non-progress. Going forward must necessarily more or less disturb present conditions. For that reason they are not enemies to a class, certainly not to the public.

Send in the names and P. O. addresses of a few friends who ought to be taking a good paper for the home like the Farmer's Advocate. We will do the rest.



BAPTON PEARL.

Short-horn heifer. Bred by Mr. J. Deane Willis, Bapton Manor, Wiltshire.

matter how early (provided it is not before the 1st April) or late the spring may be, wheat sowing should commence as soon as frost is out sufficiently for drills to work, and all finished within three weeks from the start. The second week's seeding gives the best returns usually, and is as safe as the first. After the third week no wheat crop is safe. Oats and barley are best sown early in May, and not later than the 15th of that month. Grain of all sorts should be

What's the Difference?

A strange and, at first, unaccountable sight may often be seen as one views the crops in the country. Here a field of grain without a weak spot, all rank and good, giving promise of a full yield; just over the fence—a line fence—the crop is unsatisfactory, weak and thin and generally deficient, will yield not more than two-thirds of what the other will. Why the difference? The soil is as much alike as possible, same variety of grain, sown at the same time, with same amount of seed per acre, all under the same sun, air and showers.

Or it may be in the weediness of adjoining farms that the passer-by notes a difference. On one farm not a thistle head shows in the grain. Even in the pasture none can be seen, while between the rows of corn or roots, well-cultivated soil, without a tinge of alien green, is all that is visible. On the one adjoining, the airy thistle-down floats gracefully, while mustard, daisy, wild oats, ragweed, etc., each in its season, apparently reign supreme. The fence sides—up to the line fence—are a tangle of raspberry bushes, thistles and golden-rod. The corn crop is nearly breast high in a thicket of pigweed, foxtail and other annuals, with quite a few perennials thrown in; the corn itself is yellow and spindling, and will not yield more than half what it would have done had it been kept clean. The reader knows that this is not overdrawn, that the contrast as stated is not greater than can actually be seen. The question is: What is the reason of the difference? The season often gets the blame. How often a farmer remarks when the weeds are getting ahead of him that it is a bad season for weeds. But it is not the season, for that is alike for all. Sometimes it may be that a man tries to farm too much land, and, therefore, the weeds get a start. But that is not usually the reason, either. Neither is it that the one farmer is physically stronger than the other and can work harder and longer. We were well acquainted with a farmer who, in his younger days, had a severe sickness which left him unable all his life to stand heavy work like others, yet his farm was always a model of cleanness and productivity. The man with the dirty farm is lazy, somebody will be sure to say. Sometimes, perhaps, but not generally. He is usually just as busy from morning till night as his neighbor.

It may be that the difference between neighboring farmers is most noticeable in the looks and behavior of live stock. One man's cattle always seem to have enough to eat, are contented and give no trouble about fences; while his neighbor's are hungry and scrawny looking, and forever breaking into his own or somebody else's crops.

We might go on through every department of the farm and draw attention to differences where circumstances are very similar. But there is no need. Everybody remarks and admits them. But the reason, what is it?

It can be given in one word in almost every case—management. Doing or not doing the right thing at the right time. In other words, it is in the applying or neglecting to apply brains to business—knowing what to do, when and how to do it, and doing it. A little story used to be current in farming papers a few years ago, which very pithily brought out this truth, and which we venture to repeat for the benefit of the younger farmers who may not have seen it: "A man was admiring a magnificent crop of his neighbor's, and asked what he manured it with. After a moment, he answered—'With brains, sir.'" Good management will change a poor farm into a rich one, a dirty farm into one that is clean, failure into success. Canadians justly take pride in the wonderful expansion of the trade of the Dominion. Party papers and party men on the Liberal side give the credit of this to the Government. We can afford to smile at the assumption. In great part, of course, this expansion is due to the opening up and development of the West and Northwest, but, in possibly greater part, it is the result of better methods of farming in the older Provinces—better management, in short. The practice of converting the surplus of the farm into live stock or its products before selling, which a very little exercise of brain will convince anyone, is a good practice, and which the "Farmer's Advocate" has always consistently contended for, has, in these Provinces, obtained more and more. We now reflect with delight and amazement on the shiploads of cheese, butter, bacon and fat stock, not forgetting eggs and dressed fowl, which now take the place of the grain formerly exported, and are of much greater value. We well remember an Aberdeen Scotchman, who lived nearly to the age of 100, telling of his early experiences in this country. Soon after settling, he launched out quite extensively into the growing of "neeps." His neighbors admired his crop, but commiserated him on the terrible job he would have hauling them to market. "Nae trouble ava," said the Aberdonian, "A'll drive them afore me along the road wi' a wheep."

Along the line of still better management, what

abundant room there is for further expansion. We do not use our heads as we might, and as we yet shall. He would be rash indeed who shall say: "Thus far from this cause may expansion go, but no further." In this affair, he who helps himself, helps his country and helps the world. The old axiom is no doubt true: "He who makes two blades of grass grow where one grew before is a public benefactor." THOS. BATY.

This is my third summer of superintending the Nova Scotia Travelling Dairy School, and I am beginning to have a fair idea of the Province. The Government did well to start me in the very eastern end, for as I travel westward, conditions in every respect, except in scenery, perhaps, greatly improve. The first of this season I spent a short time in Colchester County, and was delighted not only with the people I met, but also to see the comfortable homes and general thrift about the farms. For the past month or more I have been working in Cumberland, which I think is the second largest county in Nova Scotia. Considerable lumbering is still carried on here, while along the coast fishing is of no small importance.

I never saw so much land in hay. It is quite the largest crop grown in this county. Much of it is pressed and sold, and the constant cropping is telling in many places on the fertility of the soil.

No winter wheat is grown, or at least I have seen none. I saw a small patch of excellent winter rye, grown chiefly for the straw, which is used to make horse-collars. The spring wheat, well, I never, any year in Ontario, saw it look

better, and the oats are equally good. The straw seems especially strong. Both crops stand up stiff and tall, and are well headed out.

People cannot attempt to grow corn. The climate is too cold and the season too short. Occasionally I see a few rows. This morning, as I drove along, I noticed the leaves curled up on some, showing there had been a slight frost already.

Roots of all kinds do well, but the farmers do not grow nearly enough of them for their cattle. Almost every farm has a small patch of buckwheat. Only this

afternoon I asked a farmer what was done with it, and he said: "We're great pancake eaters down here, and could hardly get through the winter without some buckwheat flour for them. Then we consider there is no better food on which to fatten pigs."

I do think if the people of this Province went more extensively into dairying, they would find farming vastly more profitable. Few farmers keep over five or six cows. The butter is made at home, and sold in the local markets. In many localities I see a good opening for a creamery or cheese factory. The roads are good, the country well settled, and plenty of land for pasture. I predict that the Travelling Dairy School will stir the farmers up to see that dairy farming is the kind suitable to their conditions, and that co-operative dairying is the best way of handling the milk. Cumberland Co., N.S.



HOW (NOT) TO GROW CORN.

The old one-hoss' cultivator in a wilderness of weeds. Photographed in East Middlesex, Ont., August 15th, 1903.

From a Nova Scotia Drive.

BY LAURA ROSE.

"Nature gives to him who wills." This is more forcibly seen by driving through a country and noticing the difference in the appearance of the farms than in any other way. The scrubby trees in the orchards lying along the road sometimes lead one to think apples cannot be grown in the district, until one comes upon a fine



GOOD CORN GROWING.

Photographed in East Middlesex, Ont., August 15th, 1903.

orchard with trees thrifty, well-pruned and laden with fruit, and so it is with other products of the farm. As one takes out of life only what he puts into it, so a farmer gets from the soil in proportion to the amount of brain and muscle he has bestowed on his land.

"You used to have a good deal to say about politics."

"Yes," answered the Kansas farmer, "and I still have my opinions. But with crops big and farm hands scarce, a man would be foolish to start an argument."—Washington Star.



SWAINSON'S HAWK.

The Practical Value of Bird Life to the Agriculturist.

That bird protection is necessary and beneficial to our country is no longer disputed by the most matter-of-fact, but the several claims of these interesting creatures to such protection are still unknown and unrecognized by many of the more intelligent. The general desire to protect is, in the game birds, to maintain a supply for sporting and food; and among the smaller birds, because of their general cheerful companionship to man. These individual and comparatively insignificant reasons exclude from the minds of the more superficial observers many groups and species holding strong claims to our protection, and an advocacy of the claims of these forms regularly raises the question, "Of what practical value are birds, that they should be protected?" We protect the grouse and ducks because they are edible. We desire protection for the smaller birds because they sing about our doors, and are altogether cheerful companions; but this is all. We ruthlessly destroy hundreds of songless birds because we have an idea they are destroying our fruit, while we leave the most important occupations on the farm, frequently, to search out the shotgun and shoot down a hapless hawk or owl which happens to wander near our domiciles. We shoot it down and return to our work. If the question is asked, "Why did you shoot that hawk?" the reply is, "To protect my chickens"; and were you to dissect this bird before the eyes of the average prejudiced farmer and show him the stomach full of gophers or mice he would not be persuaded that the bird had any other intention or purpose in life than to destroy his poultry.

Ask the average fruit-grower why he destroys the robins, woodpeckers and waxwings, and he will say, "To protect my fruit." He forgets that these birds have done more to protect his fruit to the ripening stage than he has done, by their continued removal of insect enemies, and because they dare to appropriate the fruit they have protected they are robbers.

It is to be regretted that so little has been done by our home societies and governments to place these matters before the farmer in their proper light. We are not all naturalists, nor can we all be accurate observers of nature, or by personal research discover the truths as thus revealed, but it is certain that a systematic investigation in the various districts of the feeding habits of these forms of disputed economic value, and a tabulation of results, could not fail to convince the most prejudiced. The question of



RED-TAILED HAWK.

noxious weeds is extensively dealt with by agricultural societies, but the economic values of our feathered weed destroyers is unworthy of our recognition or, at least, has heretofore been considered unimportant, and just so long as it remains unrecognized as an important economic agricultural factor by these institutions so long shall prejudice prevail in the mind of the agriculturist and fruit-grower.

It was for the rectification of this very evil that the United States Government some years ago established a bureau of investigation in connection with their agricultural department, and the same work is now being taken up by several of the States individually, and in every case their investigations have resulted in remodelled and more carefully worded and enforced bird laws, and from the bulletins of the Washington bureau particularly we must to-day cull our information upon these subjects. To these alone can naturalists conducting individual investigations in Canada refer for a verification of their own researches and discoveries.

We have in Manitoba some 28 species of hawks and owls, and I invariably notice that of these birds, as with humanity, it is the innocent which suffer for the guilty, and species which are friends of the farmer and protectors of his interests, which, possibly because their honest intentions make them less wary and an easier mark for the shotgun, are ruthlessly destroyed, while the guilty goshawk and falcon escapes with his quarry unscathed. If the doubtful investigate for themselves they will find that the majority of our common hawks, familiarly dubbed hen-hawks, prey almost entirely upon mice, gophers and other injurious animal and insect pests. The same may be said regarding the work of all our owls, and especially is this true of the smaller species.

As a result of investigations made of the work done by these birds, I may refer to the records made in my paper upon "Manitoba Birds of Prey," read before the Historical and Scientific Society in Winnipeg in December, 1898, and quote from the



CATBIRD.

concluding summary, wherein it is shown that there are nine hawks and eleven owls, mostly beneficial, which average as a result of extensive stomach examinations only 16 1-3 per cent. injurious, of which 12 per cent. is among small birds of doubtful economic value, leaving only 4 1-3 per cent. injurious to poultry and game combined.

In the harmful species, the record shows but 25 per cent. injurious to poultry and game birds, while the same percentage is proven beneficial, the remaining 50 per cent. being destructive to smaller birds of doubtful economic value because of the non-determination of the species. As it has also been shown that the three species most injurious to small birds prey chiefly upon two pests, the English sparrow and the blackbird, their injurious records may be reduced at least one half. We consequently find 50 per cent. of the most harmful species entirely beneficial, and only 25 per cent. injurious to poultry and game combined.

Of the species regularly destroyed as injurious, which should claim our protection, there are the marsh hawk, that large reddish-brown hawk with the white bar across the root of tail; a very numerous and entirely beneficial species, feeding almost entirely upon mice and frogs. Swainson's hawk, a larger, broader-winged soaring hawk seen about the prairies very commonly, and whose food is almost entirely gophers and mice; and the red-tailed, red-shouldered, and broad-winged hawks, three slower-flying large hawks found in the woods and partial clearings, and whose food is also mice and gophers in the majority. The spry, alert little sparrow hawk, which industriously pursues its prey in true falcon style and which feeds entirely upon mice and insect life, chiefly grasshoppers in the season of destruction. And all the owls, with the possible exception of the great horned, feed in the majority upon mice and other animal pests. There are a few records, lightly touched, to be given to establish the beneficial records of the feathered agricultural police, whose efforts have been, through ignorance and prejudice, so long discredited or misunderstood.



GREAT HORNED OWL.

While our antipathy towards the smaller birds is not so pronounced, because of the sentiment in their favor as companions to man, we are, nevertheless, as slow to recognize their economic value, as in the case of birds of prey, and in some cases we overcome our sentiment and destroy the species because of their fruit-eating propensities. The cases of the robin, waxwing (or cherry bird), catbird, and some of the woodpeckers, before referred to, are those which attract chief attention. Now, when we consider that the food of these birds for the entire breeding season and, in fact, during that portion of the year when fruit is not available, consists entirely of insects, in the majority most injurious to fruit and grain, it is but justice that they should receive protection in return for their labors, and if we desire to save our cultivated fruits we can do so by planting in our groves and orchards a few wild fruit vines or bushes, and when these bear fruit the birds will take it in preference to the cultivated varieties. Many varieties are available and favorites of the birds, such as wild currant, grape, chokecherry, saskatoon and the mulberry. Let fruit-growers experiment upon this idea and they will be amply rewarded for their pains, and will save many cheerful and happy lives from premature destruction.

Many species, because of their entirely insectivorous nature, should receive our strongest encouragement, and accommodation should be provided for them. Swallows and wrens are especially deserving, and boxes and nesting sites should be arranged for their accommodation during their summer sojourn amongst us. These should be constructed with a small round opening large enough for the bird desired to enter, but too small to permit of the invasion of that increasing nuisance, the domestic sparrow. The holes should have no perch at the opening upon which the sparrow can alight. The owner, if it be wren or swallow, can enter quite easily without a step to stand on.

Other species which, because of their beneficial character, should receive our encouragement are the Baltimore oriole, meadow lark, rose-breasted grosbeak, and black-billed cuckoo, and we can materially assist these by doing what we can to discourage the sparrow in our vicinity.

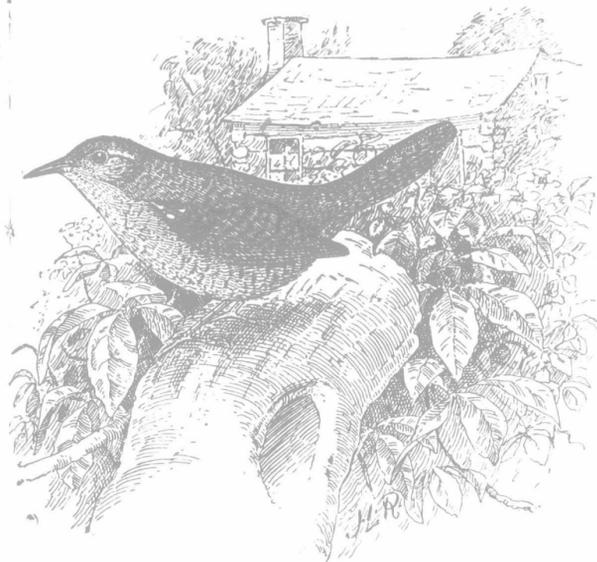
The food of the Baltimore oriole consists of 90 per cent. injurious insect life which is gathered among the swaying branches of our forest, fruit and ornamental trees.

Over 80 per cent. of the animal food of the meadow lark is injurious insect life, chiefly grasshoppers. The efforts of this bird in the destruction of the immature hoppers is in itself a strong claim to our recognition.

The rose-breasted grosbeak, one of our most beautiful species in song and plumage, is an exceedingly beneficial species, the entire food of



HERRING OWL.



HOUSE WREN.

adult and young during nesting consisting of noxious insect life. This is one of the few birds known to be fond of the much-despised and objectionable potato beetle, and this in itself should obtain him our protection.

The claim of the black-billed cuckoo cannot be made too strong, as this species is entirely insectivorous, and it is the one species known to be fond of the hairy caterpillar and the shagmoth. During the ravages of these pests the cuckoo may be seen cleaning off the tough cocoons from the trees infested and devouring the chrysalis with avidity. It may also be seen devouring the hairy caterpillar, and if a bird be collected at such times and dissected the stomach coating will be found to be pierced through and through with these bristle-like hairs, such not causing the bird any apparent inconvenience.

Another group whose claims are not recognized are our finches, and apart from their partial insectivorous character, they perform annually a work in noxious weed destruction which is a very considerable item in economic agriculture. These species, which include all our summer-visiting native sparrows, goldfinches, and siskins, as well as our winter-visiting grosbeaks, snowbirds and redpolls, constitute an army of no mean numbers, and from the maturity of the weed until the following spring the seeds, with a mixed insect diet, make up the entire food supply of these birds.

Having for a number of seasons kept several hundred of these birds, representing from fifteen to twenty common species, in an extensive aviary, and kept them in excellent condition with no other food than most noxious weed seeds, I am in a position to estimate the vast amount of good done by the countless numbers of these feathered seed destroyers in a single season.

These are but instances of the strong claims of our native wild birds to our protection, and it will be found, save in a few isolated cases, that all our native species are deserving of our protection for some reason, and it is certainly advisable that before any steps are taken to destroy or exterminate any form, careful enquiry should be made to see that their injurious characters overbalance their beneficial. Also, whether their entire removal might not be liable to result in the development and encouragement of a more dangerously injurious form.

Too much care cannot be taken when an interference with nature's balance is contemplated. The result of past experiments have in many instances proven disastrous. It is certain that only through a competent authority investigating in connection with the agricultural bureaus of the



FLICKER.

country, can such matters be satisfactorily dealt with.
GEO. E. ATKINSON,
Winnipeg, Man.

Economic Value of Birds.

BY MRS. CLARA E. HUMBERSTONE.

The relation of birds to man is threefold—economic, scientific, and æsthetic. There is no form of animal life that affords a more profitable subject for the scientist in his studies, either as an embryologist, a morphologist, a systematist, or as a philosophic naturalist and an æsthetic. It is of the economic value of birds to man we wish to speak. The valuable service of the birds are such that many scientists believe it would be almost impossible to bring any crop of grain or fruit to maturity without their aid in keeping down the myriads of insects which seem to be the especial enemies of vegetable life.

The economic value of birds to man consists in the service they render in keeping down the increase of insect life, in devouring small rodents (animals classed as rats and mice), in destroying the seeds of injurious plants, and as scavengers along the oceans, rivers and watercourses. Leading entomologists estimate the loss occasioned by insects to the agriculturists of this country to amount to many millions of dollars annually. The rats, and all animals classed as mice, destroy a vast amount of grain and young trees. The evidence of their work is plainly evident, but the creatures themselves are seldom seen, owing to their nocturnal habits and secretive lives.

Now, insects and rodents are the natural enemies of vegetable life, and the birds are the natural enemies of insects and rodents. The enormous increase of animal life injurious to the vegetable kingdom is no doubt owing to the fact that man has interfered seriously with the balance



MEADOW LARK.

of nature and has, thoughtlessly, no doubt, destroyed the principal natural enemies of these creatures. We have a good example of the serious consequences of man's interference with nature's providence, in the English sparrow. By its introduction into the country by man—who, no doubt, thought he was performing a very meritorious act—it was thought the sparrows would devote their energies exclusively to killing and eating the caterpillars that infest the shade trees in our towns. We forgot, or did not know, that their food consists of equal proportions of animal and vegetable substances. Having attached themselves to the haunts of men, they now obtain their vegetable food from the plants and seed cultivated by man for his own use, and it has now become a question of how to keep

down the increase of these destructive birds. We often hear the birds spoken of as nature's police, which is very aptly put, for they are wonderfully provided by nature with the means to fulfil their part in maintaining the correct department of insects and rodents toward the vegetable kingdom. The hawks and owls are the especial enemies of the rodents or four-footed enemies. In our smaller birds, the thrushes, meadow larks, sparrows, etc., are ever busy hunting for terrestrial insects, upon which they feed. The woodpeckers, nuthatches and creepers carefully examine each inch of bark on the trees for insects, eggs and larvae, or excavate for the ants and borers they hear at work within. The vireos patiently inspect the under sides of leaves and odd nooks to see that no skulker escapes. The warblers at-

tend to the terminal foliage, and pick insects from leaf and blossom. The fly-catchers, in hawk-like manner, lie in wait for the appearance of their prey, darting out and seizing it and returning to their post. In the air the swallows and swifts are continually coursing back and forth in pursuit of the insects which constitute their sole food. When daylight fades and night approaches, the night hawks and whip-poor-wills take up the chase, catching moths and other nocturnal insects which day-flying birds would not secure.

Birds digest their food so rapidly that it is very difficult to estimate from the contents of a bird's stomach at a given time what quantity it would eat during the day, but it is estimated that a chickadee may eat thirty female canker-worm moths per day during twenty-five days these moths crawl up trees. Therefore, during this time one chickadee would destroy one hundred and thirty-eight thousand, seven hundred and fifty eggs of this noxious insect. The number of eggs found in one moth averaged one hundred and eighty-five, on the examination of twenty different specimens.

Professor Forbes, Director of the Illinois State Laboratory of Natural History, reports that in the stomach of a robin he found one hundred and seventy-five larvæ of Bibio—a fly which in the larval stage feeds on the roots of grass.

Many more cases could be given, showing the intimate relation of birds to insect life, and emphasizing the wisdom of protecting and encouraging these valuable but little appreciated allies of the agriculturist.

From late fall until early spring the food of many birds consists entirely of seeds, and any possessor of a cage-bird can easily estimate how many a bird will eat in a day. While the woodpeckers, chickadees, nuthatches, etc., are ridding

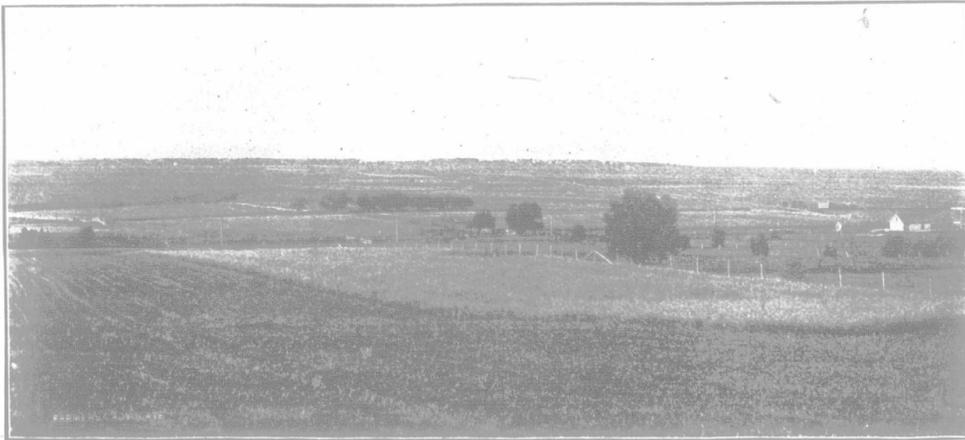
the trees of myriads of insects' eggs and larvæ, the seed-eating birds are destroying a crop of seeds which if left to germinate would cause a serious loss to our agricultural interests. As scavengers, certain birds are understood to be valuable, and are, therefore, protected. The vultures or buzzards of the South are protected by law, and also public sentiment, and as a result are exceedingly tame and very abundant. There are also other birds as deserving of law protection, such as gulls and other water birds. Where these birds have been destroyed there has followed an increase of mortality among the inhabitants of the coast where these birds kept the shores

free from decaying animal matter. If the subject is investigated thoroughly, we will find proof to support the statement that the earth would soon become uninhabitable if we lost the services rendered now by the birds.

Professor Nocard is announced to have died at Paris in his fifty-third year. He was well known all over the world in connection with his work on tuberculosis and other diseases of cattle. He took an active part in combating Dr. Koch's theory of the non-transmissibility of ovine tuberculosis to human beings, and was a very strong advocate of the tuberculin test.



BALTIMORE ORIOLE.



GRAND PRE DYKE LANDS, NOVA SCOTIA—BLOMIDEN IN THE DISTANCE AT LEFT.

Observations on P. E. Island Agriculture.

BY WALTER SIMPSON.

First we would observe that agriculture is about our only industry here, and we do well to study to advance in our knowledge and practice of it, so that we may be successful in making

OUR "MILLION-ACRE FARM"

profitable to us, by returning for our work a good living and something besides for a rainy day.

Our agriculture of late has largely taken the form of stock husbandry, which, if intelligently begun and carefully followed, will be our most profitable business, but without intelligence and special care it will be unprofitable. One great mistake in stock husbandry is the keeping of inferior stock that can never turn our raw products into manufactured foods at a profit. Now, when we are feeding most of what we grow on our farms to stock, it is imperative that this stock should be suitable to the uses we put them to, and have the ability to profitably turn their food into cheese, butter or meat. Another mistake, and a very general one, is keeping too much stock for the feed. Many pastures are so overstocked that the cows have not been giving more than half the flow of milk they would with plenty of feed. Better have half the cows and be producing milk at a profit. Again, in too many cases farmers are overstocked with cattle in winter, and the result is poor cows in the spring, that cannot be expected to do much in the dairy, and a lot of young stock that are much thinner and lighter than they were in the preceding fall. Very many dairymen still neglect to supply green feed for their cows during August and September, with the result that there is a great falling off in milk during these months, and, consequently, a poor return per cow at the cheese factory. Dairy cattle cannot be profitable with such treatment. Nothing grown on the farm is fed with such a certainty of profit as a mixture of oats, peas and vetches, and corn fed during the latter part of summer and early fall to dairy cows.

Again, in our bacon business too many of our hogs are marketed in the fall and early winter, resulting in a drop in price that would not likely occur if we marketed them every month in the year. Our hog business can never be profitable while we continue this practice, and we need not blame the packers, for it is impossible for them to cure and find market for all our products in this line in a few months at as good a price as they could if they had them distributed over the most of the year. Why not market more of our hogs in summer and early fall. There is no

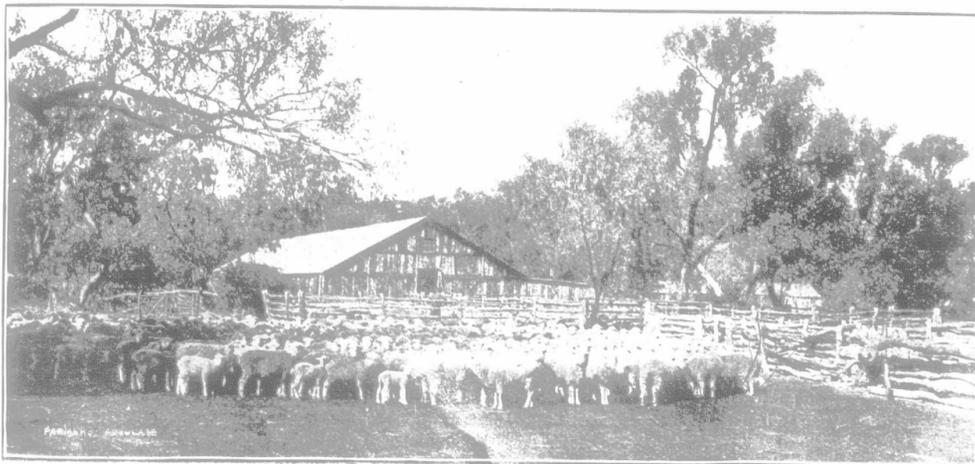
time they can be fed so cheaply as then. A field of rape is an ideal place for them, and with a little grain added, which can be soaked in whey or milk, will soon put them in condition for making the best of bacon. A field of rape, if sown as soon as the land is fit in spring, will be ready for hogs early in July, and some grain kept over can be fed at a greater profit in connection with it than at any other time. Half-starving our hogs all summer and then feeding them up in the fall and winter on grain and potatoes is too expensive a way to produce bacon.

An observer travelling through this Province will notice that the stock-barns are not at all suitable for stock-farming. In fact, they were not intended or designed for such a purpose, but rather for grain-farming, which obtained when they were built. It is quite an exception to see a modern basement stock-barn, where cattle can be comfortably housed and their feed conveniently stored, so that the labor of feeding and attending on them is reduced to a minimum of expense, with a maximum of comfort to the cattle. Some such barns have been built lately by progressive stockmen to replace those of the unsuitable kind. We have too many barns with too much roof to keep in repair. Better have all under one roof, with stables and root cellars in basement; it is cheaper, as well as more convenient.

About our exhibitions. Observation has led me to believe that fully one-half of the farmers' sons that spend a day in attendance at them do not see the agricultural show at all. About the time they get to the grounds the horse-trot begins and engages their attention during the rest of the day. When exhibitions can be run without horse trots and fake side-shows, then we may expect the youth of our land to get much more educational benefit from public expenditures for exhibition purposes. What we want is less of the side-show entertainment and more of the educational feature in illustrations of how to prepare our exports for the more exacting markets of this day.

STUDY YOUR BUSINESS.

Just one more observation—and not the least important one—in concluding this article, and it is to this effect, that our farmers have not yet waked properly up to the importance of agricultural literature. There are hundreds of farm homes in our country where no agricultural paper is taken. How can we expect the youth of the land to grow up into intelligent farmers and farmers' wives, if they are denied during their formative years the greatest means of education and information on agricultural subjects? How can we expect them under such conditions to de-



AUSTRALIAN SHEEP RANCH.

velop into successful, progressive farmers? Every farm home should have its agricultural paper. There are quite a number of them published in Canada at a price within the reach of all, but none of them, in my opinion, is the equal of the old reliable "Farmer's Advocate," which comes every two weeks with its wealth of reliable, up-to-date agricultural information, its splendid educative illustrations, and its clean, interesting Home Department, which I consider is the best of its kind we have in Canada, or, for that matter, anywhere else. These are just a few of the practices in our agriculture that are in special need of reforming. There are others that may receive attention later on.

P. E. I.

Farm Mechanics.

At a late meeting of the board of trustees, Professor C. J. Zintheo, recently of the North Dakota Agricultural College, was elected to the chair of Farm Mechanics in the Iowa State College. This work has recently been organized as a branch of the Agronomy Department of the Division of Agriculture, and it is intended to cover instruction in all kinds of farm machinery and appliances, including land drainage, rural telephones, farm water supply, and the various means of obtaining power for operating farm machinery, such as electric motors, gasoline engines, steam engines, water-power and wind-power. A three-story fireproof building, 60x100 feet, is now being erected as a laboratory for conducting this work. Professor Zintheo was born in France, of French and Swedish parentage, thirty-four years ago, and has had a long and thorough experience as an implement expert in the United States and other countries, representing such firms as Deering and McCormick.

GARDEN AND ORCHARD.

What the Fruit Inspectors are Doing.

Mr. J. J. Philp, Dominion Fruit Inspector, of Winnipeg, is coming East, and will address a number of meetings in the fruit-growing sections of Ontario. There are great possibilities for Ontario fruit in Manitoba and the Northwest, and Mr. Philp hopes that the information he will be able to give regarding the Western markets will be appreciated by the Eastern growers and shippers. Full instructions will be given regarding the quality of fruit and shape of packages wanted in the West. Meetings have already been arranged for Chatham, Burlington and St. Catharines, and it is expected that others will be held at Walkerton and some other fruit centers. After the meetings are over, Mr. Philp will spend some time doing inspection work through Ontario and at Montreal, so as to become thoroughly familiar with the methods practiced in the East.

While Mr. Philp is in the East, Mr. J. F. Scriver, the Montreal inspector, will take his place in Winnipeg, to study conditions and get in touch with the dealers and consumers in the West. Lieut. Vroom, Nova Scotia Inspector, who was a member of the Bisley team, is now returning to Canada by the Tunisian. After the shooting was over he spent a few days studying the conditions of the fruit trade in the chief British markets, and will be able to take up his work in Nova Scotia with a better understanding of the requirements of dealers and consumers in the Old Country.

Mr. A. McNeil, Senior Inspector, takes charge of the Fruit Division's exhibit at the Toronto Industrial Exhibition, and will also conduct the packing demonstrations.

The Scarcity of Fruit in Europe.

Additional evidence of the scarcity of fruit in Europe is furnished by a recent letter from Thos. Russell, fruit broker, Glasgow, to Mr. W. A. MacKinnon, Chief of the Fruit Division, Ottawa. Mr. Russell writes: "The apple crop in England, Ireland and Scotland is a very poor one, while on the Continent there is also a very light crop. Pears and plums are also scarce in England. So far as Glasgow is concerned we shall have to depend entirely on supplies of apples from America and Canada, and altogether there is every prospect of a good demand for American and Canadian apples, as there is practically nothing else to come against them this season."

The suggestion is made that each "boss" packer have a regular number to be placed in or upon each package of fruit, so that exporters will have a check upon their packers.

Every present reader of the Farmer's Advocate should send us in at least one new subscriber during the present month. It will pay you and it will pay the new reader.

The Government's Spraying Demonstrations.

Following up the work of practical demonstration introduced by the establishment of cool curing rooms for cheese and poultry-fattening stations, the Dominion Government this year carried on extensive orchard-spraying operations in Oxford County, Ontario, and at St. Henry Station, Quebec, where Mr. A. E. Gifford was in charge of the work. Incidentally, the object of the demonstrations was to show afresh the practicability of spraying for the average farmer having a variable number of trees, in order to control the apple and pear scab, plum rot, codling moth and other fruit enemies; but its main purpose was to prove the practicability of a number of farmers using a power spraying apparatus on

A CO-OPERATIVE PLAN,
or as a grain-threshing outfit is used. Some nineteen orchards, embracing about 2,400 apple trees, on widely-separated farms in the Woodstock and Ingersoll districts, were selected in which to carry on the experiment. The operations were under the supervision of W. A. MacKinnon, Chief of the Fruit Division, Ottawa, and the actual work of spraying in Oxford was in charge of Mr. J. C. Harris, himself a practical farmer and orchardist near Ingersoll. The outfit included an automatic spramotor, run by a two-horse-power gasoline engine, 200-gallon tank, 50 feet of hose, wagon, team, a driver and two men to operate the apparatus. Two lines of hose were used, under a pressure of about 125 lbs. to the square inch. Such an outfit, not including wagon, would cost from \$200 to \$250, according to size. Most of the orchards received five sprayings with the standard Bordeaux mixture, with an addition of four ounces of Paris green at the second application for the codling moth, but a few of the orchards received only four applications.

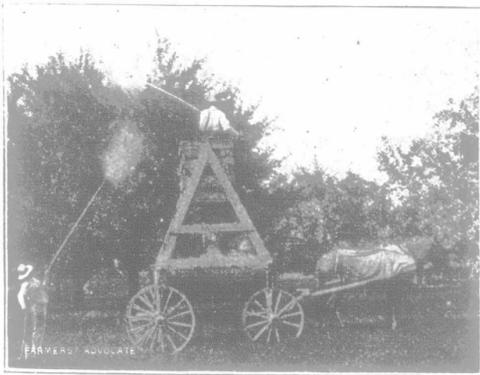
PREPARING BORDEAUX MIXTURE.

A hint right here on preparing the Bordeaux mixture will not be out of place. First, dissolve the bluestone (copper sulphate) separately, either with hot water or by suspending in canvas sack immersed in cold water. Melt the lime separately, using plenty of water, so that it will not burn, but form a paste. Put the slacked lime or paste into the tank, with about half the quantity of water to be used. Agitate thoroughly. Then dilute the bluestone solution with about as much water as was put on the lime, and pour into the tank containing the lime solution, and agitate. When Paris green is to be added, mix it first in small dish with about a cupful of water. The standard Bordeaux mixture for apples is four pounds bluestone, four pounds lime and forty gallons water. In case of tender plums or pears, half the quantity of bluestone is recommended, or double the quantity of lime. When Paris green is to be added to above, use four ounces.

Orchards of different kinds of fruit, of different ages, orchards that were well cultivated and orchards that never were cultivated, orchards that had been sprayed in previous years and orchards that never had been sprayed, were all included in the experiment. Adjoining orchards of a corresponding character were used as a check, not being sprayed, and in a few cases one side of a tree was left unsprayed. Orchards containing large trees of about twenty-five years of age were sprayed at the rate of from 200 to 400 per day. With trees properly pruned and easy of access, about 500 could be done in a day. These applications kept the leaves and fruit covered with the mixture nearly up to the middle of August.

SATISFACTORY BEYOND QUESTION.
On the sprayed fruit, not more than twenty per cent. of the apples or pears could be found affected with scab or codling moth, and the plums did not show the first indication of rot; while in the check orchards, in the same districts, that were not sprayed, from fifty to seventy-five per cent. of the apples and pears would be condemned. When the work was being reviewed in August, it was observed that in one of the orchards included in the experiment, the tree-plugger had operated, putting into the trunks of the trees an unnamed mixture. In this case, the "plugged" trees that were not afterwards sprayed stood out like painted finger-boards, pointing to the uselessness of the process of tree-plugging. "All I have got from the use of that compound," said the owner of the trees, "is the plug." This farmer's experience appears to be similar to

instances to which attention was called in the "Farmer's Advocate" early last spring. While it was found that on apples the spraying insured against attacks of scab, the Bordeaux did not appear to be proof against the "sooty" fungus, which, however, is not regarded as a serious trouble, and on some plum trees of the "Abun-



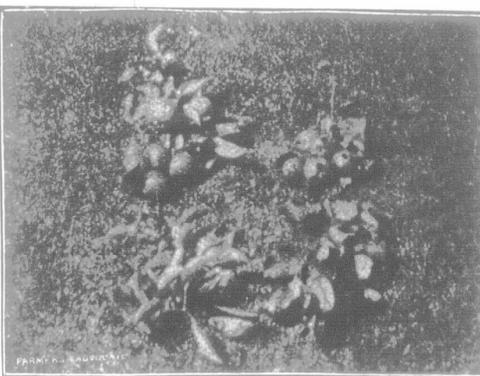
POWER SPRAYING OUTFIT.

dance" variety, leaves were found with a reddish appearance, probably due to the solution being too strong for this particular sort. In all other respects the demonstration was entirely satisfactory, increasing the quantity or yield of marketable fruit on all the trees by fully twenty-



ONE FARMER'S FINE OUTFIT, YORK MILLS, ONT.

five per cent., and in some cases fifty per cent., and adding to the quality or market value of the fruit about fifty-five per cent.; all for the cost charged by the department of three cents per tree per operation. One orchard owner who had of-



SPRAYED AND UNSPRAYED.

Apple-tree twigs; same variety and same orchard, Oxford Co., Ont.

ferred his fruit crop for \$50 in May, refused \$210 for it on August 7th. It was among the sprayed lots.

The fruit on the sprayed trees was abundant and fine, and the foliage rich and clean, while on the unsprayed trees the reverse was true—just the difference between a successful crop and a failure.

QUESTION OF METHODS.

The success of this experiment has opened up the question of spraying in the future. The security the process affords against scab, codling moth, rot and other enemies of the orchard is evident, and in orchards where fruit is grown for foreign or domestic sale, the profitableness of the practice is only dependent upon the cost of systematically and thoroughly carrying out the work. It has been demonstrated time and again that spraying, if done at all, should be done properly and thoroughly; and to this end quite an elaborate apparatus is required. Where each man undertakes to do his own spraying, the ordinary spraying apparatus and barrel mounted on a wagon is quite serviceable, but in many cases the small size of the orchard does not seem to justify its purchase; and in other instances, where the orchard is large, the spraying is neglected in the rush of other work. To overcome these difficulties and to place the benefits of spraying within the reach of all who have fruit trees, it has been suggested by Mr. MacKinnon that some person in each neighborhood (as, for instance, the owner of a threshing machine) purchase a spraying outfit and carry out the work of spraying trees on a systematic basis throughout the season, which would end about the middle of July. This year's experiment indicates that such work could be profitable to the owner of the apparatus, carried out for the expenditure of about twenty-five cents per tree for the season. By reason of his continual practice, such a person could do the work in the best possible manner, and the increase in value in the fruit as a result of spraying would make the operation profitable to the farmer. From our own experience and observation, we are inclined to the belief that a preferable system

would be for two or three neighbors with good large orchards to procure a suitable outfit, and have one of their number superintend, personally, the work.

The Government, by giving this extensive demonstration of the practicability of spraying, has done a valuable service for the average fruit-grower, and it now remains with him to adopt some method whereby he can profit thereby. The trade in fruit, especially in apples, is now in the ascendant, and to retain present markets and capture new ones, fruit of the very best quality that it is possible to produce should be put upon them, and this can only be done by good management of the orchards, which includes cultivation, fertilizing, pruning and spraying.

Arboriculture on the Farm.

Farmers are so busy with the ordinary work of the season, from the time the snow leaves until it comes again, that they have little time to devote to the beautifying of their premises by the planting of trees, shrubs, etc., and yet some have managed to make their homes such as would compare favorably with many of the homes in the residential parts of the towns and cities. A great transformation can be made in a few years on the farm by the planting of a few trees every year. The material is not expensive, as most of it can be got from our native woods. There is quite a variety of these available. Of the deciduous trees we have the hard and soft maple, the beech, basswood, tamarack and mountain ash, and in the conifers we have the spruce, balsam, hemlock and cedar, and some places a juniper bush can be placed to advantage. The Norway spruce can be got cheaply from nurserymen, if bought in large quantities when they are small. They will grow faster than our native spruce; but there is nothing prettier in evergreens than our own natives. A cedar hedge adds wonderfully to the appearance of a place, and the cost is only the time to plant, trim and take care of it. Other evergreens can be planted here and there on the lawn in front of the house, and with a little care and taste can be shaped into pyramids or cones. A piece of ground on the north side of the buildings planted with clumps of evergreens will break the force of the cold winds of winter, and attract warmth, and gives the place a cosy appearance. Rows of trees along the lanes to form an avenue adds to the beauty of the place, and along the roadway maples planted twenty feet apart will in a few years serve as living posts for the wire fence. Trees should never be planted so close to the house as to darken it, or so thickly as to obstruct the view. Judgment and taste must be exercised in the planting. The spring is undoubtedly the best time for planting, and the time has now arrived when arboriculture must receive more attention. The teaching of it in our public schools will give it an impetus that is much to

be desired. It would be a good plan for the farmer when planning out his spring work to determine that he will devote one or two days to tree planting. It would soon come to be regarded as part of the routine of farm work, just the same as sowing the grain or planting the potatoes. Let us plant more trees, somebody in future years will call us blessed for the doing of it.

Russian Apricots.

The Russian apricot, like the Russian mulberry, is little good either for use or ornament. The fruit buds will scarcely stand a temperature of 20 below zero. After a mild winter, when the buds come through fairly well, they bloom so early as to stand a good chance of being caught by spring frosts, and if they escape this and produce some fruit, it is small, poor stuff. If a spell of wet weather catches it when about ripe, it will crack open to the pit, and is then entirely worthless. The writer has tested several varieties of them, and they are all disappointing, and his advice would be to those in search of novelties in the fruit line, "Try something else, and don't waste time or money on Russian apricots." There are some Russian cherries that are valuable and well worthy of propagation; but the apricots are a dismal failure.

Nova Scotia Fruit Prospects.

In spite of a good many predictions to the contrary, and more or less ground for such predictions, it now seems certain that Nova Scotia will have at least an average crop of apples, and in some sections an unusually good one. So far as one may judge, there have been two main factors in determining the crop, and these were frosts and the care the orchard had received. The frosts were unusually severe during blossoming time, and on flat lands, in interior parts of the Annapolis Valley did much damage. Their unusual severity was due very largely, in the writer's opinion, to the extremely dry weather which prevailed at that time, and which brought the dew point very low. But on lands which are influenced by the salt water, and on sloping lands from which the cold air drained away, the damage was very slight; consequently, all along under the North and South Mountains, and in sections like Starr's Point, the crop is very good indeed, while in the central part of the Valley, unless an orchard was saved by a good sloping position, the damage was severe. Naturally, some varieties suffered more than others, the Ribston Pippin being particularly unfortunate, as its blossoms seem to have been just at the right stage to be injured by some of the severe frosts. King of Tompkins seems to be a good crop almost universally where there is any fruit; Baldwins and Gravensteins good where they did not bear last year; Golden Russets in some orchards as good as one could ask, but usually shy; Blenheim very light in most places; Nonpareils a good crop, and remarkably good in parts of Annapolis County. Pears are unusually good, but plums rather below the average.

All fruit is remarkably clean, whether in sprayed or unsprayed orchards, and this gives the man who is looking for a way to get out of a disagreeable job a chance to say that spraying is no good. But the man who regards spraying in the proper light, namely, as an insurance, is just as determined and as keen to spray next year. Doubtless the dry weather early in the season is responsible for the very clean condition of apples at this date.

All things considered, Nova Scotia orchardists generally have every reason to look forward to a prosperous season. F. C. SEARS.

Duchess Apples in Glasgow.

Mr. John Brown, Dominion Government Inspector at Glasgow, reports that the first shipment for the season of American Duchess apples arrived there on the 3rd of August in good condition. They sold at prices ranging from 12 to 21 shillings, notwithstanding the fact that dealers showed some hesitation in taking such early fruit.

Premiums and Free Sample Copies.

If our readers will send us on a post-card a few names and P. O. addresses of persons in their localities who are not subscribers to the "Farmer's Advocate," we will forward them a sample copy so that they can judge of its excellence.

On pages 818 and 819 of this issue will be found our announcement of premiums which may be obtained by sending us new subscribers. Great care has been exercised in the selection of the splendid articles described, and they will well repay the little effort required to obtain them.

Failure of English Fruit.

There is practically no English fruit this autumn, except such as has been grown under glass, says a Covent Garden dealer. Frost in May and rain in June have played havoc with the crops. Greengages, which normally sell at five, six or seven shillings a half bushel, are now bringing anything from ten to sixteen shillings. Red gooseberries, which usually sell at two shillings a half bushel, can now fetch five or six shillings. English black currants are at a fabulous price. What there is of them in the market are going for fourteen shillings a half bushel, against an average price of six shillings, while red currants, which are very scarce, are worth six or seven shillings the half bushel, as against a normal three. As for good English apples, some are now selling for four shillings a half bushel, for which in ordinary times no one would pay more than 1s. 6d. or two shillings. In the last fifty years, it is said, there has been only one year so bad as this. Foreign importations, principally from Germany and America, will make up the deficiency.

Harvesting the Apple Crop.

Picking and handling the apple crop is a very important part of the work of the fruit-grower, and deserves more attention than it usually receives. This is work that should never be done in a slipshod, haphazard way. The first point to consider is when to pick, and just here is one of the most important factors in the apple business. It is safe to say that fifty per cent. of the apples are not picked at the right time. If an apple is picked too green it will be insipid, and will never have the right flavor. If allowed to hang on the tree until the stage of what is called "dead ripeness" is reached, they will not handle well or keep well.

There is a right time to pick, and that is as soon as full-grown and full colored. Apples picked at this stage will have their full, perfect flavor, and will be in the best condition for keeping. This point is well worthy of consideration by growers and shippers. Don't leave them until dead ripe. It will cost no more to do it at the right time than it would to do it later. The labor is the same, and why not do it at the right time? In many cases the buyer is to blame. He buys the orchards in bulk, and it is a decidedly bad practice, and is responsible for a great deal of the fraudulent packing that has brought discredit on the fruit trade. He buys in this way for the purpose of trying to get a snap. He considers himself more clever at estimating than the grower is, and he hopes to be able to overreach him. But he sometimes gets left. Sometimes, through keen competition, he pays too much, and then he tries to even things up by fraudulent packing. But he usually bites off more than he can chew. He buys more than he can possibly get picked right and at the right time.

Many of his apples are dead-ripe and tumbling off the trees before he can handle them, and the results are a lot of bruised fruit that won't keep, a great waste, loss, and in the attempt to avoid the latter, very likely a resort to "ways that are dark and tricks that are vain."

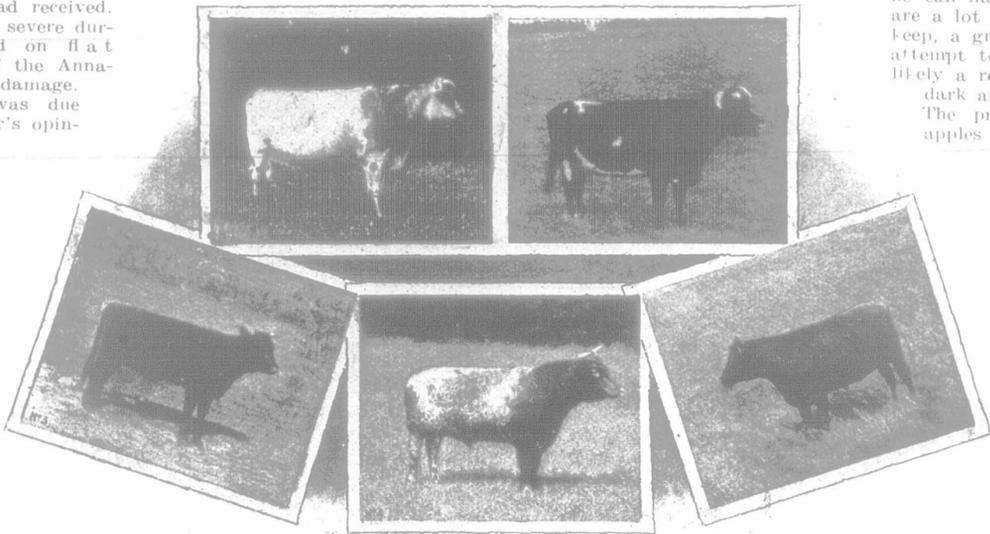
The proper person to pick the apples is the grower. He is on the ground where the apples are grown, and is in the best position to pick them right and at the right time, and to take care of them after they are picked. There would be an incentive to careful handling in the knowledge of the fact that the packer will reject the bruised apples; or if he is packing himself, that bruised apples will not stand inspection and will rot quickly in storage.

Then another very important point is the picking: A good outfit should always be provided, in the way of ladders and picking baskets. The basket should be lined with carpet, felt, or some soft material, and with S shaped hooks to hang on the limbs. Apples, whether early or late varieties, should be handled just like one would handle eggs. This is a good gauge to go by. They should be laid in the basket, never thrown in, and the baskets should be just as carefully emptied as if they were a basket of eggs. This is not a slow process, it can be done right and at the same time very rapidly.

Another point is taking care of the fruit after picking. The old plan of leaving them in piles under the trees is decidedly bad. If not ready to pack at once, they should be put under cover in a cool place, where they will be protected from the rain and sun. The sooner apples are put under cover after picking the better.

If proper ladders are provided, most of the fruit can be reached without climbing much through the tree. It is necessary, however, for one picker to go into the tree to reach those in the center. This picker should have shoe-packs or something soft on his feet. No one should be allowed to climb through a fruit tree with heavy boots on, or certain injury will be the result. There are some varieties that cling tenaciously. In picking these the picker must be careful not to break off the fruit spur with the apple. If the apple is given a little twist and a slight turn sideways and pull at the same time, it will come off without breaking the spur.

The art of grading and packing properly is of prime importance, and is best learned by means of an object lesson, given by someone who thoroughly understands it and who is an expert at



SHORTHORNS IN THE HERD OF JOHN BRIGHT, MYRTLE, ONT.

Two at top—Havillia II, Crimson Jennie; three at bottom—Miss Rumson 10th, Royal Archer, Sonsie II; reading from left.

TO BE SOLD AT AUCTION ON OCTOBER 14TH, 1903. (SEE GOSSIP, PAGES 815 AND 821.)

Ontario Fruit Growers.

At a recent meeting of the executive of the Ontario Fruit-growers' Association, held in the offices of Secretary Creelman, Parliament Buildings, Toronto, arrangements were settled for the annual meeting to be held early in December in Leamington. The advisability was also discussed of centralizing the annual meeting in Toronto, as heretofore meetings have been held in various towns and cities. What say our fruit growers to this proposal?

"It is the Best."

The knife you sent me has arrived, and I must say it's a dandy. Just what I wanted. With many thanks for same, I wish you every success in your calling. I think the "Farmer's Advocate" should be in every farm home in Canada, as I believe it is the best agricultural paper we can get, and I will do what I can to increase its circulation in the little corner in which I live. JOSEPH PURDY.

Bruce Co., Ont.

We desire representatives for the Farmer's Advocate at all the autumn exhibitions. Write us at once, giving particulars as to what fairs you can attend, and their dates. We will send you the necessary sample copies, instructions as to terms, etc.

it. Anyone of ordinary intelligence will quickly master it, if anxious and willing to learn. There is no great difficulty about it, but it must be done right, or all the previous labor in connection with the crop will be to a great extent lost.

DAIRY.

Cool Curing and Paraffining.

The four illustration stations in the cool-curing of cheese, inaugurated last season by the Dominion Government, are being continued this season at St. Hyacinth and Cowansville, Que.; Brockville and Woodstock, Ont. At the latter, which the writer visited the other day, some improvements have been made, one being a new gasoline-engine room at the north end, outside the building proper, and with a foundation solid on the earth, doing away with a lot of vibration and trouble experienced when the engine rested on the board floor. The brine tanks used in refrigeration have been moved upstairs from the basement curing-room, and ducts put in for drawing off the warm air and letting in cool, which establishes a circulation of air and keeps the basement perfectly dry, and very largely does away with the tendency to mold. Very few traces of the latter, even on the unparaffined cheese, were observed. Cheese from seven factories is handled this season—Spring Creek, Embro, North Oxford, East Oxford, Harris Street, Sweaburg, and Anderson—from 800 to 900 cheese per week being received. The cool-curing room is kept at a temperature of from 55° to 59° (moisture 88 degrees, which last year ranged from 88 to 95), and in this the cheese are kept for a week before being paraffined, after which they are boxed and returned to the cool chamber. To paraffine a 75- or 80-pound cheese requires about four ounces of the wax. It was found that three cheese, weighed, respectively, of July 1st, 8th and 15th make, and weighed again on August 8th, unparaffined and kept in ordinary curing-room temperature (the average being about 65°) shrank six pounds in weight, while three paraffined, and kept in the cold temperature, shrank only one pound two ounces. On an average, Mr. Joseph Burgess, the superintendent, states that a paraffined, cool-cured cheese will shrink in weight only about from four to six ounces in a month, while under the other conditions there would be a loss of two pounds. It has been found very advantageous to hold the cheese a week before paraffining, as it then becomes set in shape, and there is no subsequent cracking of the waxed surface. Paraffined cheese must be kept in a cool-curing room or the wax will soften and injure the appearance. Not only is there a saving in shrinkage, but the quality is very much better under the new plan of curing. A report from Clements, of Glasgow, Scotland, the well-known produce house, upon a shipment, states that the quality was far better, and, in fact, the cheese were in every way superior to those cured under ordinary conditions. Hodgson Bros., of Liverpool, Eng., report that the lot of cool-cured cheese reached them in better condition than the others, and were superior in every respect. The cheese cured in the ordinary way sold for one-sixth less than the cool-cured article. They state that waxing undoubtedly prevents shrinkage, and in their judgment preserves the quality. There appears, however, to be an English prejudice against waxing, just as there is against everything that involves change.

Beyond any question, these curing stations are doing good in emphasizing what progressive cheesemakers and factorymen believe to be true, viz., that one of the most imperative reforms at the present time is for improved curing-rooms, as well as more sanitary and up-to-date makerooms. At these curing stations plans and specifications of model curing-rooms for large, small and medium-sized cheese factories, and also for combined cheese and butter factories, are on exhibition, or may be secured from the Chief of the Dairy Division, Mr. J. A. Ruddick, Dept. of Agriculture, Ottawa.

Canadian Butter Improving.

In view of the efforts which have been made in the past by the Dominion Department of Agriculture to improve the quality of Canadian butter, and to develop the export trade, Mr. J. A. Ruddick, Chief of the Dairy Division, is gratified to notice in W. Weddel & Co.'s "Colonial Dairy Produce Report" the statement: "The quality of some of the Canadian butter that is coming is exceptionally fine, especially that which has been made from pasteurized milk or cream." Again, on July 17th, the "Report" says: "Arrivals of saltless Canadian creameries have given great satisfaction to all concerned; this is chiefly attributable to absence of mould, which is practically unknown this season in the best brands."

The Profitable Farm Separator.

A reader of the Farmers' Sentinel gives his experience with a separator:

"In the spring of 1901 we had on our farm a herd of grade cows, and statistics here given are for the month of June of that year for milk taken to the creamery in comparison with the same month in 1902 for cream from a hand-separator. For the month of June, 1901, our six cows gave an average of 172 pounds of milk per day, or

milk that has stood in a sour, dirty tank, and then drawn several miles on a hot day, we must add another sum to the separator's credit."

Tring Dairy Trials.

At the annual Tring Park Show in England, on August 4th, the usual one-day buttermaking and milking trials were conducted. In the class for cows not exceeding 900 pounds in weight, Mr. McIntosh's Jersey cow, Forget-me-not, won first award for butter and third for milk, yielding, 176 days after calving, 38 pounds milk and 2 pounds 2 1/2 ounces butter; ratio, 1 pound butter to 17.83 pounds milk. A remarkable record was made by a Jersey cow, Ladysmith's Louisiana Loo, a three-year-old, which gave 16 pounds, 112 days after calving, which yielded 1 pound 6 ounces butter, a ratio of 1 pound butter to 11.63 pounds milk.

In the class for cows over 900 pounds in the butter tests, the winner, Dr. Watney's Violette (Jersey), gave 37 pounds 14 ounces of milk, from which 2 pounds 8 ounces butter were made. The butter was excellent, both in color and quality, which, with the ten points allowed for her period of lactation, 111 days, gave her a total of 50.10, her ratio being 15.15. The winning cow last year, Dr. Watney's Jersey, Sharab, yielded 3 pounds 9 1/2 ounces butter from 53 pounds 11 ounces milk, 128 days after calving, and had a total of 66.55 points.

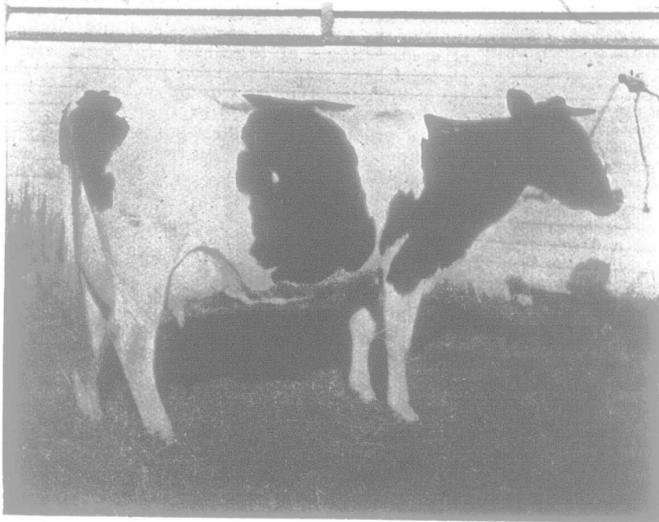
In the milking trials at the late show, Mr. John Evens won with a Lincoln Red, which yielded 66 pounds of milk in twenty-four hours. Last year's winner in the milking trials gave 75 pounds of milk. She was owned by the same exhibitor. There were nearly twice as many cows got certificates at Tring Show butter trials this year compared with last year, although the top individual performances were not nearly so good.

Separator Cream for Factory.

Prof. E. H. Farrington points out in the Prairie Farmer, that in order to get farm cream to the factory in a condition so that it is possible to make an extra quality of butter from it, the farm separator should be placed where there are no barn or other bad odors. It must be thoroughly clean, the bowl and tinware scalded and put in a clean place out of the reach of dust. Under no circumstances should the separator bowl be left until it has been used a second time before the cleaning is done. The bowl slime and ringings left in the separator after skimming, begin to sour and decay in a very short time, and if the cleaning is not done immediately after skimming the taints of sour milk are hard to remove. There are several things which influence the best of separator cream, and they are not generally understood by farmers.

First, the temperature of the milk when separated ought to be uniform. If there is a variation of ten or more degrees when the milk is run through the separator at different times, the richness of the cream will vary with the temperature. In some cases the milk may not be separated so soon after milking as at other times, on account of some delay on the farm, and when the separator is finally started the milk has cooled off considerably below the proper temperature.

The ideal way of cooling separator-cream is to have it run from the cream spout of the separator directly over a water cooler. This should reduce the temperature to as near 50° F. as possible. The cream must then be kept at a temperature below 60° F., by setting the clean cans

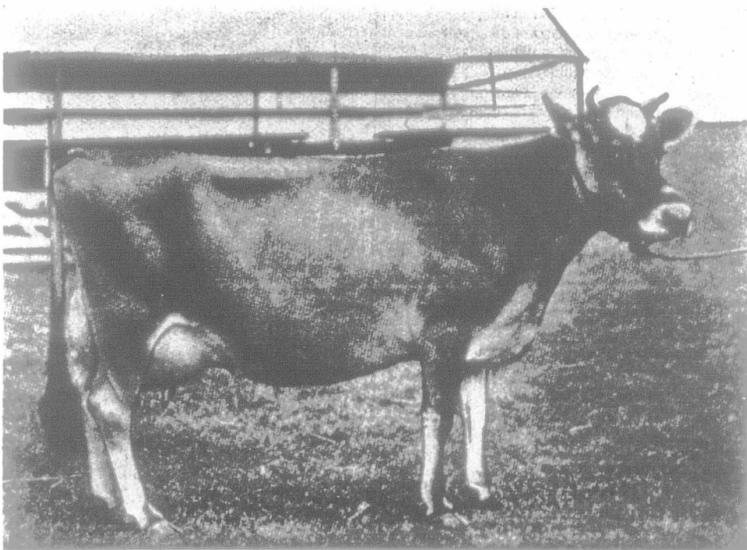


HOLSTEIN COW.

Illustrating approved dairy type.

5,160 pounds for the month. This milk tested 4.2, which gave us 216.72 pounds of butter, which sold at 20 cents a pound, bringing an income of \$43.34 for the month, or \$7.22 per cow. For making and selling the butter the creamery company charged two cents per pound and the overrun.

"In June, 1902, we had the same herd of cows, that gave an average of the same amount of milk, i.e., 172 pounds daily, or 5,160 pounds for the month. This we separated with a separator, skimming out 17 pounds per hundred, or 877.2 pounds of cream for the month. We sent the cream to the same creamery where we had sent the milk the year before. This they made into butter and sold for the overrun, a saving of two cents a pound. The cream tested 30, giving us 263.1 pounds of butter, or 46.44 pounds more butter than was made from the same quantity of milk the year before. This increase, if sold at 20 cents, the price of the year before, would give us \$9.28; but because of the savings



A TYPICAL JERSEY COW. A ROYAL SHOW WINNER.

of two cents per pound in making, sold for 22 cents, another saving on the 263.1 pounds of butter of \$5.26, making a total saving of \$14.54 for the month; or, in other words, those six cows made for us in the month of June, 1901, without a separator, \$43.34, and in June, 1902, with a separator, \$57.88, or an increase of \$24.22 per cow.

"This is for the money made from the butter alone, but when we consider the difference in the feeding value of the skimmed milk, when fed right from the separator, warm and sweet, and

in cold water. It should be gathered for delivery to the factory as often as every other day in the hot summer weather. When a cream-cooler is not used, the cream cans should not be over six inches in diameter, and by setting these cans in cold water the temperature should be reduced to 60° F., or below. This must be done at once, and in order to hasten the cooling the cream should be frequently stirred. A tin disk, to which is attached a strong wire-handle two feet long, makes an efficient agitator for this purpose.

How to Get Good Cheese.

To the Editor "Farmer's Advocate":

Sir,—After spending the past three months among the cheese factories of Western Ontario, especially those employing the instructors appointed by the Western Dairymen's Association, my observations have been that the milk delivered at the factories, in the majority of cases, has been far from first-class. Especially during the month of July, the milk was bad-flavored and overripe. Some of the causes for this kind of milk have been traced by the instructors to the cows drinking stagnant and impure water, keeping the milk overnight close to the milking yards, barnyards, and other strong-smelling conditions, rusty old milk cans, which cannot be kept clean, and not cooling the night's milk sufficiently. It is simply impossible to make fine cheese from such milk, and the loss from inferior cheese in July has been very great. Who suffered the loss? So far as I am able to judge, it has been the makers and patrons. To overcome this condition or prevent it in the future is an important question. The solution is very simple, could we only secure it, and is:

"KEEP THE MILK CLEAN AND COOL."

This we have to depend on the patrons to do. Will they do it? If the maker does his work at the receiving stand properly, they will, and that is to return all the milk he finds gassy or overripe. I know this because I have been at factories this season where there has been scarcely any gassy curds, and the maker has used a pure culture nearly every day. When asked how they managed to have this condition, the answer was: "We return all the milk we find tainted or overripe. The patrons know this, and there is very little of such milk sent." Doing this, coupled with the visits being made to the patrons by the instructors, will ensure good milk in the vats. It is then in the hands of

THE CHEESEMAKER,

and I am very sorry to say that inside and around many of our factories conditions are such that if the milk was delivered in the vats clean and sweet it would be about the only clean and sweet article in the factory. It is really too bad the way some of our cheesemakers keep themselves and their factories. There is more than one pair of overalls walking around in our cheese factories that have not been washed since April, and many places and articles in the factory look like they have not seen a brush or water for the same length of time. I am beginning to think that the only way to get this condition of things set right is to issue a conditional certificate to cheese and butter makers, and if they do not keep themselves and factories up to a certain standard their certificates will be taken from them and they will not be allowed to manage a factory. I am pleased to say that we have many bright, clean, tidy makers, and it is a pleasure to go into their factories.

THE FACTORY.

Many of the factories have been whitewashed and tidied up since spring, still there is room for great improvement in the appearance of the factories. The sanitary condition of a large number of the factories is defective. Some of them are very bad. Poor floors and leaking whey tanks are the main defects. Cement floors are replacing the old wooden ones, and make the sanitary condition much better. Too much care cannot be taken in putting in cement floors. It pays to use the very best material and employ first-class workmen. In about three-quarters of the curing rooms, the temperature rises too high, in a hot spell some of them going as high as 81°. Quite a number have been repaired this year by putting a cement wall under the old building, and dropping the floor about two feet below the surface of the ground, and making it of cement. Where this has been done, and the walls and ceiling well insulated, the temperature has been kept in the sixties. The factorymen are becoming alive to the necessity of better curing-rooms, and the next year or two will see a great improvement in them.

MAKING.

The quality of the cheese, up to the present time, has not been, perhaps, as fine as last year. More hot weather and less salt have no doubt something to do with so much weakness in the cheese. My opinion is that the seasons of the cheese is much smoother and milder now than in the early part of the season. It is being struck

me forcibly on my last trip around the factories. First, that the makers who were cooking the curds the longest and stirring them quite dry at dipping, had the closest and most meaty cheese; and, second, that where the agitators are used the texture of the cheese is smoother and more silky than where the rake is used altogether. At the present time, the acidimeter is being condemned by some of the buyers and makers. Its use is said to be the cause of so many open cheese. So far as I have seen, there are as many open cheese where it is not used as where it is. Improperly cooked curds and too much moisture left at dipping is the cause of openness where the acidimeter is used. Some of the finest and most uniform cheese I have seen this season were made by using the acidimeter, the hot iron never being touched.

SHIPPING.

The practice of shipping out the cheese up to the hoop has nothing to recommend it in the early part of the season, but I would like to see the cheese sold every week, and shipped out when about ten days old. We could then make a meaty, mellow cheese. In most cases, the cheese are being shipped earlier than in former years. Any cheese which I have seen rejected by the buyers were faulty, and could not be passed as fine. The makers will have to be more careful about the quality of the milk they take in, and we will have fewer cheese rejected. The system of instruction adopted this year is approved of by dairymen, and cannot help but improve and make a more uniform quality of cheese. Two instructors have been working constantly in the creameries, and doing good work.

GEO. H. BARR.

Office Chief Dairy Instructor for Western Ontario.



MR. G. H. BARR.

Chief dairy instructor for Western Ontario and Superintendent of the Western Dairy School.

Condensed Milk.

Condensed milk was invented in 1856 by Mr. Gail Borden, who also invented several other compressed foods, including "pemmican," the dried meat biscuit, and beef extract. He had great difficulty in obtaining a patent, because the examiners in the patent office at Washington insisted that milk could not be evaporated in a vacuum. The American civil war created a great demand for condensed milk, and advertised its merits. It is now used in every corner of the world. Canada has several factories, one being at Ingersoll, Ont.

The industry in the United States consumes 600,000,000 pounds of fluid milk yearly, and makes 5,000,000 cases, of 48 cans each. There are about 200 factories in the United States, all using the Borden process, and about seventy of them belong to the Borden company. The largest factory in the world is said to be at Dixon, Ill., which uses 300,000 pounds of milk daily. The second largest is at New Berlin, Chenango County, New York, and the third largest at Elgin, Ill., which consumes about 100,000 pounds of milk daily. The contract between the farmer and the factory is full of all sorts of conditions, in order to secure pure milk. Every possible precaution is taken in order to secure proper care and cleanliness, for that is one of the secrets of successful manufacture. The price set in the contract in the U. S. is \$1.35 per hundred pounds for the spring, summer and autumn months, and \$1.45 per hundred pounds for the winter months.

Some Experiments in Dairying.

From April 15th to September 15th of each year, when most of the students are away, the Dairy Department in connection with the Ontario Agricultural College carries on a number of experiments relating to dairying. Sometimes experiments are conducted in the winter, but, as a rule, experimental work is not practicable when large classes are present. It is the purpose of this article to give a brief outline of experiments made and in progress during the present year. A full account will appear in the annual report of the college at the close of the year.

DAIRY CATTLE.

Early in the year a carload of sugar-beet pulp was obtained from the sugar-beet factory at Berlin, and was fed to our dairy cows as a substitute for mangels in our regular ration. While the cows did not milk quite so well when fed the pulp as they did when fed the mangels, the experiment indicated that in localities where the pulp may be got conveniently, it will be a valuable help in producing milk, and will take the place of roots to a large extent. The pulp should either be got fresh, or if got in bulk should be packed in some form of a silo to prevent waste. About one-half bushel per cow per day may be safely fed, and this amount may be increased if not feeding silage. If using silage it tends to scour the cows if fed in large quantities.

COCOA-SHELL MILK FOR CALVES.

Various substitutes for skim milk in feeding calves have been suggested. Many of these we have tried with varying success, but it is doubtful if any material will take the place of milk for young stock. One of the most recent substitutes recommended is a by-product in the manufacture of cocoa (not cocoanut). The shells were purchased from the T. Eaton Co., of Toronto, and cost three cents per pound. The freight on 200 pounds to Guelph was 91 cents, making a total cost of \$6.91 for 200 pounds of the shells delivered in Guelph. Four calves were selected, two of which were fed on skim milk, bran and oats, green feed, etc. One of the other two was fed on milk made from the shells by boiling them in water. The other, a younger calf, was fed on half skim-milk and half cocoa-shell milk. Meal, etc., for both was the same as for the two on skim milk. The two calves on skim milk gained 93 pounds in four weeks. The two on cocoa-shell milk gained 83 pounds in the same time. The second part of the experiment, wherein the lots of calves are reversed, begins at the time of writing this (August 19th).

MILK AND BUTTER EXPERIMENTS.

The filtration, clarification and pasteurization of milk for household purposes is receiving considerable attention in our experimental work again this year. The results are similar to those obtained last year, viz., that pasteurization at a temperature of 160 to 185 degrees gives the most satisfactory results in flavor and keeping quality. One illustration will suffice. On Thursday, Aug. 13th, a sample of milk taken from the regular supply sent to the college, which had been pasteurized at 185 degrees and then quickly cooled to 40 degrees, had a nice layer of cream next day, had no cooked flavor, and on Monday afternoon, August 17th, four days later, it was still sweet and pleasant to the taste, though it had been exposed for several hours to a temperature of 75 to 80 degrees at intervals during the four days. It did not sour until Tuesday, five days after pasteurization. Most of the other samples were sour and had bad flavors on Monday. For city trade no method of handling milk will give such satisfaction, at reasonable cost, as pasteurization and quick-chilling to 40 degrees.

Space will allow me to only mention two or three butter experiments. The relation of the oil-test to the actual butter produced does not appear to be a constant one, and it behooves managers of cream-gathering creameries to adopt some more reliable test in the near future in order to hold their patronage.

Butter placed directly into cold-storage at a temperature of 26 to 28 degrees is holding its flavor better than butter put into a moderate temperature (38 to 40 degrees) for a week, then placed in the cold room. Butter in the mechanical refrigerator at 38 to 40 degrees appears to be better than similar butter placed in an ice cold-storage at a similar temperature. Butter to be held for any length of time should, apparently, be placed in cold-storage at a temperature below 30 degrees as soon as possible after being made.

CHEESE EXPERIMENTS.

Our chief experiments in cheesemaking are a continuation of the work done during the past five or six years in ripening cheese under various conditions. During 1903 we are ripening cheese at 65 to 70 degrees in an ordinary ripening (curing) room and comparing these with similar cheese ripened in an ice cold-storage at 38 to 40 degrees, and in mechanical cold-storage at 38 to 40 degrees, and also at 45 to 50 degrees. It is yet too soon to speak of definite results, but the

work in the ice cold-storage confirms that done in previous years. The cheese in the mechanical cold-storage are equal in quality to those in the ice cold-storage, and they are freer from mould. On August 18th, the writer scored the experimental cheese, ripened at the various temperatures, and the contrast between those ripened in an ordinary, good ripening (curing) room and those ripened in cold-storage was so great that it surely cannot be long before all our factories will provide cold-storage for the cheese within one week after they are made. Cheese ripened at 65 to 70 degrees at this time of the year are apt to be rough, furry, open, and to have more or less bad flavor, while these defects are very uncommon in cold-storage cheese. The plug is as smooth and close as a candle. The only drawback is the cost and extra time for ripening. In our great haste to get rich we are killing the goose that lays the golden egg. A depression in prices and a period of less active demand for cheese would be an advantage to the Canadian cheese trade, as we should then take more care in the manufacture of the cheese, and the cheese would have an opportunity to ripen properly at a cool temperature before being shipped to market.

We are getting satisfactory results by placing cheese directly from the hoop into boxes which are put in cold-storage. The results are not so good where green cheese are put into boxes in an ordinary ripening room. The cheese "huff" on top, and also mould badly.

Time and space forbid more than the mention of experiments to ascertain the relation of moisture, rennet and acidity in curd to the quality of cheese produced. The cause of "openness" in many Western Ontario cheese has also received some attention, but we hope to make a thorough investigation of this difficulty in 1904. The acidimeter has continued to give us excellent results.

The Dairy Department aims at assisting dairymen and dairying in every way possible. We are at the service of Ontario dairymen.

H. H. DEAN,
O.A.C., Guelph. Prof. Dairy Husbandry.

The World's Fair Cow Demonstration.

The department of live-stock of the Louisiana Purchase Exposition announces the following:

"The cow demonstration proposed as one feature of the World's Fair cattle exhibits at St. Louis next year has been definitely arranged, and on a much broader scale than anything of the sort heretofore attempted. It has been designated as a 'cow demonstration' because, while not in any way neglecting the dairy test idea developed at former world's fairs, it is intended to illustrate in a comprehensive way all practical adaptabilities of the pure-bred cow. The strictly dairy breeds are given opportunities to make a large showing, while features not in the least conflicting with their privileges enable the dual-purpose breeds to demonstrate their value for both dairying and beef-production. This means a demonstration rather than a competitive test, and will enable each breed participating to show its own peculiar advantages.

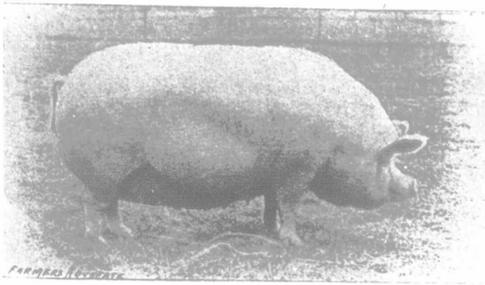
"The Jersey, Shorthorn, Brown-Swiss and French-Canadian associations have already entered. Entries will be permitted from individuals on behalf of other breeds if received before December 1st, 1903. Prizes will be awarded to herds and individual cows, and entries of from five to twenty-five cows may be made by representatives of any one breed. The same cows may compete for herd and individual prizes.

"The tests will continue 100 days, beginning Monday, May 16th, 1904, and will be conducted in four classes, designated as Tests A, B, C and D. Test A is for the demonstration of the economic production of butter-fat and butter; B, of milk for all purposes related to dairying; C, of all the products of the cow; and, D, for demonstrating the greatest net profit in producing market milk. In class C the calf will be judged for its beef merits. A cow may be entered in more than one class.

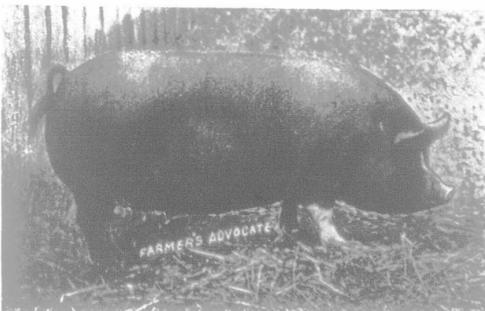
"Copies of the rules may be had by applying to F. D. Coburn, chief of department of live stock, World's Fair grounds, St. Louis, Mo."

Renovated Butter.

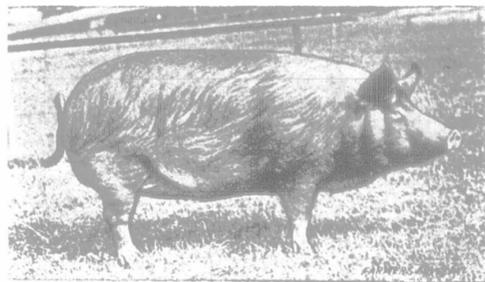
The Dairy World of Chicago says: "The good work is spreading, and now Canada has dealt a severe blow against process or renovated butter. Its House of Commons has passed a bill forbidding its manufacture, and yet there are dairy papers in the United States which are upholding the legitimacy of such an industry in this country, and which have been even contending for a repeal of the laws which have been passed by Congress. But great movements in the interest of honesty, in the interest of the public weal and in the interest of public morals never go backwards."



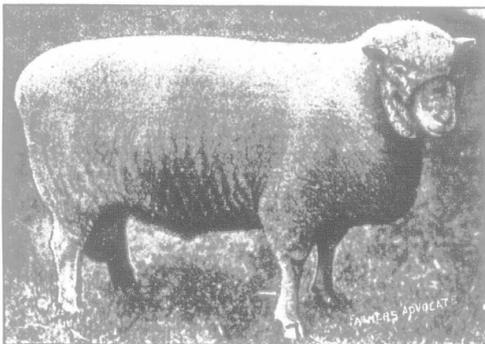
ENGLISH YORKSHIRE SOW.



A BACON-TYPE BERKSHIRE.



A TYPICAL TAMWORTH.



SOUTHDOWN RAM.

"A Royal winner."



A CHAMPION BORDER LEICESTER RAM.

POULTRY.

"Bleak House" Winter Egg Plant.

During the past few years poultry-breeding has received an ever-increasing share of attention in Canada. Poultry plants are being established in many places with marked success, and serve as a stimulus to the raising of high-class poultry throughout the country. A visit to one of these industrial centers is a source of pleasure as well as of interest and information.

One of these poultry plants has recently been established near Ottawa by Mr. Leonard Slater, who has had an excellent course of practical training, both in this country and in the United States. "Bleak House" is a handsome old stone residence, situated on the brow of a hill, sloping abruptly southward to the public road, and beyond it to the Ottawa River.

In the cellars, from which ventilators extend to the roof, are the incubator rooms, airy, dimly lighted, and free from drafts, so that little difficulty is experienced in regulating the heat of the incubators, as is so often the case when they are kept in wooden buildings or light rooms above ground, and, therefore, subject to sudden changes of atmosphere and the influence of light.

To the left, east of the house, are the poultry buildings, the brooder-house first, and parallel with it, at intervals of sixty feet, three laying buildings, one hundred and forty-four feet long by ten feet wide. In all the buildings the windows face the south, and are made with double sashes hung on hinges, the one opening outward, the other in.

The brooders are placed four feet from the north side of the building, to leave a passage behind them, and are seven feet apart. Each one faces a window, has an enclosed "run," and a slide-opening at the floor leading to the outdoor runs. One brooder and run was reserved for a "hospital."

The young chicks received a varied diet of bread, pinhead oatmeal, rolled oats, millet, rice, ground meal, bug meal, and, as they became older, meat.

Of the three laying-buildings, one is destined for White Wyandottes and two for barred Plymouth Rocks, both breeds being excellent winter layers. Each building is divided into twelve pens, communicating by doors. Each pen is supplied with a ventilator leading from the floor to the roof, a window, and a slide-opening leading to runs sixty feet long, twelve wide, and separated by wire-netting six feet high, with a one-foot baseboard. In one corner of each pen nests are placed under the dropping-boards. They are entered from below the board, and protected at the outer side by a wooden curtain, in a manner similar to that illustrated in the "Advocate" a few weeks ago. "RETTA."

Wright Co., Que.

Picking a Good Layer.

An Old Country poultryman makes the following suggestions as a help in selecting good layers:

There are certain individual characteristics, one of which is the shape of the bird. If a straight line be drawn from the back of the head to the toes, the hen which is likely to be a good layer will usually have the hinder half of her body largest, whilst a hen which may be suspected of being a poor layer will show more in the front; the reason being that a poor layer makes a better table-bird, and has a larger, longer breast, whilst a good layer makes a poor table bird, and has a comparatively small breast, whilst the egg organs are more fully developed. Birds which are good layers are usually very active. They always look healthy, and in most cases their combs are usually fully developed, particularly if they belong to the long-combed varieties, which are reputed to be the best layers. A hen with a long comb may usually be regarded as a good layer, and if she is not there must be some special reason for the contrary.

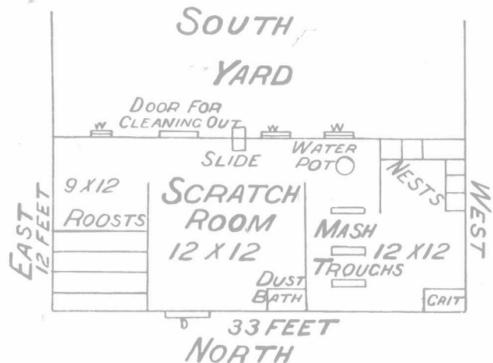
Have "Farmer's Advocate" poultry readers some better hints to offer on choosing a good layer?

Is This a Fake?

Mr. V. E. Boyer, a young North London (Eng.) chemist, claims to have discovered a substitute ("hen oil") for the natural oil which hens exude from their bodies while hatching is going on. He claims that by putting a little of this "hen oil" into the moisture tray under the incubator, it will be automatically evaporated and diffused by the internal heat, and facilitate the process of hatching. He also claims that he has invented a tablet which, when placed in the moisture tray, will as it dissolves give rise to a non-varying current. This will provide the incubator with "animal magnetism," and aid in bringing out more healthy chicks than are at present obtainable.

Farm Poultry House.

The following is a description of a handy poultry house for a farmer. The entire building is 33 ft. by 12 ft., and affords plenty of space for the fowls kept, which are about thirty. The walls are double-boarded, with tar paper between, and the floor of double plank. The east end, which is 9 ft. by 12 ft., takes up the roosting pen. This has one small window in the south side. The roosts are from 2 to 3 feet



from the floor. There is a passage about 3 ft. wide from this room to the scratch room, which is 12 ft. by 12 ft.. The scratch room contains the dust bath, a slide, a door 4 ft. wide for cleaning out the building, and a window 3 ft. by 2 ft. This room also contains a small amount of chaff, about 2 in. deep, in which the hens scratch for whole grains. There is a door on the north side, through which we enter with the feed. A passage leads from this room to the western room, which is 12 ft. by 12 ft., and contains a window in the south side, a watering pot, mash troughs, grit pot, and the nests, which are 1 ft. square and darkened by a partition between them and the window.

Condensed Eggs.

Tinned or condensed eggs are now put up in England, and are beginning to attract a large sale throughout South Africa, where fresh eggs sell from 85 cents to \$1.85 a dozen. These tinned or condensed eggs consist of ordinary eggs, with some of the superfluous water extracted and sugar added. In appearance it looks like treacle; by adding a little water and beating briskly, it is said that it is hardly possible to tell it from the ordinary egg. They are packed for the South African market in hermetically sealed tins, containing one pound and upwards—a one-pound tin being the equivalent of fifteen new-laid eggs. Where eggs are plentiful and cheap in summer, there ought to be capital openings for egg condensation—for export purposes, at any rate—and at one point at all events, Stratford, Ont., such an industry has been carried on.

Plucking Chickens.

In getting chickens ready for market, nearly everyone has experienced a difficulty in securing a uniform appearance of skin and a uniformly clean plucking. In many instances the trouble is due to the manner of scalding. Over-scalding invariably causes the yellow bloom of the skin to rub off. For best results the water for scalding should be just at the boiling point, but not actually boiling.

To scald the birds, immerse them in the water three or four times, and immediately after scalding remove the feathers, being careful not to break the skin. Poultry so treated should then be dipped in hot water for two or three seconds, and then placed in cold water for about twenty minutes. When the birds are to be packed in ice it is best to lower the temperature of their bodies by immersing in water of gradually lowering temperature down to freezing, when they will be ready to pack.

Getting the Hens to Work.

Along about December it is more than probable that fresh eggs will be in fairly active demand, and will, if the experiences of other years be any guide, continue so during winter. Of course everyone who keeps hens wants to profit by this condition, but the difficulty is in getting the hens started to lay. Early pullets are seldom depended upon to produce all the eggs, and the idleness of the older hens is excusable on account of the moulting season. This moulting at a time when the market for eggs is strong is one of the features of poultry-keeping that needs remedying. The intensive operator meets the difficulty by compelling the hens to moult in late summer, and thus gets the flock down to business early in the fall. To accomplish this he reduces the feed allowance to the minimum for a week or ten days, and also limits the range for exercise. At the

end of this time the birds are quickly brought back to full feed, which has the effect of causing them to shed their feathers, after which laying soon begins.

The experiment is so simple and has proved so effective that it is well worth trying, even where only a few fowl are kept.



H. G. SIBBALD, CLAUDE, ONT.
President and Manager Canadian Honey Exchange.

Looking Ahead.

If anyone bought eggs last spring for hatching with the expectation of raising birds suitable to the market demands, and has since found himself disappointed, we would not say "try again," but recommend that he visit the shows with a good model in mind of what he wants, and try to purchase a few birds of the most approved market type. Buying eggs from reliable poultrymen is one way of getting good stock, but it is a very uncertain way, and in many cases very disappointing. A much better way is to know exactly what is wanted and then purchase the article. The latter will require a greater outlay, but the certainty of success is equally greater. The poultry trade of Canada is being developed at a great expenditure of time and energy on the part of intelligent breeders, and it devolves upon all producers to assist as far as possible in this work of national significance. The market is demanding an early-maturing, plump bird, and it is the privilege of producers to supply that demand,



W. A. CHRYSLER, CHATHAM, ONT.
Vice-President Canadian Honey Exchange.

but such a work should not be attempted with long-legged, thin, hard-feeding stock, nor yet with the small, energetic egg-producers. The latter have a place to fill, but it is not in supplying the market with dressed poultry. Breeds for meat production have been evolved, and should be utilized for this purpose if the best goods are to be put on the market at the minimum cost, and to this end it is poor policy to secure the breeding stock at the fall and winter shows.

APIARY.

Honey Season of 1903.

BY MORLEY PETTIT.

There is an old story, with which our childhood days have made us familiar, which goes to show that the best time to count chickens is after they have emerged from their respective shells. Its teaching holds good in other pursuits as well as in that of dairying and poultry-raising, and may even be applied to the production of nature's sweet which is gathered by the busy bee.

The honey departments at the leading exhibitions this month, besides a display of choice honey from the surrounding districts, will present ever-changing groups of bee men in continuous convention. It is here the "chicken counting" is reported, and incidents of the season, agreeable and otherwise, but always instructive, are related to friends we meet but once or twice a year. Let us, in a measure, forestall these reports, and give a resume of the season as it appears to one man by correspondence and observation.

As a general rule, the wintering of bees was quite successful and several warm days about March 19th caused many cellar-wintered bees to be set on their summer stands. Breeding went on apace, until backward weather in May brought reverses. During that month, when we expect stocks to breed up for the clover flow in June, no progress was made; in fact, feeding was the only alternative to loss by starvation in many cases. On the other hand, clover, which had a season so favorable for development last year, came in bloom two weeks earlier than usual. The Ottawa district, unfortunately, experienced a disastrous drouth in the early part of the season, but in other parts the frequent rains have kept white clover blooming until the present time, and, generally speaking, there is a good yield of honey from that source.

In the same way, basswood trees bloomed profusely in all except the sections affected by the early drouth, but two or three days of temperature bordering on 90° F., just as the blossoms were opening, cut the honey yield down by one half or more.

The season has been more favorable for ripening honey this year than last. Although showers have been frequent, we have not had the humid atmosphere that we had. As a result, the quality of the honey this season is excellent, both in color and body. Many have mentioned the fact of the thickness, making it unusually difficult to extract. Excessive swarming is reported from some sections, though, upon the whole, the season was not so bad for that as last.

The Honey Market Situation.

The market situation is similar to that of last year—the leading markets of Southern Ontario crowded with old honey and offers of new, while some parts of the Province are liable to experience a shortage. Buyers are very cautious about stocking up, as they find it difficult to make what they consider a satisfactory profit. It is the old story—lack of proper distribution and proper advertising. In the first place, every home in the country should be visited at least once a year by a man with a pail of honey in his hand. The house-to-house canvass is a very successful means of advertising. There are vast territories in this country where neither honey nor fruit can be grown to any extent. These northern parts are filling up rapidly with people who must eat, and could and would eat honey in large quantities if it were placed before them emphatically and they could be convinced that it is honey.

How best can this be accomplished? The wholesale grocers ship limited quantities. But it is only one of the many lines, and they must have a big profit assured them before they will push it. The risk of breakage is so great they do not care about shipping comb honey any distance, and, like many consumers, they are a little suspicious of the purity of extracted honey. The only way out of the difficulty seems to be the formation of an incorporated capitalized stock company of the ones most interested—the producers—handling honey as a special line, being in close touch with the rank and file of beekeepers, so as to get at the facts regarding the amount of honey produced in the country, and having buying and selling agents in all parts of the country and in the British market. Of course, this company would handle only pure honey, properly graded, sealed and branded, in packages which must not be opened except by the consumer. The Canadian Honey Exchange, formed at Barrie last December, is a step in the right direction. The directors appointed there have been gathering crop reports, but, with only the membership fees which have been paid in, nothing can be done in the way of handling the crop. Nothing can be done without money, and the only way to get that is to form a stock company. There must be capital and credit enough to control the output of not only the members, but also of those who put off joining until the concern is on a paying basis. Meanwhile, the taking of crop reports is a good thing, and every beekeeper should do what he can to help on the work of the newly-appointed directors. M. P.

Look up the two pages of premium announcements elsewhere in this issue, and earn some or all of them, by sending in new subscribers to the Farmer's Advocate. It is easy to canvass for a popular paper like this. Write for particulars.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.
 2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest, or which appear to be asked out of mere curiosity.
 3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.
 4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

Veterinary.

[Answered by our Veterinary Editor.]

Subscribers are kindly requested to read the conditions at the head of this department before writing or mailing their enquiries.

CONSTIPATION IN PIG.

Pig, five months old, became stupid, lost control of its hind quarters, then acted like an animal with blind staggers. I gave a dose of castor oil in warm milk, and it died of strangulation. The pigs were fed on mixed shorts (mostly wheat) and skimmed milk. The rest of the litter are running on pasture, with plenty of shade.

Wentworth Co., Ont. H. M. W.

Ans.—Your pig suffered from constipation, caused by too heavy feeding. It died from suffocation, caused by some of the liquid you drenched it with passing down the trachea to the lungs. It is better to give pigs medicine in their food, but when they will not take it that way, and we are forced to drench, great care must be taken to pour the liquid very slowly into the mouth when the pig is not squealing. It is not probable you will have any further trouble, as the remaining pigs are on green food and get plenty of exercise. Raw linseed oil, or Epsom salts in solution, 2 to 6 ozs. of either, according to the size of the pig, will answer better than castor oil if any more become affected. It would be wise to feed a little Epsom salts, sulphur and charcoal each day in their food, until their bowels act freely.

PINK-EYE.

Colt has pink-eye. I have consulted two veterinarians, who have failed to effect a cure.
 Halton Co., Ont. J. C. R.

Ans.—The disease that veterinarians sometimes call pink-eye is an acute disease, affecting the whole system and causing a rather peculiar appearance of the eye. In fact, it is a form of influenza. I presume that your case is a chronic condition of the eye, from the fact that you already have had treatment from two veterinarians. From the lack of definite symptoms, and the fact that the term "pink-eye" is given to various diseases and conditions of the eye, it is hard for me to prescribe. I expect there is a dullness and whitish appearance of the eyes, remaining as a sequel to some disease of the respiratory organs. If such be the case, give the colt 40 grs. iodide of potash night and morning in damp food. If the appetite become impaired, reduce the dose. Keep in a comfortable, partially-darkened box stall, excluded from drafts and the rays of the sun. Bathe the eyes well three times daily with warm water, and put a few drops of the following into each eye three times daily: Nitrate of silver, 15 grs.; distilled water, 2 ozs.

WOUND AND BLINDNESS.

Two weeks ago my three-months-old colt got hooked in the hip, and when I took her to the stable I noticed she was blind in both eyes. I consulted my veterinarian, and he said very little could be done for the eyes. He treated both eyes and wound. The latter is now healed, but she still is blind.
 Perth Co., Ont. D. T.

Ans.—Your veterinarian is in all probability right in his prognosis. We advise you to continue treatment under his directions. He is certainly in the best position to give proper treatment. It is possible she will recover her eyesight if you have patience and continue treatment.

MAMMITS.

Left fore quarter of cow's udder gets hard and very sore about once every month. It becomes hard to milk and very sore. In a day or two, the milk thick and lumpy.
 Oxford Co., Ont. G. T.

Ans.—This is inflammation of the quarter. When it occurs so often in the same quarter without apparent cause, we become suspicious of tubercular disease of the udder. We would advise you to have her rested with tuberculin, and if she reacts it would be well to fatten her, as her milk is not fit for use. Treatment consists in purging with two pounds Epsom salts, and following up with three drams nitrate of potash, three times daily for a few days. Apply hot poultices to the quarter. Milk four or five times daily, and rub well with camphorated oil each time after milking.

IRREGULAR STRANGLES.

1 Two-year-old colt suddenly went lame in hind leg, and the limb swelled from the stifle to the fetlock. When swelling was disappearing he took distemper and died.

2. What is good for distemper?
 3. Is there danger of heaves following?
 4. Is it contagious?
 G. R. Ontario.

Ans.—1. Your colt had irregular strangles

PINWORMS AND COLT DISTEMPER.

1. Six-year-old mare has pinworms. She has an enormous appetite, but remains thin.

2. Seven-weeks-old colt has had distemper for about a month. It has improved lately, and the swelling disappeared, but still has difficulty in breathing.
 J. R. B. Prescott Co., Ont.

Ans.—1. Pinworms infest the rectum and seldom interfere materially with the animal's thriftiness. Inject into the rectum two ounces oil of turpentine, well shaken with a pint of raw linseed oil. Repeat in five days if necessary.

I am of the opinion your mare has stomach or intestinal worms, in which case she should be given one dram each, sulphate of iron, sulphate of copper and tartar emetic, night and morning, for a week, and then given a purgative of about eight drams aloes and two drams ginger.

2. The colt's throat should be blistered. The favorite treatment for this purpose is three parts each, oil of turpentine and raw linseed oil, and one part liquor ammonia Fortier. Apply twice daily for three or four applications. Give internally one dram hyposulphite of soda, twice daily. There is danger of this colt being a roarer, and I would advise you to show him to your veterinarian.

BREEDING AN OLD MARE.

An old mare that has produced several colts has not been bred for two years. This year, I have bred several times to a three-year-old colt, and once to another horse. I examined and found the neck of the womb in a natural condition. She appears to be in season all the time. How often should she be bred?
 A. B. V. B.

Ans.—It is not uncommon for aged brood mares that have not been bred for two or three years to become infecund. This is probably the cause of sterility in your mare. The fact that oestrus is constant indicates an abnormal condition of the ovaries, and it is not probable that she will again reproduce. You may succeed in getting her in foal. It would be well to breed her once a week as long as oestrus continues.

LAMBS DYING.

What is wrong with my lambs? I have lost six, age four months. Symptoms: Ears droop, act drowsy, and commence to stagger. They seem to lose the use of their fore legs, lie down and die in about two hours, with, apparently, no pain. They are kept in pasture of second year's seed, plenty fresh water and salt. I examined the lambs after death, and found no two exactly the same.
 J. S. Victoria Co., Ont.

Ans.—It is impossible to decide with any certainty the cause of the trouble without a post-mortem examination. If the pasture is very lush and the lambs are rapidly improving in condition, it may be due to a rush of blood to the head, a form of apoplexy, and the simplest remedy would be a change of pasture. It would seem unwise to recommend any medical treatment in the absence of a more explicit description of symptoms. Changing the conditions appears to be the most likely to work a cure, or, at least, to prevent spread of the disease.

All that is usually needed to convince a man of the superior merits of the Farmer's Advocate is to show him a copy for careful perusal. Send for a couple of sample copies for that purpose, and you will soon be able to send us his subscription.



SHORTHORN WINNERS AT KILLARNEY FAIR.

Bracelet's Hero =38591=, sire Sittytton Hero 7th, dam Bracelet 8th, out of Imp. Bracelet, first in two-year-old bull class, and male champion of the breed at Killarney Show, Man. The roan heifer, Brookside May 3rd, also a Sittytton Hero 7th calf, won first in yearling heifer class.

OWNED BY ALEX. STEVENSON, KILLARNEY, MAN.

(distemper). This disease is due to a specific virus that causes blood poisoning, which effects the entire system. In the regular form there is an increase of temperature, loss of appetite for a short time, and abscesses form in the region of the throat. In the irregular form the usual constitutional symptoms are shown, but abscesses form in different parts, often in the internal organs. The swelling of the leg was due to the disease, and it is probable an internal abscess formed which caused death.

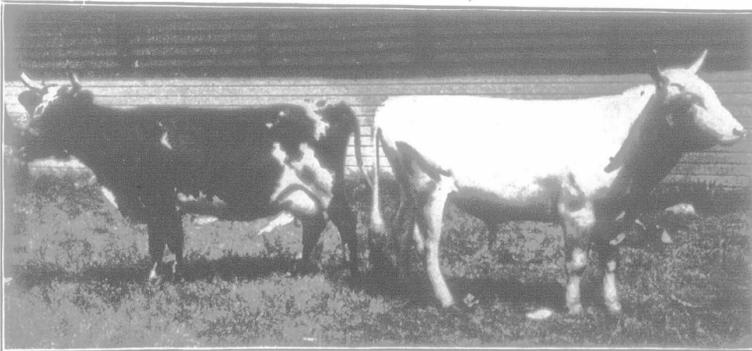
2. Isolate the animal; keep comfortable; poultice swellings; lance abscesses, when possible; feed soft food, with two to three drams hyposulphite of soda, three times daily. If appetite falls entirely, give milk, whiskey and eggs, with a syringe. Complications must be treated according to symptoms.

3. In rare cases heaves result.
 4. Yes.

ECZEMA.

Mare broke out in pimples, which are very itchy. When broken they discharge a little watery fluid, and then a dry coating forms.
 Lambton Co., Ont. W. L.

Ans.—This is eczema. Give her a purgative



SWEEPSTAKE AYRSHIRES AT WINNIPEG INDUSTRIAL EXHIBITION, 1903.

Yearling bull, Challenge of Prairie Home, won first in his class and the silver medal for best bull of the breed. Ada Marius won first in cow class, and was chosen as best female of the breed.

OWNED AND EXHIBITED BY S. J. THOMPSON & SON, ST. JAMES, MAN.

of about 8 drs. Barbadoes aloes and 2 drs. ginger. Feed nothing but a little bran until purgation commences. After the bowels become normal again, give her 1 oz. Fowler's solution of arsenic, night and morning. Give her whole body a thorough washing with warm soft-soap suds, applied with a scrubbing brush, and rub with cloths until dry. Then dress twice daily with a four per cent. solution of creolin, zenoleum, or kreso.

explicit description of symptoms. Changing the conditions appears to be the most likely to work a cure, or, at least, to prevent spread of the disease.



HARVESTING ON FARM OF THOS. BUCK, NEAR KILLARNEY, MAN.

SOW WITH TUMOR.

Sow farrowed June 10th, since then a tumor the size of a man's fist, and hard, has grown on the mammae. I have weaned the pigs. I have used different oils without benefit.

J. F.

Peterboro Co., Ont.

Ans.—There is little use in external applications. A surgical operation, which consists in carefully dissecting the tumor out, will effect a cure. Unless you are very handy with a dissecting knife you had better employ your veterinarian to operate.

Miscellaneous.

SEEDING LAWN—CEMENT FLOOR.

1. What is the best seed to use in seeding down a lawn? What is the best time to seed?
2. A pig, fourteen months old, has hard lump growing on throat (outside); kindly advise.
3. Does cow-stable floor require best quality of cement?

A. E.

Carleton Co., Ont.

Ans.—Kentucky blue grass and red-top, at a rate of four bushels per acre, half of each. Manure and plow in fall. Sow in spring as soon as soil is dry enough to work well with cultivator and harrow. The red-top comes up at once, the blue grass slower, but the latter will eventually crowd out the other. Start lawn mower as soon as grass will give it a bite, and cut once a week, leaving clippings as a mulch.

2. Paint with iodine.
3. Yes; but opinions vary as to what is "the best" cement, just as they do about "the best" breed of dairy cows. The Rock cements, such as Queenston and Thorold, do not set as quickly as the Portlands, but we have seen many strictly first-class stable floors made from them, which, in the opinion of the owners, were equal to those made from Portland. In making the concrete, this latter goes much farther than Rock cements, but it costs more per barrel. In many cases, Rock cement is used for the first layer of two or three inches of the floor, and the finishing coat of about one inch is made from Portland in the proportion of two of good sharp sand to one of cement, which makes a hard, quick-setting surface.

DEALING WITH DODDER.

Dodder threatens to overrun a whole field. How am I to get rid of it?

X. Y. Z.

Huron Co., Ont.

Ans.—The eradication of dodder is not an easy matter. Mowing closely with a scythe and, if seeds are formed, saturating with kerosene and burning is advised. About a week later, examine infested spots for new growth of dodder vines, which may appear on remaining stubble or surrounding growth. Strong brine, sulphate of lime and dilute sulphuric acid have been recommended, but sulphates of iron, potassium and copper (bluestone) are claimed by the U. S. Department of Agriculture to be most effective when dissolved in water and liberally applied in ten per cent. solutions. The solution should come in contact with the dodder vine, which it kills, as well as the clover on which it is growing, but the clover plants usually come up again from the roots. To pasture closely with sheep is a good method of subduing a badly infested field that is not desired to be broken up.

COTTON-SEED MEAL IN HOG FEEDING.

Does it pay to feed cotton-seed meal to hogs? If so, give information as to how it should be fed, in what quantity, and such other information as you may deem expedient.

H. A.

Warren Co., Ont.

Ans.—We would not advise feeding cotton-seed meal to hogs. Careful experiments have shown that it is not profitable. It is constipating in its nature and the healthy seed coats are supposed to be necessary to the delicate lining of the digestive tract.

CEMENT FLOOR FOR HORSES.

1. Would you advise putting a cement floor in a horse stable? 2. How much floor will a barrel of cement make; and (3) how is the floor made?

Stormont Co., Ont.

GAMALIEL ROBINSON.

Ans.—1. Yes; but for horses, plank's should be placed on top of the cement to protect the latter from being chipped and broken by the horses.

2. It will depend upon the thickness the floor is laid, the character of the sand or gravel used, the kind of cement and the proportions in which the materials are mixed. One Portland cement estimate given by an experienced firm for a three-inch thick floor, bottom coat mixed 10 gravel to 1 cement, surface coat, 3 to 1 inch, mixed 2 to 1, is 70 square feet from a barrel; and for a Rock cement, laid similarly, 45 square feet. Another estimate by a man who has laid many excellent floors, using different kinds of cement, is as follows: Rock cement (Queenston or Thorold), bottom 2 inches, 6 gravel to 1 cement; one-inch surface, 2 gravel to 1 cement, 60 square feet; and if Portland were used, about double that area of surface. Another estimate, given us by a Huron Co. builder, claims that as much as 140 square feet of three-inch floor could be laid from one barrel Portland cement. For horses, where plank's are laid on top, it is not necessary to have the extra strong surface finish, as in the case of cattle or pigs. There is nothing better than good, solid clay for the bottom. Floors should have a slight fall to gutter. Do not use fine sand. Sand or gravel must be perfectly free from soil. First mix the gravel and cement thoroughly, and then add water, but do not make the concrete too sloppy.

CEMENT OR BRICK FLOORS.

1. Which would you recommend for stable floor for cattle, Portland cement put in for \$80, or a floor of hard brick, laid flat, for \$65? Would the brick make as good a floor as the cement or would the cement be worth the difference in price?

2. How many square feet of stable floor will a barrel of cement lay?

W. B.

Muskoka, Ont.

Ans.—1. We would prefer the cement even at the extra cost, being more durable and easier kept clean.

2. See answer to Gamaliel Robinson in this issue.

THE DANDELION PEST.

Can you inform me of any means to eradicate dandelions, which are becoming a terrible pest in this part of the country?

H. C. RAYSON.

Yale and Cariboo, B. C.

Ans.—A bulletin from the Iowa State Experiment Station, to hand, suggests the following treatment for the extermination of dandelions: "As the dandelions are perennial or biennial herbs, seed formation should be prevented. Where they occur in small patches, a spud may be used successfully. Where they are abundant in lawns, it is only necessary to keep the lawn closely cropped and dig them up with a spud to prevent seedling. Clover will crowd them out. It is rarely that dandelions give much trouble after the middle of June."

WOOD SORREL.

What is the name and nature of the weed I herewith enclose for your inspection? I found it to-day in one of my fields, and as it is new to me, I thought it might be some noxious weed. It grows very thick, so thick that it covers the ground almost like moss.

W. W. D.

Peel Co., Ont.

Ans.—This is Oxalis, a clover-like weed, and bears a yellow flower, seeds abundantly, and runs at the joints as well, if it gets prostrate on the ground. Constant and clean cultivation should eradicate it within three or four years.

STRAWBERRY PLANTING.

I obtained my plants from a nursery two years ago. They are strong and vigorous. Shall I run them out by replanting from the old plants? Should I get new plants from the nursery every time I wish to replant? Is there such a thing as thoroughbred pedigreed strawberry plan's? How may we obtain them?

W. H.

Renfrew Co., Ont.

Ans.—It is not necessary to buy new plants. You can propagate from the last year's planting, and you can continue to do this for years. But you should select the best plants. Those that are nearest the parent plant are the best, as those at the end of the runners are usually small and less vigorous. With respect to pedigreed plants, you can pedigree them yourself, and the idea is a good one and a capital plan to follow. There is individuality in plants and trees, as well as in men and animals. You can perpetuate this by selecting the best plants from the most healthy, vigorous and productive plants in your plantation. It is the survival of the fittest. And by following this plan, using care and good judgment, a great improvement can be effected in the health, vigor and productivity of a variety.

SUN-SCALD.

Plum trees seemed all right till about a month ago, when the leaves began to die. When examined, it was found that the bark from the ground up to the branches, and part of way up on them, was dead, and in some places cracked open. The bark was entirely loose from the wood. I could not find any cause whatever. What was the cause, and the remedy for the above?

ESSEX.

Essex Co., Ont.

Ans.—The cause of the trouble is most likely sun-scald. This occurs in the spring, when the days are warm and bright and the nights frosty. The warm sun in the middle of the day sets up a summer condition on the trunk of the tree, which is severely checked by the frost at night, and this occurring for several days in succession, destroys the tissues of the bark. The remedy is to protect the trunks of the trees from the heat of the sun during March and April.

CARROT.

Enclosed find specimen of plant growing in this neighborhood. This is the first year it has been seen here. It came up in the second crop of clover. Did not see any in the first crop, but is thick in the second. State if it is a bad weed, and the best means to exterminate it.

D. C.

Middlesex Co.

Ans.—The sample is *Daucus Carota* (carrot) in its second-year growth, which seems like an unknown plant, being very different in appearance.

CELLAR FLOOR.

I have a cellar 27 ft. 6 in. by 21 ft. 6 in., and the water rises in it about one foot. It is a soft clay bottom. What kind of cement should I use to floor it, and how much strong?

GEORGE RIVIER.

Prescott Co., Ont.

Ans.—The cellar must first be tile drained, so that it can be kept dry. A layer of cobblestones may be laid on the bottom, and then covered with a couple of inches of cement-concrete, though the stones are not essential. See directions for constructing floors elsewhere in this issue.

APPLICATION OF MANURE.

What is better for the land? To plow and then put the manure on, or to put the manure and then plow under in the fall?

F. P.

Essex Co., Ont.

Ans.—It is generally considered now that applying manure on the surface after the land is plowed over is the best plan. There is this advantage, if a surface plow is an object, that the manure need not be spread upon the land till after it is frozen late in the fall, when plowing cannot be done.

THE LIBERTY OAT.

1. Is the "Liberty" oat a good oat?
 2. How does the Liberty compare with the Siberian for yield of grain and straw per acre?
 Ans.—1. We have grown the Liberty variety of oats in the experimental grounds at the Agricultural College for four years previous to 1903, and it has given good results in comparison with other varieties; in fact, we selected it in the spring of 1903 as one of three of our leading varieties for distribution throughout Ontario for co-operative experiments, the results of which will be received a little later in the season.
 2. In three out of the four years' tests, the Siberian surpassed the Liberty oats in yield of grain per acre. In the average results for the four years, however, the yields per acre of grain were practically the same. The same can be said in regard to the average yield per acre of the straw, the average for the Siberian being 2.46, and that for the Liberty 2.43 tons per acre. The Siberian oats have given an average weight per measured bushel of about one-half a pound more than those of the Liberty, and the grain of the latter contains one per cent. more hull than that of the former. As these two varieties of oats are being tested this year on about 500 Ontario farms, the comparative results will be watched with interest.
 C. A. ZAVITZ.
 Ontario Agricultural College.

SHORTHORN DURHAM.

What is the difference between the Shorthorn and Longhorn Durham cattle? What has been the object in breeding in each case?
 F. G. Peterboro Co., Ont.
 Ans.—There is no Longhorn Durham breed, and there has never been a breed known by that name. There is an English breed known as Longhorns, and a class is given them in the prize list of the Royal Agricultural Society. They are the cattle which Robert Bakewell, the founder of the breed of Improved Leicester sheep, undertook to improve about the middle of the 18th century. They are a beef breed primarily, as are the Shorthorns, although in both are many good milkers. The color of the Longhorns varies, red, black, yellow and white in different blends being admissible, but almost uniformly a line of white marks the entire length of the back. The Shorthorn breed of the present were originally called Durhams.

SMUT IN WHEAT.

Would you kindly give me quantity and strength of solution of formalin for treating 24 bushels of wheat? Will the treatment destroy the vitality of the spores in the center of the solid balls of smut?
 F. R. Wentworth Co., Ont.

Ans.—Prof. Zavitz, in an article on winter wheat in this issue, gives the following instructions re treatment of seed wheat for smut, viz., immersing the seed for twenty minutes in a solution made by stirring one pound of formalin in 40 gallons of water. We cannot say as to the second question. It would probably require a longer time in the solution to destroy the balls, but being light these are supposed to be blown out by the fanning process.

CLOVER SEED.

When is the proper time to cut red clover for seed; at what stage of the bloom can it be cut green enough for straw to do for feeding purposes?
 J. R. Simcoe Co., Ont.

Ans.—You will have to be guided by the condition of ripeness of the seed in the heads, which may be ascertained by rubbing out. The seed should be matured and fairly ripe, the heads will then be brown, the bloom having disappeared. The stems, of course, will make better feed if cut before the seed is dead ripe, and it is not necessary that it be left to that stage before cutting in order to secure good seed.

WEED IN SUGAR-BEET FIELD.

Am sending you a sample of a weed found growing with my sugar beets. Could you give me its name, and any other information about it?
 S. B. H. Waterloo Co.

Ans.—This is a specimen of hedge mustard (*Sisymbrium officinale*). It is a close relative of charlock or wild mustard, but is scarcely so persistent a weed. Cultivation to prevent seeding and growing of grass upon the land is the best means of eradicating it.

FALL PLANTING OF SHADE TREES.

Finally give your opinion regarding fall planting of shade trees—maple, elm, walnut and cedar.
 A. CLARK. Berk Co., Ont.

Ans.—They may do fairly well if planted late, after the leaves have fallen, but, undoubtedly, the best time to plant is in early spring. A tree planted in the fall will make no growth until spring, and there is more or less loss of moisture by evaporation even during winter.

NOT GINSENG.

Is the enclosed plant ginseng? I found it growing wild and grew plants from the seed.
 J. W. Gengarry Co., Ont.
 Ans.—The plant is *Angelica*, belonging to the umbellifer family. In Northern Europe it has a reputation as a remedy for chest troubles.

SOW THISTLE.

How can sow thistle be eradicated in clay land. This year it was not all pulled, and some has gone to seed.
 J. R. B. Prescott Co., Ont.

Ans.—Thorough shallow fall cultivation, followed next season by summer-fallow, or a well-cared-for hoed crop will settle it.

TROUBLED WITH ANTS.

In your issue of June 15th, 1903, appears a recipe for destroying black ants, as the use of boiling water or carbon bisulphide to be poured in the hills. Will carbon bisulphide injure the roots of the flower plants? How is it used? People tell us it is because we live so near springs and plenty of water that we have so many ants. We have used a great deal of stuff to kill them, but if I destroy one hill, in a week or two there is another started right beside the one I destroyed. I would be very glad to hear of a remedy to destroy them.
 J. C. J. Perth Co.

Ans.—One authority advises that carbon bisulphide should not come in direct contact with the roots. The fumes of it are heavy and poisonous to animal life. A small quantity is poured in a hole in the ant-hill and covered. It is inflammable, and should be kept away from flame or fire. The following remedies have also been suggested for the extermination of ants:

Ferrocyanide of Potassium.—This is very dangerous, as it is a poison. Ferrocyanide of potassium, one dram; raspings of quassia, one dram; and enough sugar to form a syrup. This mixture is dropped about the nests, or placed in saucers near them.
 Calomel and Sugar.—One part of calomel, and ten parts of finely-powdered loaf sugar, mix together, and lay it in little heaps about the hills. The ants will eat it and die. Spring is the best time for this.
 Camphor.—If a piece of camphor about the size of a filbert be placed in two quarts of hot water, and when cool enough applied to pot or other plants, the insects will be destroyed without injury to the plants.
 Will some reader give "J. C. J." the benefit of their experience in overcoming the ant pest.

SLOW CHURNING CREAM.
 We have four cows, all new milch cows last spring; they have good pasture and get salt twice a week. We use the old-fashioned pans. The cellar is good. The milk is sour and generally thick when skimmed. We churn twice a week, use the Daisy churn, and churn at from 58 to 62 degrees. This is the second year we have been troubled this way. It takes over an hour to get butter, with the exception of a short time in the spring.
 S. W. S. York Co., Ont.
 Ans.—It is idle to look for satisfactory results in butter-making under these conditions, but the coming of the butter might be hastened by churning at a higher temperature, say from 65° to 70°; adding a handful of salt to the cream in the churn shortly after starting has also been suggested. Raising the temperature will not improve the butter, which can hardly be first-class from such stale cream, and which, though very sour, has not been ripened properly. Kept in a cold cellar it will probably have developed bitterness, and lots of different degrees of acidity being added to the cream vessel from day to day, there can be no even ripening, such as is the case when the



COLLYNIE, ABERDEENSHIRE, SCOTLAND.
 Home of Wm. Duthie's Shorthorns.

UDDER TROUBLE.

Jersey cow, six years old, has swelling on right hind quarter of udder, about every four or five weeks, at night, and in the morning it is all gone: gives lumpy milk for once or twice, and then is all right. Cow in good condition, was that way before fresh and after. Please give advice through your paper. We have been taking your paper for nine years; like it splendidly.
 H. C. R. York Co., Ont.

Ans.—Give baking soda, a tablespoonful in her feed once a day, for three or four days. Keep salt where she can get it at will, and apply belladonna liniment to the affected quarter. Your druggist can supply this.



UPPERMILL, ABERDEENSHIRE, SCOTLAND.
 Home of W. S. Marr, noted Shorthorn breeder.

YELLOW CLOVER.

Enclosed find a weed. What is it, and is it hard to destroy?
 S. McC. Simcoe Co., Ont.

Ans.—This is a specimen of yellow or hop clover (*Trifolium agrarium*), and belongs to the same family as red and alsike clover. It is not considered a very troublesome weed, and is held in check by cultivation. It grows best on light soils and in sod.

to 70°; adding a handful of salt to the cream in the churn shortly after starting has also been suggested. Raising the temperature will not improve the butter, which can hardly be first-class from such stale cream, and which, though very sour, has not been ripened properly. Kept in a cold cellar it will probably have developed bitterness, and lots of different degrees of acidity being added to the cream vessel from day to day, there can be no even ripening, such as is the case when the

cream is held sweet till say 24 hours before churning, and then ripened on the approved plan, as can be done with cream raised by cold, deep setting, or from the hand separator.

PEACHES AND GRAPES.

1. How many different colors are found in grapes? Which is best, and how should grapes be treated?

2. What are the best varieties of peaches?
Lambton Co., Ont. W. H.

Ans.—1. Grapes are conveniently arranged in to three classes, according to their color.

Class I.—Dark red, purple or black.

Class II.—Light red or brown.

Class III.—White, yellow or green.

Probably for the Lake Huron district Concord, Clinton, Moore's Early and Niagara would be the most suitable varieties.

Grapes, being a tender fruit, require different treatment in different climates. About the Lake Huron district the best of care would be required. First a good rich soil is needed, preferably of a loamy nature. A

location that allows of protection from severe winds, but one that does not lie to the south-east, is also an important consideration. The vines are set in rows about twenty feet apart, care being taken to give the plant every chance to survive. Three years are generally required to form the plants into bearing vines. The first year they are cut down to two or three eyes when set out, the strongest being trained to a single shoot, and the others rubbed off. As the season advances, the tip of the shoot should be pinched off to strengthen the cane. In fall or winter the shoot is cut down to about a foot in height, and the following season two shoots are retained and treated as in the previous year. By the fall of the second year the cane should be about one-half inch in diameter. The shoots are then cut back to about a foot in length, and spread out in a horizontal position, being held in place by the wire trellis built for the purpose. Up to this time no fruit should be allowed to grow on the vines. During the third summer five or six branches springing from the two main arms may be allowed to grow, and should be provided with support made by stretching three or four strands of wire on posts convenient to the vines. In fall the lateral branches are cut back to the main shoots; these are laid on the ground and covered with earth to protect them from the cold. In spring they are again attached to the trellis. The fruit is always found on new wood. In more moderate temperatures other methods of pruning are employed, but in our northern districts it is safer to train the vines so that they can be easily laid down in winter. Some growers prefer to have four arms off the main stem, and perhaps this gives a larger crop.

2. In his report before the Fruit-growers' convention last year, W. W. Hilborn, of Leamington, named in order of their ripening the following as the most valuable varieties of peaches: St. John, Brigden or Garfield, Early Crawford,

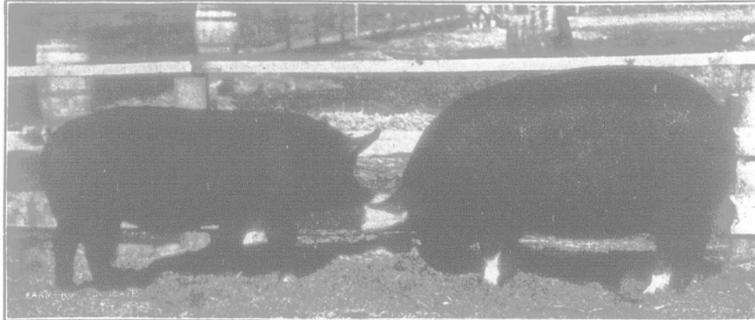
Fitzgerald, Yellow Rarripe, Englemammoth, New Prolific, Elberta, Late Crawford, and Smock.

TERM OF USEFULNESS OF A RAM.

A pure-bred ram that has always had good care and never served more than thirty ewes in one season, at what age would you consider him not fit for service?
W. H. M.

Victoria Co., N.B.

Ans.—If he continues in good health, he should be useful as a breeder till he is six or seven years old, and longer if his teeth remain sound



BERKSHIRE PRIZEWINNERS AT WINNIPEG.

York Lodge Matchless 17th, sire Lord Windsor, sweepstakes Berkshire sow at Winnipeg Fair. York Lodge Conqueror won second in over six months and under one year boar section.

BOTH OWNED BY R. J. PRITCHARD, ROLAND, MAN.

enough to crop and masticate his food properly. A noted Shropshire ram in Ontario died a few months ago, in his 14th year. He was, probably, useful for breeding up to 10 years of age, but was an exceptional case.

NOTES AND NEWS.

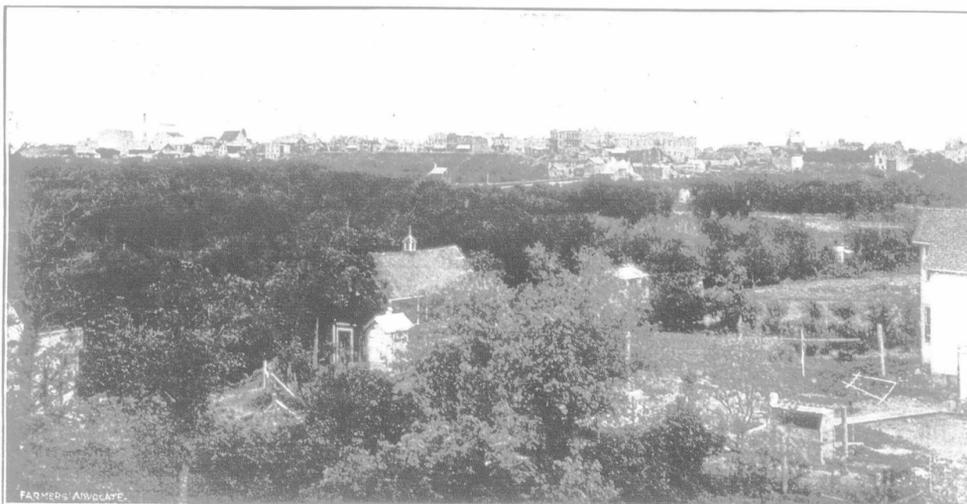
The Ottawa Fair.

The races to be run off at the Central Canada Fair this month promise to be the greatest in the Capital's history. The circuits in Quebec, Ontario and Northern New York conclude the week before and a great number of horsemen, it is learned, will gather at Ottawa.

The exhibition by Ottawa Field Battery men at the Central Canada Fair should be a thrilling and attractive one. The artillerymen are to give representations of artillery work in war, and as men who will take part were in the rear guard action at Lilliefontein, where they saved their guns from the Boers only by the most determined do or die work, there are none better qualified to give such an exhibition. The Ottawa Fair runs between the 11th and 19th of September, and all indications are that it will be the best in the association's history.

The paintings at the Central Canada Fair promise to be one of the best displays ever made in Canada. Many of the best paintings in the Dominion will be in view if present arrangements are carried out under the distinguished patronage of the Governor General and Lady Minto. It is also proposed to have paintings of every native painter from the time of Paul Kane to the most recent meritorious work of the youngest Canadian artist.

This department of the Central Canada Fair, at Ottawa, September 11th to 19th, will alone be worth travelling a long distance to see.



TOWN OF SOURIS, MAN., FROM THE PARK.

Oxford Co., Ont.

In the hurry of harvest operations, the good old "Advocate" is apt to be neglected. This should not be, as we require to keep ourselves fully abreast of the times, and the "Advocate" is just the medium to do this. We have just finished our oat harvest; I think, about the best crop we ever had. One three-acre field, plowed out of sod in the spring, that had been pastured for several years, gave us 8½ large loads. It was really the heaviest crop I ever tried to cut. All oats were remarkably well loaded, and will give a good account at threshing time. They seemed to take long to ripen, and were mostly cut a little green. We tied ours in small sheaves, and the straw will make splendid fodder. It pays to make small bundles.

We are now plowing sod for fall wheat. It should have been done earlier, but we could not get at it. I used to consider plowing all round the field a slovenly way of doing the work, but in sod plowing it takes considerable time to get the furrows filled in to save the binder jolting over them, and then the beginnings generally grow up with grass, so we are plowing all round. The field is oblong. It would not be profitable in a square field. In fact, no field should be square, but should be twice as long one way as the other. It is so much more convenient in haying and harvest, rolling, etc. We put on the skimmer, but the ground being so hard it did not work well, and we took it off. Will roll the newly-plowed ground before harrowing.

Wheat was a good crop this year, and there are prospects of better prices, and likely there will be an increased acreage sown. Help was hard to get in harvest. As much as \$40 per month for two months is being paid here, and from \$1.50 to \$1.75 per day. But things will likely take a turn, and there may be a turning from the city to the farm. There has not been enough heat for the corn to mature thoroughly by, and I am afraid it will be much like it was last year. Turnips have done splendidly, and give promise of a great crop. Potatoes did well until the dry spell during the oat harvest, when the tops commenced to die off, but they are a very fair crop and the quality of those we are using is good. In our immediate neighborhood, apples are not to be of much account. There will not be many for export.

Live hogs are keeping well up in price, as \$6.25 was the ruling figure last week. Spring pigs have done very well, generally; much better than those which came late last fall, which we are only finishing off now. Cheese has again taken an upward tendency, and our last shipment was made at 10¢. The flow of milk is considerably reduced, but is keeping up better than usual at this season, as the pastures have not yet been much burnt up, but are generally fresh and green. Our July milk yielded about an average of 75 cents per 100 pounds of milk to the patrons who hauled their own milk. Our average test was about 3.55, but it ranged from 3.2 to 3.8. Farmers should pay more attention to cooling and airing their milk. Those whose milk tests the highest work at the cooling and airing until the animal heat has been extracted. The horses' shoulders require care at this season. Cutting the lining of the sweat-pad next to the collar and taking out the hair, leaving the cloth next to the skin intact, is a better way to help a sore shoulder than cutting the piece out altogether. We should see that the blood is in good order. A little saltpetre once a week is good, and a portion of bran in the oat chop is a good improvement. D. L.

Free Rural Mail Delivery.

In reply to an inquiry, in Parliament, recently, Hon. W. Mulock, Postmaster General, announced that it is not his intention at present to introduce in Canada the system of free rural mail delivery. He intimated his belief that the U. S. system was not what had been represented. The great obstacle is understood to be outlay involved in establishing the system. In a recent interview, Gen. Bristow, head of the U. S. rural mail service, stated that they have now 17,000 rural delivery routes in operation, each one serving not less than 100 families, and an average of 150 families. The distance is 25 miles in broken country, and 30 in prairie sections. The cost to the country is about \$12,000,000 per year. The income for any one route will not exceed one third the salary of the carrier. It has been found a great boon to the farmer, and an immense help to business. During the last fiscal year, ending June 30th, 5,644 routes were started.

The Co-operative Machine Company's Binder.

During the past harvest, the Co-operative Farm Machinery Company, of Toronto, tested several of their new binders in different parts of Ontario, with the object of finding out where the machines could be improved upon and perfected. The binder is designed and built by Mr. W. J. Clokey, of Toronto. It is built very low down, is light of draft, and is very simple of construction. "Advocate" representatives saw the binders in the grain near Newtonville, just out of Toronto, the work it did being quite satisfactory, and that in a heavy crop of goose wheat. The knotter is one of the most simple and sure on the market. While it is not claimed for the machine that it is already the best made, it certainly has very many things to commend it, and it has, we believe, met with a very favorable reception wherever tried. It is expected that a mower will also be built by the company for next year's trade.

South Perth, Ont.

Never, perhaps, have we had a season so nearly approaching the ideal as the one now drawing to a close. Since the end of haying, the proportion of rainfall and sunshine have been most agreeably compounded, resulting in superb quality and fair quantity of almost every crop, while the cool, pleasant weather materially aided man and beast in the harvesting. This is a banner year for the tiller of the soil. Evidences of prosperity are seen on every hand. Improvements in building, fencing, draining, etc., are going on apace, while the value of real estate has advanced from ten to twenty dollars per acre for hundred-acre farms, and much of it is changing hands at these advanced figures, for the better times are attracting many to the towns and cities, where they expect to make an easier living than farming, and many are still entranced by the cry, "Westward, Ho!" But, for the thinking man, this is a time for hesitancy rather than the reckless spending of money in doubtful investments. After the fat years will come the lean, and there is surely something portentous in the numerous failures at present of financial institutions, especially in the United States, and it is not well to assume obligations in the fat years which the lean ones will be inadequate to discharge.

As a sign of the times, we have the proposal to build an electrical radial railway connecting the town of St. Mary's with the city of Woodstock, by way of Embro. This, if extended, as is proposed, from St. Mary's to a point on Lake Huron, will develop a portion of country in vicinity of Kirkton which, from an agricultural standpoint, we feel safe in saying is second to none in the Province of Ontario. And yet, during all this half century of settlement, the thriving village of Kirkton, with its splendid neighborhood, has remained isolated, ten miles from any railway and without either telephone or telegraphic connection. However, it seems at last that this disadvantage is about to be remedied. A co-operative company has been organized for the purpose of equipping a telephone line. The directorate is at work, about \$800 stock subscribed, so that the success of the enterprise seems certain, and we shall watch with interest the progress of the movement. J. H. B.

Disapproves of the Plan.

As regards the proposed G. T. P. Railway from Quebec to Moncton, and what effect it would have, directly or indirectly, on agriculture and other enterprises, I would say that it could not be of any benefit to the agricultural industries of the Province, and I am not aware that it would open up any other industries, as the whole thing is for the benefit of the western part of the Dominion. It would, no doubt, be a benefit to a seaport, but to think of the terminus to be in the woods, so to speak, is ridiculous, when it can be put to a seaport easier. It looks as if the Government feel that they must please the Nova Scotians, so they are willing to spend a great amount of money and run their road to Moncton, when, at the same time, they could get into St. John much easier. The Harvey-Salisbury Railway, which was promoted by the late Government, was just such another trick as the present, but it was defeated in the Senate. Now, you might think I am harsh and am opposed to the Government, and, therefore, cannot think they could do anything right, but such is not the case, for I have every faith in them, and believe they will work it out all right if there is not too much influence brought to bear on them by men who do not understand what they are about, just as was the case when the I. C. R. was located. I am sorry Mr. Blair had to leave them, but I think no man situated as he was could have remained and defended the scheme after having extended the I. C. R. to Montreal, and then to destroy the whole thing. If the country has to build west, why not do it in the interests of our own road. Please excuse these rambling remarks, and believe me, King's Co., N. B. H. S. PARLEE.

Foot-and-Mouth Disease Again.

Advices from Boston, Mass., announce the discovery of a fresh outbreak of the dreaded foot-and-mouth disease. Coming as this does, so soon after the official declaration that the disease had been stamped out, and the hope that the British ports would soon be open to live stock from Boston, it is a very great disappointment to American exporters of beef cattle.

Strong influence was being brought to bear to get the port open again, but this fresh outbreak will probably result in closing the port of Boston for the shipping of cattle for at least a year or two.

The deadliness of the disease is shown by the fact that after being apparently stamped out for three months it makes a reappearance. Fortunately the regulations for the protection of Canadian cattle have not been relaxed, and doubtless extreme vigilance, which is the price of freedom from the scourge and which is the only security for an open door for our cattle to the British market, will be observed by our authorities to prevent it crossing the border line.

Gives Pleasure.

I take pleasure in telling you how we like your paper, the "Farmer's Advocate." My father has taken it for some time. We all look forward with pleasure to the coming of the "Advocate." We all think it is the best farm journal published in Canada. Huron Co., Ont. COLIN CAMPBELL.

Magnificent Distances.

The recent discussion in Parliament and press, of the proposed new transcontinental railway, the Grand Trunk Pacific, a map of which appears on another page, serves to direct attention to the vastness of the territory embraced within the Dominion. Approximately, the distances between prominent points on the new road are as follows: Halifax to Moncton, 186 miles; Moncton to Quebec, 300 miles; Quebec to Winnipeg, 1,200 miles; Winnipeg to Edmonton, 800 miles; Edmonton to Port Simpson, 700 miles; total, about 3,250 miles across the country. These distances may vary somewhat when surveys and locations are completed, but not sufficient to affect the statement that "no pent-up Utica is ours."



DAN PATCH, 1.59.

Dan Patch Breaks the Record.

On August 19th Dan Patch broke the world's record for pacers, by pacing a mile in 1.59 at Brighton Beach. A stiff breeze struck the horses fairly in the face during the trial, and the track was a little slow, but the effect of the wind was discounted by sending a runner in front, while the second runner galloped alongside. The record beats that of 1.59 1/4, made by Star Pointer in 1898. When the unbeaten pacer, for Dan Patch never lost a race, appeared on the track he was loudly cheered. The great pacer got away handsomely, and swept on to the quarter in 19 1/2 seconds, and when the half-mile post was flashed past in 58 1/2, a great volume of cheers went up from the vast crowd. Then came the difficult top turn, and the slowest quarter of the mile ensued, the three-quarters being done in 1.29 1/2. But down the stretch swift and steady he came, and as he shot under the wire the watches stopped at 1.59.

Special against time to beat 2.00 1/2, and \$2,500 to beat the world's record, 1.59 1/2, pacing—Dan Patch, b.h., by Joe Patchen—Selica, by Wilkesberry (McHenry), won. Time, .29 1/2, .58 1/2, 1.29 1/2, 1.59.

Ontario Crop Report.

The August report concerning the crops of the Province, issued by the Ontario Department of Agriculture, deals with conditions as described by regular correspondents of the Bureau of Industries.

Fall wheat turned out to be one of the best crops yet recorded in the Province, both as to yield and quality. While some returns fall short of an average, several instances are given where the crop ranged from 40 to 50 bushels per acre, and samples are reported going fully 63 lbs. to the bushel. Much of the straw was shorter than usual, but bright. The cutting of fall wheat ranged from 10th to 30th of July, according to locality, although at the latter date the greater part of the crop was in the barn.

Spring Wheat.—Like fall wheat, the crop suffered from drouth in the spring, but pulled up with the more favorable weather prevailing later. While rather thin on the ground in places, the heads were well filled, the grain plump, and the average yield will be a fairly large one. There was but slight injury from insect or other pests.

Barley.—A large acreage and a big yield fairly describes this crop. Cutting began about the 20th of July. Most of the barley now grown in Ontario is now fed to live stock on the farm, being substituted largely for peas since the latter crop has been suffering from the weevil.

Oats.—The yield will be large, and the quality of the grain good. As in the case of fall wheat and barley, some individual yields will be immense. The straw is comparatively short, but otherwise of fair quality.

Rye.—Comparatively little rye is now raised for the grain, much of that which is sown being cut green or plowed under. The crop has been a most uneven one this season, both as to yield and quality.

Peas.—While complaints are yet too frequent concerning the presence of the weevil, it would seem as if peas have been comparatively successful where grown, some correspondents, indeed, being quite enthusiastic over the prospects of the crop. While the acreage is still small, compared with that of a few years ago, the general outlook for the crop is more encouraging than for the past two years.

Beans.—The growing of field beans is confined mainly to Kent and adjacent counties in the Lake Erie district. There has been a great growth of stalk, the plants blossomed profusely, and the prospects are most favorable for a more than average yield when the crop is gathered in the first or second week in September.

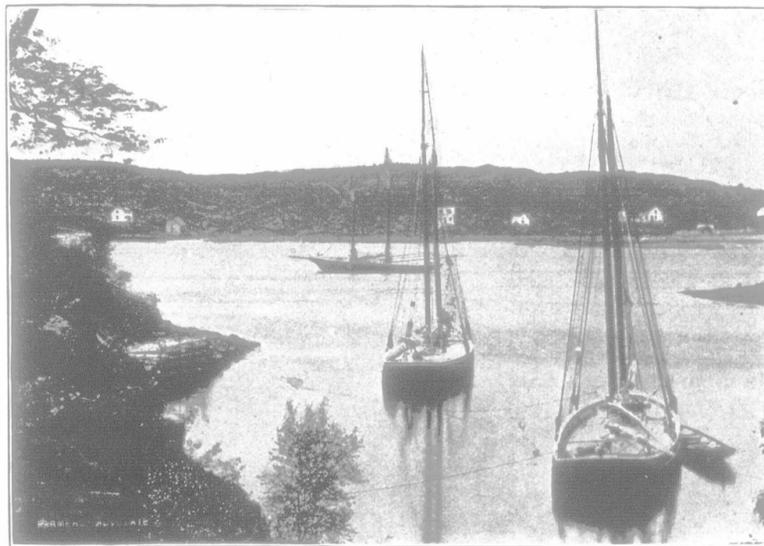
Hay and Clover.—April was too cold and dry for clover, and this, together with the drouth which prevailed in May, gave the crop a very poor start. Rains in the latter part of June and in the early portion of July, however, brought most meadows along in remarkably good form, with the result that the yield of hay will be about an average, although individual returns will range from 1/2 to 3 tons per acre. Timothy has done much better than clover this year, and new meadows, as a rule, have been much ahead of old fields. Some of the hay had to be cut late on account of the scarcity of farm labor and the coming in of the fall-wheat harvest, although the use of hay-loaders and other special appliances helped many farmers out.

Corn.—This appears to be a very uneven crop this year. It was so dry at the time of planting that much of the seed failed to germinate. Notwithstanding all drawbacks, many correspondents are of opinion that with favorable weather during the remainder of the season a fair yield will be recorded.

Potatoes.—Potatoes promise to be one of the best yields for years, more or less favorable accounts coming from nearly every county in the Province.

Roots.—Reports concerning mangels vary very much, for while some of the returns speak of the crop as being in good condition, a large number describe it as thin and patchy in places, owing to the dry weather which prevailed at seeding interfering with germination. As a rule, however, the crop will be an average one.

Fruit.—Taking the western half of the Province as a whole, apples are not up to the average, either in yield or quality, but most of the reports from counties extending from York to Grenville speak favorably of this fruit in both respects. Winter apples will be relatively scarcer than the earlier sorts. Considerable scab has been reported where the trees were not sprayed, but complaints have been less than usual concerning wormy fruit. Pears were about an average yield. Plums have had a most favorable season for bearing, and where sprayed have yielded generously,



PILOT BOATS, FERGUSON'S COVE.

The Country Boy a Winner.

The sun-browned, hand-spanked, bare-footed, hard-fisted country boy makes a much better fight in the battle of life than the pampered, high-collared and creased-trousered youth of our cities whose clothes have always been dusted with a whisk-broom instead of with a shingle. Let the city man who is out of a job try a year on the farm. Plowing behind a mule will take the kink out of his topknot, the frog out of his throat, the weakness out of his legs, and will give him an appetite, an honest living and a sight of Heaven.—[The "Enterprise," Rosthern.]

but where neglected much injury was wrought by the curculio causing young fruit to drop from the tree. Peaches are yielding well, more especially the later varieties. Cherries gave from a fair to a light yield, and, like plums, suffered somewhat from black-knot. Grapes will be a medium crop should favorable weather continue until ripening. Strawberries, raspberries and other small fruits were more or less abundant.

Pastures and Live Stock.—The early part of the season was most promising for pastures. Later rains brought grass into the very best condition, generally speaking. Live stock have suffered from little but the horn fly, which, however, appeared later in the season than usual. The flow of milk has been large, and there will be a large supply of dairy products.

Bees and Honey.—The season has been a favorable one for the apiary. Bees swarmed freely, and there has been an abundance of nectar in both field and forest, more especially in the case of white clover, which was more or less in bloom all summer. The yields reported range from 25 to 100 pounds per colony, but the average for the Province will be about 55 pounds, spring count. Little or no disease has been reported among bees, and at last accounts they were said to be in a thrifty condition.

Where to Send Good Papers.

Having read the report in July 15th "Farmer's Advocate" with interest regarding the W. C. T. U. missionary work in New Ontario, could you have some addresses given in the "Advocate" where good papers might be sent in large lots, as freight, at so much per hundred. It is too bad to destroy so much good reading matter. There are many who would send if they knew where.

WELL WISHER.

The addresses to which literature might be sent are: Miss Agnes Sproule, W. C. T. U. Missionary, Ft. William, Ont.; Mrs. W. H. Weir, W.C.T.U. Agent, Stratton Station, Algoma West, Ont.; Mr. J. S. Leckie, W.C.T. U. Missionary, Huntsville, Ont. Would you kindly say that the literature sent should be of comparatively recent date, unless the papers are pictorial, in which case an older date would not matter, and that they should be clean and whole.

MAY R. THORNLEY.

[Note.—Friends sending literature to the above addresses for distribution in the lumbering and mining camps or in back settlements should prepay the freight or express charges. For large parcels, the former is much more economical.—Editor.]

New Manitoba Wheat.

A dispatch from Winnipeg, dated August 27th, states that the first shipment of new wheat was received there that day. It came from Altona, Man., and graded No. 2 northern. Last year's first shipment arrived on September 1st. The price received this year was 71c. Speaking regarding the shipment, the correspondent was told that the grade is certainly not satisfactory, but there is reason to believe that this is no criterion of what the average run of the wheat will be. The grade of No. 2 northern was given owing to the fact that it was filled with foreign seed and with weeds. One of the officials of a milling company said: "I believe that with continuance of dry weather we will have, this year, as much No. 1 hard wheat as we had last. The weather is not responsible for the low grade given this first shipment, and this first lot has come below the highest because it is only from a small area, and does not give any idea of what the grade will be, even in this district."

British Columbia Fairs.

The prize lists of the British Columbia Provincial Exhibitions, to be held at New Westminster, September 29th to October 2nd, and at Victoria, 6th to 10th, show an up-to-date classification and a very liberal offering of cash prizes in live stock and agricultural products, and should attract large entries in the competition for their possession. These exhibitions have been well patronized in former years, and the prospect for both exhibits and attendance were never better than this year, the programme of events being better than ever. The secretaries are Mr. W. H. Keary, New Westminster, and Mr. Robert H. Swinerton, Victoria.

Stock Exports Booming.

Robert Bickerdike & Co., of Montreal, advise us that the exports from that port since navigation opened until August 16th, compared with the same period last year, were as follows:

| | 1902. | 1903. |
|--------------|--------|--------|
| Cattle | 38,343 | 87,267 |
| Sheep | 18,647 | 26,786 |
| Horses | 3,464 | 265 |

These figures include some 3,000 cattle and 600 sheep loaded on steamers at Quebec. The increase in cattle is partly accounted for, we presume, by the large exports of cattle from Chicago, shipped via Montreal, and which, we presume, are included in the above.

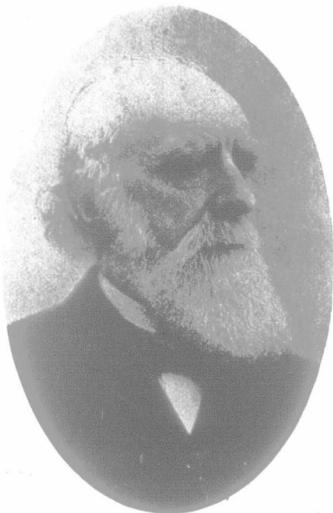
It is the Best.

You will find enclosed one dollar for my renewal for the "Farmer's Advocate." I might say a few words in regard to the paper. I regard it as the best farmer's paper I ever read, and I am satisfied that our country would be better off if more of the farmers took your paper. I will try and get some new subscribers later on.

ARTHUR D. TWIDLE, Jr.,
Wentworth Co., Ont.

Lord Strathcona Opens the Toronto Exhibition.

Lord Strathcona, in opening the 25th consecutive exposition held in Toronto, Ont., on August 29th, called attention to the fact that President McNaught had told him of his experience in Manitoba twenty-six or twenty-seven years ago. Mr. McNaught it was who made the first shipment of wheat from Manitoba, and it was considered a large shipment then, some 500 bushels. Looking

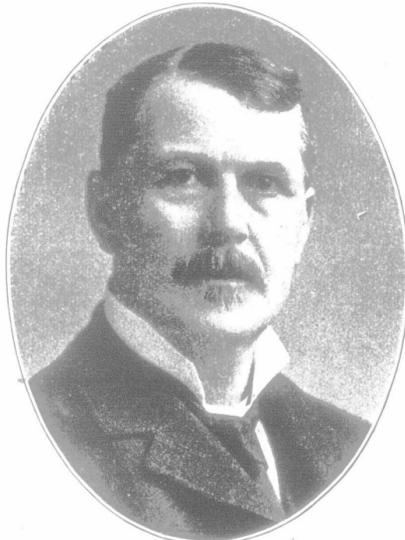


LORD STRATHCONA.

Canadian High Commissioner, who opened the Dominion Exhibition at Toronto, August 29th, 1903.

back before that to 1870 they would find that Manitoba then was in rebellion, and it was impossible to do anything with the land in the way of agriculture. To-day 40,000 or 42,000 farmers produced from 120,000,000 to 150,000,000 bushels of grain. (Applause.) That was a progress not dreamed of. Had anyone spoken of such a thing thirty years ago he would have been laughed to scorn.

Lord Strathcona then touched upon the question of the food supply of the United Kingdom, remarking that in the Old Country that was giving a great deal of concern. But they had been told over there recently, and truly, that in another ten or twelve years they need be under no apprehension of being starved out in six weeks.



W. K. McNAUGHT.

President Toronto Industrial Exhibition.

Six months, or six years, for the colonies of the mother country, or Canada alone, then would be able to provide every pound of breadstuffs that would be required for the United Kingdom. (Applause.) Each and all were glad to look forward to the time when they would be knitted still more closely to each other, and when their domestic arrangements might be such that they would take a great deal more from each other within the Empire than at present, and less from the outside. He was amazed at the extraordinary ac-

gree of commercial industry and artistic development within so short a space of time. Little more than a century ago Bouchette saw the spot which is now the site of this beautiful city, covered with dense and trackless forests, on the border of which stood one solitary wigwam. Seventy years ago the population of the little town of York did not exceed 4,000 souls. To-day Toronto has a population of a quarter of a million, rapidly increasing in number. The few "acres of snow," as our country was once sneeringly described, have blossomed like the rose and become a land of hope not likely to be disappointed. To quote the language of a visitor to the Paris Exposition of half a century ago: "Active, intelligent, enterprising, beyond all other distinct nations, which equally abound in the elements of industrial production, Canada claims and demands attention." The Industrial Exhibition had aided to no inconsiderable degree in promoting the development of the natural resources, the arts and manufactures of Canada, by setting a lofty standard of excellence, by fostering competition, and by providing an incentive to higher attainment. You have seen, he said, the foreign commerce of the Dominion more than doubled in value in twelve years, expanding from \$218,000,000 in 1891 to \$467,000,000 in 1903. You have seen domestic commerce enlarged in equal degree; new sources of wealth have been exploited; the fertile and resourceful Province of Ontario has become a seat of thriving industry, and the regulator of the dairy-products markets of the world. The great granary of the Northwest, so long a sealed book, has been opened to the adventurous spirits of the Old World, and is rapidly becoming the seat of a thrifty and numerous agricultural population, whose products ere long will fill the great granary to the full of the Empire's needs. Never before in the history of Britain has our country occupied so large a place in the public mind. Appreciation of our resources and capabilities has been tardy perhaps, but it has come at last on the part of our fellow-subjects in the United Kingdom, and deepened and heightened, I believe, will that appreciation become from the meeting of the Chambers of Commerce of the Empire recently concluded in Montreal. And in this regard I cannot refrain from expressing the earnest hope that out of the deliberations of that important congress, with the aid and co-operation of the public men of Great Britain and the colonies, will issue a practical scheme of inter-Imperial trade, based on mutual preference, according to the ability of each individual part of the Empire to promote by such means the development of the whole.

A Clean Fair.

In a review of the Missouri State Fair, held at Sedalia last month, a reporter for the Breeders' Gazette writes:

"President Gentry's commendable desire to give the people a clean, wholesome fair was fully gratified this year. There were no wholly objectionable shows or devices on the grounds. An electrical show displayed signs which indicated that it might be shady, and the ever-present "pop," candy and lunch stands might have practiced what is commonly regarded as legitimate fleecing at a State fair, but the brazen fakes of various kinds which are too common at some State fairs were conspicuous by their absence, and anybody, man or woman, boy or girl, could inspect anything on exhibition with confidence that it was all right. Not a drop of intoxicating liquor was sold inside the gates. The dignified character of the fair reflects the high moral character of its leading officials. President Gentry believes that a clean fair will prosper and grow, and he has convincingly demonstrated his sound theory. It is not the object of the Missouri State Fair, according to his utterances, to make a great deal of money rapidly, so as to increase its equipment more speedily, and thus attain a cheap and undignified notoriety. He contends that a fair conducted on what some people call the "Sunday school plan" will ultimately make money and at the same time maintain a reputation for cleanliness and wholesomeness, which every fair should try to establish. Missourians may justly feel proud of the fact that no State ever had a cleaner fair than theirs, and that no institution of the kind has grown more rapidly or more deservedly than the one which they have fostered and should continue to aid with their money. Such a fair merits active and persistent encouragement and support."

Looking After the Stores.

If anyone should notice unusual activity about the beeyard in the disposal of drones, it would be well to enquire a little further, for it is just possible that the stores are not as plentiful as they should be at this season. The storing-rooms, of course, should be reduced, and attention given to see that all the cards are full. For some reason or other the latter part of this season has been unfavorable to some apiaries, and stores are not yet sufficient. This condition should be remedied at once, before cold weather begins. The windy, damp weather of the past two weeks has seriously handicapped the workers, and assistance is in many cases required.

Winter Crops in Ontario.

VARIETIES OF WINTER WHEAT.—Three varieties of winter wheat were distributed throughout Ontario by the Experimental Union in the autumn of 1902 for co-operative experiments. Good reports of successfully-conducted experiments have been received this year from eighteen counties, extending from Essex, in the south, to Haliburton, in the north. The following is the average yield in weighed bushels of grain per acre for each variety for five years at the College and for 1903 throughout Ontario:

| | College, Ontario. | |
|----------------------|-------------------|-------|
| | bush. | bush. |
| Imperial Amber | 61.0 | 24.9 |
| Buda Pesth | 57.2 | 21.4 |
| Turkey Red | 53.4 | 20.7 |

All three varieties are bearded. The chaff of the Imperial Amber is red, and that of the others is white. The grain of each variety is red, hard, and of good quality. All three varieties are rather weak in the straw. The Imperial Amber is a close rival to the Dawson's Golden Chaff in yield of grain per acre.

FERTILIZERS WITH WINTER WHEAT.—In the co-operative experiments with different manures applied in the spring of the year, the average results show a yield of 29.7 bushels of winter wheat from an application of one hundred and sixty pounds of nitrate of soda per acre, and 35.7 bushels from a top dressing of twenty tons of well-rotted cow manure per acre. The unfertilized land gave an average yield of wheat per acre of 22.7 bushels. The yield of wheat from one hundred and sixty pounds of nitrate of soda surpassed the yield from four hundred pounds of common salt by 3.5 bushels per acre. Nitrate of soda when applied in the spring gave better results than when applied in the autumn. The usual cost of nitrate of soda is about three and one-half cents per pound in small quantities, and three cents per pound in ton lots.

WINTER RYE, HAIRY VETCHES AND CRIMSON CLOVER AS FODDER CROPS.—An interesting co-operative experiment was made for the first time by sowing winter rye, hairy vetches and crimson clover in the autumn for the purpose of producing green fodder in the following summer. The reports show that the crimson clover received the greatest injury from the early spring frosts. The highest individual yields were produced by the hairy vetches. In the average results, however, the winter rye surpassed the hairy vetches by 420 pounds of green fodder per acre, but the quality of the feed of the latter was superior to that of the former. In ten of a dozen tests, the hairy vetches were eaten readily by farm animals, and seemed particularly suitable as a feed for hogs. A Bruce farmer reported that "the hairy vetches gave a large yield, and were relished by all classes of animals."

DISTRIBUTION OF SEED FOR EXPERIMENTAL PURPOSES.

Material for any of the five experiments here mentioned will be sent free to any Ontario farmer applying for it, if he will conduct an experiment with great care and report the results after harvest next year. The seed will be sent out in the order in which the applications are received as long as the supply lasts.

- Plots.
1. Testing hairy vetches, crimson clover and winter rye as fodder crops 3
 2. Testing three varieties of winter wheat..... 3
 3. Testing five fertilizers with winter wheat... 6
 4. Testing autumn and spring applications of nitrate of soda and common salt with winter wheat 5
 5. Testing winter barley and winter rye for grain production 2

The proper size of each plot is one rod wide by two rods long. The materials for either of the first two experiments, or for No. 5 experiment, will be forwarded by mail, and for each of the other two by express. Each person wishing to conduct one of these experiments should apply as soon as possible, mentioning which test he desires; and the material, with instructions for testing and the blank form on which to report, will be furnished free of cost until the supply of experimental material is exhausted. It might be well for each applicant to make a second choice for fear the first could not be granted. C. A. ZAVITZ, Agricultural College, Guelph, Ont., Aug. 21st, 1903.

A Sensible Hobby.

Another instance of the love of wealthy men for country work is found in the establishment by the proprietor of the Peruna Medicine Company of an up-to-date farm in Ohio. The farm consists of 3,600 acres and represents an investment of \$2,000,000. Macadam roads are built throughout the whole estate, and every modern convenience is provided for the employees, who number about two hundred. Fancy-stock breeding is to be one of the principal operations upon the estate. Six hundred horses are kept in stables that for cleanliness, light and comfort are veritable palaces.

Stock Exports Doubled.

London, England, August 28.—The arrivals of Canadian cattle at Liverpool to date so far this season have been 91,000, with 30,000 sheep, double the supply of the corresponding period last year. The Chambers of Commerce of the United Kingdom have renewed their agitation for the removal of the embargo, especially in the case of Canada.

The wheat cultivation of the United Kingdom fell off 144,266 acres this season, and that of barley 50,899 acres, while oats increased 83,039 acres.

Notes from Ottawa.

GREEN CHEESE NOT WANTED.

The Dairy Division, Ottawa, has received advices from Mr. A. W. Grindley, Agent of the Department of Agriculture, in Britain, to the effect that the reputation of Canadian cheese has been injured by the large amount that has been sent from Canada this year in a "green" or uncured condition. Dealers state that the great bulk of Canadian cheese has been too immature when shipped, and Canadians will have only themselves to blame if the British demand falls off from such causes as these. It is greatly to be regretted that for the sake of a little temporary advantage, both factorymen and exporters should be willing to endanger a trade which has required so many years to reach its present high standard, and which means so many million dollars to the farmers of Canada.

THE EXTENSION OF MARKETS.

During the South African war, the Department of Agriculture undertook to fill a number of very large orders from the British War Office, and, as a result, hay, flour, oats, meats, jam, etc., to the value of over \$8,000,000 were purchased in Canada for the maintenance of the army in the field. This work was carried on under the direct supervision of Prof. Robertson, Commissioner of Agriculture and Dairying, but at the beginning of the present year it was decided to create a distinct Extension of Markets Division, and to place at the head of it Mr. W. W. Moore, who was in South Africa for the Department in 1900, and who has been intimately connected with all efforts made to increase Canadian trade with that country.

FRUIT PULP.—Considerable correspondence has reached the Markets Division from Great Britain with especial reference to fruit pulps, particularly raspberry. The fruit crop of the United Kingdom and on the Continent is very poor. All the pulp available from Canada will doubtless be disposed of at once at good prices.

CIDER APPLES.—In view of the short fruit crop there is likely to be a good demand in Britain for boiling and cider-making apples. The Department has received advices from the Canadian High Commissioner in London to the effect that one firm would take 5,000 tons of each of the above sorts.

FOODSTUFFS FOR SOUTH AFRICA.—Recent letters received at the Department indicate that on account of the drouth the grain crops in the Transvaal will be short this season, and that in consequence there is likely to be a good demand for Canadian food products in the sister colony. W. A. CLEMONS, Publication Clerk.



CLEMENT'S STEAM PLOW BREAKING 20 ACRES PER DAY IN THE ARCOLA DISTRICT, ASSA.



GASOLINE THRESHING OUTFIT, EXPERIMENTAL FARM, INDIAN HEAD.

New Toronto Stock-yards.

The new Union Stock-yards at Toronto Junction, which were opened for business July 28th, will fill a long-felt want for cattle dealers and shippers, and for farmers who from time to time require cattle for feeding. The opening was liberally patronized by prominent shippers from many parts of Ontario, there being no fewer than 147 carloads of stock in the yards, which is said to be a record day in this respect in the history of the cattle market of Toronto. The Stock-yards Company have builded on liberal lines, and laid their plans on a scale commensurate with the growing importance of the stock business, which is bound to continue the leading branch of Canadian farming, and to develop into vastly greater proportions in the near future. The yards and sheds, which are all floored with hard brick, are modelled after that of the plan of the most approved sections of those in Chicago and Kansas City, and while ample in extent for all present requirements, sufficient space has been acquired for expansion whenever the occasion demands it. The yards are situated midway between the Canadian Pacific and Grand Trunk Railways, with provision for switches and sidings for both, and every needed facility for loading and unloading from both roads at the same time, and while the G.T.R. has not yet availed itself of the privilege of running its cars to the new yards, and has, it is charged, been discriminating against the latter, owing to its having interests in connection with the old cattle market, it will surely be only a question of a little time when the authorities of that road will see that it is folly to kick against the will and wishes of so important and influential a class of shippers as the dealers in and exporters of live stock, who are among the best paying patrons of the railway lines in this country, and stand no nonsense that interferes with the progress of their business, as is manifested by the action reported to be taken by a number of them in appealing to the courts for protection against the alleged discrimination being practiced by the G.T.R. against shipments by their road

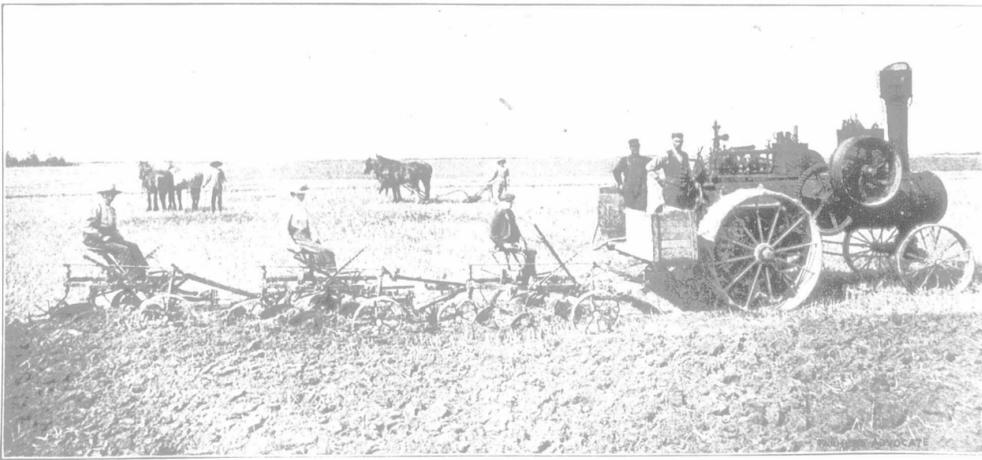
consigned to the new stock-yards. The facilities provided by the Union Stock-yards Company for the transaction of business are certainly on a generous scale, the large and commodious building erected for the use of the banks, commission men and shippers being all that could be desired. Several leading banks have already opened offices at the yards, and there are all the requisite telegraph and other facilities for doing business. Already there are facilities for unloading sixty carloads of live-stock simultaneously.

Rural Telephone Posts.

One of the difficulties in some sections in constructing rural telephone lines is to get a supply of satisfactory cedar posts, which are a rather costly article. In one locality lately we noticed that instead of setting posts along a roadside, the posts of the roadside fences which skirted all the farms were utilized. Pine scantlings, two by six inches and seven feet long, were ripped in two, so that one end would be two inches wide and the other four inches, and these were spiked to the fence posts with three long wire spikes, lapping about one foot down. Occasionally a piece of scantling was spiked as a cross-piece to a roadside tree, thus doing away with the use of a post altogether. This plan is cheap, and the line is off the highway and out of the road. At entrance to farm lands a high post is used to leave room for loads of grain or hay to pass below. No. 12 wire is used, and the porcelain insulators are spiked on top of the posts.

Transportation Commission.

The Transportation Commission appointed by the Dominion Government to enquire into and report upon the best means of improving the facilities for the shipping of Canadian products and imports by land and water consists of Messrs. Robert Reford, Montreal; John Bertram, Toronto, and Fry, of Quebec. Mr. Reford has had the benefit of large and varied experience in export shipping, as well as in interprovincial trade. He is also well-known by reputation to farmers and stockmen throughout the Dominion as the owner of a well-managed stock farm near Montreal, where a high-class herd of Ayrshire cattle is maintained.



PLOWING BY STEAM AT YORKTON.

On Mr. Chrysler's farm; average about 15 acres of stubble per day.

The Western Fair, London.

THE COLDSTREAM GUARDS BAND WILL BE HERE.

The opening of the Western is now less than two weeks distant. On September 11th this favorite live stock and agricultural exhibition will be opened to the public, and for the eight following days thousands of visitors from all parts of the Dominion will pass the turnstiles. Everything possible is being done in the way of providing comfort and accommodation. The live-stock men, more particularly the exhibitors of sheep and swine, will be well pleased with the change made for the care of feed and sleeping conveniences. Large enclosed berths or compartments have been placed above the center row of sheep pens and over the passages in the swine buildings, which, it is believed, will remove any occasion of further complaint. White-washing (which was necessary last year), another bug-bear, we are assured will not be repeated this year.

At this time, it looks as though the machinery and implement end of the show will assume its old-time prestige and activity. A large tent space has been taken for an American exhibit of agricultural implements, including threshers and traction engines, and the buildings will also be well filled by other American firms, as well as those of Canadian manufacturers.

The horse entries are most encouraging, and there will be a big exhibit of the best horse stock of the country.

The dairy is not behind. A big entry is promised; extremely large make warrants this. The quality will undoubtedly be up to a high standard of excellence.

Agricultural and horticultural products will be able to hold their own, as vegetables and fruits are in abundance this year.

A great list of attractions has been secured by the management, including performing animals, acrobats, gymnasts and high-class vaudeville performers of all kinds. The fireworks display will be on a grand scale, the bombardment of Alexandria being the big feature. Illuminations and special devices will be the best ever given here.

A great addition to the week's entertainment will be the Coldstream Guards Band, the crack military band of England, which comes to Canada by permission of His Majesty King Edward. To hear them, we are assured, will be one of the musical privileges of a lifetime.

Dan Patch a Real Champion.

There is nothing conditional about the championship crown which now adorns the head of Dan Patch, 1.59, the fastest harness horse the world has ever seen. Few there were who thought the son of Joe Patchen would lower the world's pacing record on the third day of the Grand Circuit meeting at the Brighton Beach track. Conditions of track and weather were not conducive to a record-breaking trial. The trial was not made until well after four o'clock. There was considerable wind, blowing straight across the turns, and the rain which threatened lent a chill to the air. The track was fast, though cuppy near the rail.

Most of the unofficial watches held on Dan Patch caught the mile in 1.58½, so it is certain that the officials gave the bay stallion none the best of it. Dan Patch, therefore, paced the fastest mile ever made in harness, and lowered the record of Star Pointer, made at Readville, Mass., in 1897, one-quarter of a second. Myron E. McHenry, who has driven Dan Patch in all his record miles, was up behind the son of Joe Patchen. The track at Brighton Beach was not thought to be as fast this year as some of the other Grand Circuit tracks, but the record-breaking performances of Dan Patch and Lou Dillon refute such rumors conclusively.

The fractional time of the mile was .29½, .58½, 1.29½, 1.59. The time for the four quarters was .29½, .29½, .30½, .29½. There is no disputing or belittling the latest performance of the pacing king. Heretofore, the son of Joe Patchen has been unlucky, and has been dubbed on frequent occasions the uncrowned king. At the Readville track last year Dan Patch paced a mile in 1.59 1-5. There are no fifth seconds in light-harness records, so the timers were forced to hang out 1.59½. The hard luck, however, did not end here. Dan Patch had been sent to break the world's record. Tying the record constituted a losing performance, so the great mile was not allowed, and the pacer was marked back to 1.59½, which remained his record until the eventful day at Brighton Beach.

Two runners were used to pace Dan Patch when he broke the record. One went in front, as a wind shield, while the other went alongside as a prompter. In the home-stretch, Dan Patch paced so fast that it seemed as if he would run over the pacemaker. Not until the stretch was reached did Myron E. McHenry shake the pacer up. Then he laid the whip on, and Dan Patch swept down the track and under the wire with a burst of speed which held the spectators speechless and crowned him the champion of all champions.

Mr. Sturgess, the former owner of Dan Patch, who sold the great pacer last winter to Mr. Savage, of Minneapolis, for \$60,000, was present at the track, and saw Dan Patch lower the world's record. His enthusiasm over the performance knew no bounds. Dan Patch ought to pace in 1.58 or under ere the season is over.—Rider and Driver.

Improvement of Fairs.

As the season of fall fairs draws near, directors of agricultural societies will be on the lookout for new and attractive features to be added to the programme of events.

Attention is being directed to the Whitby Model Fair, to be held September 15th to 17th, which the Dominion and Provincial Departments of Agriculture are striving to make a model for others to follow in the endeavor to improve the fairs by the introduction of educational features.

Another feature of the Whitby Fair which is worthy of adoption by all agricultural societies, but which only some half dozen have yet taken up, is the series of illustration plots on the fair grounds.

The Whitby Fair Board will this year attempt to combine amusement with instruction by holding a gymkhana, or series of games on horseback.

But it is not intended to allow the amusement feature to overshadow in any way the educational part of the programme. Demonstrations of agricultural processes will be very much in evidence.

That the children may be instructed as well as amused, prizes will again be offered to the teacher and pupils of a public school section making the best exhibit of cut flowers grown in the school-grounds;

grain in the straw; clover and grasses; roots and vegetables; fruits; wild flowers and leaves of trees, pressed and mounted; weeds and weed seeds; beneficial and injurious insects; and native woods.

List of Fairs for 1903.

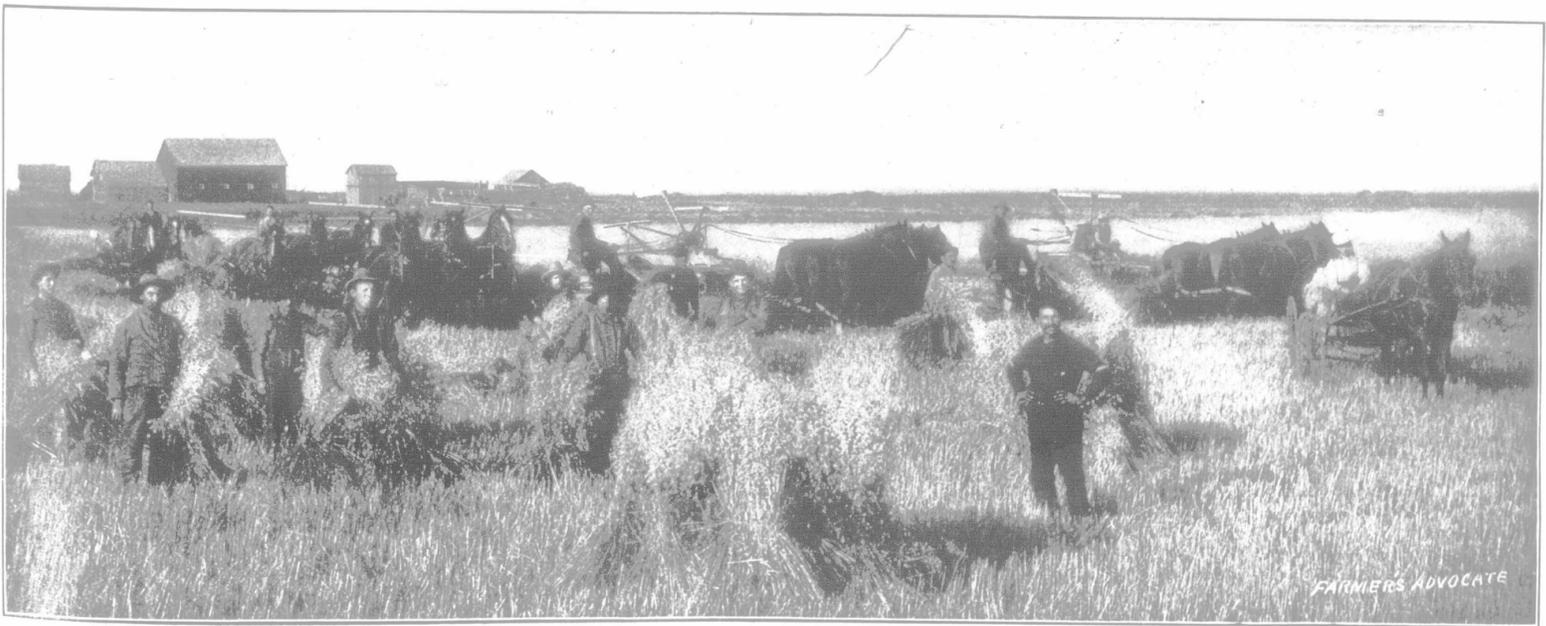
CANADA.

Table listing Canadian fairs for 1903, including locations like East Elgin, Aylmer, Russell, and dates such as Sept. 7, 11 and Sept. 8.

Table listing fairs for 1903, including locations like North Middlesex, Ailsa Craig, New Westminster, B. C., and dates such as Sept. 29, 30 and Oct. 1, 2.

STATE AND GENERAL.

Table listing state and general fairs for 1903, including locations like Ohio, Columbus, Minnesota, Hamline, and dates such as Aug. 31, Sept. 4.



INDIAN HEAD HARVESTING SCENE.

Cutting oats, September 9th, 1902—yield, 100 bushels per acre—on the farm of Chas. Downing, Indian Head, Assa.

Life on the Ranch.

BY J. M'CAIG, M. A., LL. B., LETHBRIDGE, ALTA.

Man is a gregarious animal, but in practice some of us are not so gregarious either. What we mean by the gregarious instincts has a good many sides. To the economist the grouping of men in towns and cities is a matter of convenience and profit in exchange, and later in certain classes of production. It is only in dense masses of population that the division of labor, which is the dominant feature of modern industrialism, can take place, and whether the industrial gain completely explains the massing of population or not, the massing is certainly of the highest industrial advantage. There is good reason to believe that the gregarious impulse has other motives than purely material ones. The first problem of the man is to live, but it is true of the most uncultured laborer, as of the most cultured and liberal-minded man, that he does not live by bread alone. The most grinding necessity cannot eliminate the desire for social intercourse of some sort, nor wholly check the exercise of it, so that man is gregarious for social as well as material reasons. There is an egotistic motive closely connected with the material one that brings a man to town. This is the desire for higher self-realization. A man measures his success by comparison with his neighbors, and the more neighbors he has the greater his incentive to effort. Men crowd into the swirl of complex, varied and busy ideas to struggle harder, either to prevail strongly or to be smaller fish in the big pond than they would have been in the pool they have left. No one would maintain for a moment that the country offers the same incentive to the kind of accomplishment that brings enduring fame to man as the town does, but it depends upon the man whether he goes up or down. The town sorts up the bunch, and develops a few big fellows for the toppers; the rest are machines and tools manipulated and run by the few. The town is the place for traffic in ideas, and is the point at which general intellectual and social movements filter out to clear and definite expression, and become realities of significance and potency, but the filtering material is big, and the stream, though clear, is very small. In other words, in the towns many are called, but few are chosen. There seem a good many misfits in the placing of men, just as there are in the making of matches. They say matches are made in heaven, but there are a lot of people who do not wait until they reach the golden strand to get married, or they have too greatly localized the place. There are a lot of fellows in town who would do better in the isolation of the country, and many in the country who would be leaders in the towns. But, about the man on the ranch.

The rancher's life and business have been subject to such rapid transformation within the past fifteen or twenty years that to give a picture of him demands a somewhat kinetoscopic gift. A rancher originally meant a farmer, but its general application later was to a man who did as little farming as possible. This is the popular acceptance of the word. Now a rancher is turning out to be a man who has to do a little farming, or quite a bit of it, whether he likes it or not. Generally speaking, ranching is assumed to be in rather sharp contrast to farming. Our ranching country is distinguished from our arable country by important topographic and climatic features and conditions. The ranch country is the open, limitless prairie, hard and dry; the arable country may or may not be timbered; it generally is, but it is moist and its vegetation is strong and luxuriant. The rancher is a grazer; the farmer a plowman. It is with the life of the former that we are concerned.

The first outstanding feature of the rancher's life is its isolation. The large, free domain that makes the business possible and successful implies sparse settlement. In his original aspects the rancher is a poacher on the public domain. He grows his herds on the common grasses, and gives no quid pro quo. This is the rancher's ideal, at least, and when these conditions fail, by reason of encroaching settlement, he moves to the open and unfrequented parts. The prairie is not the luxuriant place that poets and advertisers have painted it. Its grasses are not bulky per acre, and cannot be profitably subjected to close grazing. What puts the finish on range cattle is the seed pod, and high finish means wide choice and selection. Ranchers, then, are short of neighbors by necessity, interest and choice; not that we have in Canada the ranch conditions of old Mexico, the Ararat of the cowman's art. The business came to us by the long trail under the shadow of the Rockies. The business in the north differs much from the business in the old south. English beef took the place of Mexican rawhide in the cattle business as it touched the British lines, but the Mexican cowman ushered it in. The work demanded the same muscle and endurance in roping and riding, but the work passed from the Mexican Canchezo and Juans and Pablos into the hands of the commercial and susceptible Saxon.

Commerce means civilization, and the cowman lost some of his picturesqueness as the limiting of the range brought him closer to the settlements. The cowpuncher of the Canadian range may have lost some of the interest for the makers of yellow-backed sensational literature, but he has gained in dignity from labor and from his becoming a necessary and important factor in the economic pursuit of the cattle-raising industry.

His home and surroundings have become correspondingly more commonplace and less local and picturesque. The Mexican adobe hut has gone; the shack of ordinary commercial lumber has superseded it. The characteristic dooryard ornaments of empty cans is in less prominence, while the small garden patch and wire fence have become constant features. The "pasture" is superseding the range. It may be miles or townships in extent, but the wire fence is doing the work of the riders, and the barnyard fixture or "squeeze" is supplanting the open branding. The dogie business is assuming larger proportions day by day, and with it the business of doing chores and haymaking. The haphazard element is disappearing, and an era of care and management is taking its place. The increase of the cultivator or "nester," as he is sometimes called, is making sad the heart of the rancher. Railways are piercing the country for its products, and the rancher cannot get away from the settlements. The business is not the work of men, but has enlisted the help of women. The musty shack is no longer merely a place to sleep in, or to hold saddles and bridles, and spurs and ropes, but is being converted to a home by gentle hands. An inquirer in a Montana cattle district, some years ago, asked what the inhabitants raised. "Hell and cattle," was the reply, "principally both." As the informant was a resident, it may be as-



D. V. GLENDENNING, BRADWARDINE, MAN.

Winner of the "Farmer's Advocate" gold medal in the live-stock judging competition at the Winnipeg Industrial, 1903.

sumed that he had an accurate idea of the resources of his district. Now a good deal of the energy given to raising the first commodity has been converted into other channels, such as raising oats and hay and potatoes, and providing for families.

The proximity to towns is bringing the rancher in touch with general movements and topics. Railways and post-offices and newspapers are doing their work, and the rancher is losing his provincial and freaky character. There is no bottling up of the social feelings for six months, followed by simple excesses as soon as the cowpuncher strikes the settlements. A man can take a woman to a ranch without depriving her entirely of social intercourse and of ordinary comforts. The commercial returns of the business are making it possible for the rancher even to live in town and educate his children, and leave the ranch in charge of hired help. This is becoming the rule, rather than the exception, as ranch enterprises tend to become more and more a field for the investment of large capital. But, perhaps we are anticipating. The big round-ups are not entirely past yet, and there are still left a few bosky river-bottoms unfenced, in which the half-wild things wander at will.

The ranch is losing its isolation. Socially this is a good thing; materially, it is bad for the old-time rancher of old-time methods. It must still have the isolation that belongs in greater or less measure to all suburban pursuits. This, in many respects, is good, for it means the development, with respect to the individual, of the simple, manly sturdiness and self-dependence and indus-

try, particularly in youths, that is so frequently observed to make its way above the town product, so commonly marred by distraction, inconsistency and dissipation.

It is not right to say that "God made the country and man made the town," for He made both. Each has its virtues and advantages. The Canadian ranch has its virtues, and is contributing its quota of sturdy men and women to swell our national strength.

Lou Dillon, the Two-Minute Trotter.

Elsewhere in this issue of the "Farmer's Advocate" is recorded the record-breaking trot of the chestnut mare, Lou Dillon. A writer in the Country Gentleman, L. M. Payne, gives the following interesting particulars regarding this phenomenal mare:

"The great prepotency of the Messenger blood comes again prominently to the notice of the thoughtful breeding public as the great factor of extreme speed in the trotter, by the wonderful performance of Lou Dillon, heading the previous champion, Cresceus, 2.024, who traces twice to Hambletonian and three times to Mambrino Chief.

"Lou Dillon is a chestnut in color and California bred. Cresceus is a chestnut in shade and Ohio bred. Both trace on their sire's side direct to Hambletonian. Lou Dillon was sired by Sidney Dillon, by Sidney (racing record, 2.197), by Santa Claus, 2.174, by Strathmore, by Hambletonian. The breeding of the dam of Sidney Dillon is in doubt. Sidney's dam, Sweetness, 2.214, was by Volunteer, by Hambletonian; grandam by Edward Everett, by Hambletonian. The dam of Santa Claus was by Williams' Mambrino, by Eriasson, by Mambrino Chief. Santa Claus' grandam was by Highland Chief, a son of Mambrino Chief. The dam of Lou Dillon, Lou Milton, was by Milton Medium, 2.254, by Happy Medium (the sire of Nancy Hanks, 2.04), by Hambletonian. The dam of Milton Medium was (the dam of Hattie, 2.294) by Sackett's Hambletonian, son of Hambletonian. She traces five times to Hambletonian in close and direct lines; also, twice to Mambrino Chief. She has no Star blood to nick with that of Hambletonian or Mambrino Chief.

"There are now eleven trotters with records below 2.06. Every one of them traces twice to Hambletonian, most of them several times. Nine of the eleven also trace to Mambrino Chief—most of them two or three times. Nancy Hanks (2.04) and Azote (2.047) are the only ones of the eleven that do not combine the blood of Mambrino Chief with that of Hambletonian. The Star blood appears but two or three times in the pedigrees of these trotting wonders, and then only in microscopic quantities.

"In this connection, it may be proper to state that Hambletonian was bred to many more Star mares than to those of any other blood, as, in his day, it was supposed to be the great combination for extreme speed. If it had been of great value, it should appear at least as much in the breeding of these fast ones as does that of Mambrino Chief, who had but slight opportunities of combining his blood with that of the old hero of Chester.

"The eleven fastest trotters are Lou Dillon, 2.00; Cresceus, 2.024; The Abbot, 2.034; Alix, 2.037; Nancy Hanks, 2.04; Major Delmar, 2.04; Azote, 2.047; Directum, 2.054; John A. McKerron, 2.054; Lord Derby, 2.057; The Monk, 2.057. No other blood but the Messenger, coming through his great grandsons, Hambletonian and Mambrino Chief, has produced this extreme speed in the trotter."

Want Canadian Apples.

A Montreal dispatch, dated August 27th, says France wishes to buy Canadian apples, and if negotiations now under way are carried out an extensive trade is certain to follow. This year the apple crop throughout the French Republic is practically a failure. During the past week, the French Consul-General in this city received a letter from France in which information was requested as to Canadian apples, the estimated yield this season, and what might be expected as regards the opening of a trade in this special line. In reply, he advised the parties interested to send an expert to judge for himself. It is believed that a large and profitable trade can be worked up between France and Canada in this line.

Worth Ten Times Its Cost.

"I think your paper to be absolutely the best farmers' paper published, and worth ten times its cost to any man interested in agricultural or pastoral pursuits and desirous of being up-to-date in his method of working. Wishing your paper the success it deserves, I remain, Yours very truly,

ALEX. G. SURMAN.

Cardigan, Victoria, Australia."

[Note: Mr. Surman also sent us two new names along with his own subscription.—Editor.]

REPRESENTATIVES REQUIRED.

We want a good representative farmer or farmer's son at every fall fair in Canada this season to secure new subscriptions for the "Farmer's Advocate," the great agricultural paper of the Dominion. Write us for terms, outfit and sample copies. State at what fair or fairs you can represent us, and the dates. It is easy to canvass for a popular paper.

Manual Training: What is It?

BY WM. J. WARTERS, SUPT. MANUAL TRAINING, WINNIPEG.

What is manual training, and why is it introduced into public schools throughout the civilized world? This is a question every thinking man and woman should be able readily to answer; for are we not, all of us, intensely interested in everything that affects our children and their welfare. Into their hands we shall place the future of this Western land of ours, and it is our duty and privilege to see that they are so equipped that they may be able to fully realize its possibilities and to efficiently carry out the destinies of their splendid heritage.

By manual training boys and girls will be made handy, men and women; able to do things for themselves, to appreciate difficulties and to overcome them. Is not the hand the most useful part of our bodies, and is it right that no special provision should be made for its training and development in our public schools? When the fingers are supple, when the whole body is craving to be active, at the time of unbounded enthusiasm in childhood's and youthful days is the time for this training. How many men, and women too, deplore daily that they are not able to do this thing or that, which would add so much to the comfort and pleasures of their homes! But they are not handy enough. To be able to drive a nail straight, to mend a door, a gate, or some simple piece of machinery; to construct this or that; to know the best material for this use or the other; to understand the hundred and one things which go to make up the difference between a man who can do and one who can only plan and dream; to be master of all these, is to change failure into never-ending success. Nowhere in the wide world is it so necessary that boys and girls should become men and women of action than it is in a pioneer land like our own, which holds out untold wealth to those who can do and dare. "No drones allowed" is written large across the Western sky. We have no use for the lazy, so we must see to it that our children are taught to love work. Active they will be, it is only natural, whether we like it or not, and if this activity is not directed into useful channels while it is raw and young, it will find an outlet for itself in destructive habits and useless and enervating forms of pleasure. If you want to see love of work exemplified, when you next visit Winnipeg come into our schools, or when you come to the fair see our exhibit. A few of our boys will be there, and their aptitude in handicraft will be illustrated by a display of models, etc.

We have already one form of manual training in this city. Our rooms are fitted up for woodwork, and each boy has a bench and tools for his use. Any schoolday you can find about 100 of our boys busy and happy, for they are making something and taking part in the production they see going on around them, learning to love labor for its own sake. Their interest in their home and the home-life so dear to us all grows and increases in intensity as they add one or more little things to its equipment, for they are living and working not for themselves alone, but that they may give the product of their exertions to this or that friend, and because they feel that father and mother lovingly appreciate their efforts to please and their skill in handiwork. A happy childhood is one which is full of interests, where there is always something for fingers to do, and no idle thoughts can intrude. Is this worth having?

Remember, too, that this is no new idea. It has been tried and tested under all conditions, and found successful all over the world. I am not speaking of a fad of my own, but of a form of education advocated for centuries by leading educationists, universally approved of and adopted by every civilized nation on the globe.

I am not attacking our present system. Manual training is not intended to take the place of books, but to supplement them. Nowhere is the work more appreciated than in rural districts, for there it makes the school more like home, and appeals more readily to the child born and bred on the farm. Many of our children dread the thought of school, with its inevitable, close application to study and concentration of thought; amid, to them, the often uncongenial surrounding of nothing but books; but add this or that employment and all is changed. The school-house becomes a second home, tasks are cheerfully undertaken, the dreaded lessons mastered with ease, for what have been dull theories, which had life only in the minds of others, have now become accomplished facts, put into practice with their own hands. Home and school become one, a blessed consummation indeed, for without the sympathy and help of the parents, the work of the teachers must inevitably fail, no matter how well fitted they may be or how hard they may strive. That manual training strengthens this union of home and school is one more link between it and every successful system of education.

Woodwork is not the only form of manual training, though, unfortunately, it is the only one

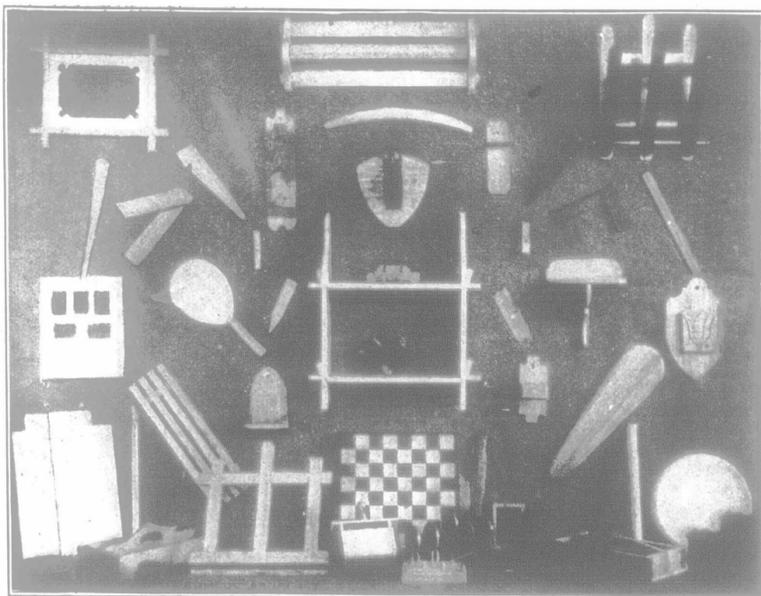
established with us at present. To be entirely successful, it should be continuous throughout the school-life of our children. It must begin in Grade I., and not end until the child is launched into the world a right-thinking, self-acting being, self-dependent, and ready and willing to do his or her part in the world around. Musicians have long found out that unless the training of the fingers and the ears be begun at a very early age, no perfection of skill can ever be attained. This is equally true of the eye and hand. If a

be the work to our children. Woodwork, because of the great number of tools used, and the numberless exercises involved, is most popular everywhere. When a boy first commences our work here, he draws the object he is about to make, and then makes whatever he has drawn from his own copy. He is given a sample of white pine to be planed and sawn to dimensions given, and through this he is able to judge any lumber he may use, and give his opinion as to its kind. Before using any other kind of material he planes

up a sample of it, and when he has five, mounts them on cardboard and writes a short description of each, thus becoming familiar with the various kinds of lumber in general use. Then follows a number of different models, each one useful, and our boys progress according to their ability, some being able to at once attack the more difficult, but none being allowed to attempt more than they are able to accomplish successfully. Original work is encouraged in every way possible, and any alteration in design or construction suggested by the pupil, if suitable to the work in hand, is encouraged by the teacher. I must, however, fail if I try to convey to you in words all

that is meant and accomplished by these exercises. I can only reiterate once more: Come and see for yourselves. You are always welcome at any of our rooms, and any of the boys of Winnipeg will cheerfully show you the way.

There is a still more important and deeper motive for the introduction of manual training into every school, not so easy to understand, but one which must weigh with us in our consideration of it. I mean its value as an educator. As a means of developing the brain, as a character-builder, as a strengthener of the nervous system, it is advocated by all the leading authorities of the day. Learned physiologists tell us that a portion of the brain, termed the motor centers, is directly developed by the sense of touch, as found in the hand; that the most important parts of the brain can be more readily developed by the systematic use of this sense than by any other means; that much of the irresolution and nervousness so prevalent among us is caused by lack of muscular control, and that this can be overcome by the judicious use of handicrafts in our public schools.



MODELS USED IN MANUAL TRAINING SCHOOL, WINNIPEG.

child is to acquire perfect muscular control of these members, their development must be fostered at the earliest possible moment.

Clay-modelling for very young children is a most attractive form of activity, and after a little practice only the tips of the fingers will be soiled. It is of untold benefit in teaching the shapes and forms of common objects, and something of their nature too. That it is the easiest form of expressing in the art of making is evidenced by the fondness for "mud pies" so eagerly displayed by the youngest workers of our race.

Paper-folding makes an exceedingly appropriate and efficient second step, and wherever this has been introduced it has been enthusiastically welcomed by both pupils and teachers. It is impossible here to go into a detailed description of the various forms of manual training, but a wide scope for choice is offered by cardboard modelling, wirework, knifework, basketwork, woodwork and metalwork. In fact, every form of handicraft is of the greatest value educationally. In some districts one form would be more suitable than another, but the greater the variety the more diversified the exercises, the more beneficial will



BOYS AT WORK IN THE MANUAL TRAINING SCHOOL, WINNIPEG.

Carlyle says: "Man is a tool-using animal. He can use tools; he can devise tools. With tools the granite mountains melt into dust before him; he kneads iron as if it were soft paste; seas are his smooth highways; wind and fire his unwearying steeds. Nowhere do you find him without tools; without tools he is nothing; with tools he is all."

The greatest civilizing force in the world is the hand of man. How can we then neglect its culture? A boy who has tested himself and his powers will more readily adapt himself to his surroundings. One of the greatest wastes is that of misdirected energy, caused by the want of a perfect knowledge of what we ourselves are able to do and accomplish successfully. Boys come into our woodworking rooms with a most exaggerated idea of their power to do, and are swiftly convinced that here, at least, there can be no boastfulness, no trusting to fanciful imagination, but that they must show by their works what they are and what they intend to be. Each step is tested and faults discovered by the pupils themselves, and thus the habit of using their own judgment and not depending on that of others is inculcated. "There is something not solid in the good that is done for us. The best discovery the discoverer makes for himself."

As each child realizes the possibilities to be attained by work and its own exertions, there is cultivated a persevering and indomitable will to overcome all obstacles to progress. Concentration of thought is not obtained by effort, for there is a looking forward to the completion of the thing in hand, which causes the whole mind to voluntarily fix its whole energies on carrying it out to the best of its ability. There can be no deception; each boy will judge himself as readily as his teacher can. The slovenly boy stands committed before the whole community by the work displayed before him. He dislikes this advertising of his shortcomings, and henceforth determines to show others as well as himself what he is made of. I am not writing from imagination, but from hard facts, to be verified by anyone who will take the trouble, or, rather, pleasure, to visit our rooms. Backward boys at their books discover unknown qualities which make new men of them, for they find out that even they may excel at something. It attracts the toad-stubious boy from his books, and gives him that desirable commodity, a sound mind in a sound body. It is not enough that our children shall know, but it is necessary that they shall understand how to use the knowledge they acquire, both for their own happiness and that of others.

It is the bounden duty of everyone not only to be interested in but to thoroughly understand why this or that subject is added to the curriculum of our schools. The education of our children is more a responsibility of the parents than it is of the teachers, and I fully realize the great weight resting on the latter. Whose love and interest can equal that of father and mother?—who so likely to thoroughly appreciate anything that benefits their little ones? It is, then, to parents that I especially appeal. Do we love our children? is an unnecessary question in this blessed land of ours, but that it shall remain so, let us be sure that all we do for them is really for their welfare. Educate our children, is the cry, and one of the answers is the institution of manual training. This does not mean technical education, nor trade teaching of any kind, but an added means of increasing the mental capacity of any child, no matter what its future life may hold. Why, of all the means of expression which we are so careful to develop, should we neglect the greatest of them all—the sense of touch? Are we up-to-date? Then we must have manual training as an integral part of our public school system. Every Province in the Dominion, with the one solitary exception of Manitoba, has taken the matter in hand, and the various Governments are doing all they can to keep abreast of the ever-advancing tide. What are we going to do? It rests with you, the people of this great Western land. The Winnipeg School Board are doing their share; it is time for others to move. Ask anyone who has studied this question if it is worth its cost? Can we afford? We cannot afford to lose its benefits. Let us see to it, then, that we have, at least, equal advantages

with others. Nay, let it be our fixed determination that our children shall be as well equipped as any of their future competitors; that they shall be doers as well as thinkers; that they may leave their works behind them to inspire future generations. Let us ever remember that the mightiest writer of history on the surface of this earth is the all-powerful hand of man, and that if we neglect its training or the developments of its capabilities to their fullest extent, the responsibility and its consequences rests on us and ours.

"It is only by labor that thought can be made healthy; and only by thought that labor can be made happy, and the two cannot be separated with impunity."



STUDYING IN THE WOODS.

Manual-training class in Elm Park, Winnipeg, Man.

Henbane.

I enclose a small specimen of a plant that grows in our dooryard. Some plants grow as large and spreading as a very large-sized tomato plant, and bear an immense crop of seed. Please give name, and also advise whether it is a troublesome or noxious weed. SUBSCRIBER.

Algo. Ans.—The plant is *Hyoscyamus niger* (henbane), a hairy, viscid plant, of sea-green color, emitting a fetid odor, growing about the rubbish of old houses or roadsides. The plant is reputedly poisonous, but has long been regarded as possessing medicinal properties of value in nervous diseases, coughs, convulsions, etc. It is not regarded as a troublesome weed under cultivation.

MARKETS.

Buffalo Markets.

East Buffalo, Aug. 25.—Cattle—Prime and shipping steers, \$4.90 and \$5.50; butchers' steers, \$4 to \$4.85; cows and heifers, \$2.25 to \$4.50; bulls, \$2.50 to \$4; stockers and feeders, \$3 to \$3.90. Veals, \$5.25 to \$7.50. Hogs—Heavy, \$6.20 to \$6.25; medium, \$6.25 to \$6.30; Yorkers and pigs, \$6.30 to \$6.40; roughs, \$5 to \$5.25; stags, \$4.25 to \$4.75; dairies and grassers, \$5.90 to \$6.20. Sheep and Lambs—Lambs, \$4.25 to \$6; yearlings, \$4.25 to \$4.50; wethers, \$4 to \$4.25; ewes, \$3.25 to \$3.50; mixed sheep, \$1.50 to \$4.

Chicago Markets.

Chicago, Aug. 25.—Cattle—Good to prime steers, \$5.25 to \$5.90; poor to medium, \$4 to \$5.15; stockers and feeders, \$2.50 to \$4.30; cows and heifers, \$1.50 to \$4.85; canners, \$1.50 to \$2.75; bulls, \$2 to \$4.40; calves, \$3 to \$6.75; Texas-fed steers, \$3 to \$4.65; Western steers, \$3.25 to \$4.75. Hogs—Mixed and butchers', \$5.20 to \$5.90; good to choice heavy, \$5.45 to \$5.75; rough heavy, \$5 to \$5.40; light, \$5.66 to \$6.10; bulk of sales, \$5.35 to \$5.70. Sheep—Good to choice wethers, \$3 to \$3.60; fair to choice mixed, \$2.25 to \$3; native lambs, \$3.50 to \$5.60.

British Markets.

London, Aug. 25.—Live cattle steady at 11½c. to 12c. per lb. for American steers, dressed weight; Canadian steers, 10½c. to 11½c. per lb.; refrigerator beef, 8½c. to 8½c. per lb. Sheep, 11c. to 12c.

Toronto Markets.

Receipts of cattle at the Union Stock-yards, Toronto Junction, were 3,106 cattle, 1,400 sheep, 510 hogs and 21 calves.

Mr. Atkinson has endeavored to give patrons of the city market every convenience and attention. The charges are fixed by the authorities, and unless they are abolished he has not any authority to remove them. Mr. Commissioner Fleming is doing all that is possible to make the market thoroughly up-to-date. Eight new pens are in course of construction, and extensive alterations are contemplated to render this market the finest in the Dominion.

Export Cattle.—In export cattle, very few on offer. Most of this class were consigned to the new Toronto market, where Mr. Wm. Levack is operating. Choice loads of export cattle sold at \$4.80, average 1,300 to 1,400 lbs., live weight; medium, \$4.40 to \$4.75.

Butchers' Cattle.—Best butchers' cattle sold from \$4.40 to \$4.65. These cattle are equal in quality to export cattle, suitable for the best local trade. The Harris Abattoir Co. purchased 200 cattle at \$4.00 to \$4.65; fair and medium, \$3.60 to \$4.25; common rough and inferior, \$2.65 to \$3.25.

Bulls.—Very few choice bulls on offer, and prices range lower, from \$3.00 to \$4.00.

Feeders.—Very few on offer. Choice steers of very good quality, 1,000 lbs. average, sold at from \$3.40 to \$3.75. One load of feeders, average 900 lbs., sold at \$3.40.

Stockers.—A large number of poor quality stockers on sale, and only a limited demand. Those weighing 500 to 700 lbs. sold at \$3.00; poor quality, mixed colors, down to \$2.50.

Sheep.—The supply not large and demand poor; ewes, \$3.50 to \$3.75 per cwt.; bucks, \$3.00.

Lambs.—There is a fair demand for choice yearlings, and lambs sold at \$4.60 per cwt.

Milch Cows.—There is always a good sale for choice cows. Any of superior quality readily fetch top price at from \$45.00 to \$50.00 per head.

Calves.—Choice quality veal calves sell on sight at from \$6.00 to \$8.00 per head, or from \$3.50 to \$4.50 per cwt.

Hogs.—The demand still good for choice singers; prices steady; about 7,000 for the week. For best select singers of the required weight, \$6.50 was paid by Mr. W. Harris; thick fat, those above 200 lbs., and light, those under 150 lbs., \$6.25; sows, \$4.00 to \$4.25 per cwt.; stags, \$3.00.

PRODUCE MARKET.

Wheat.—Red and white are worth 75c. per bushel; goose, 68c.; Manitoba No. 1 hard, \$1.03; No. 1 northern, \$1.02. In Toronto, two hundred bushels of wheat sold at 79½c.; red at 77½c. per bushel.

Barley.—No. 3 extra, for export, sold at 44c. to 45c. per bushel; No. 3 at 42c.; in Toronto, quoted at 44½c. per bushel.

Oats are quoted at 30½c., north; No. 1, 31c., east. In Toronto, five hundred bushels sold at 31½c. per bushel, and new at 35½c.

Corn.—Canadian at 59c., and American at 70c., on track at Toronto.

Hay.—Twenty-five loads of new hay on offer each market day at from \$8.00 to \$9.00 per ton.

Straw.—Two loads on offer at \$5.50 per ton.

Potatoes.—Prices are easy at 40c. to 45c. per bushel; quality not good.

Butter.—Farmers' offerings of butter were liberal and prices easy, at from 16c. to 20c. per lb.

New-laid eggs selling at from 18c. to 20c. per dozen.

Poultry.—Prices were slightly easier. Spring chickens are worth from 14c. to 16c. per lb.

Ducks ranged from 10c. to 12c. per lb. One objection that we have never heard of before is that the feathers are pinney and hard to pull. The prospects are that they will be very cheap this fall, and that they will sell at from 4c. to 5c. per lb.

Dressed Meats.—beef, fore quarters, cwt., \$5.50; beef, hind quarters, cwt., \$9.00; mutton, cwt., \$7.00; spring lambs, each, \$4.00; spring lambs, dressed, cwt., \$9.00; veal, cwt., \$8.00; hogs, cwt., \$8.50.

Fruit Market.—Local fruit sales are good. Tomatoes and plums are abundant; prices good. Tomatoes, 45c. to 65c. per basket; peaches, 40c., and plums from 25c. to 50c. per basket.

Hides.—Hides, No. 1 steers, 8½c. per lb.; hides, No. 2 steers, 7½c. per lb.; hides, 7c. per lb.; calf-skins, No. 1, 9c.; lamb skins, 45c. each; wool, fleece, 16c. per lb.

TRADE AT THE TWO TORONTO MARKETS

On August 25th there were received at the Western (city) Cattle Market 42 carloads of stock of all classes, and on the same day at the new Toronto Junction Market 118 carloads. At the latter, export cattle sold up to \$1.80.

Montreal Markets.

Montreal, Aug. 26.—Cattle—Choice butchers', 4c. to 14c.; good, 3½c. to 4c.; medium, 3c. to 3½c.; common, 2½c. to 3c. Calves—Poor stock, \$2 to \$3 each, and good at \$3 to \$12 each. Sheep and Lambs—Sheep, 2c. to 3½c.; lambs, \$2 to \$3 each. Good demand for export sheep. Hogs, 6c. to 6 1-3c.



"Somewhere the wind is blowing,
I thought, as I toiled along
In the burning heat of noontide,
And the fancy made me strong."

The Mystery About Sam.

Sam Dingleby was nine years old, and he had not one brother or sister, and he was always so hungry for company that his mother said he sometimes nearly drove her wild. Sam seemed to have everything to enjoy himself with. He had the loveliest little Shetland pony, and a beautiful big St. Bernard dog, and the prettiest, cleanest little stable, built on purpose for them, and he had a cote of costly pigeons with breasts and heads and necks of soft colors that made you think of rainbows and white clouds and blue June sky. To be sure, he didn't have a bicycle, for nobody had bicycles then. But he had a little printing-press, and he had drums and a Chinese dragon-kite, and he had a corner in the library full of story-books.

I do not know what Sam could have wanted that he did not have, except company—that is to say, all the children he wanted and all the dogs. His mother didn't like children as visitors very well, and his Aunt Sarah did not like them at all. His Aunt Sarah lived at his house; and dogs, common dogs, both she and his mother absolutely refused to "have around."

The summer he was eight, Sam almost lived at the washerwoman's, several blocks away, on a back street. She had eight children. They were good enough children, even Aunt Sarah said, except, of course, in their grammar. Their house was small, and it was always filled with washing-steam, and the back yard was always full of clothes drying; but yet there was room for glorious playtimes. So Sam only came home that summer, all through vacation, for his meals and to sleep; and, when he did come, he was brown with dirt from head to foot, his trousers were ragged, his shoes were filled with sand, and often his stockings were muddy.

Nobody would dream, Aunt Sarah frequently said, that this boy, so ragged and tousled, could be a Dingleby!

The next summer the washerwoman moved out of the neighborhood; and, when school was out, Sam was very lonesome for a while, and openly discontented and fretted a great deal. But all at once there was a change. Aunt Sarah and his mother both noticed it. Whenever Sam was asked to do an errand, he did it so very willingly—he seemed very thankful to be asked. It is true that sometimes he was rather late in returning from his errands, but his mother said the weather was so warm you could not expect a boy to go any faster.

Sam was at home nearly all the time, except when he did errands; but he was not around "under foot," as usual, which made it very agreeable. He might be up in his pleasant room, or in the library, or taking a ride on his pony for a few blocks, or out petting Milton, his big dog, or busy in the garret with his printing. Nobody ever seemed to think just where he was, only you had a pleasant sense of his never being in the way.

There was another queer thing about Sam that summer. That was his eating. He ate less and less, and soon he began to grow thin. You could see his shoulder-blades right through his gingham waists, and they had to keep putting smaller belts to his trousers. His mother one day actually dropped tears on the little slim new belts, when she was working the buttonholes, to think that Sam was growing so pale and thin, at the same time he was growing such a good, patient, sweet tempered little boy.

Aunt Sarah said she would simply make him eat! There was no use in a boy being finicky. So his father put a big juicy piece of steak on his plate next morning, and said sternly: "Sam,

now you eat that steak! You've been notional about your meals long enough."

Sam gazed down at the steak, but did not touch it. He seemed to choke, and then he choked again; and then the next minute he sat back in his chair and cried out: "I can't, father. I haven't any right to!" Then he got up and left the table.

"Well!" said Aunt Sarah, when she could find breath to speak. "I must say it's a good thing you have only one child, John Dingleby! I believe that boy has been reading novels and got romantic!"

"Oh, no, he never reads novels," said Sam's mother, still trembling. "Why, he's only nine. He likes his little Hawthorne 'Wonder Book' better than anything. I know he must be ill!" And she was obliged to leave the table, too; for she could not keep back her tears.

After a while, when breakfast was over, Sam came into the house whistling as if he were the happiest boy in the world. He brought in some wood for Janet, the cook, and he mended the canary's cage; and then he sat down quietly in a sunny corner to draw pictures, for he had taken it into his head to illustrate his "Wonder Book."

His mother was sitting near him with her sewing, thinking what a dear, good boy he was, when she heard Janet's voice, very loud, in the kitchen. She went out to see what the matter was; and there Aunt Sarah was, and she was saying to Janet: "You amaze me! Where is that boy? He'll know what it means, I'll be bound. Dogs—eleven!"

When Janet saw Mrs. Dingleby, she burst forth anew: "Eleven dogs, ma'am, in the loft of the pony's barn—yes, there is! and the scrubbiest, outlandishest dogs—burnt and scalded and broken-legged and blind—every one of 'em a sick dog or else crippled, some with bandages and some with slings! And, ma'am, they're all with the nicest rows of beds in boxes, and clean tin pans to eat from; and they're all contented like they was in heaven, a-wagging their tails!"

Now, Janet had gone up to the stable-loft to see if she could find the stamp that stamped the elegant floral design on her jelly-glass covers. She remembered having heard Sam tell the washerwoman's boy once that the stamp machine looked like a mad little "water dog," and would be good to have in an animal show; and, as she could not find it in the closet, she thought Sam might have borrowed it. She went to look, and there it was, on a beam of the loft, as wicked-looking as ever. But she had forgotten to bring it down, after all, with the surprise of the sight that burst on her—all those dogs, all gazing at her and wagging their tails.

"You just go out and see for yourself, you, ma'am, and you, ma'am!" she burst out again, turning first to Mrs. Dingleby and then to Aunt Sarah, when in rushed Sam from the dining-room, where he must have been standing.

A great storm of entreaty and eloquence poured from his trembling lips. "They're mine—I'm curing them! O mamma, please, don't take them away! I'm going to get homes for them—good homes! Just give me time, mamma! I never

meant to keep them, mamma, truly—only until I had cured them! They're poor dogs that I've found everywhere, and heard of and gone after them; and they haven't got a friend in the whole world but me! I had to take out meat and things to them, mamma, but I did without myself; I never meant to take out more'n my share of things! And their growing jolly fellows—they're getting 'long fine! Mamma, say you won't make me turn off my dogs just yet—say it, mamma!"

For a moment Sam's mother stood silent. The mystery was cleared up about Sam. He was not going to die. Then she put her arms around her boy and drew him close, and she laughed and she kissed him. "You shall keep the very last dog until he is cured," she said, bending down and looking straight into his scared eyes. "They shall have all the nice good meat they need, and so shall you. If you'd just take mother into partnership, Sam, how lovely it would be!"

And Sam cried joyfully: "Oh, I will, mamma! I will!"—[Little Folks.

Little Rose.

She comes with fairy footsteps;
Softly their echoes fall;
And her shadow plays, like a summer shade,
Across the garden wall.
The golden light is dancing bright
Mid the mazes of her hair,
And her fair young locks are waving free
To the wooing of the air.

Like a sportive fawn she boundeth
So gleefully along;
As a wild young bird she caroleth
The burden of a song.
The summer birds are clustering thick
Around her dancing feet,
And on her cheek the clustering breeze
Is breaking soft and sweet.

O, blessed things are children!
The gifts of heavenly love:
They stand betwixt our heavenly hearts
And better things above.
They link us with the spirit world
By purity and truth,
And keep our hearts still fresh and young
With the presence of their youth.

"The Cry-baby."

Who has not seen just such a group of children? Notwithstanding the fact that the young gentleman shown in the right of the picture has been "dressed all in his best," to be taken out by his fond mamma, still he is far from happy. The jovial laddie with his hand in his pocket has evidently confiscated one of his young lordship's treasures, and his peevish, whining demands for it seem to be a source of great amusement to the two mischievous children poking fun at him, while the elder boy does not conceal his scorn of the "togged-out cry-baby."



THE CRY-BABY

"THE CRY-BABY,"

Dressing Well on a Small Income.

The problem of how to dress well on a small sum is one which many women have to solve; and it is one which requires considerable attention, for on it much depends. We all know what a strong influence dress exerts over us, and how much better we feel in dainty and pretty attire. Yet the desire to clothe ourselves beautifully is often present when the dimes are lacking. However, we can manage fairly well if we consider the matter carefully.

To begin with, great care must be taken regarding the quality of materials purchased. A safe rule to follow in all cases is that the best is the cheapest in the end. It is false economy to buy poor goods, as they neither wear well nor give satisfaction for any length of time; and when the dressmaker's bill has to be considered, it is best to pay for a suit that will last. Similarly, the selection of colors is another important point, and when the wardrobe is small the darker shades are to be preferred. One does not tire of them so quickly, and they are less likely to become stained or soiled.

Then, too, the wise woman, who has little to spend on herself, knows that it is better not to follow the prevailing style too closely, for fashions change quickly, and the latest is not always desirable. But a dress simply made can be worn much longer than one more elaborately fashioned. Indeed, on a small income, simplicity in dressing is absolutely necessary; and in most cases gives better results. If you have to decide between a dress of expensive material without trimmings, and one less costly with trimmings, take the first every time, and your choice will satisfy you. Lastly, when purchasing a new suit, it is a good plan to get a little more than you need; for sometimes, when making-over time arrives, it is impossible to match the cloth. But with a supply on hand, you can rip and change contentedly.

In the matter of dress, however, the most important thing is the care of clothes. It is not so much how many we have as how we wear and care for them. To attain the best results, constant watchfulness and care are needed. After being worn dresses should always be brushed before being put away; while waists require to be turned inside out and aired. In order to retain their shape, jackets and coats should be kept on forms when not in use. In fact, with all garments, much depends on how they are hung.

After a dress has been caught in a shower, it is well to press it; and an occasional sponging with ammonia, applied with a piece of the material, will help to keep it looking fresh and new. A close watch must also be kept on buttons, bindings, rips and stains. It is the small details which make or mar a costume, and they cannot be neglected, for attractive neatness is the first essential to be striven for and attained. To be well and suitably dressed need not imply a large outlay of money, but it does demand time and care.

In the matter of dress, every woman has a natural longing for dainty apparel, but every woman cannot satisfy her longings. Realizing this, is it not best to judge others very gently, and not form hasty conclusions from what they may be wearing? We see only on the outside, and those who wear shabby garments may have very good reasons for doing so, reasons which we would respect if we knew them.

After all, dress is not everything, and as one writer says:

"A worn gown may cover a brave heart, and there is often a bright brain under an old hat."

Then, too, we want to be liberal-minded enough to recognize true worth in whatever form we may find it, regardless of appearances.

As for ourselves, if we cannot obtain what we wish, the only thing to do is to make the best of things and be cheerful about it. If you have to wear an old dress when you are longing for a new one, try to be cheerful about it. Give your mind credit for thinking more about you than about your clothes. S. L. MARVEL, Stellahton, N. S.

Garden Cineraria a Good House Plant.

If you have not sown your Cineraria seed, it is not yet too late to do the work. Cinerarias cannot stand the wilting heat of July and August, and seeds sown now will produce plants with better vitality, plants that will grow along unchecked, revelling in the cool of the fall months.

Cinerarias are not so generally grown as they ought to be. We don't know why, for there are few plants that can equal a well-grown Cineraria for beauty of form or color. They can be had in flower between Christmas and Easter, just at a time when a spot of bright color is welcome.

Speaking of color, there are few subjects that supply us with such shades of deep blue, purple or crimson as do Cinerarias. They are not well fitted for cutting purposes, but for house plants, jardinières or conservatory decoration, they have few equals as flowering subjects.

Sow the seed in compost consisting of about two parts loam, two parts leaf-mould and one part sand. Cover them up with the same material. Be careful in watering that the seeds are not washed out. If pots are used, it is well to dip them up to the rim in a pail of water and wait until the water reaches the top. This is a good method in watering small seed of any kind, for the whole of the soil gets thoroughly saturated and no washing occurs. Cover up the pots or flats with pieces of glass to conserve the moisture, and stand them in a shady place.

As soon as the young seedlings appear, give them more air by tilting or removing the glass, and when big enough prick off the seedlings into flats two inches apart each way, and when the leaves begin to touch again pot off into two-inch pots, always using the same compost.

For subsequent potting the soil should be made



FAVORITES OF FORTUNE.

much richer. Three parts fibrous loam to one of leaf-mould, with some bone meal or horn shavings and a quantity of charcoal and wood ashes, make a good compost for them. The plants must at all times be kept on the wet rather than on the dry side, and for this reason the charcoal is added, and it helps to keep the soil sweet. Cinerarias should not be subjected to the full rays of the sun before the month of October; after that they can stand without shade. They delight in a moist atmosphere, and should be sprayed overhead two or three times a day.

Cinerarias cannot stand a high temperature; 10 per cent. degrees at night, with a rise of 15 or 20 per cent. degrees through the day, suits them best. They are very much subject to the attack of green fly, and must be regularly fumigated or a few fresh tobacco stems thrown around the pots is sufficient to keep the pest in check.—[J. T. Scott, Randall's Island, N.Y., in American Gardening.]

The Farmer's Influence.

The farmer is the man that makes the world prosperous. He is building for generations yet to come. Every man who plants a tree deserves the blessing of posterity—he is the true benefactor of his kind. The farmer has no time for folly; by the stern decree of nature he can draw only enough dividends to live upon, and the balance of his labor goes to benefit and bless those that shall come after him.

The miner and the lumberman have their uses, but the homemaker will live in the hearts of men when the mining towns have crumbled into ruins and blackening stumps and desolate slashings are the only monuments that tell of lumber-kings dead and gone.—[Philistine for July.]

Relief for Tired Eyes.

When the eyes ache, relieve them by closing the lids for five or ten minutes. When stinging and red through crying, they should be bathed in rosewater, or wet a handkerchief with rosewater and lay it over them for a few minutes. If they are bloodshot, you need more sleep, or have been sitting in a draft. If they have a burning sensation, bathe with hot water to which a dash of witch-hazel has been added. If the whites of the eyes are yellow and the pupils dull, strict attention should be paid to diet.

It is not necessary to run to an oculist every time a person experiences a little trouble with the eyes, although any serious difficulty should be taken at once to a specialist. Borax is a good remedy for most slight affections of the eyes, such as weakness, inflammation, weeping of the eyes, and such annoyances.

The solution should never be too strong. For weak eyes a solution of soft water and borax should be used. It should be applied twice a day or oftener. For inflamed eyes a teaspoonful of powdered borax in a pint of water, with a bit of gum camphor added, will afford almost instant relief. Involuntary weeping, which occurs oftenest in the case of old persons, may be stopped with a solution of borax. Borax will also make the eyes bright, and is popular among society women for that reason.

If you find your eyes growing tired and dim, bathe them freely with pure spring water or with rosewater. Wine baths are good for strengthening the eyes; bathe them well.

A writer on the sight says that wearing veils permanently weakens many naturally good eyes, on account of the endeavors of the eye to adjust itself to the ceaseless vibrations of that too common article of dress.

King Pepin's Encounter with the Lion.

Little King Pepin, otherwise called Pepin the Short, thrust all the other kings from their thrones, and made himself sole ruler of France. He was a very small man, being only four feet and a half high; but he had a mighty spirit in that little body. Moreover, he had an enormous deal of strength. Knowing that some of his courtiers made fun of his little size, he resolved to show them that there was as much manhood in him as there could possibly be in a giant. He, therefore, invited them to see a fight between a lion and a bull. The lion gave a tremendous roar, and leaped upon the bull's back, sticking his claws deep into the flesh. The bull also roared with pain and terror, as well he might. Then little King Pepin stood on tiptoe on his throne, to make himself as tall as he could, and he roared out to his courtiers, full as loud as either the bull or the lion, "Which of you all," cried he, "will make that lion let go his hold?" The courtiers all stood silent and abashed, for they had no notion of venturing within reach of the lion's claws. "Then I'll do it myself!" said King Pepin the Short. So the valiant little King leaped down from his throne, and drew a sword almost as long as himself. Brandishing it in the air, he ran up to the lion, who was still clinging to the mad bull's back. When the lion beheld this terrible small champion, he opened his enormous jaws, as if he meant to snap him up at a single mouthful. But little King Pepin fetched a blow at him with his sword, and hit him fair upon the neck. Down fell the lion's head on one side of the bull, and down fell his body on the other! And from that time forward, the courtiers would sooner have taken a roaring lion by the mane than have laughed at little King Pepin.

About Sleep.

Some women claim they can sleep only on one side. If so, then there must be something wrong with them; though some authorities claim we should always sleep on the right side, so as to give the heart perfectly free action. One side is probably not evenly developed with the other. A healthy woman or girl can sleep, and should sleep, on one side and then on the other, even changing unconsciously in the night. Some women twist and contort their faces during sleep, and thus form wrinkles, which continue during their waking hours. The reasons for this are various. Indigestible food in the stomach is one cause. Going to bed in a depressed state often causes the corners of the mouth to be drawn down and gives a sad expression. In going to sleep think of pleasant things. Joy is the great beautifier. To prevent mental fatigue we must exercise the body in some healthful occupation or other, possibly a room exercise, a bicycle ride or a short walk.

Never get out refreshing sleep in a room that is not well ventilated. The window in summer should be lowered from the top and raised from the bottom.

THE QUIET HOUR.

The Lord is Our King.

"Thine is the kingdom, Lord!
In glad subjection at Thy feet we bow,
Our rightful Sovereign Thou, and only Thou!
Thine is the Kingdom, Lord!

"Thine is the power, alone!
Take to Thyself that mighty power and reign
Here, in our hearts, be every rebel slain.
Thine is the power, alone!"

How often we say, "Thine is the kingdom, and the power." The familiar words are so easily repeated, but do we always think about their wonderful meaning? "The Lord is our King; He will save us," said the Jewish prophet, and if He was the King of the Jews, much more may Christians claim that royal protection. Do you really believe that "the Most High ruleth in the kingdom" of men, and giveth it to whosoever He will? Perhaps you think you are placed in an unsuitable position in the world. You may feel that you could do something really worth doing if only you had a chance. Does it ever strike you that God may possibly understand your talents and capabilities even better than you do? To murmur and complain against His arrangements is the same thing as saying that you know better than He does the best place and work for you. The kingdom of this earth belongs to God, and He is actively ruling it. If He sees that any other position in life would be better for you, the power to make the change is His.

"Peace, perfect peace, our future all unknown?
Jesus we know, and He is on the Throne."

About three thousand years ago a young farmer was seeking for some asses belonging to his father. They had strayed away, and after three days' search were still missing. The young man was very patient and thorough, and did not give up easily. As a last hope he acted on his servant's suggestion and went to the prophet Samuel for advice. Then his eyes were opened to the meaning of this troublesome search, which had seemed so tiresome and vexatious. God was leading him to a throne. Samuel received him as an expected and honored guest, and anointed him to be king over Israel. Seeking for strayed cattle he found a kingdom.

Is it not a strange thing that this search for a drove of asses should be handed down for thousands of years as a great and important event in the life of the first king of Israel? But who can say what things are trifling and what things are of vital importance in the life of any man? Saul soon found that his diligent attention to the work he found before him led straight to a position of dignity and honor.

There is a great deal said in the Bible about things we might be inclined to call "trifles." I think God wants to remind us at every turn that He is attending to all the little details of life. When two Apostles were sent to prepare for the last passover they were told that when they entered Jerusalem a man bearing a pitcher of water should meet them. How little that man imagined, as he walked along with his pitcher, that this trifling everyday action would make him famous—that it would never be forgotten while the world lasted. How little he thought that God was weaving him and his pitcher into the greatest event the world has ever known. God was thinking of him that day and planning how to make use of him; and, surely, one reason why the Holy Spirit inspired two of the Evangelists to mention that man with the pitcher, was to open our eyes to the fact that He ruleth all the events of our lives, small as well as great. The kingdom is God's, and He has absolute power. He found it easy to change Saul from a farmer into a king, and He can place us in any position He sees to be for our real and eternal good.

We never need be afraid of asking anything from the Lord that is too hard for Him to grant. When men doubt His power, and ask only small things, He is not pleased with their want of faith. Once Ahaz was told to ask a sign of the Lord his God; to "ask it either in the depth or in the height above;" or, as it is given in the margin, "Make thy petition deep." But Ahaz refused to ask, saying that he would not tempt the Lord. This profession of humility was not acceptable to God, who said: "Is it a small thing for you to weary men, but will ye weary my God also?"

I am afraid we don't often "make our petitions deep," or attempt to weary God with our requests. When we want anything we try to get it for ourselves; too often only throwing ourselves on Him when all other help fails. Is it because we don't really believe that He has the power to make everything right, or is it because we forget His very existence?

But let us always remember, that as loyal subjects we must hold ourselves always ready to

bow to our King's decree, whatever it may be. He has indeed the power to give us whatever we ask, but sometimes He is preparing much better things for us if we are only willing to trust Him in the dark for a little while.

"Then first we conquer when we bow
To Thine almighty will;
And each desire resigned to Thee
Thou lovest to fulfil.
For only into yielded hearts
Thy blessing Thou canst pour;
And empty vessels are the ones
Thou fillest evermore."

HOPE.

THE CHILDREN'S CORNER.

The Boy Who Got Up the Wrong Way.



Joe was so cross one day, they said
He'd got the wrong way out of bed,
For boys are cross the whole day long
If they begin the morning wrong.

He put his socks on inside out,
Then wondered what he'd been about,
He tied his laces in a knot,
On his clean collar made a spot.

He couldn't make his parting straight,
So he came down to breakfast late,
And found his little sister Meg
Had been allowed to eat his egg.

He couldn't find his school-books next
And made his mother very vexed,
And when at last he did set out
'Twas with a frown and shake and pout.

Then very fast he had to run,
But school he found had long begun,
The master scolded him, and Joe
Had to the lowest place to go.

He didn't do his lessons right,
He made his copy-book a sight
With blots and smudges, till you'd think
'Twas baby boy had had the ink.

At last his master took the cane,
And though Joe screamed, 'twas all in vain,
He cried till all the boys were shocked
And in the class-room he was locked.

He went home feeling sad and sore,
Determin'd to do wrong no more,
When he gets up another day
I think he'll see 'tis the right way.

—K. E. V.

Of Interest to Ladies.

Fashion decrees the use of the wrist bag, and it is just here we wish to assist you with our premium offers. To our lady friends who secure subscriptions to our magazine we are able to offer wrist or hand bags of superior material and most beautiful design, that only need to be seen to be appreciated. Carefully study our premium pages, 818 and 819, and secure a bag before visiting the summer or fall fair.

The Potato Babies.

One day, when the children were at grandmother's, it began to rain. Grandmother always had something laid away for a rainy day. After breakfast the twins, Tommy and Daisy, got hold of grandmother's hands and led her to the cupboard. She laughed and said she was Old Mother Hubbard going to the cupboard to get six little doggies a bone. She reached up to the top shelf and took down two boxes, one large and one small.

What do you think was in the large one? Little potatoes. And in the small one? Burnt matches, with the ends rubbed on sandpaper to make a point. Grandfather had thought of the children when he dug his potatoes, and had saved all the little potatoes for them; and grandmother had thought of them, too, and saved all her burnt matches.

The children gathered around her now and watched her make a potato-baby. First, the head must be fastened on. This was done by sticking one end of a match into a small potato and the other end into a larger one—for the body.

After that she stuck two matches in for legs and two for arms, and there was a man all done. Then, when she had shown them how to make a horse and a cow, grandmother went back to her work and left them.

They had a good time making men and horses, cats and dogs, the rain ceased, the sun came out, and the grass was dry before they thought of stopping. At last the dinner-bell rang, and they laid the potato-babies away for another rainy day.

Now comes the funny part of the story. The potato dollies lay quietly in their dark box for three long months. Then the children were all there again and wanted them to play with. Grandmother brought the box down, opened it—and what do you think they saw? Their potato-babies had begun to grow. Their bodies were dry and shrunken. Out of every one came long, white roots that looked like horns and arms and tongues and tails. The father-potato had a trunk like an elephant. The fat boy had turned into some strange bird. The mother, on horseback, had a real face, with nose, eyes and tongue coming out of her mouth, as well as long hair. The cat and the camel were both turned into reindeer, and one man had two horns and a tail. They looked so funny that they laughed and laughed till all the mothers and aunts and uncles came in to see what was the matter.

Recreation in the Country.

While farmers' wives work very hard in summer, it is also true that they take less exercise than any other class of women. In winter they are apt to go to the other extreme and sit in a hot room front morning to night, and when they do go out it is to drive. A brisk walk is almost an unheard of thing, and yet we know that no woman can be really strong who does not exercise regularly in the open air. When the roads are bad the farmer's wife will stay for weeks in a poorly-ventilated house, and as a consequence her complexion grows coarse and sallow. It is a question which ages a woman more quickly, the season of hard work over the washtub and stove or the winter spent in an almost comatose condition of eating and sleeping. Even if the roads are impassable for horses and heavy wagons, the farmer's wife should conscientiously take her daily tramp. She can wear rubber boots, or high-buttoned arctics, and if well wrapped up will come home from her walk warm and rosy, feeling like another being. Some women have asked, "How can we take a walk without an object? There are no shop windows for us to look at, no people to study on the way." But object can be made; for instance, one day the farmer's wife can walk to school and come home with the children. They will be delighted, and the little visit to the school and a chat with the teacher will do wonders for the woman who really does not know how the place looks in which her little ones spend most of their time. The interest shown by the mother in the school and teacher will have a gracious reflex influence upon the boys and girls. Neighborhood calls can be made also, and if nothing else presents itself she can go with her husband on his daily inspection of the farm. There is nothing in the world that so binds husband and wife together as the expression of interest in the more personal pursuits of one another. The ordinary man likes to have an interested listener go with him as he walks about his domain, to whom he can point out needed repairs or intended improvements. In this way the wife acquires an influence in the conduct of affairs she would not otherwise gain.—[Ladies' Home Journal.

City Sportsman—"Have you seen anything worth shooting at around here?"
Farmer—"Well, no; not till you came."

Travelling Notes.

As Eleanor's last letter was rather too long for insertion at one time, I have reserved for this issue her account of a Spanish bull fight, an experience the horrors of which might well haunt the memory of even a lady doctor, to whom the necessary shedding of blood cannot fail to be familiar. Her account is as follows:

"Now I must tell you a little of our experiences at the bull fight—Spain's national sport. We knew we should be horrified, but I hardly realized to what extent. First of all, we were cheated over our tickets. Knowing how full the town was, we thought it advisable to procure seats early. For these we paid 15 pesetas, nearly nine shillings, each, but some Americans who sat in front of us informed us that they had purchased theirs for 4½ pesetas, and these they bought in the street on the day of the fight. The Plazo detoros is an imposing mass of brickwork, built like a Roman circus, and it will seat 14,000 people. It is a sight to see the conveyances full of people, and the streets black with pedestrians. The scene recalls to me an Australian race day, and the noises in the ring before the actual fight begins made it still more like. The bull fight is held every Sunday afternoon, for three hours, during the months from April to October. On the occasion of our visit there was a very large attendance. Most of the seats were occupied, and no less than six fine bulls, after being tortured, were cruelly slaughtered. The performance opens after the ring is cleared, and it is surprising and amusing to see how quickly the black mass disperses when the whistle goes to clear the ring. A procession then forms: Two leaders in cocked hats and fancy costumes, on beautiful black horses, introduce the chulos, those on foot in their silk or velvet knee breeches, embroidered vests and gaily-colored capes. Following these come the picadores, armed from head to foot under their riding costumes, and riding the poor horses that are to be slaughtered; the matador with his red flag and hidden sword, the banderillero with his colored darts, and, last of all, the mule-team that is destined to carry off the slain. The procession advances to the President's box, where, after bowing, all retire but the six or seven chulos and two picadores. All eyes are directed to the door through which the bull is to make his appearance. A curious feeling of suspense and expectation passes through one as one wonders what he will do. The next minute, in he rushes, with his ribbon hanging from his neck. This has been inserted by a two-inch steel needle, so blood is drawn before he enters the ring. Excited by the sights and sounds that greet him, he makes a rush at one of the chulos or horses. The latter are first put in one of the most exposed parts, so the bull uses up his strength on them. The unfortunate beasts are blindfolded on the side towards the bull, so know not what awful fate awaits them. The goring and disemboweling of these poor animals is ghastly, and they have to bear their riders till they can no longer stand, their wounds being temporarily plugged with tow to stop hemorrhage. When a picador is in danger, the chulos, with their red capes, draw off the bull, and they are remarkably adroit on their feet, sometimes having to scale the boundary fence when the bull gives chase. After a time and at a signal from the President, the picadores retire, and are succeeded by a banderillero, who, with his colored darts, advances boldly to the front of the bull and inserts them cleverly in his shoulders, jumping to one side at the same time. These darts, or banderellas, are often charged with gunpowder, which explodes and maddens the animal more than ever. This torture continues for some time, then the matador, with his red flag and concealed sword, whose duty it is to slay the bull, comes in. He is an intrepid fellow, and advances to the front of the bull, waving his red flag and luring the bull into lowering his head into a suitable posture for the fatal thrust. Sometimes thrust after thrust fails, the sword passing up to the hilt into the neck of the bull. He is infuriated, and tosses his head till he frees himself from the weapon, whereupon the blood flows from the wound. With an inferior matador, the bull may fall down from weakness and loss of blood, but a good workman should strike the critical spot and kill him outright. Having been dispatched by one or other method, the carcass is drawn off by the mule-team, and in a short space of time a fresh animal is introduced to the bloodthirsty public. I had had quite enough with the first, but, unfortunately, could not get out in time before the second had made his appearance, but was determined I should not witness more than two poor beasts slaughtered, so made a dash for the door as early as I could, and no more bull fight for me, thank you. We are leaving for Madrid tomorrow, and I must hurry to get ready."

"I have just received another letter from my friend, who is now in Mexico, to submit to the readers of the 'Farmer's Advocate.' MOLLIE.

The Way of Wooing.

A maiden sat at her window wide,
Pretty enough for a Prince's bride,
Yet nobody came to claim her.
She sat like a beautiful picture there,
With pretty bluebells and roses fair,
And jasmine leaves to frame her.
And why she sat there nobody knows;
But this she sang as she plucked a rose,
The leaves around her strewing:
'I've time to lose and power to choose;
'Tis not so much the gallant who woos,
But the gallant's way of wooing!'

A lover came riding by awhile,
A wealthy lover was he, whose smile
Some maids would value greatly—
A formal lover, who bowed and bent,
With many a high-flown compliment,
And cold demeanor stately.
'You've still,' said she to her suitor stern,
'The 'prentice-work of your craft to learn,
If thus you come a-wooing.
'I've time to lose and power to choose;
'Tis not so much the gallant who woos,
As the gallant's way of wooing!'

A second lover came ambling by—
A timid lad with a frightened eye
And a color mantling highly.
He muttered the errand on which he'd come,
Then only chuckled and bit his tongue,
And simpered, simpered shyly.
'No,' said the maiden, 'go your way;
You dare but think what a man would say,
Yet dare to come a-wooing!
'I've time to lose and power to choose;
'Tis not so much the gallant who woos,
As the gallant's way of wooing!'

A third rode up at a startling pace—
A suitor poor, with a homely face—
No doubts appeared to bind him.
He kissed her lips and pressed her waist,
And off he rode with the maiden placed
On a pillion safe behind him.
And she heard the suitor bold confide
This golden hint to the priest who tied
The knot there's no undoing:
'With pretty young maidens who can choose,
'Tis not so much the gallant who woos
As the gallant's way of wooing!'

—Bab' Ballads.

Sleep, Old Pioneer.

(By Frank W. Porter.)

When the Spring-time touch is lightest,
When the Summer's eyes are brightest,
Or the autumn sings most drear,
Or when Winter's frost is whitest,
Sleep, old pioneer!
Safe beneath the sheltered soil
Late enough you crept,
You were weary of the toil
Long before you slept.
Well you paid for every blessing,
Bought with grief each day of cheer;
Nature's arms around you pressing,
Nature's lips your brow caressing,
Sleep, old pioneer!

When the hill of toil was steepest,
When the forest frown was deepest,
Poor, but young, you hastened here,
Came where solid hope was cheapest—
Came—a pioneer.
Made the western jungles view
Civilization's charms,
Grasped a home for yours and you
From the lean tree arms.
Toil had never cause to doubt you—
'Progress' path you helped to clear;
But to-day forgets about you,
And the world moves on without you,
Sleep, old pioneer!

Grown-Up Land.

Good morning, fair maid, with lashes brown,
Can you tell me the way to Womanhood Town?

Oh! this way and that way—never a stop—
'Tis picking up stitches Granny will drop;
'Tis kissing the baby's troubles away;
'Tis learning that cross words never will pay;
'Tis helping mother, 'tis saving away;
'Tis reading and playing, not wasting the day;
'Tis loving and smiling, forgetting to frown;
Oh! that is the way to Womanhood Town.

Just wait, my brave lad—one moment, I pray,
Manhood Town lies where? Can you tell me the way?

Oh! by toiling and trying we reach that land;
A bit with the head and a bit with the hand;
'Tis by climbing up the steep hill called work;
'Tis by keeping out of the wide street named shirk;
'Tis by always taking the weak one's part;
'Tis by giving the mother a happy heart;
'Tis by keeping bad thoughts and actions down—
Oh! this is the way to Manhood Town.

And the lad and the maiden ran hand in hand
To their fair estates in the Grown-up Land!

Domestic Economy.

Soak your new toothbrush in water over night to insure longer wear.
* * *

To remove bloodstains, use clear, cold water at first, then soap and water.
* * *

It is just the right thing to have an embroidered bag to put one's nightdress in.
* * *

Use a pancake lifter to place cookies on the tin, and to remove them when they are baked.
* * *

Cold boiled potatoes are more appetizing if a little flour is sprinkled over them while frying.
* * *

If your washtub leaks, turn the bottom side up and fill the leaky place with good hard soap.
* * *

When making soups or broths, put the meat or bones into cold water to draw out the juices.
* * *

Leather goods can be freshened up by rubbing them well with a piece of cloth dipped in the white of an egg.
* * *

To keep irons from sticking to starched pieces, lay a little fine salt on a flat surface and rub them well over it.
* * *

When acid of any kind gets on clothing, spirits of ammonia will kill it. Chloroform applied will restore the color.
* * *

To remove grass stains, allow the spots to remain saturated with alcohol for a little time, then wash in clear water.
* * *

When darning woolen hose, make the threads one way of stout thread, with the cross-threads of woolen yarn. The result is a firm, smooth darn, which looks and wears well.
* * *

To remove fresh tea and coffee stains, place the stained linen over a large bowl and pour through it boiling water from the teakettle, held at a height to ensure force.
* * *

Paint spots on glass can be removed by moistening with a strong solution of soda—the common kitchen variety. This will soften them, when they can be rubbed off, and the glass should then be rubbed with alcohol.
* * *

To remove mildew, use lemon juice and sunshine; or, if deep-seated, soak in a solution of one tablespoonful of chloride of lime in four quarts of cold water, until the mildew has disappeared. Rinse several times in clear water.
* * *

To clean the ivory handles of knives, mix ammonia and olive oil in equal parts, and add enough prepared chalk to make a paste. Rub the ivory with this, and let it dry before brushing off. Several applications may be necessary.
* * *

A soothing drink for a sore throat that is recommended, is made of a pint of barley water brought to a boil over a hot fire, to which is added, while stirring until dissolved, one ounce of the best gum arabic. Sweeten to taste.
* * *

To prevent wooden bowls from cracking, immerse them in cold water, then set over the fire, bring to the boiling point, and let boil for an hour, and don't take them out until the water has gradually cooled.
* * *

Keep a flour barrel elevated at least two inches from the floor on a rack, to allow a current of fresh air to pass under it and prevent dampness collecting at the bottom. Do not allow any groceries or provisions with a strong odor near the flour barrel. Nothing absorbs odors more certainly than flour.
* * *

Soap improves with keeping, so it should be bought in large quantities. Before storing it, however, it is well to cut the bars into convenient pieces, for this is most easily done when it is soft. The cutting may be done with a piece of string or wire more easily than with a knife.

To Our Lady Readers.

Before going to the fair each of our lady friends could easily secure a most useful and stylish hand or wrist bag. We now have a large supply of these goods on hand, purchased in wholesale lots, at greatly reduced prices. The material in these bags is the very best, and they only need to be seen to be appreciated. The small size is particularly suitable for our younger readers, while the large is none the less adapted for the use of our older friends. A little talk, and talk is cheap, will secure one of the premium bags. See descriptions and regulations on our premium page, 818.

Jottings from the Isles of Scilly.

No. v.

Have I said anything of the beautiful color and clearness of the sea amongst the Isles of Scilly? The water is usually of a most lovely blue, fringed with white fleecy waves, which enfold the Islands, as it were, with the garments of a queen. At least this is so when King Neptune is in milder mood, but when he works himself up into a passion, then, indeed, the whole face of his realm is changed. The coast becomes enveloped in roaring, boiling foam, and one holds one's breath with an admiration which is tempered with awe. No wonder that lifeboats and lighthouses are a necessity in Scilly, nor that it should possess, in the "Bishop Lighthouse," one which is 165 feet high, and the tallest in the world. There are, perhaps, no men anywhere who need such clear heads, nor such a power of patient endurance, as the guardians and caretakers at the lighthouses on any coast. To "The Bishop" there are six men attached—four down, two up recruiting—the relief being made every two weeks, weather permitting, but sometimes persistent storms prevent communication, and then that communication may have to be by means of a line, across which both men and provisions are hauled, often through the angry surf. Of course there is always a reserve of food, and a twelve months' supply of oil, wicks, chimneys, etc. The lighthouse on Round Island is more accessible, and a position there is more eagerly sought after.

A great deal has been said of the wreckers of Scilly, especially of those of St. Agnes. Tradition records many hard things of them, alleging that they prayed their patron saint "to send them a wreck before morning;" that "the old beacon fire was allowed to flicker and die, and that a lantern tied between the horns of a hobbled cow lured ships to their destruction." All this may have a foundation in fact, but there is a bright reverse side to the gloomy picture. "The St. Agnes men of modern days have," we are told, "risked life and property, times without number, in carrying succor to drowning men. Night or day, storm or fog, have never stopped the intrepid Islanders of St. Agnes, when they have heard the boom of cannon or rocket fired by sailors in distress." It was they, chiefly, who saved the few out of the three hundred and fifty-four poor souls who went down in the ill-fated "Schiller," which was dashed to pieces upon the Retarrier Ledges, the 8th May, 1875. The St. Agnes people seem to have been almost a distinct race from the other Islanders, holding themselves aloof, and marrying and intermarrying after a fashion which would amaze and make wrathful the opponents of the bill to legalize marrying with a deceased wife's sister! There are but very few surnames amongst them. I was told "if you meet a man on St. Agnes and say 'good-day, Mr. Hicks,' you are sure to be right—they are mostly Hickers there, and all have some nickname to distinguish them, but just call them all Hicks and you can't go wrong." There is a lifeboat on the Island, and also a quaint little church, where many waifs of the sea rest peacefully after life's storms, and to which the living are called to worship by a bell, a gift from Star Castle, St. Mary's.

One characteristic which the people of St. Agnes share with those of the other Islands, is a rough independence of habit and manner, to which the following will testify: "In a Bible now in the possession of Capt. Tidley, of St. Mary's, is a fly-leaf with this inscription: 'This book was bought by the churchwardens, Obadiah Hicks and Abraham Hicks, in the year of our Lord 1804. Cost £2 14s. 0d. For the parish of St. Agnes.' At the bottom of the first page is this curious notice: 'Mr. Crocker may pay for it if he pells, or leavit.' Whether he pleased or left it we know not, but Capt. Tidley's grandfather accepted it in part payment of a debt!' The name of Hicks does not exclusively belong to St. Agnes. For instance, in the burial-ground at Bryher lies a veteran Scillonian, upon whose tombstone is inscribed:

Though I've been where billows roar,
Still, by God's help, I'm safe on shore;
And now I'm here among the fleet
Waiting for Jesus Christ to meet.
This is to let you see
I've had the fifth generation on my knee.
Joseph Hicks,
1852,
Aged 96.

While I am on the subject of epitaphs, I will mention two more. One of these is of quite a late date, and is placed facing the sea, upon the highest plateau of the most interesting and historic old churchyard at Old Town, St. Mary's. The clear white headstone rose out of a veritable path of flowers, evidently well tended by loving hands, and under the emblem of a clearly-cut anchor I read these touching words:

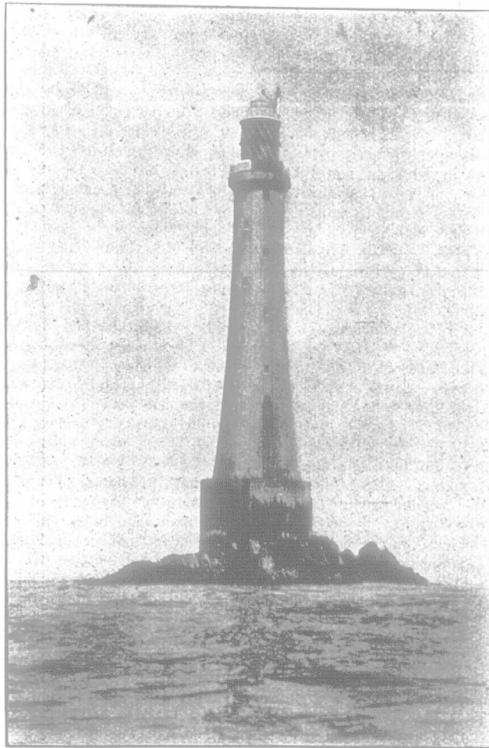
In loving memory of
Susannah
the faithful and dearly beloved little sailor wife of
Captain William Ashford,
who has spent thirty years of her life at sea,
amid the storm and the calm, and died
November 4, 1897,
Aged 77.

To live in hearts we leave behind us is not to die.

On the last headstone which caught my eye, there seemed more of angry resentment than sorrow:

To Jenephir Potter,
of Lelant,
who died ye 27th of July, 1804.
She died in labor on the eleventh child,
For want of aid in this unlucky isle."

The fact that poor Jenephir had come through ten similar previous trials without professional aid, says much for the health-giving properties of the Scilly air, a salubrity which makes the women, as well as the men, appear erect and strong, and accounts, maybe, for the fact that to this day there is but one doctor for all the Islands. There was pointed out to me a big, square monument, erected in memory of a post captain, whose repute as "a rare trencherman" has survived the hundred years since he was laid beneath the sod. The young people of Scilly, I was told, have for generations actually believed that if they walk around him nine times they



BISHOP ROCK LIGHTHOUSE, SCILLY.
The highest in the world.

are sure to hear the sound of knives and forks! In this little Old Town cemetery there are many unmarked graves, notably those of unknown people shipwrecked on the shores. In one corner rest side by side French, German, Danish, Dutch, Russians, and Italians, with wooden crosses in various stages of decay, or stones carved in strange tongues. Over one young Boulogne fisherman is a bead souvenir in the form of a cross, etc., encased in glass and elaborately worked by his sorrowing sweetheart. They say that Boulogne fishermen even now come sometimes to pray at the grave of their old comrade. Does my telling of these things seem morbid or ghoulish? I hope not, for every God's-acre is but as a gateway through which we may pass to the shining portals beyond.

My notes of Scilly must not end in a minor key, nor tell only of past happenings. Government is strengthening its defences, and turning to valuable account the strategic value of its position. This brings new blood to the Island, and must make a new epoch for its inhabitants. During my stay the Royal yacht, with Princess Victoria and her suite, came into harbor, and so also were lying at anchor, awaiting a fair breeze suitable for their purpose, a fine fleet of French fishing boats. At the same time I noticed one of His Majesty's gunboats, by way, I suppose, of giving a silent warning to the alien fishermen that they were not free to cast their nets within a certain radius of Scilly—the rights of the Islanders having to be maintained. On the morning I left, a large training ship lay in the bay,

alive with young salts getting their experience for the sea-life lying before them. My last view as we steamed out of port was much the same as that which met the eyes of the laureate Tennyson from his favorite seat under the elm-tree at Tregarthens, just beneath the shadow of the Fortress Gate. He could see Tresco, Bryher, Samson and the Eastern Isles, and so could I, but with what a difference? His pen was inspired by the beauty and suggestiveness of his surroundings to delight the world with his beautiful poem of Enoch Arden; whereas, the most that I could do was to sharpen my pencil point and scribble my odds and ends of jottings from the Scilly Isles for the dear readers of our Home Department in the scattered homes of our vast Dominion. H. A. B.

The Greatest of Their Kind in the World.

The largest city in the world is London, lying in four counties and having a population of 5,250,000, equalling the combined populations of Paris, Berlin, Saint Petersburg and Rome. To walk through all the streets, avenues, lanes and alleys of the city, never traversing the same one twice, would require a ten-mile walk every day for nine years. The streets, placed in a row, would reach round the world, and leave a remnant that would stretch from London to San Francisco.

The largest geyser in the world is the Excelsior Geyser in Yellowstone Park. Its basin is 200 feet across and 330 feet deep. This basin is full of boiling water, from which clouds of steam are constantly ascending. At long intervals water is spouted into the air to a height of from 50 to 300 feet.

The largest crater in the world is that of Haleakala, in the Sandwich Islands. The circumference of the crater is about 20 miles; its depth, in places, being 2,000 feet. If the interior were cleared of its debris, New York City could be placed on the black lava floor, and from three to five other big cities put over it before their spires would protrude at the top.

The most magnificent work of architecture is deemed to be the palace Temple of Karnak, occupying an area of nine acres, or twice that of Saint Peter's at Rome. The temple space is a poet's dream of gigantic columns, beautiful courts and wondrous avenues of sphinxes.

The largest library in the world is the National Library of Paris, which contains 40 miles of shelves, holding 1,400,000 books. There are also 175,000 manuscripts, 300,000 maps and charts, and 150,000 coins and medals.

The finest gardens in the world are the Royal Gardens at Kew, England. They cover an area of about 270 acres, and are visited by about 1,500,000 persons a year. The gardens contain the finest collection of exotic plants in the world, a palm house, a winter garden, a museum, an observatory, and a school for gardeners.

The largest cask in the world is the Blatner Cask of Nuremberg. It is 105 feet in diameter and 51 feet deep, and its completion a few years ago was celebrated by a ball, at which over 500 persons were on the floor of the cask, excluding musicians, waiters and assistants.

She was Always Pleasant.

To the common, everyday woman, who feels as if she were a nothing in this world, who thinks she has no influence, I will tell you of one thing that will bring blue skies in your own life, and will make you a shining light in your community.

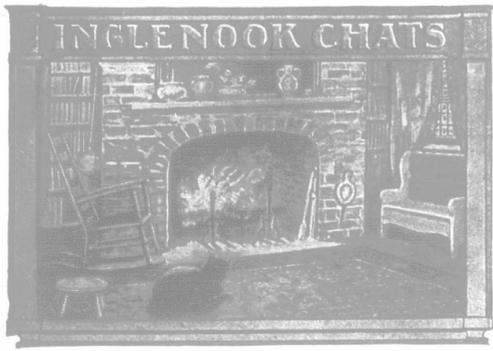
In one of the country towns in Northamptonshire, England, there is a graveyard, and on a small stone there is this inscription, after the name and date: "She was always pleasant." She had not been rich—the stone was small. The grave is in a retired part of the graveyard, so she could not have been in society, or a prominent woman, but "She was always pleasant."

What happiness there must have been in the home in which she lived. No doubt she had trials and disappointments—that is the common lot of all women, for "Into each life some rain must fall."

To be pleasant, one must be cheerful, amiable and patient. Not only when everything is going on smoothly, and one is in sound health, but when "The days are dark and dreary," and there is an ill-feeling. The head or stomach is protesting against some indiscretion, when one has to make an effort to be cheerful. If the effort is made to wear a smiling face and give a pleasant word, much of the ill-feeling will vanish.

It is too true, "When you laugh the world laughs with you; when you weep, you weep alone."

Another thing, if any of your friends are inclined to look on the dark side of life, it may be your mission to help them by being cheerful and pleasant to them, to encourage, comfort and help them. If you cause one sorrowful person to smile each day, you will have done some good, you have some influence in the right direction. We all cannot do great things, we all do not have the cheerful disposition, the merry heart, but it can be acquired.—[Ladies' Home Journal.]



This week our quest for labor-saving devices comes to an end. Many excellent hints have been received, both orally and in writing, and to those who have so kindly contributed ideas, the hearty thanks of the Ingle Nook is due.

Some of the subjoined hints may not, it is true, recommend themselves to the woman who has good health, a small family to work for, and all the time she wishes in which to "do things"; but, as we understand it, such hints have not been written for such as she, but for the tired, overworked, irritable woman to whom, surely, a little rest, a little increase of vigor and happiness, a little more pleasure and interest in life, is worth more than the ironing of innumerable frills or the keeping of a table laden with dainties. Before judging harshly upon the subject, let us be reminded of the word of Thoreau, "The New England Philosopher." Perhaps we may be able to apply them to ourselves. "Most men, even in this comparatively free country, through mere ignorance and mistake, are so occupied with the fictitious cares and superfluously coarse labors of life, that its finer fruits cannot be plucked by them." While aiming to be thoroughly "good" housekeepers, let us not become shortsighted to a few other things. Let us remember that the "finer fruits" are also worth the plucking. It is certainly necessary to be cleanly, systematic, economical, and to provide good, nourishing food at our tables. It is not necessary, by reason of sheer fastidiousness, however, to wear out health, temper and comfort, leaving time to neither pleasure nor thought. Let us be warned in time. Too much of that sort of thing has a tendency to leave the mind all too much like that of Mr. Casaubon, was it?—or Cadwallader?—that old fellow in "Daniel Deronda," you know—I can't remember his name—of whom it was said that his brain was no better than an empty bag for dried peas to rattle about in.

But now, to our subject. The following letter from Mrs. T. M., of Stanbridge, Que., is published with much pleasure:

"Your suggestion (for labor-saving devices) is excellent; and I hasten to make my contribution, which I hope will help some tired woman.

"When ironing have work-basket handy; and as you notice button or strings missing, and stitches needed, it is restful to sit down and make necessary repairs, which will save the trouble of looking over the garments again, and will give the irons a chance to get hot, as they often become too cool, adding to the labor. It is quite unnecessary to iron sheets, woven underwear, stockings, etc., if they are properly hung to dry. A dumb-waiter on pulleys, constructed exactly like an open cupboard, which is entirely out of sight down in a cool cellar when not in use, has been the greatest convenience in our house. It comes up through the floor at the end of the dining table, and when let down in the cellar is enclosed in a wire screen, a perfect protection from mice and flies. The whole cost was not over seven dollars."

The following excellent hints, necessarily abridged for lack of space, have been received from Mrs. E. S. H., Mrs. W. W. D., Mrs. E. G., Mrs. J. G., Miss I. P., and Mrs. H. L.:

1. "If you wish to get the greatest possible amount of rest and comfort for yourself, see that the kitchen is furnished completely before you bother about the parlor. See that you have every utensil which can enable you to do your work easily and quickly before fretting about lace curtains and fine carpets."

2. "If possible, have an outside kitchen for summer, with an old stove in it. A long kitchen varanda, or "stoop," with vines over it, is a luxury which has to be possessed to be appreciated. All sorts of work may be done here pleasantly, in sight of the vines and flowers."

3. "Don't have too many frills and tuckings. Make clothes as plainly as possible; they are so much more easily ironed. Hang out print wrappers and every-day shirts for the men without wringing, just dripping wet from the rinsing water. They will be quite smooth, and, for working wear, will not require ironing."

4. "If possible, have spring beds and mat-

tresses, instead of the old-time 'ticks.' They save immensely in the sweeping."

5. "Have a high stool in your kitchen, and sit down at every possible opportunity."

6. "Lay long strips of butcher's linen over the cloth on each side of your dining table. They save the cloth wonderfully, and are much more easily laundered."

7. "Paint all bare floors. Use oil-cloth covers for wash-stands, shelves and tables. Do not have any superfluous furniture, nor many ornaments which are not also useful. Time will be saved in moving and dusting. Wooden furniture is usually prettier and more easily kept clean than upholstered."

8. "Do not buy print and cut it all up into 'patterns' for quilts. Make your quilts all of one kind, without pattern, and tie them. When using up odds-and-ends for quilts, 'crazy pattern' is most quickly done."

9. "Carry dishes to and from the pantry in a big dishpan, or have a little table on rollers to wheel things to the table on."

10. "Have a place for everything, and keep everything in its place. Then you will not be tired-out looking for things."

11. "If you are building a new house, plan it well for convenience, and don't forget to have cupboards built into the wall. Space is saved, and there is no place in under for dirt to accumulate. A wood-box built in the kitchen, on the side next the wood-shed, with a close lid on top and open back opening into the wood-shed, is a convenience."

12. "A clean and handy newspaper rack can be made of wire netting, such as is used for poultry yards. Twist new rope around, and turn up the end to make a pocket. Trim with tassels of the frayed rope."

13. "Cover boxes with cretonne for bedrooms. They may be used for seats, as well as for laying hats, waists, etc., in. If you have no closets in bedrooms, have a wooden shelf put up, with boards reaching from the ends to the floor, put a row of hooks in the wall underneath the shelf, hang a curtain along the front edge of it, and you have a closet."

14. "I find it saves work to keep the table always set with plates, knives, etc. I put them back when washed, and cover the whole with a large cover of cheese-cloth."

15. "Arrange your work systematically."

16. "We have a table built in the kitchen the entire length of one end. It is closed in below, with doors along the front. All the kitchen utensils are kept beneath it, behind the doors."

17. "Don't bake too much pastry. Give the folk lots of fruit, and find out the very quickest and easiest dishes to make."

18. "Here is a valuable fluid for cleaning dirty, coarse cloth, tinware, wooden utensils, dish-cloths, etc.: Shave five cakes soap into enough boiling water to dissolve. Stir constantly. Add two tablespoons powdered borax, and remove from stove. Add one cup coal oil. Keep in covered stone jars. Add a little to water for cleaning."

19. "Wash windows with soap and water. Rub on a little whiting. Let dry, then polish."

If any other readers of the Ingle Nook would like to send similar contributions, kindly forward them as soon as possible, and I shall be pleased to keep a corner for them. DAME DURDEN.

Box 28, Chatsworth, Ont.

I Wouldn't Be Cross.

I wouldn't be cross, dear, it's never worth while;
Disarm the vexation by wearing a smile;
Let hap a disaster, a trouble, a loss,
Just meet the thing boldly, and never be cross.

I wouldn't be cross, dear, with people at home,
They love you so fondly; whatever may come,
You may count on the kinsfolk around you to stand,
Oh, loyally true in a brotherly band!
So, since the fine gold far exceedeth the dross,
I wouldn't be cross, dear, I wouldn't be cross.

I wouldn't be cross with a stranger, ah, no!
To the pilgrims we meet on the life path, we owe
This kindness, to give them good cheer as they pass,
To clear out the flint stones and plant the soft grass;
No, dear, with a stranger in trial or loss,
I perchance might be silent, I wouldn't be cross.

No bitterness sweetens, no sharpness may heal
The wound which the soul is too proud to reveal.
No envy hath peace; by a fret and a jar
The beautiful work of our hands we may mar.
Let happen what may, dear, of trouble and loss,
I wouldn't be cross, dear, I wouldn't be cross.

—Margaret E. Sangster.

Visitor—You don't mean to tell me that that fellow back there is John Bascomb's son? Why, I can remember when he was considered the brightest, most promising fellow in town.

Superintendent—Yes, so he was; but, you see, he got to spending his time reading those magazine articles on "how to succeed."

Domestic Economy.

Pink and blue gingham of a washable make can be kept from fading by washing in a weak solution of vinegar and water. Rinse in the same way, and dry in the shade.

To sprinkle clothes easily and evenly, use a small whisk broom, which should be reserved for that purpose. Dip the broom in a bowl of clear water, and shake it lightly over the garment to be moistened. It is a far quicker and neater way than using the fingers.

Directions for Washing Fine Wool Underwear.—Put the garments in warm soap-water, adding two tablespoonfuls of liquid ammonia to about four gallons of water. Avoid rubbing. Wash out quickly, drawing garments through the hand. After wringing lightly, pass through two separate washings of lukewarm water. Dry at once—if possible, in the open air. Washing out quickly is especially advisable, as it prevents shrinking.

Pimples positively can't be cured from the outside, for they are "the outward sign of inward impurity." Before retiring at night, take the juice of a lemon with not quite a wineglass of water. A dose of Rochelle salts is also very effective. Another reliable cure for pimples is to take internally a powder, night and morning, composed of flowers of sulphur, half a dram; carbonate of soda, one scruple; tartarized antimony, one-eighth of a grain. Have a druggist prepare this, and have it put up in doses. Take one of these powders night and morning.

Lamps should be filled every morning, wicks trimmed, chimneys washed, and the lamps dusted. If metal or brass they should be polished. A wick should be cut but once a week. Trim a wick by taking a piece of tissue-paper and pinching the burnt part off; then once a week cut it, and be sure to trim it round, not straight across; round the ends slightly. Wash the chimneys in hot water and soapsuds, and dry while hot with thoroughly dry cloths. See that the lamp has not a drop of oil on the exterior. Heat the chimney before turning the lamp up to its full blaze, to save it from cracking.

EAGLE CAKE.

One cupful of brown sugar, one-half cupful of butter, one cupful of sour milk, one cupful of chopped raisins, two cupfuls of flour, one teaspoonful of soda, one-half teaspoonful of cinnamon, one-quarter teaspoonful of cloves, half a nutmeg grated. Bake in a moderate oven.

CREAM PIE.

Put one-half pint of milk and one-half cupful of sugar in frying-pan, and let it come to a boil, then dissolve one tablespoonful of cornstarch in a little milk reserved from the half pint; add to it the beaten yolk of one egg, stir into the boiling milk, and then thicken and smooth; remove and add a little salt and lemon flavoring. Pour into a flaky crust that has been just baked, and frost with the white of one egg and one tablespoonful of sugar; place in a hot oven till a delicate brown.

CARE OF MATTRESSES.

Very few people take proper care of mattresses. In France or Germany they are remade every spring, and the mattress-maker is a regular institution in the country. In how many houses in America is this done? It is considered too expensive to send them to shops, so they remain in the same condition for years, perhaps, and we get so used to lumpy beds that we accept them as one of the necessary evils of life.

But if we cannot afford to have them remade every year, we can, at least, take every pains to keep them fresh. As soon as a mattress is made it should be enclosed in a cover of unbleached sheeting. This will protect it from dust, and the sheeting should be removed and washed at least once a year. Whenever a room is not likely to be used for some time, the mattress should be lifted from the bedstead so that the air can reach it on all sides. It seriously injures a good hair mattress to keep it for long without a proper airing, and every mattress in regular use should be turned at least once a week.

Try cleaning the windows with gasoline. A little in a saucer and a bit of rag will clean several. Rub them over with the gasoline and polish quickly with old newspaper.

"No?"

They stood on the porch of the old farmhouse,
In the moonlight's golden glow;
"Do you love me enough to be mine?" he said,
She softly answered, "No."

"Do you really mean it, darling?" he said,
Before he turned to go;
With the sweet love-light in her true blue eyes,
She softly answered, "No."

On Economy (of Money).

We have now come to that subdivision of our topic which treats of the all-important subject, money. Now, at the very beginning, let it be understood that by economy of money we do not mean stinginess, nor meanness of any description; nor yet, the cutting off of any of our daily comforts. True economy has nothing to do with any of these things. On the very contrary, its exercise should bring to us better food, better clothing, brighter homes; and should place us in a position from which we can the more easily extend to others the helping and liberal hand. By economy of money, then, we must understand simply the judicious management of our pecuniary affairs, which will secure to us the greatest possible amount of comfort and of liberty, with the least possible amount of waste.

Money may be economized in three ways: (1) By doing without unnecessary things; (2) by judicious buying of things; (3) by judicious using of things when bought.

First, then, "doing without unnecessary things." I wonder how many of us ever sit down at the beginning of the buying season and consider, calmly and sensibly, just what things we can do without; what things there are which add neither to our comfort nor in a very great degree to our pleasure. If we have ever done so, I am sure we have been surprised at the number which can be utterly dispensed with, yet little missed. Not long ago I noticed in one of our Canadian papers an article entitled, "Getting Rid of Clutter." The heading struck me as an extremely happy one, and I made haste to read the article through. I found that it referred wholly to the useless and unlovely "fancywork" which is being all too gradually relegated to the garret or the bonfire; to the passing of painted dust-pans, ribbon bows, drapes, thistle-down "pompons," etc., ad infinitum. I felt like patting the unknown writer on the shoulder for her word of hastening on that relegation; and yet I felt that, had space permitted, she could have gone on further and given the open door to one thousand and one other sorts of "clutter" which have managed to creep into almost every department of our lives.

However, beginning just where she left off, at the "old-fashioned" fancywork, may we not go on and make war, with as good reason, upon the greater part of the new. Only the other day I heard of a silk patchwork crazy quilt, upon which seven dollars' worth of embroidery silk had been used up in herring-bone stitch. Think of it! Seven dollars expended just in thread, and that by a person of moderate means, to whom "economy" would come by no means amiss! So might one go on and anathematize the cushions, those delicate creations of muslin, silk, lace and embroidery, placed upright on our sofas, never, no, never to be lain upon, nor leaned upon, nor sat upon; useless as cushions, ridiculous as pictures. So might one condemn the "tidies" still seen sometimes, and the toilet bags which are never used, and the long beruffled pincushions which catch the dust so successfully, and all the rest of the impedimenta whose name is legion. And here I pause, to throw out, also, though at the danger of raising a hornet's nest about my ears, the parlor itself; the parlor of the farmhouse, of course, for of the city house I have nothing to say.

It always seems that the parlor in a farmhouse is almost a superfluity. It is used comparatively seldom; it requires the weekly sweeping and dusting, nevertheless; it necessitates considerable outlay for carpets, furniture and "ornaments," and it strikes one, after all, as a rather gruesome spot, or, at least, as a sort of private sanctuary, to be approached with reverence. Of course one would have a room instead of the parlor, but one would have it a more comfortable and home-like affair. I would say, make it a reading-room, and for these reasons: (1) A reading-room may, no, should be a source of continuous profit and pleasure; (2) a reading-room may be furnished with very little money. It may be plain almost to severity, yet, if care and taste have been exercised in fitting it up, it always looks inviting and "finished."

Let me specialize: Here is your room. It is papered, and has a couple of good windows in it. Now, get a square of carpet or of matting for the center. You can get very nice matting for thirty-five cents a yard, and you will not need very much of it, for you may leave a border of bare floor, say three feet wide, all around the edge. If there are cracks in this border, fill them with a mixture of paste and old newspapers soaked, and when this is dry, paint the whole nicely. If the tinted paints are too expensive, mix up some linseed oil, turpentine and yellow ochre, and you will have an agreeable and durable color. For a bookcase, have some shelves put up, with ends, and a piece of picture moulding run around the top for a "finish." The case will require neither doors nor curtains. In one corner of the room doors put a cot—you can buy that for \$1.25—and it will do for a single bed for a pinch. Upholster it do for a single bed for a pinch. Upholster it yours if not with cretonne, but with "Persian" cloth if you can afford it; if not, with denim in some soft shade. Upon the top now put a couple

of denim or sateen cushions, with generous frills; of course, in a color that will harmonize with the upholstery, and you will have a "couch" that will offend neither the artistic eye nor the tired body, one upon which a prince might rest. Having disposed of the couch, bring in your chairs. It is well to have two rockers, wooden ones are always in good taste, much prettier than padded, plush-covered ones; put a footstool on the floor; muslin curtains at the windows, never cheap lace ones; a jardiniere or pot of ferns; and perhaps a clock on top of the bookcase; a few Perry pictures on the walls—they are very dainty, and only require mounting under glass, without frames; gather your books and magazines into the bookcase, and you have a comfortable, enjoyable room, furnished at about one-quarter of the cost of the ordinary parlor. If there be a musical instrument in the house, all the better; it will give just the one lacking touch of cosiness to your sensible little "den."

CLARISSY ANN.
(To be continued).

Everyday Opportunities.

BY ELLA WHEELER WILCOX.

A man past middle age descended from an incoming train in a narrow passage leading to a large depot. He had occupied a rear car, and over one hundred people were in front of him when he reached the passage. Only two persons could walk abreast, and the high railing on one side and the train on the other made it necessary to keep to the narrow exit.

The man had important engagements awaiting him. He was well bred, a gentleman, and considered the little courtesies of life.

Yet, without violating one of these, he reached the depot and trolley car first of all those hundred people.

He watched his chances, and availed himself of them.

A woman in the line at his left dropped her parcel and stooped to recover it. He slipped in front of her without delaying any one in either line of march.

A man on the right paused to shift his baggage from the right hand to the left, and this made another opening. Still another stopped the whole procession to question a train official leaning from a car window, but instead of stopping with the procession, our traveller pushed ahead and found a clear space, which soon enabled him to reach the trolley car two or three moments in advance of the first man who had descended from the train. He had moved rapidly, quietly, decently and without once inconveniencing a fellow traveller.

No doubt scores of passengers from the rear cars explained their tardy arrival at home and at places of business as due to the procession in front of them.

This same man had begun life in the rear car. He had been a poor child on a Western prairie, without influence and with meagre opportunities for education.

Yet, by this inborn trait, this determination to watch his opportunities and push ahead, he obtained an education and a desirable position in life before middle age—obtained it through his own efforts.

Many of his old comrades are living in the same meagre environment of early youth, believing they were hindered by fate from attaining success.

They regard the good fortune of their old acquaintance as a stroke of luck.

"He was born to be lucky," they will tell you. "Things naturally went his way."

But they went his way merely because he watched his chance and slipped ahead when the opening came.

These chances come to every one of us along the highway of life. If we are not on the lookout the line closes up before we see the open space.

Every day I live I perceive more and more clearly how the real success of life comes from within and not from without.

An intense, unswerving, fixed purpose dominates all conditions. The mind which concentrates itself upon one idea, I Must Do This Thing, does it eventually, no matter what obstacles intervene.

The mind which says, "The procession is so long ahead of me it is useless for me to try to hurry—I must just jog along"—that is the mind that never gets beyond the jogging pace. The procession is always ahead.

A score of times it separates, opens, clears, but the man who says "it is no use" is not watching and does not see his opportunities.

And he dies at the rear of the column, believing "he has had no chance."

We all have it. Few of us see it. Fewer still seize it.

To Our Lady Readers.

We are now offering premiums which will delight your hearts. When we bought these we had you all in mind, and we have what you all want. In obtaining them you can give us just what we want—new subscribers.

Wrist and hand bags such as we offer you are what every girl and woman must have. How can you get them easier than by securing new subscribers to the "Farmer's Advocate"? Don't miss this chance. It is a good one.

By looking up the premium page, 818, you will get some idea of the quality of these bags. When you see them you will want one.

The "Go-Sleep" Story.

"How can I go to bed," said Penny, the flossy dog, "till I say good-night to Baby Ray? He gives me part of his bread and milk and pats me with his little, soft hand. It is bedtime now for dogs and babies. I wonder if he is abed?"

So he trotted along, in his silky, white nightgown, till he found Baby Ray on the porch in mamma's arms.

And she was telling him the same little story that I am telling you:

The doggie that was given him to keep, keep, keep,
Went to see if Baby Ray was asleep, sleep, sleep.

"How can we go to bed," said Snowdrop and Thistledown, the youngest children of Tabby, the cat, "till we have once more looked at Baby Ray? He lets us play with his blocks and ball, and laughs when we climb on the table. It is bedtime now for kitties and dogs and babies. Perhaps we shall find him asleep." And this is what the kitties heard:

One doggie that was given him to keep, keep, keep,
Two cunning little kitty-cats creep, creep, creep,
Went to see if Baby Ray was asleep, sleep, sleep.

"How can we go to bed," said the three little bunnies, "till we have seen Baby Ray?"

Then away they went, in their white velvet nightgowns, as softly as three flakes of snow. And they, too, when they got as far as the porch, heard Ray's mamma telling the same little story:

One doggie that was given him to keep, keep, keep,
Two cunning little kitty-cats creep, creep, creep,
Three pretty little bunnies, with a leap, leap, leap,
Went to see if Baby Ray was asleep, sleep, sleep.

"How can we go to bed," said the four white geese, "till we know that Baby Ray is all right? He loves to watch us sail on the duck-pond, and he brings us corn in his little blue apron. It is bedtime now for geese and rabbits and kitties and dogs and babies, and he really ought to be asleep."

So they waddled away, in their white feather nightgowns, around by the porch, where they saw Baby Ray, and heard his mamma tell the "Go-sleep" story:

One doggie that was given him to keep, keep, keep,
Two cunning little kitty-cats creep, creep, creep,
Three pretty little bunnies, with a leap, leap, leap,
Four geese from the Duck-pond, deep, deep, deep,
Went to see if Baby Ray was asleep, sleep, sleep.

"How can we go to bed," said the five white chicks, "till we have seen Baby Ray once more? He scatters crumbs for us and calls us. Now it is bedtime for chicks and geese and rabbits and kitties and dogs and babies, so little Ray must be asleep."

Then they ran and fluttered in their downy, white nightgowns till they came to the porch, where little Ray was just closing his eyes, while mamma told the "Go-sleep" story:

One doggie that was given him to keep, keep, keep,
Two cunning little kitty-cats creep, creep, creep,
Three pretty little bunnies, with a leap, leap, leap,
Four geese from the Duck-pond, deep, deep, deep,
Five downy little chicks, crying peep, peep, peep,
All saw that Baby Ray was asleep, sleep, sleep.

Rest for Women.

The rest hour is quite as necessary to women in summer as in winter. There are very few people who are not better for going away by themselves, if only fifteen minutes or half an hour, during the day. Lie down on the bed or lounge, allow the muscles to relax, and try to banish all perplexing thoughts. Make certain that you will never be interrupted or subject to call during these few moments, and the habit of sleep will come to you. A rest of even ten minutes, free from interruption, will do more toward soothing the nerves than four times the same length of time spent lying down with noisy children near, or thoughtless persons discussing the last fashion. The important matter is to secure for the tired worker absolute peace at the rest hour. Even without sleep, it is better than a rest-hour amid noisy surroundings in sleep, which is almost certain to be a troubled one. As a matter of ceremony, the rest-hour should be insisted on; because work done after it is certain to be so much better that it much more than makes up for the time taken from work. Work accomplished with the nerves exhausted never amounts to as much as work done when the energies are fresh.

Strong men have wills; weak men have wishes.
Be gentle, and keep your voice low.
Talk less and listen more.
Take your own chances, and leave alone the chances of others.

GOSSIP.

SOME PROVERBS.

"Without sterling honesty of purpose, life is a sham."
" When thinking of your future never use "if," use "when."
"Fortune favors the brave."
"Tact and diplomacy is the oil of civilization."
"Early to bed, early to rise, makes a man healthy, wealthy and wise."
"Solitude is the nurse of wisdom."
"He that will thrive must rise at five, he that hath thriven may lie till seven."

L. PERCY JONES.

Peel Co., Ont.

SHORTHORN AWARDS AT SEDALIA.

A strong showing of Shorthorns was that at the Missouri State Fair, Aug. 17 to 22. The exhibitors were: Hanna, of Ohio; Bowen, of Indiana; Harding, of Wisconsin; and Bothwell, Purdy Bros., Marshall, Jones, and Barber, from Missouri; and Tomson & Sons, of Kansas. Col. C. E. Leonard, the well-known Shorthorn breeder, did the judging. Following are the principal awards:

Aged Bulls—1st, Hanna (Nonpareil of Clover Blossom); 2nd, Barber (Young Dainty).

Two-year-old Bulls—1st, F. W. Harding (Ceremonious Archer); 2nd, Bowen (Rolando).

Yearling Bulls—1st, Hanna (King Edward); 2nd, Purdy Bros. (Orange Monarch).

Bull Calves—1st, Bothwell (Nonpareil Perfection); 2nd, Purdy Bros. (Golden Lord 2nd).

Aged Cow—1st, Hanna (Village Belle 2nd); 2nd, Harding (Happy Valley).

Two-year-old Heifers—1st, Bowen (Queen of Beauty); 2nd, Hanna (Countess Rosebud).

Yearling Heifers—1st, Bowen (Fair Queen); 2nd, Bothwell (Breeder's Fame).

Heifer Calf—1st, Harding (Anoka Glaston); 2nd, Hanna (Silver Roseland).

Aged Herd—1st, Hanna; 2nd, Harding; 3rd, Bowen.

Young Herd—1st, Wornall; 2nd, Harding; 3rd, Bothwell.

Get of Sire—1st, Harding on get of Best of Archers; 2nd, Bothwell on get of Nonpareil Victor; 3rd, Wornall on get of Imp. Conqueror.

Produce of Cow—1st and 3rd, Harding; 2nd, Purdy Bros.

Senior Champion Bull—Nonpareil of Clover Blossom, owned by Hanna.

Junior Champion Bull—King Edward, owned by Hanna.

Senior Champion Female—Village Belle 2nd, owned by Hanna.

Junior Champion Female—Fair Queen, owned by Bowen.

SHORTHORN AWARDS AT IOWA STATE FAIR.

Following are awards, at Des Moines, last week, in Shorthorn class. Prof. Curtiss judge:

Aged Bulls—1st, Nonpareil of Clover Blossom, D. R. Hanna, Ohio; 2nd, Avalanche, F. Christian & Son, Indiana; 3rd, Lytton Fame, C. S. Barclay & Son, Iowa.

Bulls, two years old—1st, Ceremonious Archer, F. W. Harding, Wis.; 2nd, Rolando, E. W. Bowen, Indiana; 3rd, Burnbrae Chief, E. W. Bowen.

Bull, one year old—1st, Nonpareil King, H. D. Parsons, Iowa; 2nd, Money Musk, G. H. Burge; 3rd, King Edward, D. R. Hanna.

Bull Calf, under one year—1st, Anoka Archer, Harding; 2nd, Lord Lenton, F. E. Fairor, Iowa; 3rd, Avalanche Royal, W. E. Christian & Son, Indiana.

Cows, three years old or over—1st, Village Belle, Hanna; 2nd, Tulip Princess, Harding; 3rd, 2nd Mary of Walnut, F. Christian & Son; 4th, Stella, Bowen.

Heifer, two years old—1st, Queen of Beauty, Bowen; 2nd, Jennie June, Hanna; 3rd, Countess of Rosamond 4th, Hanna.

Heifer, one year old—1st, Fair Queen, Bowen; 2nd, Glosterina, Wornall & Son; 3rd, Princess Maud 4th, Harding.

Heifer Calf, under one year—1st, Anoka Glaston, Harding; 2nd, Silver Rosaline, Hanna; 3rd, Dewdrop, Wornall & Son.

Estimates: Herd—1st, Hanna; 2nd, Harding; 3rd, Bowen; 4th, Christian & Son.

ALL FOR 12 CENTS.

Grand Introduction Offer.



In order to introduce Dr. Jenner's Germicide Inhaler and prove that it will positively cure Catarrh and Otitis Media, Deafness, we supply all sufferers with Dr. Jenner's Inhaler, together with two bottles of medicine, for only 12 cents.

This introduction price is less than cost of manufacture. We do this to introduce and make known the wonderful merits of this noble remedy. You inhale (see above cut) clouds of healing carbolated balsam vapor into every passage of the nose, throat and bronchial tubes, healing the membrane and eradicating the disease. It is only prompt, pleasant and permanent Catarrh cure in the world. Cures a cold in one day. Cures catarrh in a few weeks. No matter what you may have used for Catarrh, Dr. Jenner's Inhalation Remedy will cure you. SPECIAL NOTICE—Dr. Jenner's Inhaler, together with two bottles of medicine, will be mailed, postpaid, to any address on receipt of 12 cents (stamps) on or before Sept. 25th. Address: AKOLO-AMERICAN CHEMICAL CORPORATION, 32 Church street, Toronto, Canada.

LINCOLN SHEEP. Pure-bred Lincoln rams for sale, 2 years old, Shearlings and lamb, 2-year-old, took prize at Toronto Exhibition, clipped 13 pounds wool last spring. Will be sold at reasonable price. Write for prices. F. W. NICHOLSON, Flesherton, Ont.

GINSENG.

Plants and seeds for sale, also Rhode Island Red and Buff Orpington chickens. Write for prices. J. C. McKAY, Georgetown, Ont.

CHANCE OF A LIFETIME.

Magnificent 235-acre farm in splendid condition, adjoining thriving city, together with old-established city milk business bringing in \$500 a month cash, with or without stock, implements and complete milk outfit, \$10,000 cash, balance at 5 per cent. This is an exceptional opportunity. Speak quick. ORMSBY & CLAPP, Real Estate, Woodstock, Ontario.

WE WANT GOOD reputable persons everywhere to sell our new Sanitary Combs. Positively sell on sight, and are absolutely guaranteed unbreakable; will remove dirt, cure falling hair and headaches. Money refunded if not satisfactory. Sales large, and active agents are actually becoming rich. Work your own town or travel. We tell you how. Write for terms without delay. 50c sample, 25c. postpaid. Address: PROF. LONG, 5 Day St., St. Thomas, Ont.

DOUBLE BARREL BREECH-LOADING GUN AT \$8.50



Manufactured by the celebrated gun firm of J. Mauton & Co. Order early, as we only have a limited stock.

F. Hamilton Co., Limited, Hamilton, Ont. Wholesale and Retail Hardware and Sporting Goods. Full stock of cartridges for old and new model rifles.

Ginseng Plants and Seeds For Sale. Easy prices. Write to M. PHILIPS 68 Wilson St., Woodstock, Ont. o

At Mr. Buttar's sale of Shropshire rams at Corston, Scotland, August 20th, the average price realized for 55 rams was £8 12s. The highest price was 58 guineas. The average for 51 ewes sold was £3 15s 12d, the highest price being £7.

The Donaldson Line steamship, Lakonia (Capt. McNeil), arrived in Montreal, Aug. 27th, with a cargo of large and eighteen pure-bred horses. Three horses and two Iceland ponies are consigned to W. Nixon, of Ottawa. The remainder, 14 B. H. Houghton-Sarnia, are consigned to the Montreal Fair. This valuable consignment of horses was landed in perfect order.

GOSSIP.

Prevention is better than cure, but it does not get its name in the papers so often.

The wise man takes note of the spirit of the age, the politician panders to it, the statesman guides it.

Judging of the dairy breeds at the Toronto Industrial Exhibition will commence on Friday morning, September 4th, and the beef breeds on Monday, September 7th. The entries in all classes are very heavy, and the interest will be of an unusually inspiring character.

Fred Aiken, an enthusiastic angler, captured a trout which measured 15 1/2 inches and weighed 1 lb. 6 ozs., while fishing in Caledon Lake, Peel Co., Ont., recently. He had a good catch even without the big one, landing seven beauties which tipped the scales at 3 1/2 lbs.

Senator Quarles, of Wisconsin, was making a speech on oleomargarine. He was opposed to the movement to reduce the tax on that substitute for butter. "Mr. President," he said earnestly, "this proposition smells to Heaven. It reminds me of an opinion delivered by an old judge in my State. He said: 'This application is illegal. It has fraud—f-r-o-a-d—written all over it.'"

At the Iowa State Fair, at Des Moines, there were on exhibition the record number of 2,534 hogs on the grounds, and Superintendent McFadden said that he knew, were there pen room, many more would have been on exhibition. The largest exhibit is of Poland Chinas, of which there are 1,072. The Duroc Jerseys come second with 851; the Chester Whites third with 404; the Berkshires fourth, having 202.

There are two grand maxims of private life which apply to public life also: Mind your own business. Set a good example.

It is difficult to judge of what one can see over his back fence in his neighbor's yard. When it comes to judging what one has not seen, has not even heard at first hand from witnesses personally known to him, what are the prospects for fairness, what the prospects for real helpfulness?

A dispatch from Winnipeg states: The Northwest Grain Dealers' Association has just issued a crop estimate for Manitoba and the West, as follows:

Table with 2 columns: Crop, Bushels. Wheat: 57,163,032; Oats: 40,418,920; Barley: 10,900,461; Flax: 743,348. Total of the harvest: 109,325,761.

The average yield per acre is estimated thus: Wheat, 18.3 bushels; oats, 36.7; barley, 28.6; flax, 11.5.

James J. Hill said recently: "There is no good reason why Canada may not have a population of 50,000,000 within the next fifty years." There are many in Canada who believe it. It is possible. England believes it. Many of our own farseeing men believe it. The Hon. James A. Smart, Deputy Minister of the Interior, and the most able head of this department, in the absence of the Minister, the Hon. Mr. Sifton, in his recent report before this Committee stated that the immigration of the last eleven months has been the greatest by far in the history of Canada—something like 100,000.

The stream has only begun to flow. The great wheat belt, 1,500 miles long and some 400 miles wide, will be plowed and harvested, all of it. Manitoba alone has 25,000,000 acres of arable land. Only about 3,000,000 acres have been plowed. There is a great future for Canada. She knows it; feels it; throbs with it, east and west, and she is willing to share it with our own North-west! The international boundary line is not a physical barrier, nor a commercial one, nor seriously a political one. [Philadelphia Saturday Evening Post.]

TRADE TOPICS.

DELIGHTED WITH CORSETS?

Robinson Corset Co., London, Ont.: Dear Sirs,—After wearing your corsets, I am pleased to say that I am delighted with them. I would not be without them for any money. I can heartily recommend them to all ladies who wish a good-fitting and neat corset. Thanking you for your prompt treatment of my request, I remain, Sincerely yours, MRS. SAMUEL BARBER. Mulmur, Ont., Aug. 3, 1903.

THE NEW COURSES AT GUELPH.

The normal classes in nature study, manual training, and domestic science, and the two-year course in housekeeping will commence on the 14th September. The short courses in the Macdonald Institute, Ontario Agricultural College, will not begin until the 4th of January. Macdonald Hall will not be completed before the beginning of 1904; so students entering in September will have to board in Guelph till the Hall is ready for use.

OXFORD CREAM SEPARATOR.

The Durham Manufacturing Company, Limited, of Durham, Ont., have placed upon the market the Oxford cream separator, for which several very important advantages are claimed, among which is ease of working, cleanliness of skimming and the ease with which the parts may be cleaned. Look up their advertisement in this number, and write them for particulars.

BUYING A NEW MANURE SPREADER.

The Kemp Manure Spreader Co., of Stratford, Ont., one of the newer manufacturing enterprises of Canada, have a factory 299 x 60 feet, and three stories high, the foundry being 120 x 50 feet, which will afford some idea of the magnitude which their business has already attained. Every machine is put together and thoroughly tested before leaving the establishment. One very important feature of the spreader is that the quantity of manure spread on the field can be regulated instantly. The wheels are substantially constructed, five-inch tires being used, one inch wider than those in the United States. They are set cold by hydraulic pressure and no complaints have ever been received of wheels going wrong. On the question of buying a manure spreader for a 180-acre farm, the following reply is given by an Iowa exchange to one of its readers:

"It is hardly worth while for our correspondent to figure on that problem. He has determined to seed his land to clover. That is right, and it is essential to permanent success in his farming operations. It will pay him to buy a manure spreader with half that amount of land seeded to clover, for he must have cattle to eat the clover and other grasses, and they will furnish him the supply of manure which will gradually increase the yield of his farm. The manure spreader will save him about one-third of his time in hauling out the manure and will double its efficiency because he can spread it over more land and can spread it better than can be done in any other possible way. Where, however, farmers are short of money it is a pretty good thing to talk the matter over with two or three neighbors and buy a manure spreader in common, or else let one of them buy it and charge his neighbors so much a load for its use, enough at least to form a sinking fund to pay for the spreader during its lifetime and keep up the repairs. We do not know of a better investment on a farm of eighty acres and over on which live stock forms a considerable feature of the farming operations than a manure spreader well taken care of after its purchase."

A tourist in Ireland who stayed over night at a wayside inn not frequented by visitors informed the landlord in the morning that his boots, which had been placed outside his room door, had not been touched. "Ah, shure," said the landlord, "and you might put your pants and chain outside your room door." "His house and they wouldn't be touched!"—[The King.]

FALL FAIR SEASON

1903

"Cock o' the North" Line

OF

THRESHING MACHINERY.

READ WHAT THE
FARMERS THINK.

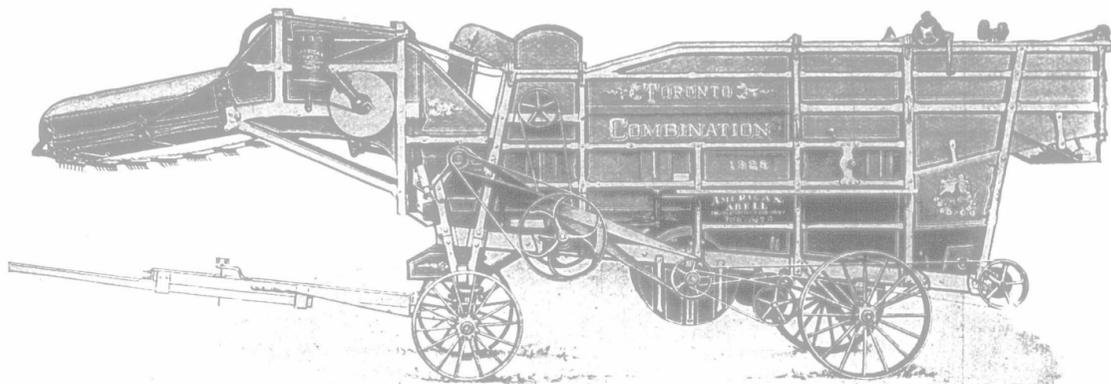


"Cock o' the North"

MARK WHAT THE
THRESHERS SAY.

Smiling Faces on Threshing Day!

LOOK AT
THIS
PICTURE
OF THE
MACHINE
BUILT
FOR THE
T. EATON
COMPANY,
LARGE
DEPART-
MENTAL
STORE
OWNERS
AND
LARGE
FARMERS.



THE T.
EATON CO.
OWN THE
MACHINE
OF WHICH
THIS IS A
PICTURE.
THEY FARM
ON A
LARGE
SCALE, DO
THEIR OWN
THRESHING,
AND
WANT
THE BEST
MACHINE.

This is the "TORONTO COMBINATION" Separator.

Messrs. Sloan & Jackson, of Millbrook, Ont., say under date of August 15th, 1903:

"The 14 horse-power, portable engine and Toronto Combination Separator which we purchased from you this season work to our entire satisfaction. We have plenty of power, and we think the separator cannot be beaten for fast threshing and good separation of grain. Hoping you will find plenty of customers for what we think the success of the threshing line."

Mr. Fred. Sweetman, the well-known thresher, writes us from Essex on August 21st, 1903, as follows:

"The Toronto Combination Separator came to hand in due time, and after ten days' trial in all kinds of grain, I must say she excels anything I have ever used in my fourteen years' experience, or seen used by any other thresher. Owing to thorough separation made by the cylinder forks and the Cock o' the North decks, there is no grain thrown out in the straw, and the grain comes from machine fit for market. We are to-day giving it a very severe test, threshing oats from a stack so wet that water can be wrung from them. The Parsons Feeder and Cyclone Stacker also work to perfection, besides being a great boon to the farmer in reducing the number of men necessary by almost one-half, at a time when it is almost impossible to secure help at any price. Last season I purchased from you an Advance Traction Engine, 20 h. p.; this, with the Toronto Combination Separator, forms what is admitted by the farming community to be, without exception, the best threshing outfit in the County of Essex. In dry grain we have threshed to the satisfaction of the farmer as fast as four men could put the sheaves to the machine. In conclusion, permit me to say that I am satisfied in every particular with the outfit, and strongly advise my fellow threshermen to purchase the same line."

SEE US ABOUT ONE.

American-Abell Engine and Thresher Co., Limited,

Northwest Agency:
WINNIPEG.

TORONTO.

Branch House:
REGINA.

In answering the advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Corsets to Order

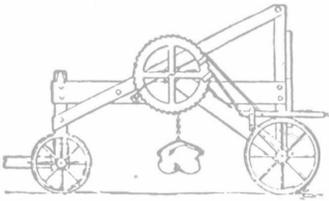


We give you full instructions for self-measurement and guarantee

Perfect fit,
Finish and
Durability.

A postal card will bring you a free catalogue which illustrates the latest designs and tells how to order what you want.

Robinson Corset Co., London, Ont.



THE NEW STONE AND STUMP EXTRACTOR BREVETED BY LEMIRE.—Capable of lifting 18,000 lbs. Has no equal for lifting and carrying stones, etc., for placing stones so as to build up fence to 5 ft. high and leave the ground in a condition fit for mowing and reaping machines. After the hooks are adjusted on the stones, the only thing to do is to pull the lever. You can lift up a thing, carry it and place it on a stone fence in 10 minutes. The agricultural societies and clubs of farmers should all buy it. Price moderate. For complete details address: JOHN AMIRAUX, 40 LANSDOWNE AVE., TORONTO, ONT. This Stone Extractor is guaranteed for the extraction and transportation of 40 to 50 stones a day, fixed in fence. Guaranteed as mentioned above. Agents wanted.

"Will People Ever Learn Consumption's Dangerous Ways?"

"More to be feared than all other infectious diseases, yet people disregard ordinary precautions and neglect its more pronounced symptoms until they become the prey of remorse and despair"—says Dr. Slocum.

The struggle for health-restoration crowned with success when Dr. Slocum's system of Treatment is used.

A SYSTEM THAT SAVES LIFE AND EXPENSIVE DOCTOR BILL.

The Slocum System cures even the worst cases and prevents contagion.



"I am drawing no imaginary picture," declares the great specialist, "for I know whereof I speak, and I shudder when I think of the deadly risks people run through ignorance or neglect. There is not, I venture to say, a man or woman in Toronto who cannot put their finger on cases known to them personally; a dutiful daughter nurses her mother, or a loving sister a sister, only to be stricken down while in the path of duty, having failed to recognize it as an infectious disease. "But are we to leave them here? No, a thousand times, no! Such a course would be too cruel for even ordinary human feeling."

If you are to be cured of consumption you must find a remedy at home, as it is only the very few who are at liberty to travel. Does such a remedy exist? That is what should interest every weak and wasted sufferer.

Dr. Slocum's Generous Offer—Free Trial Treatment (worth \$1.25) Given Free.

If you have pains in the lungs, an obstinate cough, night sweats, afternoon chills and fevers, sore throat, Dr. Slocum, the eminent lung specialist, invites you to test his successful system of treatment. Simply mention your symptoms, giving your name, post and express offices, and mail to Dr. T. A. Slocum, Limited, 179 King St. West, Toronto, Canada, and the treatment (worth \$1.25) will be promptly forwarded to you.

THE LONDON MUTUAL FIRE INSURANCE CO. OF CANADA.

1859-1903.

Losses paid since organization, over \$3,300,000.00.

Business in force. \$66,000,000.00.

Assets, \$628,690.16.

Incorporated by Dominion Act of Parliament. Established 1859.



Hon. Jno. Dryden,
President.

Geo. Gillies,
Vice-President.

H. Waddington,
Sec. and Man. Director.

Lauchlin Leitch,
Superintendent.

D Weismiller,
Jno. Killer,
Inspectors.

HEAD OFFICE:

82 - 84 KING STREET EAST, TORONTO.

FRED. J. HOLLAND, WINNIPEG, General Agent for Manitoba and N.-W. T.
G. W. and C. G. HOBSON, Vancouver, General Agents for B. C.
H. BLANCHFORD, 180 St. James St., Montreal, General Agent for Quebec.
L. J. MCGHEE, Halifax, General Agent for Nova Scotia.

GOSSIP.

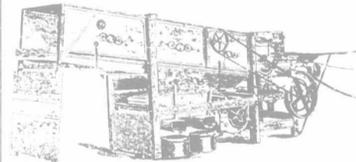
DAIRY SHORTHORNS FOR ST. LOUIS

Mr. H. H. Hinds, Stanton, Michigan, who is selecting the Shorthorns for the dairy cow demonstration at the St. Louis Exposition, is desirous of getting in communication with the owners of the best dairy Shorthorn cows in Canada, and for that purpose has written Mr. F. W. Hodson, Live Stock Commissioner, Ottawa, for information regarding the best method of achieving his object. He writes: "I am exceedingly anxious to locate some of the specimens of dual purpose Shorthorn cows in existence for the purpose of securing them to enter in the dairy demonstration to be held at the St. Louis World's Fair of next year. I am aware that our Canadian friends have many specimens of this type of Shorthorns, and am hoping and expecting to receive very valuable assistance from our friends across the border. At the Columbian World's Fair of 1893 we had some very fine cows from Canada that were selected by a committee of your Shorthorn Breeders' Association, and were brought out under the auspices of the Canadian Government. I am opening correspondence with many of your breeders and desire your very able co-operation and assistance in securing a few cows for this demonstration from the Dominion. I think the committee of the Canadian Shorthorn Herdbook Association is already moving in this matter. Of course, should we secure some cows from Canada, and I think no doubt we will, the record of their performance would go into the aggregate of the very creditable showing that the Dominion will undoubtedly make in the live stock exhibition at St. Louis next year." Breeders who have cows of the sort described by Mr. Hinds, and who are willing to allow their animals to go to St. Louis, should at once open correspondence with that gentleman at the address given above.

W. A. CLEMONS,
Publication Clerk.

M^CGILL & SON

Thresher and Cleaner



A small and compact thresher of great capacity. Will thresh

600 BUSH. OF OATS IN 10 HOURS

Strongly built. Can be run by 4-horse sweep power or 3-horse tread.

Write for Prices and Catalogue.

**A. M^CGILL & SON,
CHATSWORTH, ONT.
WANTED.**

Thoroughly qualified man to take charge of dairy of 20 cows, peddle milk, etc. Comfortable home and permanent position for competent, industrious man. References required as to character and experience. Apply
**A. J. KENDALL, Manager Walker Farms,
WALKERVILLE, ONT.**

Ferpo-Nervo

(The French Nerve Tonic).
A positive cure for men and women suffering from weakened nerve force, constant depression, gloomy forebodings, palpitation of the heart, worry, sleeplessness, nervous prostration, and all exhausted and deranged conditions of the vital forces, irrespective of duration or condition. Your druggist, or by mail, in a plain sealed package \$1.00 per box, or six boxes (full treatment) \$5.00. Your money back if dissatisfied. **THE ROYAL CHEMICAL CO., Dept. F. A., Windsor, Ont.**

Imported Shorthorns Imp. Royal Prince, heading the herd of imported and home-bred Shorthorns of best Scotch families, for sale, both sexes, at reasonable prices, also Oxford Down ram lambs. John McFarlane, Dutton, Ont., P. O. and Sta., Box 11.

GOSSIP.

Up to the present date close to 90,000 cattle have been shipped from the port of Montreal this year. This is not only a record, but is 40,000 more than the total amount handled in any previous season. Before the end of the present season the total number of cattle handled by Canadian railways and Canadian steamship companies is expected to be more than double that of any previous year.

The most marked feature of the increase has been the larger number of cattle received from different points throughout Ontario. The increase has been much greater there than in any part of the West.

Commerce between the United States and Canada, says the Chicago Farmers' Review, was larger in the fiscal year just ended than in the preceding year. This is true both as to imports and exports. The figures of the year's commerce presented by the Department of Commerce and Labor through its Bureau of Statistics show that the imports from Canada amounted to \$54,660,410, and the exports to Canada, \$123,472,416. In this term is included British Columbia, Quebec, Ontario, Nova Scotia and New Brunswick. Of the imports of the year, 38 million dollars, speaking in round terms, were from Quebec and Ontario, 10 millions from New Brunswick and Nova Scotia, and 6 millions from British Columbia. Of the exports, 110 million dollars were to Quebec and Ontario, 7 millions to New Brunswick and Nova Scotia and 6 millions to British Columbia. Both in imports and exports the total of the year's commerce with Canada was larger than in any preceding year. The imports never before reached so much as 50 million dollars, save in the exceptional year 1881, when they barely touched the 50 million line. The exports to Canada never reached so much as 100 million dollars until 1901, when they were 105 millions.

TAKING AN INTEREST IN THE BUSINESS.

"Put up your sewing, Tom; the boss is away, so he'll never know the difference."

"But I shall," quietly responded the young man addressed. "The grain runs out in a stream from a hole in nearly every bag we have. When Barker became angry yesterday and talked about the bags leaking, I said to myself that if I ever ran a grain store, the grain would leave the barn in tight bags."

Presently the proprietor returned, and, as he passed into the office, he noted Tom's employment. "Add a dollar to Porter's wages," he said to the bookkeeper, as he hung up his coat; "we can't afford to lose him."

One morning Tom suggested that the bins be lined with tin because the rats were making great inroads on the grain. The merchant, considering this a necessary evil, had been accustomed to charge the drain to the profit-and-loss column. Two days later he acted upon the young man's suggestion, and the next month there was a decided decrease from the usual amount lost. The merchant was pleased with Porter's interest in the business, and the bookkeeper received another notice to increase his wages.

Years passed, and Tom had succeeded in laying aside nearly two thousand dollars. When the time was ripe, he proposed to go into business for himself. One morning he gave notice to his employer of this intention.

A fortnight later the old sign—Henry T. Dodge—was taken down and a new one appeared in its place. John Haskell, the young man who advised Tom to put up his sewing that morning when the proprietor was absent, arrived at the store just as the new sign—"Hodge & Porter"—was placed in position.

For an instant he stared at the sign and then, going into the barn, went about his work, meanwhile muttering something about "Tom's luck." He had forgotten all about the mending of the grain bags, as he had forgotten a hundred little actions on Tom's part that showed interest in the business.—[Ex.]

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Important Dispersion Sale

OF

Scotch-bred Shorthorns

In the Drill Hall in the town of

WHITBY, ONT.,

on Wednesday, Oct. 14th.

80 HEAD OF HIGH-CLASS SHORTHORNS

This offering affords an opportunity to secure animals of the choicest breeding, a number being imported from Scotland.



On Thursday, Oct. 15th, at place of residence.

MYRTLE, ONT.,
17
CLYDESDALE MARES, FILLIES AND YOUNG STALLIONS,

ten of the mares in foal to Imp. McQueen and Imp. Lavender.

The entire herd and stud will be sold without reserve. Catalogues will be mailed on application to

JOHN BRIGHT, Myrtle, Ont.

Auctioneers: Levi Fairbanks, Whitby; Geo. Jackson, Port Perry; Capt. T. E. Robson, Ilderton.

GOSSIP.

AN IMPORTANT SHORTHORN SALE.

The advertisement, on this page, of the dispersion sale, on October 14th, of the fine herd of eighty head of Scotch-bred Shorthorns belonging to Mr. John Bright, of Myrtle, Ont., on the fair grounds in the town of Whitby, will interest breeders and farmers desirous of improving their cattle stock. Having leased his farm, the whole herd will be sold, and on the following day, at the farm, near Myrtle station, C. P. R. and G. T. R., seven miles from Whitby, the fine stock of Clydesdale mares, fillies and young stallions, together with the implements and chattels, will be disposed of. Though a comparatively young breeder, Mr. Bright has been regarded as one of the most enterprising and discriminating, and he has bred and bought with rare good judgment, selecting only choice females of the best families and using only bulls of approved breeding and high-class quality of flesh and form, the fruit of which is found in the excellent and uniform type prevailing in the herd, the cattle being, with scarcely an exception, low-set, broad, deep-ribbed and wealthy-fleshed, and Mr. Bright, being a liberal grower of rape and roots and fodder corn and a generous feeder, the stock has grown up healthy, fresh-looking and full of the right sort of natural flesh and carrying good coats of the best of hair. There are in the herd a number of imported females, bred in standard herds of approved breeding in Scotland, and the sire in service at present is the excellent roan two-year-old, Royal Archer (82128), bred by Mr. Bruce, of Heatherwick, Inverurie, Scotland, from the favorite B family, and sired by the Duthie-bred Prince of Archers, by Scottish Archer, acknowledged to have been the greatest sire ever used in the Gollynie herd. Royal Archer combines size, quality of flesh, evenness of conformation and breed character in a high degree, and as many of the cows and heifers are in calf to him, and many of the former are nursing thrifty calves

A MAN

does well to be guided by the experience of other men. One of our customers

WHO BOUGHT A "PRINCESS"

writes as follows: "After having turned the milk from six cows through the separator I

WAS SATISFIED WITH IT

All farmers who are in need of a separator should buy a "Princess." I can't speak too highly of it, it is so easy to clean,

AND

it turns so easily that any child can turn it. You

CANNOT PRAISE IT TOO HIGHLY.

I enclose the cash and thank you very much for your prompt shipment." We will send you his name and address, and either he or ourselves will be glad to answer any and all enquiries.

PRINCESS CREAM SEPARATORS

SOLE AGENTS: CAMPBELL ARNOTT & CO., TORONTO.

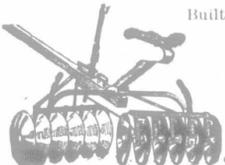
A General Agent wanted for Eastern Ontario.

"BISSELL" DISK HARROWS AND STEEL ROLLERS.

Built for business, with a record for

Durability, Simplicity,

lightness of draft, and great capacity for work. This harrow has several imitators, but no equal. Would you care to know about the "Bissell" Disk in field contests? It will pay you to enquire. Address



T. E. BISSELL, Dept. W., Elora, Ont.

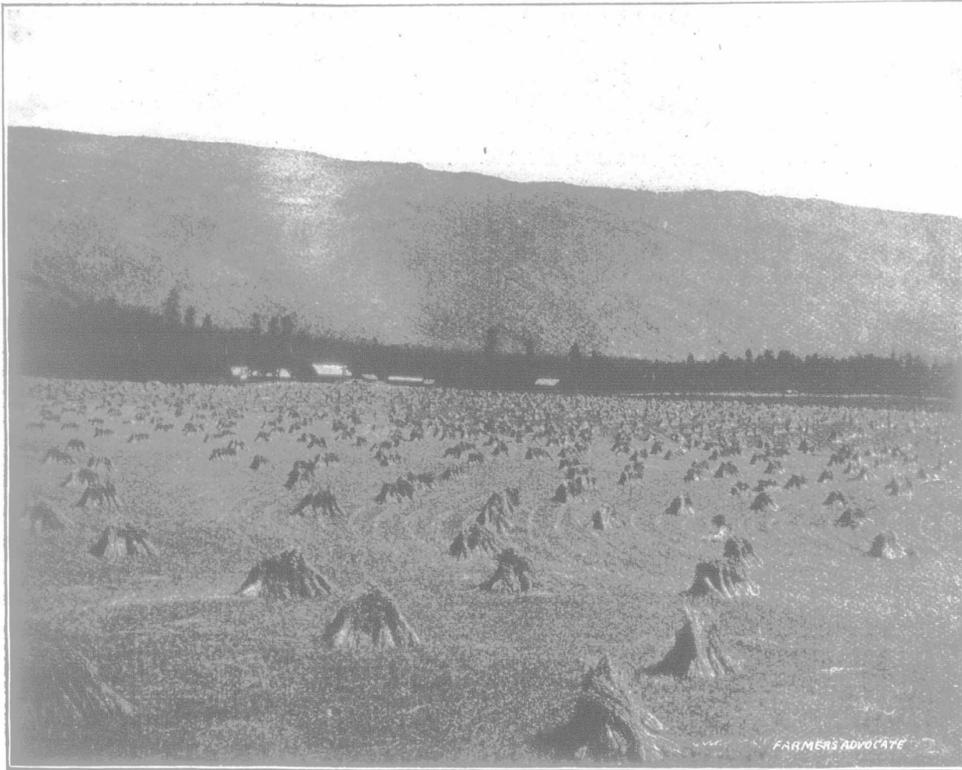
that will go with them, there will be lots of chances to secure good bargains at this sale.

In glancing over the advance sheets of the unusually well-arranged catalogue in course of preparation and noting the analyses of pedigrees in the very copious footnotes, one cannot

fail to be struck with the number of choice families represented and the high-class character of the sires, in breeding and individuality, that have contributed to their building up and development. Among others, we note that there are no fewer than seventeen of that favorite Cruickshank tribe, the Miss Ramsdens,

which has produced so many notable prizewinners in Great Britain, including the \$6,000 Brave Archer, sire of the Highland Society champion, Royal Archer, illustrated on another page in this paper. Of the Kinellar-bred Crimson Flower family, from which has come a long list of Canadian prizewinners, including the sweepstakes cow at Toronto last year, there are seven, and a grand good lot they are. Of the excellent Cruickshank Duchess of Gloster tribe, which have been so much sought after by American breeders that few are left in Canada, there are three good ones. Of the Cruickshank Village Girls, that have produced so many winners, both in Scotland and on this continent, there are two capital females with the best of top crosses, and close to the grand old imported cow, Village Girl, bred at Sittytou. Of the Marr Stamford family, that has proved so great a favorite, both through early and later importations, there are a half dozen really good ones, full of quality and character. The good, big, fleshy Syne family descended from the early importations of the Millers, of Markham and Pickering, is represented by fifteen females that have had the benefit in their breeding of many of the best bulls that have been in service in Ontario County in past years, and are of the very best stamp. These are mentioned at this time in a general way to give an idea of the composition of the herd and what may be expected in this offering, which is the largest that has come before the public in Canada for many years, and one of the best. In the next issue of the "Advocate," reference to some particular animals and their breeding will be made, together with some remarks concerning the grand lot of young Clydesdale mares and fillies, the progeny of some of the best imported stallions that have been in use in that great Clydesdale county, half a score of the mares in the sale having been bred to imported stallions this season, principally to the grand old champion, McQueen, and the Toronto winner, Imp. Lavender. Early application should be made for the catalogue, as it is certain there will be a large demand for it.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



WHEAT FIELD ON SIR ARTHUR STEPNEY'S RANCH, ENDERBY, B. C.

Manager, Geo. Heggie.



THE STOCKMAN'S PRIDE.

Some of the animals in the stock parade lunched in front of the grand stand at Killarney Fair, Man.



KILLARNEY'S (MAN.) ENTERPRISE.

Sleeping accommodation ensured during fair time.

Our Western Letter.

PROGRESS OF HARVEST.

The harvest operations in Manitoba are pretty general, but the ripening of the grain did not take place so quickly as had been expected. For the last week there has been little sunshine and considerable rainfall. Under these influences, the crops, instead of ripening, have continued to grow, and the harvest has been, consequently, set back.

TERRITORIES.

The crops in the Territories are mostly rather green, and harvest will not be general there before at least a couple of weeks. The crops are magnificent, and are still growing. Wheat over four feet in height is the rule, and shorter crops the exception. Farmers, however, are becoming somewhat alarmed, owing to the lateness of the harvest, that frost may come before the wheat ripens. Let us hope for a better issue, that the farmers of Western Canada may reap and garner into security one of the most bountiful crops that nature has ever produced from the land.

THE SUMMER FAIRS.

The summer fairs are past, and it can be said, without qualification, that they have been a great success. Agricultural societies are favoring summer shows more and more every year. This year, a number of societies which formerly held their fairs in the fall, established summer shows and dispensed with the fall ones. The results have justified the change in every case. There has been a marked improvement in the number of exhibits of live stock, and the number of spectators has increased beyond comparison. In our fine summer weather, farmers load up their wagons with their families and hired help, and drive in with the missus in the buggy, and townspeople come out to the grounds without the fear of rain or anything else which might spoil the day's enjoyment, and so the spectacles at the shows have been enlivened and the coffers of the societies have been enriched. The only matter in which fall fairs command a preference over summer fairs is that in the fall a better display of grain and roots can be collected.

HARVESTERS ARRIVING.

The harvest excursionists are daily pouring into the West. The demand for help is not quite so brisk as it was last year, nor is the pay quite so high. The cause of this is that in Southern Manitoba, which comprises the greatest wheat area, the crops are a good deal lighter than last year, and, consequently, harvesting and threshing will be a considerably lighter undertaking. In Northern Manitoba and the Territories, where crops are heavy, there is a much less proportion of land under cultivation, and a large portion of the land cultivated is bearing oats and barley, which farmers are not in such a hurry to hustle through as wheat.

HAIL STORM.

The recent hail storm at Moose Jaw was a rather serious one. Complete devastation of crops is the track left by the cyclone, and it travelled over about twenty miles, embracing an area about four miles wide. Harvesters have been wanted for the district, and since the storm the number has been cancelled by one-half. Nevertheless, there is work for a vast army of men during this fall, and all who come with a desire to work will find plenty to do at fair wages.

Guelph Dairy School.

The announcement for the dairy courses for the year 1903-4 at the O.A.C. dairy school has been issued, and contains a complete description of the splendid advantages offered. Copies may be secured from President Jas. Mills or Prof. H. H. Dean, Guelph.

Dairy men will be pleased to learn that Prof. Dean's long looked-for work on "Canadian Dairymaking" will soon make its appearance. Wm. Briggs, Toronto, is the publisher.

Another Route Suggested.

There is no doubt but that the proposed route of the Quebec-Moncton division of the Grand Trunk Pacific would open a large tract of country both for agriculture and lumbering in New Brunswick. But it is the general opinion here that it would be much better to run direct from Edmonton to St. John, via the St. John Valley, which would be a shorter route. Making the terminus at Moncton seems like dropping a bomb in the woods, you have got to find some other way to get it out. D. W. PICKETT, Antigonish, N.S.

We desire good live agents in every farming district in Canada and the adjoining States to canvass for the farmer's best paper—The Farmer's Advocate. Write us for particulars, and begin the good work at once.

GOSSIP.

A good advertisement is like a good cook—it can create an appetite when the buyer isn't hungry.—Agricultural Advertising.

The two-minute trotter has arrived, and now "hossmen" will get to work to bring out the one-fifty-niner. Twenty-three years ago next month Maud S. made the sensational record of trotting one mile in 2.10½. It has taken twenty-three years to lower the record 10½ seconds, or an average of not quite a half second per year.

The noted Berkshire boar, Manor Hercules, winner of a long list of first prizes in England, including the championship at the Royal this year as the property of Mr. R. W. Hudson, Densfield, and purchased prior to the latter show for Filston Farm, near Baltimore, Md., died on the voyage the day before the vessel reached port.

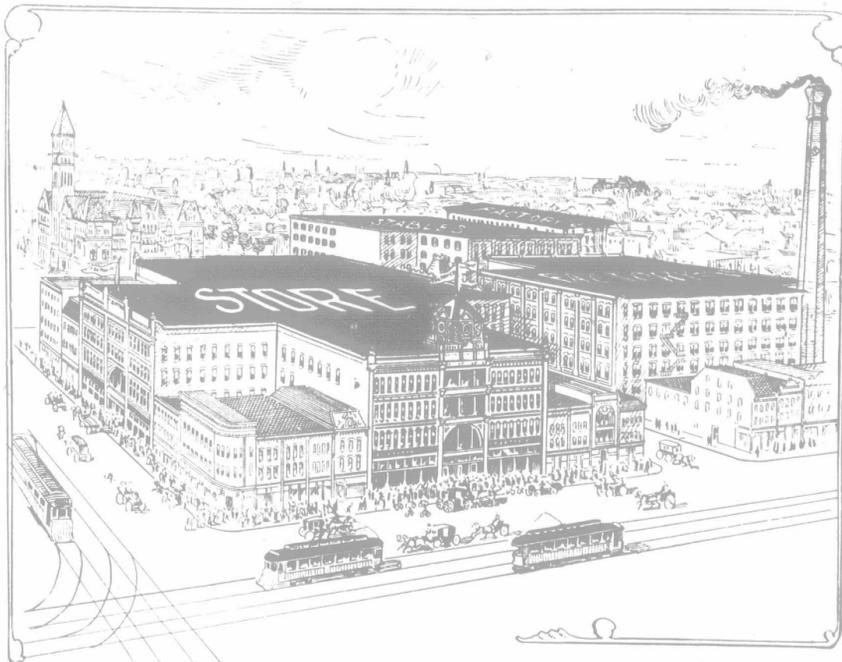
Mr. F. H. Neil, Lucan, Ont., breeder of Lincoln sheep and Shorthorn cattle, in renewing his advertisement, writes: "I am well pleased with my ad. in your paper. It has brought me many enquiries and sales. I have an extra supply of choice Lincolns on hand, including lambs of both sexes, several cars of yearling rams and two cars of one- and two-year-old ewes ready for September and October delivery. Also, some choice young bulls, cows and heifers, which will make good herd foundations. Lucan, on the G. T. R. main line, 25 miles west of Stratford, is the station, P. O. and telegraph office."

At the annual sale of Hampshire Down sheep, the property of Lord Rothschild, at Tring Park, July 24th, 63 lambs and 120 ewes were disposed of at the satisfactory average of £9 10s. 5d. for sixty lambs let and sold. The highest prices of the day were given by Mr. Flower at 27 gs., and Mr. Middleton at 26 gs. for two hired lambs; the best prices for the lambs sold being 21 gs., 15½ gs., 13½ gs., 13 gs., 12½ gs. Every lamb, as is the custom at these sales, was sold without reserve. The thirty-five two-tooth ewes which followed averaged 63s. 4d. each, and the fifty-seven draft ewes averaged 63s. 3d. each. Three shearing rams averaged £9 19s. 6d. each.

Messrs. W. G. Pettit & Sons, of Freeman, Ont., importers and breeders of high-class Shorthorns, write us that they have just received their new catalogues from the printer, which will be mailed free on application. "We will exhibit thirteen head at the Dominion Exhibition, Toronto, this year, and will be pleased to have our customers and all parties interested in Shorthorns call on us at the exhibition." The catalogue shows the Freeman herd exceedingly strong in imported Scotch-bred bulls and females and their produce of most of the favorite and popular families; indeed, it is doubtful if any herd in Canada is stronger in this respect.

Mr. R. J. Hine, importer and breeder of Oxford Down sheep and Shorthorns, Linden Farm, Dutton, Ont., writes: "Owing to being so busy building, and scarcity of help, we very reluctantly have to give up all thought of showing our Ox-fords at Toronto and London this year. We would very much have liked to have shown our friends the rams and ram lambs we have on hand this year. The imported ram we won first prize on wherever shown last year has done good service for us. We have, I think, the finest lot of lambs we ever had—strong, lusty fellows, well covered and lots of bone. A number have been sold to old breeders for exhibition purposes and to head purchased flocks, both in the U. S. and Canada. We have some of the best still on hand, which we reserved for ourselves, thinking we might be able to show. They are now for sale. We have also an excellent aged imported ram, fit to show in any company, low-down, broad, compact fellow, that will take something better than I know to beat him. We shall be glad to hear from our customers and new, and think we shall be able to please them."

Canada's Greatest Store



Representing Over 15 Acres of Floor Space, with Half a Hundred Different Departments, and Requiring the Services of Over Five Thousand Employees.

Through its Mail Order System it reaches out for a country-wide trade, extending its operations from the Atlantic to the Pacific and embracing every post office in Canada.

Mail Orders Filled Promptly, Accurately, and Money Refunded if Goods and Values are not Perfectly Satisfactory.

Home-owners and householders all over Canada know the money-saving possibilities afforded by our Mail Order, and few fail to take advantage thereof. We supply everything for home and personal use.

FREE CATALOGUES to those who are Interested in Ordering by Mail. MONEY REFUNDED if Orders are not Filled Satisfactorily.

Write to us and get acquainted with our way of doing things. You'll be surprised how serviceable and profitable this store can be to you.

THE T. EATON Co. LIMITED
190 YONGE STREET TORONTO, CANADA

Agricultural College.

- (1) Two Years' Course—Associate Diploma—Sept. 14, '03.
- (2) Three Years' Course—Associate Diploma and Specialist Certificate in Agriculture or Horticulture—Sept. 14, '03.
- (3) Four Years' Course—B. S. A. Degree—Sept. 14, '03.
- (4) Courses in Nature Study and Domestic Science—Sept. 14, '03.
- (5) Three Weeks' Creamery Course—Dec. 1st, '03.
- (6) Three Months' Dairy Course—Jan. 4, '04.

LADIES ADMITTED TO DOMESTIC SCIENCE AND DAIRY COURSES.

Send for General or Special Circulars.

Guelph, July, 1903.

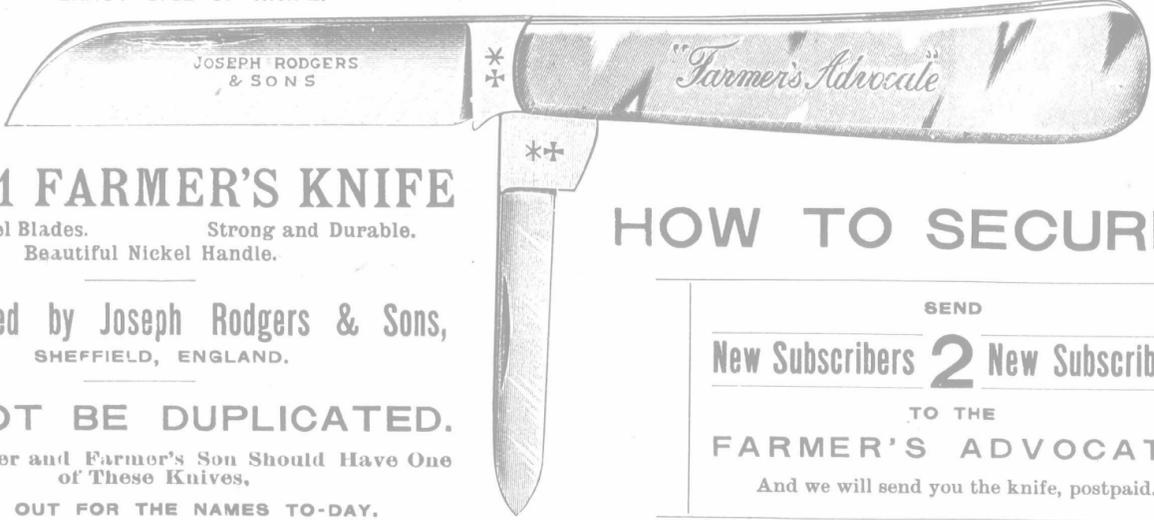
JAMES MILLS, M.A., PRESIDENT.

Mr. W. S. Carpenter, breeder and importer of registered Shropshire sheep, Model Farm, Simcoe, Ont., writes: "The flock is in the pink of condition, and is under the management of Sam. Bradburne as shepherd. All visitors made welcome, and met by appointment. In regard to the demand for Shropshires, I think it is going to be better than for years. This season has opened up lively. Splendid sales have been made by me into the U. S., and at good prices—show flocks to Michigan and rams to Minnesota. Enquiries are numerous, and the prospect is that sheep-breeders are going to share more largely in the general prosperity prevailing."

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

VALUABLE PREMIUMS.

EXACT SIZE OF KNIFE.



AN A 1 FARMER'S KNIFE
 Finest Steel Blades. Strong and Durable.
 Beautiful Nickel Handle.

Manufactured by Joseph Rodgers & Sons,
 SHEFFIELD, ENGLAND.

CANNOT BE DUPLICATED.
 Every Farmer and Farmer's Son Should Have One
 of These Knives.

START OUT FOR THE NAMES TO-DAY.

HOW TO SECURE IT.

SEND
 New Subscribers **2** New Subscribers
 TO THE
FARMER'S ADVOCATE
 And we will send you the knife, postpaid.

Lady's Hand-bag.

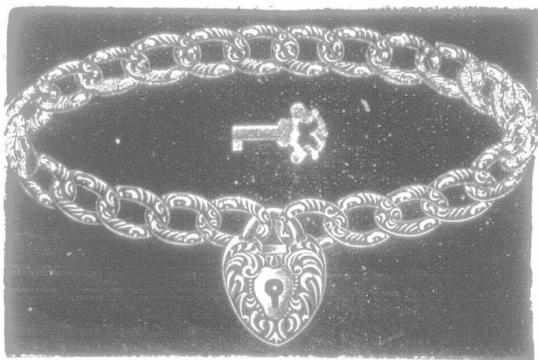


SIZE, 4½ x 7½ inches.

A magnificent Hand-bag, leather-lined, leather handle, nickel-plated clasp, for 3 new subscribers. Cash price, \$1.50.

Handsome Curb-link Bracelet: Silver Filled

For 2 new subscribers. Sterling silver for 3 new subscribers. For each additional new subscriber, two Sterling Silver Friendship Hearts.



Our Self-Binder

HANDY, DURABLE and ATTRACTIVE. Made to contain the 24 issues of the year. We will forward this Binder, postpaid, to anyone sending us the names of TWO NEW SUBSCRIBERS and \$2.00.

THE

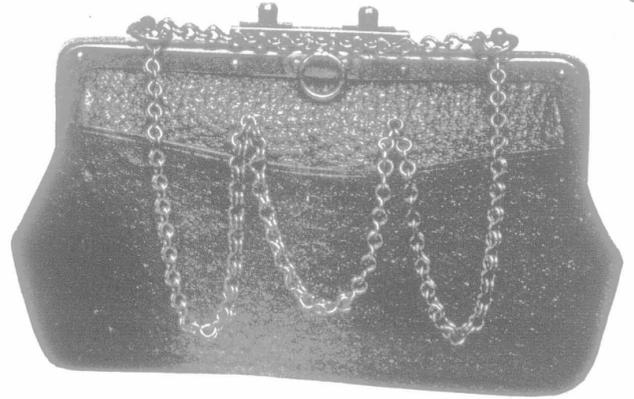
MICROSCOPE



Is a means of great entertainment and instruction in the home and out of doors. To meet the wishes of many subscribers, we have arranged with a first-class firm for a supply of those instruments; which we now offer:

Tripod Microscope, with strong magnifying lens, useful for examining weed and other seeds, insects and other small objects, for obtaining one (1) new subscriber to the FARMER'S ADVOCATE.

Lady's Wrist-bag.



SIZE, 3 x 6 INCHES.

This handsome Wrist-bag, leather-lined, nickel-plated clasp and chain, for 2 new subscribers. Cash price, \$1.00.

BEGIN TO CANVASS AT ONCE

Subscriptions may begin with any month, and include our annual Christmas number. Write for sample copy. CASH MUST ACCOMPANY NEW NAMES. Subscription Price, \$1.00 per Annum.

THE NAME OF SENDER DOES NOT COUNT ON LISTS OF NEW SUBSCRIBERS.

THE WM. WELD COMPANY, LTD., LONDON, ONT.

PREMIUMS

We have again arranged, on most favorable terms, to offer our present subscribers the following premiums—all extra good value and genuine quality for sending new subscriptions to the Farmer's Advocate. SUBSCRIPTION PRICE, \$1.25, from Sept. 1st, 1903, to end of 1904, including all special issues, Christmas Numbers, etc.; payable in advance. Begin at once and earn one or more of the useful and attractive premiums named below. Sample copies will be mailed upon application. It is stated after each premium named the number of new subscribers required to obtain it. Cash to accompany order in every case.



BOY'S WATCH.



LADY'S WATCH.

Gents' Watches.

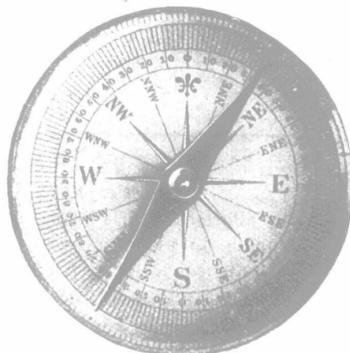
- No. 1.—American nickel, open-face boy's watch, absolutely guaranteed to keep good time and give satisfaction. For 2 new subscribers; selling price, \$1.25.
- No. 2.—Nickel, open face, strong case, with thick glass and genuine American movement, with fancy dial. For 4 new subscribers; selling price \$3.25.
- No. 3.—Genuine Elgin or Waltham seven-jewelled movement in 14-karat, twenty-year guaranteed, gold-filled, open-faced, screw back and bezel case. For 14 new subscribers; selling price, \$10.
- No. 4.—Genuine Elgin or Waltham 15-jewelled movement, same case as No. 3. 30 new subscribers; selling price, \$22.

Ladies' Watches.

- No. 5.—Sterling silver, open face, with genuine American jewelled movement, engraved, plain or engine-turned case, and stem winder. 10 new subscribers; selling price, \$7.50.
- No. 6.—Gold-filled case, guaranteed for 15 years, with genuine American jewelled movement, very finely timed, and stem wind. 15 new subscribers; selling price, \$11.50.
- No. 7.—Lady's regular size, hunting case, 14 karat, gold filled, guaranteed to wear for 25 years, and genuine Elgin jewelled movement, stem wind and stem set. 23 new subscribers; selling price, \$17.

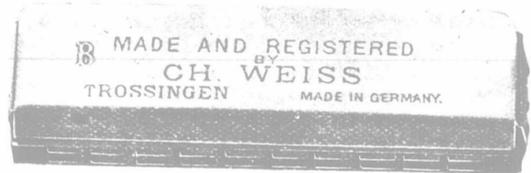


GENT'S WATCH.

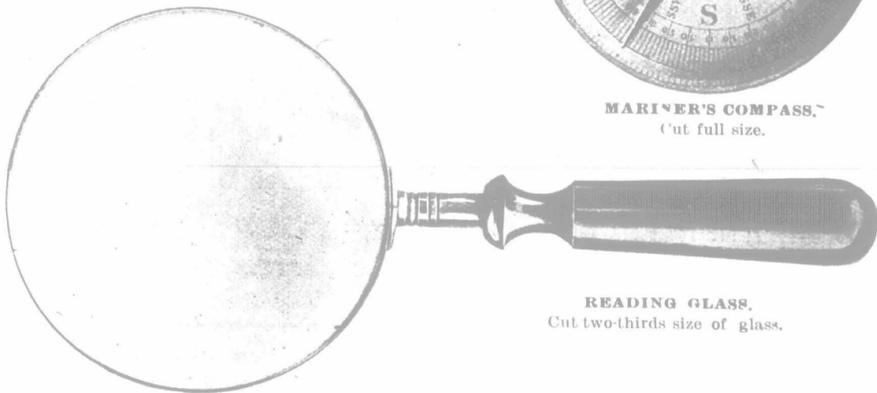


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Cut full size.

The Brass Band Harmonica, finest instrument in the world, extra full tone. For one new subscriber.
Mariner's Compass (two inches in diameter), nickel plated; ring attachment for convenient carrying. One new subscriber.
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THE BRASS BAND HARMONICA.
This cut is two-thirds full size.



READING GLASS.
Cut two-thirds size of glass.

FARM BOOKS.

The farmer's home without an Agricultural Library is lacking in one of the chief aids to pleasure and success. We have gone over the available first-class works on agricultural subjects, and have selected the best. See below for prices and how to obtain them.

SOIL AND CROP.

- A BOOK ON SILAGE.—Woll. 185 pages. \$1.00.
- SOILING, ENSILAGE, AND BARN CONSTRUCTION.—F. S. Peer. 247 pages. \$1.00.
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LIVE STOCK.

- VETERINARY ELEMENTS.—A. G. Hopkins, B. Agr., D. V. M. \$1.50. A practical book for stockmen and agricultural students.
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- PIGS—BREEDS AND MANAGEMENT.—Sanders Spencer. 175 pages. \$1.00.
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- BREEDS AND FEEDING.—Henry. 600 pages. \$2.00.
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- POULTRY CRAFT.—Robinson. \$2.00.
- FARM POULTRY.—Watson. 341 pages. \$1.25.
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- THE HONEYBEE.—Langstroth. 521 pages. \$1.50.

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- FLOWERS AND HOW TO GROW THEM.—Rexford. 175 pages. 50 cents.
- HORTICULTURIST'S RULE BOOK.—Bailey. 312 pages. 75 cents.
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- CARPENTERS AND JOINERS' HANDBOOK. 75 cents.
- AMERICAN FARMER. Briggs. 25 cents.
- TAXIDERMY.—Hastbeck. 50 cents.
- GINSENG.—Kains. 50 cents.

HOW TO OBTAIN THESE BOOKS.—We will furnish present subscribers any of the above books for cash or as premiums to those obtaining new yearly subscribers to the "Farmer's Advocate" according to the following scale:

- Books valued at 50c. and under for 1 new subscriber.
- Books valued over \$1.00 and up to \$1.50 for 3 new subscribers.
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We can furnish any of the above books at the regular retail price, which is given opposite the title of the book. By a careful study of the above list, any farmer can choose a select list of books suited to his needs, and for a small outlay in cash, or effort in obtaining new subscribers for the "Farmer's Advocate," secure the nucleus of a useful library.

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Bell PIANOS ORGANS

The highest type of excellence. Giving pleasure to over ONE HUNDRED THOUSAND PURCHASERS. Those contemplating the purchase of PIANO or ORGAN will find it most profitable to procure one bearing the name BELL: they are "Built to Last a Lifetime."

THE BELLOLIAN Auto-Pneumatic Organ.

A Perfect Self-Player, and is needed by everyone who is unable to play, or by those who have not the time to devote to musical study. Anyone can with this instrument produce for themselves any desired musical composition.

THE BELL Piano Player

will be welcomed as the best, most simple and easily-operated device for playing the piano. A child can use it and produce with almost human accuracy the most difficult musical composition. It also cultivates a taste for the classical music which without much study and expense one could not produce with their own fingers.

THE BELL ORGAN & PIANO CO., LTD.

CHIEF OFFICES AND FACTORIES AT GUELPH, ONT.

Branches at 146 Yonge St., Toronto; 15 Bridge St., Sydney, N. S. W.; 49 Holborn Viaduct, London, E. C., England.

o Catalogue F. sent free.

GOSSIP.

THE BARR COLONY.

The Rev. G. E. Lloyd, who succeeded Rev. Mr. Barr as director of the English colony in the Saskatchewan district, has been in Ottawa to see the Interior Department in order to arrange for the construction of an immigration shed at Lloydminster, which is the name given to the headquarters of the colony, and for the purchase by the colonists of more timber from the Indian reserve to the north of the Saskatchewan River. He will also urge that the colony be connected with the telegraph line to Fort Pitt, running about twelve miles to the north.

"It has not been all sunshine with us," said Mr. Lloyd, interviewed by a Toronto News reporter. "We have met with some trials, and perhaps there are others in store for us. But we have a feeling of confidence in the country, and believe that we shall succeed."

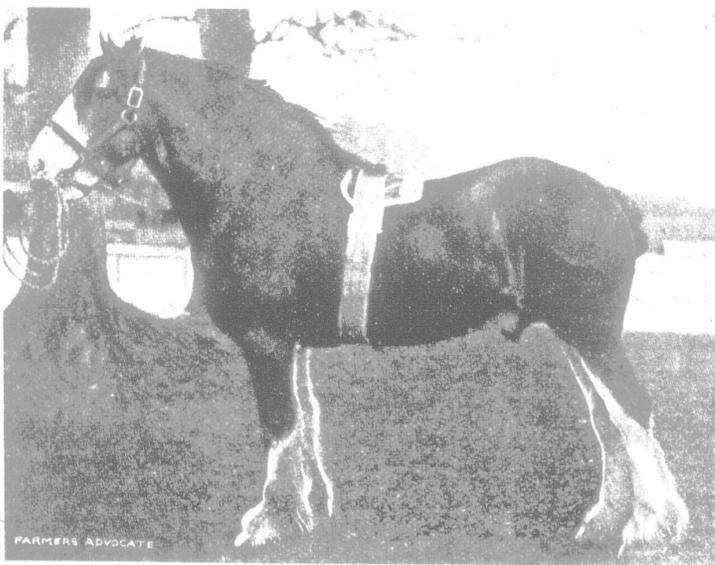
"I desire to correct a misapprehension which I find to be pretty general, and that is that the colony has been broken up and its members scattered all over the country. Such is far from being the case. Over six hundred homesteads have been taken up, and over one thousand English people are settled there, without counting others that have come in. They are located for 30 miles east of our headquarters, 17 miles west, 12 miles north and 22 miles south. Of the remainder of the party that came from England, some are located around Saskatoon and others around Battleford. At intervening points between Winnipeg and our center, between three hundred and four hundred British settlers have located themselves, and from the letters which I have received most of these will join us eventually. In addition, many people from the United Kingdom are coming out to the colony next spring, by which time things will be in such a shape that the newcomers will not experience any hardships."

"Do you think your colony will be a success?"

"I do, most certainly. The prospects are decidedly good. We have a fine belt

IMPORTED GLYDESDALES

10 STALLIONS 10 MARES 10



By such noted sires as Baron's Pride, Prince Thomas, Royal Carriek, Mountain Sentinel, and others. A strong exhibit at Toronto and other fairs. See them.

Smith & Richardson

COLUMBUS, - - - ONTARIO.

of land and plenty of water. The potato crop in the colony is very good, and the flax and the oats sown on the breaking are as good as can be expected. We did not sow any wheat, because we were advised not to do so on the first breaking of the land."

Messrs. Smith & Richardson, Columbus, Ont., importers and breeders of Clydesdale horses, in their new advertisement call attention to their new importation of stallions and fillies. A review of the stallions in this importation appeared in the Gossip columns in the August 15th issue of the "Advocate," and a reference to some of the mares and fillies will be found in another column in this issue. These horses were carefully selected by Mr. Richardson, in Scotland, with a view to the requirements of the times in this country and carry the blood of many of the best sires in the Old Land. Parties looking for this class of stock should note the advertisement and see the stock at the fairs, or write for particulars.

C. P. R. IRRIGATION SCHEME

It is announced from Ottawa that the C. P. R. has selected the last of land granted by the Government in the West. The company has chosen 2,950,000 acres of semi-arid lands along its main line near Calgary. The company, presumably, have good reasons for accepting semi-arid in preference to fertile lands, such as the contract calls for. The cost of irrigating the arid lands has been estimated at \$3.50 per acre, and as over 3,000,000 acres are involved the outlay for rendering the entire tract cultivable will be \$10,500,000. In return for this large expenditure, however, the company will doubtless be able to settle a district of 115 miles in length, and so develop considerable business for their own main line, whereas if they selected land in other parts of the country not traversed by the C. P. R., the result would be to create traffic for competing lines.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

GOSSIP.

Dalgety Bros.' new importation of Clydesdale and Yorkshire Coach stallions has been safely landed, and is claimed to be one of the largest and best consignments they have yet brought out. The Scottish Farmer speaks very highly of them, as will be seen from a clipping from that paper, which will be found in another column. These horses will be on exhibition at Toronto and London shows. See them.

Live-stock show dates at St. Louis next year are: Horses, Aug. 22 to Sept. 3; cattle, Sept. 12 to 24; sheep and swine, Oct. 3 to 15; poultry and dogs, Oct. 24 to Nov. 5. Entries close: horses, July 16; cattle, July 30; sheep and swine, Aug. 20; poultry and dogs, Sept. 10. Except in the class last named, only two animals may be shown in the same section by the same exhibitor. Prizes: horses, 24 classes, \$93,640; cattle, 21 classes, \$64,030; sheep, 18 classes, \$42,809; swine, 9 classes, \$32,186; poultry, \$11,786.

SPRAINS AND LAMENESS.—I have used your Kendall's Spavin Cure on my horses and I find it a good thing for all sprains and lameness, and it is a fine family liniment. Will you kindly send me one of your books, "A Treatise on the Horse and His Diseases." Very truly yours, MELCHIOR JONES. Woodlands, N. B., June 16, 1903.

JOHN BRIGHT'S CLYDESDALE SALE. As advertised on another page, Mr. John Bright, of Myrtle, Ont., having leased his farm, will sell, without reserve, on October 15th, the day following the dispersion sale of his Shorthorn herd, his entire stock of Clydesdale mares, fillies, young stallions and geldings, some ten or a dozen of the mares being in foal to such well-known imported stallions as old imported McQueen, the World's Fair champion and sire of the Toronto Industrial Exhibition champion last year, and imported Lavender, also a Toronto winner. The mares have been bred for size and quality combined, and are just the sort needed to breed big, salable horses with the best quality of bone, as they are of that stamp themselves and have come from that class through their forbears. Among them is the big, broad, smoothly-turned Jess of Columbus, by Sir Walter, with a long list of first prizes to her credit, and standing squarely on a grand set of legs and feet—a model brood mare. Tilly Granger, a low-set, blocky, deep-ribbed six-year-old mare, in foal to McQueen, is a bay by Granger, imported in dam, and sired by the \$3,000 horse, Prince Imperial (imp.). Lady Erskine, a bay three-year-old, by Erskine Style, by Imp. Erskine, dam imported, is of the same type as the last named, and they make a powerful team. A bevy of beautiful two-year-old fillies, in foal to Imp. Lavender, own for their sires such noted horses as England's Heir (imp.), Eastfield Laddie (imp.), a Toronto winner, Sir Erskine (imp.) and Lord Lyndoch (imp.). A charming yearling filly by the last named horse and out of the prize mare, Jess of Columbus, whose dam was by Pride of Perth (imp.), and granddam by Imp. Netherby, will prove a very attractive number on the programme, as she could not well fail to be AI from such breeding. The young stallions are all bays, by Lord Lyndoch, Sir Erskine and Prince Patrick, the champion of the World's Fair at Chicago. There are also a few good young geldings by same sires, and the whole will be sold at the farm, one mile from Myrtle station, C. P. R. and G. T. R., on October 15th, together with the farm implements, sheep, hogs and grade cattle. The grand herd of eighty head of high-class shorthorns will be sold on the fair grounds at Whitby, G. T. R., on October 14th, as announced in the half-page advertisement in this issue, and also in a full review of the main features of the sale, which will be found on another page. Catalogues are now ready for mailing, and will be sent on application.



Healthy Hogs

Hog health can be established and maintained at the highest standard by a moderate use of Dr. Hess Stock Food. The hog like all other animals requires a certain amount of food to keep it in normal condition, called the food of support, and it is the food eaten and assimilated beyond the food of support that yields the increase—the food of production. This is why Dr. Hess Stock Food pays. It improves the digestion and assimilation so that it requires less food of support and a greater quantity goes to produce profit. It conditions a hog as nothing else can; gives a sharp appetite, expels worms and affords the means of rapid and perfect digestion of all food eaten. This result is due to the action of scientific tonics and reconstructives selected by Dr. Hess (M. D., D. V. S.). Feed Dr. Hess Stock Food regularly as directed, disinfect the pens and feeding places with Instant Louse Killer, and we guarantee that your hogs will be free from disease.

Dr. Hess Stock Food

the great hog tonic, is formulated by Dr. Hess (M. D., D. V. S.). If the medical and veterinary schools know of nothing better, it must be good. No professional manufacturer can equal it. A penny's worth feeds eight hogs. It is the only scientific compound for hogs, cattle, horses and sheep sold on a positive written guarantee.

Dr. Hess Stock Book Free

This work was written by Dr. Hess (M. D., D. V. S.) and contains the latest treatment of diseases of stock and poultry known to the veterinary profession. It will be sent postage paid to any address if you write what stock you have (number of head of each kind); state what stock food you have fed, and mention this paper.

Prof. W. S. Goss, Dean of Talladega, Ala., College, says of it: "I think Dr. Hess' book a little gem. I shall keep it near for reference."

Dr. Hess Stock Food is sold on a written guarantee; 100 lbs. for \$7.00; smaller quantities at slight advance. Fed in small dose.

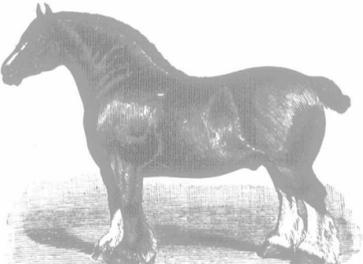
Our Information Bureau.—For any disease or condition for which Dr. Hess Stock Food is not recommended, a little yellow card enclosed in every package entitles you to a letter of advice and a special prescription from Dr. Hess (M. D., D. V. S.). In this manner you are provided with a universal treatment for all stock diseases, either in the stock food itself or in the special prescription to which the little card entitles you.

DR. HESS & CLARK, Ashland, Ohio, U. S. A.

Also Manfs. of Dr. Hess Poultry Pan-a-ce-a and Dr. Hess Healing Powder.

Instant Louse Killer Kills Lice

CLYDESDALE and YORKSHIRE COACH STALLIONS



Mr. Dalgety has just landed with a large consignment of Clydesdale and Yorkshire Coach Stallions, including several prize-winners. These horses will all be on exhibition at Toronto and London shows. Parties requiring a first-class stallion should not miss seeing these horses.

DALGETY BROS., LONDON, ONTARIO, and DUNDEE, SCOTLAND.

Holwell Manor Farm SHROPSHIRE FOR SALE.

Twenty shearing rams; twenty shearing ewes; twenty-five ram lambs; also twenty Cotswold rams, shearlings and lambs. These are animals of choice quality. Prices very low, quality considered. Scotch collie puppies from first class stock.

D. G. GANTON, Elmvale P. O., Ont., Ont.

WINDMILLS



A CANADIAN (Galv'z) AIRMOTOR

Will do more work than any other implement ON THE FARM

Grinding, Straw cutting, Pulping, Pumping, etc.

BEWARE OF NEWFANGLED WINDMILLS

Made largely to sell you.

We make a **GOOD ARTICLE** and stick to it.

Ontario Wind Engine & Pump Co., Limited, TORONTO, ONTARIO.

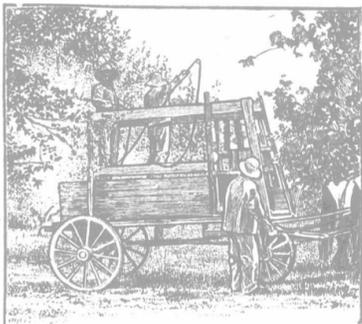
Single judges will officiate in all classes of live stock at the World's Fair, St. Louis, 1904, and the championships will be awarded by the judge who awarded the breed class prizes. Single judging is growing in favor in Great Britain, and a leading Scottish stock paper, in a recent issue, says: "It must come. You get the best men that way."

Several men of affairs were discussing, not long ago, what quality was rarest. One spoke for brains—but all the others disputed him, and he presently admitted that there were plenty of fellows with brains enough and to spare. Another spoke for energy—and all agreed that the capacity to keep hard at it in season and out of season was difficult to find. Then a third suggested judgment—the ability to know what to do and what not to do, when to do, when to refrain from doing. It was admitted, after some argument, that this was rarer. "I have not met half a dozen men in my life," said one who was president of a railroad, "who combined judgment with enthusiasm. I am inclined to think that enthusiasm, intelligent enthusiasm, is the rarest quality."

Last of all a financier whose name is known all over this country spoke up. "I should say that character is the rarest quality," said he. "Not honesty, for everybody is honest according to his lights. But the disposition and courage to do right regardless of consequences and without trying to induce conscience to say that wrong is right or almost right."

After a silence the railway man said, "The world wouldn't move very fast if that quality were less rare than it is."

"It doesn't move very fast," replied the financier, "and that's the whole reason."



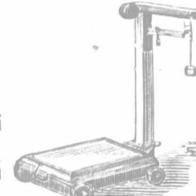
This illustrates the **NEW AUTOMATIC POWER SPRAMOTOR**

referred to on page 787 of this issue. When the Dominion Government uses and gets such results, we think you should take seriously the plan recommended. We will be glad to give you any information desired on request. This outfit differs from all others, as it requires no attention beyond starting the engine—it takes care of itself automatically—whereby one man can do the work of two, and operate up to thirty spraying nozzles at one time. It will pay for itself in one season in the saving in labor alone. Ask for particulars: they will come free.

SPRAMOTOR CO'Y.

Head Office: 68-70 King St., London, Ont. Branch Office: 109 Erie St., Buffalo, N. Y.

Standard Scales



For railroad, hay, live stock, dairy, coal and platform.

For prices and particulars write or call on

GEO. M. FOX, YORK STREET, LONDON, ONT.



Pandora Range

Entirely New. Burns Coal, Coke or Wood.

Has been under construction for more than a year—six months were spent in testing and perfecting the range before it was offered for sale.

Is built on entirely new and modern principles, from entirely new designs—no old patterns were used to hamper the good working qualities of the new features.

Possesses labor and fuel saving devices which are entirely new—triple, triangular grates, enameled steel reservoir and special flue construction, are not used in any other make of range.

The fire-box, hot-air flues, body and oven linings, dampers, etc., are improved over old styles, and all combine to make a perfect baking oven.

Bold, rich carving, extra highly-polished nickeling, heavy leg base and sheet-steel warming closet give the "Pandora" a rich, elegant appearance not seen in old-style ranges.

Sold by all enterprising dealers. Booklet free to any address.

McClary's

London, Toronto, Montreal, Winnipeg, Vancouver; St. John, N. B.

GOSSIP.

At the Oxford (England) Ram Fair, August 7th, one of Mr. Worley's shearing rams realized 60 guineas, Mr. Geo. Adams being the purchaser. The highest price for a ram lamb was 30 guineas, realized by Mr. Reading, Langford, Mr. W. Arkell being the purchaser. Mr. Arkell's 25 lambs from Kempford averaged 6 guineas, the highest price being 12 guineas, given by Mr. Reading.

At the annual auction sale of registered Suffolk sheep at Ipswich, England, last month, 2,000 ewes and 300 rams were disposed of at splendid prices. Eleven breeders secured an average of 10 guineas, or over \$50, each for their ram lambs, Mr. Herbert E. Smith, Walton Grange, leading with the fine average of £23 (\$115) for his consignment of twenty. Over forty ram lambs fetched from 20 to 47 guineas each. The highest price, 95 guineas (\$498), was made for the prizewinning shearing ram, Playford Monarch, contributed by Mr. S. R. Sherwood, and purchased by Mr. J. W. Eagle, Walton-on-the-Naze. Sheep were purchased for about a dozen different counties in England, and some for Scotland, France and South Wales.

LINDEN OXFORDS

A choice lot of rams, different ages, among them a choice imp. aged ram. Yearling ewee, imp. and home-bred. Give us a call or write

R. J. HINE, Dutton, Elgin Co., Ontario, O.

August 24th was a red-letter day for Mr. Savage, of International Food notoriety. First, his Dan Patch got the world's pacing record by going a mile in 1.59. Then, Ethel's Pride won the Kentucky Stock Farm purse for trotting three-year-olds, she being by the one-time trotting champion, Directum 2.05½, also owned by Mr. Savage. The average speed of Joe Patchen (2.01½) and his son Dan Patch (1.59) is 2.00½. It will be a good while before any other sire and one of his get beats this average. Ethel's Pride (2.13½) seems to be the best three-year-old trotter seen in some time, and her sire, Directum (2.05½), still holds the trotting record for four-year-olds.

NEW RUNNING RECORD.

Dick Welles, a horse hitherto regarded as of average ability, stepped out the other day at Harlem, and made a mile in what the official timers declared was 1.37 2-5. Some of the volunteer "clockers" denied it was so fast, but the record stands, and Allan Dale's mile at Washington Park has gone into history as two-fifths of a second slower than the record. Notwithstanding the criticisms of the amateurs, horsemen figure that Welles could run so fast that when he started in the Speculation Stakes at Hawthorne, August 17th, only three nags lined up against him. The distance was one mile, and his impost was 109. The track was slow, and Welles was one to five in the betting. He should have been one to one thousand and five, for he galloped home in 1.49 1-5, with his head pulled around so his saddle girths. He could have run the mile two seconds faster.—Horse Show Monthly

Mr. Robert Miller, Stouffville, Ont., writes: "My importation of 96 sheep, 10 pigs and 7 cattle came by quarantine in good form. Many of the sheep were for leading exhibitors in other breeds, but in the lot are a number of Shropshire rams and ewes that have been at once recognized by leading breeders who have seen them as the best lot they have seen imported. I have two yearling rams, six two-year-old and one three-year-old ram for sale. The latter seven were bred by Mansell, and are the last that will be available. I have thirty-five good home-bred rams and a number of ewes that can be bought worth the money. Having imported one Hampshire ram lamb, one ewe lamb and three field ewes from one of the leading flocks in England for a customer who had changed his mind regarding his requirements, I can sell them at a moderate price.

"In Shorthorns, I have a three-year-old Augusta heifer, of beautiful character, with a grand heifer calf at foot. Both are dark roan, and both are of the kind that makes show-bred animals. Have also a three-year-old Roan Lady heifer with bull calf at foot, both good. Another Roan Lady bull calf from a Princess Royal sire and a great dam makes the lot of cattle imported for myself. The other two are very nice young bulls, for H. J. Davis, Woodstock, Ont. I have some young bulls at home that were bred in Scotland and some head from the best of families that are fit to head good herds and some fit for showing. Have also heifers, imported and home bred, that I will be pleased to show to prospective customers. Am pleased to show my goods, and if there is any sale that is my fault, and not the fault of those wanting to buy."



COURSES BY MAIL

General Agriculture, Farm Crops, Stock Raising, Dairying, Poultry Raising, Household Science, High School Studies, etc., etc.
Educate the boys and girls while they are at home and are working.
Write to-day for free booklet. Good agents wanted.

Canadian Correspondence College
(LIMITED),
40-46 King St., Toronto, Ont.

Western Dairy School,

STRATHROY, ONT.

Maintained by the Ontario Government.
Reopens Dec. 1st, 1903.

Special Creamery Course—Dec. 1st to Dec. 23rd, 1903.

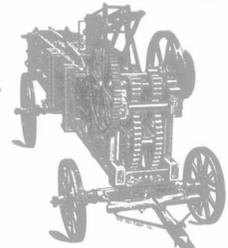
Regular Dairy School Course—Jan. 4th to March 24th, 1904.

Lectures and practical work on all branches of dairying, cheesemaking, buttermaking, separators, milk-testing, farm dairying, domestic science, bacteriology, chemistry, factory bookkeeping and engineering.
School well equipped. Send for circulars and application forms.

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STRATHROY, ONT.

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Ann Arbor, Mich.



One press sold in 1900 has pressed 1,200 carloads and is ready to do it again.

Has a record of 50 tons in 10 hours.

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We have placed several of these presses in Canada during the last year; all giving perfect satisfaction; two customers having bought their second press each. Write for full particulars and prices. Address:

E. J. WIGLE, KINGSVILLE, ONT.
Agent for Canada.

For Sale, Chester White swine of good bacon type, and Shropshire sheep. Write for prices. W. E. WRIGHT, o
Sunny Side Stock Farm, Glanworth P. O., Ont.

Yorkshire boar, 1 year; young boar fit for service; sows in farrow and ready to breed; young pigs, 6 weeks, both sexes; 3-year old Cotswold ram, never beaten in show-ring. C. W. THURSTON, Oak Heights, o

For Sale at a Bargain. In order to make room for lambs, dropped April 1st, sire imported ram, Mansell's No. 8. Price, \$6.50, including certificate and transfer. Also 25 fine Jerseys at reduced prices. H. E. WILLIAMS, o

Sunny Lea Farm, o KNOWLTON, P. Q.

Only The Best. My small but select importation of Shropshires and Shorthorns are just home. Imported and home bred rams and ewes, bulls and heifers of the best quality and breeding for sale at moderate prices. ROBERT MILLER, Stouffville, Ont.

Representative in America of Alfred Mansell & Co., Shrewsbury, England. om

FOR SALE. Imported Cotswold ram, Fitzsimmons 13573, lambed in February, 1896. Bred by Robert Jacobs, Bur or, England, and imported by G. T. Garbutt. He is a sire lamb-getter and was winner of two first prizes at Toronto Exhibition. Also a number of bred ewes and lambs, and Shorthorn calves sired by Imported Diamond Jubilee, 28861. FITZGERALD BROS., Mount St. Louis, cm
E'mvale Station, G. T. R.

Shorthorn Cattle

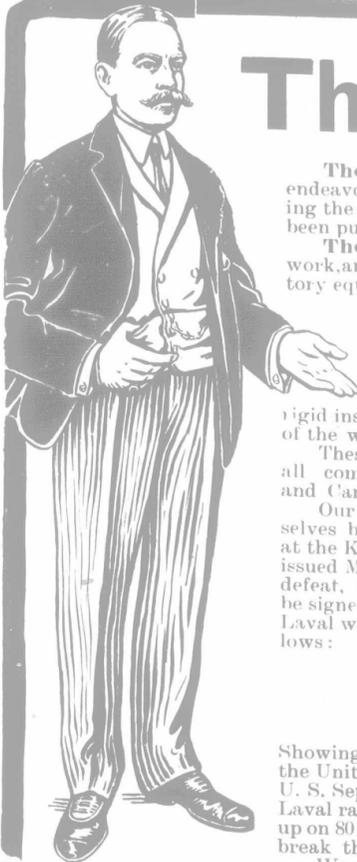
Large English Berkshire and Imported Chester White Swine.

Choice young stock of each breed for sale in pairs and skin. Write for what you want.

TILMAN E. BOWMAN, Berlin, Ont. o

WHAT THE MEN WHO MAKE IT SAY ABOUT

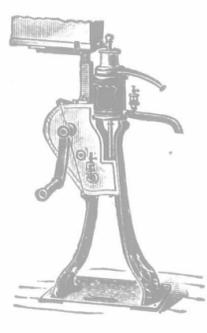
The U. S. Separator.

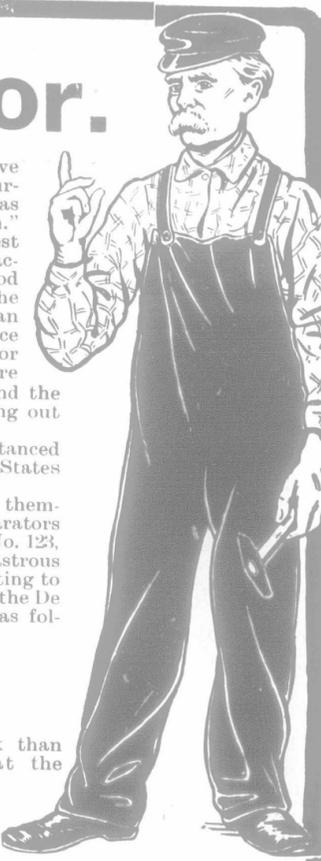


The Manufacturer—"From the time we put the U. S. Separator on the market we have endeavored to make it the best possible machine of its kind. No effort has been spared in securing the best material. The particular grade of steel or iron that will best serve the purpose has been purchased. Only the best mechanics are employed, with the latest machinery to help them."

The Mechanic—"Every man who is a true man takes pleasure in turning out good, honest work, and every mechanic in the works has reason to be proud of the U. S. Separator. The factory equipment is the best that money can buy, and the company frequently throw out good machinery to replace it by work quicker and better. This is one reason why they can afford to use the best material and still compete in price. Every part of the U. S. Separator is made to scale and is in as fine a set of workmen as rigid inspection of every part insures of the workshops."

These are only a few of the reasons all competitors. There are many and Canada who can give you other Our "would-be competitors," the selves badly beaten in the six weeks' at the Kansas Agricultural College, as issued May 26, 1903, in their efforts to defeat, have compiled a bulletin of be signed by several students, in which Laval was not terribly beaten, as the lows:





why the U. S. Separator has distanced thousands farmers in the United States reasons. De Laval Separator Co., finding them- tests of different makes of separators shown by the official bulletin No. 123, break the force of such a disastrous their own "getting up," purporting to they try to make it appear that the De official bulletin shows it was, as fol-

| | |
|---|------|
| Average test of skim milk of De Laval Separator | .048 |
| Average test of skim milk of U. S. Separator | .033 |
| U. S. excels De Laval | .015 |

Showing that the De Laval Separator left 45 per cent. more butter-fat in the skimmed milk than the United States. Again in this "gotten up" bulletin, our "would-be competitors" state that the U. S. Separator "choked up" on 39 lbs. of milk at 79 degrees of temperature and that the De Laval ran 80 lbs. Every dairymen using a U. S. Separator knows that the U. S. will not choke up on 80 lbs. of good milk at 70 degrees, and that such statements are made in an attempt to break the rapidly gaining popularity of the U. S. Separator.

We make the following proposition to any dairymen wishing to buy a separator, viz.: We will put a U. S. Separator into his dairy and agree that it will not "choke up" on 80 lbs. or twice 80 lbs. of milk in good condition at 70 degrees, provided he will pay for the separator if it does not "choke up." The best authorities do not advocate separating at 70 degrees, but if dairymen prefer to, the U. S. will do it when properly adjusted. The U. S. Separator skims cleaner than any other separator on any market at any temperature from 70 degrees to 156 degrees at proper adjustment. The official bulletin, No. 123, of Kansas Agricultural College, dated May 26, 1903, states that the U. S. excelled all others in the tests of skimmed milk and in minimum total loss.

For Manitoba and the West we transfer our Separators from Chicago and Minneapolis, and for the Eastern Provinces from Quebec, Sherbrooke, Montreal and Hamilton. Write for catalogue to

VERMONT FARM MACHINE COMPANY, BELLOWS FALLS, VERMONT, U. S. A.

DOES BUSINESS EDUCATION PAY?

"Does it pay to take a skin-and-bone steer and feed him on corn until he's just a solid hunk of porterhouse steak? You bet it pays." So does Business Education pay, and the best place in Canada to acquire a thorough business training at a small expense is at the

CENTRAL BUSINESS COLLEGE

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A fine school, with twelve experienced teachers. Splendid equipment, including over 100 typewriting machines, and giving the most complete courses in ACCOUNTS, TELEGRAPHY, SHORTHAND, TYPE-WRITING and all Commercial Subjects.

Fall Session from Sept. 1st.

Write for new Catalogue the finest yet issued. Address:—

W. H. SHAW, PRINCIPAL,
Yonge and Gerrard Sts., Toronto, Ont.

TRADE TOPIC.

THE FROST & WOOD PLANT.—A few days ago, through the courtesy of Mr. C. H. Frost, Advt. Mgr. of Frost & Wood's big industries, a "Farmer's Advocate" representative was treated to an insight into the firm's manufacturing methods at the immense Smith's Falls plant. That they are perfection in every detail is the first, last and only impression. Not a particle of dust or the fraction of a shaving ever hampers the efforts of the 500 employees, for a 35-horse-power exhaustor draws all the metal and emery refuse out to the yards, and the wood wastes to an enormous centrifugal machine, which in turn feeds the combustible material into a specially constructed furnace, and deposits the rest in a building prepared for dirt. The steam-heating is after the most approved methods, and the lighting so admirable that a dark corner is an unknown quantity. These and other excellent arrangements make the sanitary qualifications of the great factory par excellence. The company's fireproof pattern-house is replete in every detail, so that duplicates of any part manufactured for many years back may be readily secured. One cannot help marvelling at the absolutely accurate systems of testing and adjusting used to give Frost & Wood machines the splendid running order for which they are famous. Next year, the moulding shops will be largely increased, and additions made to several other departments. In a new stone-trimmed, oak-fitted building, the staff possesses every possible convenience for the transaction of business. Coming to it, going through it, and in leaving it, there is the single conviction that progress is the keynote of this whole institution.

SEND FOR Illustrated PRICE LIST.




Threshers' Supplies,
Belting, etc., at Wholesale Prices.
BICYCLES ONLY \$10

We are again handling second-hand wheels this year. During last year we sold more second-hand wheels than ever before. We sent them to all parts of the Dominion. They are nearly as good as new; with a little touching up it would be a difficult matter to tell them from new ones. The fact of the matter, they are actually worth \$20, but as we do only a cash business and make a great many sales, we sell it at a very low figure. With each wheel we send a tool bag and a full kit of tools. And remember, every wheel is fully guaranteed. Order early and you will get a better choice. Only **\$10**

WILKINS & CO., 166-168 King St. East, on TORONTO, ONT.

GOSSIP.

NEW IMPORTATION OF OXFORD DOWNS.

Mr. Henry Arkell, of Arkell, Ont., writes: "We have just received a fine importation of fourteen Oxford Downs, among them a number of Royal winners, selected by Mr. R. Miller, of Stouffville, Ont. We intend to exhibit this fall. Our flock will be represented at Toronto, Syracuse, London and Ottawa, where we shall be pleased to see customers and anyone interested in Oxford Down sheep. Besides the imported ones, we have a grand lot of our own breeding. We will have for sale imported and home-bred of both sexes, yearlings, two-year-olds and lambs. Prices moderate. Our flock has not been exhibited since World's Fair, Chicago, 1893."

For Catalogue of

Canada's Greatest School

of *Business and Shorthand Training,*

Wife *D. McLachlan & Co.,*

Canada Business College,

Chatham, Ont.

This institution was established in 1876. It has placed more of its students in the front rank of America's best penmen than any other business school on the continent. We have placed more of our students as teachers in other business colleges, commercial schools and collegiate institutes than all other Canadian business schools combined. We can send list showing where they are placed. Three hundred and forty-five of our students secured good positions during the 11 months ending May 31st, 1903. We can send you the list showing where they were placed. We allow railway fare up to \$8 to students from a distance. College reopened for the fall term on Tue-day, Sept. 1. Write for catalogue if you are interested in our work. **D. McLachlan & Co., Chatham, Ont.**

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50 Years**YE OLDE FIRM OF
HEINTZMAN & CO., Limited**Established
50 Years

**Great Sale of
USED
ORGANS**

**A Fraction of Manufacturers' Prices.
On Easiest of Terms.**

We call them used organs because they have been in use to some extent, but they are practically as good as new. Every one has been overhauled by a clever expert before being offered for sale.

The particular twenty organs described in the list below are the choice of several hundred organs taken in exchange by us when selling our own pianos. We have not room to store them, and a quick turnover is made by marking them down at a mere fraction of the price you would pay the manufacturer. Just study the list :

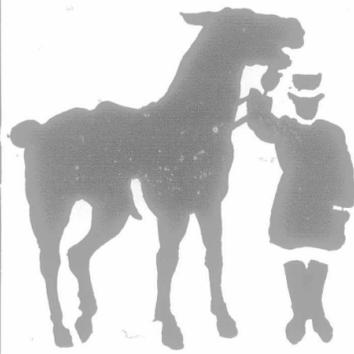
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| <p>(1) Dominion Organ, low back, 5 octaves, 6 stops, three sets of reeds and knee swell. Special price \$25.</p> <p>(2) Estey Organ, low back, 5 octaves, 6 stops, four sets of reeds and knee swell. Special price \$27.</p> <p>(3) Canada Organ, low back, 5 octaves, 7 stops, 5 sets of reeds and knee swell. Special price \$29.</p> <p>(4) Poloubet & Pelton Organ, low back, 5 octaves, 10 stops, five sets of reeds and sub-base set, also knee swell. Special \$32.</p> <p>(5) Bell Organ, high back, 9 stops, 5 octaves, four sets of reeds, grand organ and knee swell. Special price \$33.</p> <p>(6) Doherty Organ, high back, 5 octaves, treble and base couplers, grand organ and knee swell. Special \$37.</p> <p>(7) Dominion Organ, high back, 5 octaves, 8 stops, octave coupler, four sets of reeds, grand organ and knee swell. Special \$39.</p> <p>(8) Dominion Organ, high back, 5 octaves, 9 stops, four sets of reeds and sub-base set; octave coupler, grand organ and knee swell. Special price \$41.</p> <p>(9) Thomas Organ, high back, 5 octaves, 9 stops, four sets of reeds, treble and base couplers, grand organ and knee swell. Special \$43.</p> <p>(10) Dominion Organ, high back, 5 octaves, four sets of reeds, 12 stops, treble and base couplers, grand organ and knee swell, also mouse-proof pedals. Special price \$45.</p> <p>(11) Karn Organ, high back with mirror, 5 octaves, 11 stops, four sets of reeds, treble and base couplers, grand organ and knee swell. Special \$47.</p> <p>(12) Dominion Organ, chapel case, 5 octaves, 9 stops, three sets of reeds, treble and base couplers, grand organ and knee swell. This organ has rail top and mouse-proof pedals. Special \$49.</p> | <p>(13) Thomas Organ, high back, 5 octaves, 11 stops, four sets of reeds and sub-base set, treble and base couplers, grand organ and knee swell. An exceptionally fine bargain, \$51.</p> <p>(14) Karn Organ, chapel case, 5 octaves, 13 stops, five sets of reeds and sub-base set, treble and base couplers, grand organ and knee swell, mouse-proof pedals, etc. This organ is practically new. Special price \$53. (Suitable for Sunday school or small church.)</p> <p>(15) Mason & Hamlin Organ, high back, 5 octaves, 9 stops, four sets of reeds, grand organ and knee swell. Special price \$55.</p> <p>(16) Mason & Hamlin Organ, high back with mirror, 5 octaves, four sets of reeds, 6 stops and voxhumana stop, also knee swell. This organ is made by one of the best makers in the United States. Special \$57.</p> <p>(17) Uxbridge Organ, high back, 6 octaves, 12 stops, five sets of reeds, treble and base coupler, grand organ and knee swell. A good bargain at \$59.</p> <p>(18) Dominion Organ, high back with extension and nicely panelled case, 6 octaves, 12 stops, seven sets of reeds, grand organ and knee swell. A beautiful parlor organ. Special \$61.</p> <p>(19) Thomas Organ, walnut piano case with rail top, 6 octaves, 12 stops, four sets of reeds, treble and base couplers, grand organ and knee swell, mouse-proof pedals, etc. Special at \$65.</p> <p>(20) Uxbridge Organ, very handsome, walnut case, 6 octaves, 12 stops, five sets of reeds, treble and base couplers, grand organ and knee swell, mouse-proof pedals, etc. Latest design and practically new, \$67.</p> |
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Terms of Payment

We guarantee every instrument just as described or it may be returned at our expense and money paid will be refunded. Organs under \$50, \$4 cash and \$3 a month; over \$50, \$8 cash and \$4 a month. Discount of 10 per cent. off for cash. Freight paid to any point in Ontario and satisfactory arrangements made to other provinces. If monthly arrangements are not convenient, quarterly or half yearly payments can be arranged to suit. During a business record of fifty years we have never been known to violate a single promise made.

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GOOD HORSESHOE PADS



Horseshoe pads were designed to save the horse's hoofs—to make him capable of hard work without fatigue or soreness.

**DUNLOP
HORSESHOE
PADS**

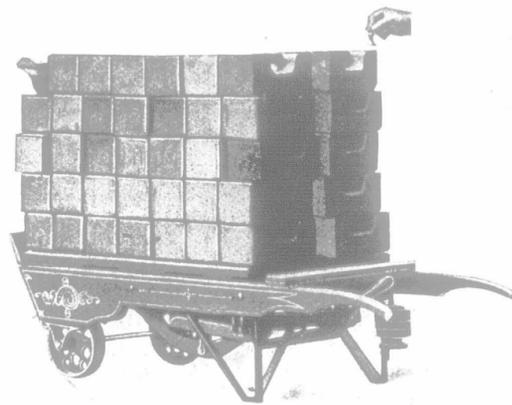
are built to wear. They absolutely prevent concussion, slipping, sore or strained tendons. Will give value and life to your horse.

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Patented May 5th, 1903.

**CAPACITY
2,000 LBS.**

Loaded with a ton of iron as you see it, 4 lb. will raise the beam.

**HANDY AS A
WHEELBARROW.**

Accurate, and will remain accurate, because it has diamond steel pivot bearings, and a very simple drop lever action, and levers made of solid castings.

Send for Prices
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THE M. CAMPBELL FANNING MILL COMPANY
OF CHATHAM, LIMITED.

SUPERIOR

MATERIAL, DESIGN, WORKMANSHIP
IN ALL

WAGONS

MADE BY

**THE MILNER
PETROLIA WAGON CO., LIMITED**
PETROLIA



The Season of Blanket Washing

calls for good Washboards.
Economical Housewives

INSIST UPON

being supplied with

CANE'S

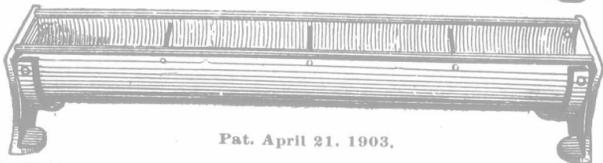
"GLOBE" WASHBOARDS

because they have improved tops which make them much handier; because they are more durable, easier to wash with than others, and no higher in price.

SOLD BY ALL DEALERS AT POPULAR PRICES.

Ask for Cane's Newmarket Woodenware.

Patent Steel Hog Troughs



Pat. April 21, 1903.

HERE is a trough we are placing on the Canadian market which fills a long-felt want. A trough that hogs cannot destroy. We claim it is hog-proof, whey-proof, frost-proof, water-proof; in fact, practically indestructible. We also manufacture water troughs to hold 15 gals. to the ft., on the same principle. These troughs are honestly made and fully warranted. If you are not pleased with them, just return them and get your money back. See our Trough Exhibit at the Toronto Exhibition, in the implement building.

Hog Troughs—4 ft., 5 ft., 6 ft., 7½ ft., 8 ft., 9 ft., 10 ft.—65c. per ft.

SPECIAL PRICES AND TERMS TO AGENTS.

AGENTS WANTED EVERYWHERE. If your implement agent does not keep them, write us direct.

WILBER GORDON, TWEED, ONT.



**CORN STOVER
SHREDDED BY
THE McCORMICK**

IS

BETTER THAN HAY

THERE are many instances where corn stover has been scientifically tested and found to actually contain more nutriment than timothy hay. Stock relish the corn stover; then why not save this part of your crop, and feed your cattle; and, if need be, sell your hay.

H. R. THURBER, Toronto, Ont. A. B. CLANCY, Montreal, Que.
General Agents for McCORMICK MACHINES.

GOSSIP.

A situation is wanted on a farm by a young English farmer, married and with a small family. Note the advertisement of this, and write Mr. Thos. Southworth, Parliament Buildings, Toronto, for particulars, mentioning the "Farmer's Advocate."

WORLD'S FAIR PRIZE LIST.

The preliminary prize list, classifications and rules and regulations governing the St. Louis World's Fair live-stock show in 1904 have been received from Chief F. D. Coburn. They constitute an artistically-made book of nearly 200 pages, and cover the divisions for horses, asses and mules, cattle, sheep and goats, swine, poultry and pigeons.

The Exposition will provide ample accommodations for complete exhibits of the useful recognized breeds of domestic animals and fowls, and without charge for entries, stalls or pens in any division. The classifications of awards for each division are comprehensive, and the prizes offered for the various exhibits in the Department of Live Stock are on a scale of unprecedented liberality, the total amounting to over \$250,000, including, unless otherwise indicated, a first, second, third, fourth and fifth award, payable in cash; also, diplomas or certificates of 'high commendation' and 'commendation.' The amount set aside for horses in all is \$93,640, and that for business horses and mules aggregates \$7,165.

Twenty-one classes are given to cattle and the cow demonstration. The total cash awards in these classes are \$64,030. Shorthorn, Hereford, Aberdeen-Angus and Galloway cattle are each given \$5,980, with other breeds in proportion, the prizes ranging from \$75 for first to \$30 for fifth, with \$100 senior and \$75 junior championships in both male and female sections, and \$200 grand championships for best bull and best females in each breed. Also, five prizes for graded herd, running from \$125 to \$55, and for young herd, under two years, running from \$75 to \$40. For graded herd, bred by exhibitor, there is a special prize of \$300, and for get of sire and produce of cow, five prizes, running from \$75 to \$40.

Sheep have fifteen classes, and goats three, with a total cash allotment of \$42,809. The sum of \$32,186 has been set aside for swine awards, which are arranged in nine classes. Berkshire, Poland-China and other breeds of the same standing are given \$5,110 each. The lowest sum for any class is \$488. Cash prizes for poultry make a total of \$11,786.

The intent of its management is to make the Universal Exposition of 1904 worthy in every department, marking the progress and uplift of the world as exemplified by exhibition of the finest types produced in this twentieth century, and the work of the Department of Live Stock is being done for the attainment of such results. The prize list will repay careful study, and copies may be obtained from F. D. Coburn, Chief, World's Fair Grounds, St. Louis, U. S. A.

Water Basins



Eight talks on the "Woodward" TALK ONE. It costs a trifle more than the ordinary common basin. A good article always is just a little higher. But it is cheaper after all. It pays to try it. Why?

IT WILL SAVE YOU DOLLARS!

Write us.
Ontario Wind Engine & Pump Co
TORONTO. Limited.

We make a specialty of

FINE HAND-MADE

DRIVING HARNESS.

Our prices put high-grade harness within the reach of every horse-owner.

MONEY SAVED IS MONEY MADE

And why should we not save you money on your harness? Every harness guaranteed; shipped anywhere for examination.

SEND FOR CATALOGUE.

MacGregor Bros.,
HIGHGATE, ONT.

Barred Rocks Exclusively.

Stock for sale: 1 good year-old male bird of Bradley Bros.' strain, and a number of good breeding hens of Hawkins' strain, to dispose of. Write for prices.

A. E. SHERRINGTON, Walkerton, Ont.
THE ONTARIO VETERINARY COLLEGE
(LIMITED),

TEMPERANCE ST., TORONTO, CANADA

Affiliated with the University of Toronto.
Patrons: Governor-General of Canada, and Lieut.-Governor of Ontario. Fee \$65.00 per session. Apply to ANDREW SMITH, F.R.C.V.S., Principal. 18-2-y-om

CLAYFIELD STOCK FARM

Clydesdale Mares and Fillies of prizewinning stock now for sale.

Shorthorns—Bulls and Heifers. Imp. Trout Creek Guard at head of herd.

Cotswolds—A choice lot of imp. and home-bred rams and ewes now for sale.

J. C. ROSS, PROP.

Box 61, JARVIS, ONT.

CLYDESDALES FOR SALE

New importation just arrived:

25
STALLIONS

OF
Choice Breeding,
Excellent Quality and
Extra Large Size.

Stock has been personally selected. Inspection is solicited and prices will be found right.

O. SORBY, GUELPH, ONT.

CLYDESDALE STALLIONS.

I am now offering the quality stallion, Highland Harry 2545, by MacInnis (imp.), a perfect model; and the stallion, MacInnis 2nd, by same sire. Also Ayrshire bull, Glenclair's Prince 13566. Write at once, to DONALD CUMMING, Lancaster P. O. and Station.



DEATH TO HEAVES guaranteed
Newton Remedy Co., Toledo, Ohio.
Your druggist has it or can get it from any wholesale druggist.

Newton's Heave, Cough, Distemper and Indigestion cure.
A veterinary specific for wind, throat and stomach troubles. Strong recommendations. Price \$1.00 per can, mail or express paid.
Dehorned Cattle rest easy and show better milk and beef results. The job is quickly done with the
KEYSTONE DEHORNER.
Cuts four sides at once. Leaves it smooth and clean cut, no breaking or crushing of horn. More widely used than all others. Fully guaranteed.
R. A. McKENNA, V.S. PICTON, Ont.

Always on the right side of a question of time—the **ELGIN WATCH**



Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. "Timemakers and Timekeepers," an illustrated history of the watch, sent free upon request to **ELGIN NATIONAL WATCH CO., ELGIN, ILLINOIS.**

GOSSIP.

Mr. J. C. Ross, Jarvis, Ont., importer and breeder of Cotswold sheep, writes: "My flock are in fine shape and in good, thrifty condition. With the addition of my new importation this summer, I think they are second to none in Canada for quality and high standard of breeding. As most of my shearlings and lambs are sired by that noted prizewinning ram, Garne 2nd, who is noted for his fine lustrous wool and fleshing quality, and, best of all, is a grand sire, as his stock has proven to be, he is now for sale. My new importation are a fine lot, specially selected for quality of mutton and wool. I think the shearlings and lambs are the best I have seen imported into Canada for some time. Would say that my shearing ewe that won the sweepstakes at London is developing finely. Will make an exhibit at Toronto and London."

Mr. Hudson Usher, Queenston, Ont., breeder of high-class Shorthorns, writes: "I have recently sold to my neighbor Mr. E. D. Lowrey, President of Queenston Quarry Co., the bull calf, Queenston Montallis, got by Lord Montallis, by Collynie Archer (imp.), a bull I sold last year to Darling Bros., of Ohio, and now at the head of their show herd. This calf is a red-roan, deep and thick, a good handler, and will make a strong, masculine bull. He has for dam Bessie's Maid, of the Kinellar Bessie family, bred by John Miller & Sons, of Brougham, from imported stock straight. In this pedigree, it is not necessary to go into ancient history to find the good ones—the best Cruickshank bulls from the top downward. This bull should prove a good one, and I am well pleased that he remains in the neighborhood. To Mr. T. E. Miller, of Bridgeburg, I have sold a yearling bull by Lord Gloster =26995=, dam by Crimson Chief, by Indian Chief. As Mr. Miller wishes to develop the milking qualities of his herd, I favored the selection of this bull, as his dam is of the full-filling sort. Mr. Lorin Swayze, of Thorold, took a big red cow, River Daisy 3rd, by Golden Hero =22511=. This cow's pedigree shows several Booth crosses, and as she has proved a regular breeder, is a good one to start with. Have just shipped to Messrs. Bell Bros., Bradford, an eight-months-old bull calf, Queenston Archer, got by the herd bull, Derby (imp.) =32059=, and out of Veronica (imp.) =38282=, by the show bull and sire of show bulls, Mr. Kelly's \$6,000 Brave Archer =59915=, sire of Royal Archer, winner of first and championship at the late Highland Society's show, and of Mr. Deane Wilton's former champion, C. I. V. Veronica is of some family as the great champion, Chance Crocks, Messrs. Bell have shown considerable judgment in securing this youngster, as he is, individually, a good one, and is backed by the breeding of a bull in the Shorthorn horns in the best of the breed. In bull calves, he is only second to the one by Derby. This calf is a fine specimen of a '02 calf, is a good specimen of the breed, and has made several good points. He is a nice young bull, and is a good specimen of Niagara University. As a sire, he has been excellent in the past, and his cattle in this view are doing remarkably well."

John Gardhouse, Highfield P. O., Ont.

Breeder of **SHIRES, SHORTHORNS and LEICESTERS**. Young stock for sale, both sexes. Scotch and Scotch-topped Shorthorns of such noted families as Imp. Rollas, Clarets, Lovelys, Rosebuds, Blossoms, Circes, Roses, and other noted families. The Imp. Lancaster bull, Prince Louis =32082= (77486), heads the herd. Farm 3 1/2 miles from Weston station, G.T.R. and C.P.R., and 14 miles north-west of Toronto.

CLYDESDALE MARES

Registered mares, from three years old and upwards, for sale.

NELSON WAGG.

Claremont station, C. P. R., 2 miles. Stouffville station, G. T. R., 4 1/2 miles.

TRADE TOPICS.

THE DUNDAS AXE WORKS, whose advt. appears in another column, have been making axes for over sixty years, and have always held a high reputation for quality. They are now using the "Farmer's Advocate" to reach the consumer, feeling satisfied that every farmer that buys a Dundas axe will tell his neighbor about it. They claim to use the best steel that can be procured, specially made for axes, and employ workmen of many years' experience. The manager, Mr. Bertram, carefully inspects all axes, and will give his personal attention to any orders sent by those who cannot obtain the Dundas axes from local dealers.

CLYDESDALE STUBBOOK.—Volume 25 of the Clydesdale Studbook of Great Britain, of which Mr. Arch. McNeillage, Glasgow, is editor, has, through his courtesy, been received at this office, for which our best thanks are tendered. The volume contains 527 pages, and the pedigrees of mares from No. 14908 to 15351 and stallions numbered from 11580 to 11985, besides a long list of births of foals, with their sire and dam, a list of members of the society, and of transfers and dates of exportation. The reported exported horses for 1902 was 266, as against 167 in 1901. Of the total, Canada, in 1902, alone took 166, the United States 58, Russia 12, and Italy 10. The volume is creditably compiled and edited.

Shropshire sheep and Jersey cattle are advertised for sale by H. E. Williams, Knowlton, Quebec, in this issue of the "Farmer's Advocate." Parties interested will do well to write him for prices and particulars.

IMPORTANT CONSIGNMENT Shire Stallions and Mares.



The property of **S. GEORGE MACKANESS** Abington Lodge, Weston Favell, Northampton, England, will be sold at auction at

"THE REPOSITORY," Cor. Simcoe and Nelson Sts., TORONTO, ONT. **WEDNESDAY, Oct. 7th, at 1.30 p.m.**

Every animal in this consignment is young, sound, of good weight and quality and good action. Several are prizewinners, and all are registered in the Shire Horse Studbook. Catalogue can be had on application. **WALTER HARLAND SMITH, Auctioneer.**

IMPORTED CLYDESDALES

Second importation since April just landed. Eight stallions, 1 mare. Stallions aged 2 to 4 years. Got by the noted sires, Baron's Pride, Prince Thomas, Lothian's Best, Ascot, etc. Possessing style, size, quality and action.

MY MOTTO—Quick Sales and Small Profits Intending purchasers will do well to see my importation, or write me for particulars, before purchasing.

T. H. HASSARD, MILLBROOK, ONT. Telegraph and telephone and G. T. R. Station, Millbrook, Cavanville, C.P.R., 4 miles.

THE KINDERGARTEN STUD FARM, GUELPH **JAMES HURLEY, Proprietor.** Breeder of Thoroughbred horses from noted sires and dams. All classes of horses for sale.

FOR SALE. Seven Imported Clydesdale Fillies,

2 year-olds, sired by the prizewinning stallions, Ascot Corner, Handsome Prince, William the Conqueror, etc. All have been bred to stallions. For further particulars address: **PATTERSON BROS., Millbrook, Ont.** Millbrook on G. T. R. Cavanville, C. P. R.

BAWDEN & McDONELL

Exeter, Ont. IMPORTERS OF **Clydesdale, Shire and Hackney Horses**

have left for the Old Country to select their annual importation of high-class horses. The consignment will arrive about September 1st. Be ready to inspect them.

New Book on how to prevent and cure diseases of horses and cattle, to know sound horses, age, constitution, valuable recipes, etc., prepared especially for farmers, from facts gathered in 20 years' practice, by S. S. Dickinson. (Out shortly.) Advice by mail, \$1. **Address S. S. Dickinson, Port Hope, Ont.**

DR. PAGE'S ENGLISH SPAVIN CURE

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by **DR. FREDRICK A. PAGE & SON, 7 AND 9 YORKSHIRE ROAD, LONDON, E.C.** Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., DRUGGISTS, 171 KING STREET, EAST, TORONTO, ONT.

Joseph Rodgers & Sons Limited, SHEFFIELD, ENGLAND. Please see that this EXACT MARK is on each blade. **JAMES HUTTON & CO., MONTREAL, SOLE AGENTS IN CANADA**

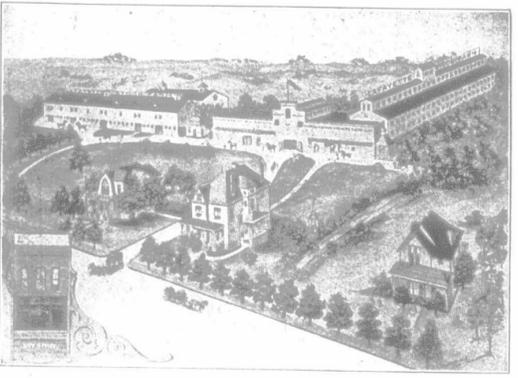


Poultry and Eggs Wanted

Empty crates forwarded upon application. Highest prices paid. Payments weekly by express order. Correspondence solicited.

TORONTO POULTRY & PRODUCE CO., 470 YONGE ST., TORONTO.

LA FAYETTE STOCK FARM, J. Crouch & Son, Props. Importers of all breeds of **STALLIONS.** We are the largest Importers and Breeders of Oldenburg German Coach horses in America. We also import Draft horses of all kinds, including Belgians, Clydesdales, English Shires, and Normans. 359 head of Coach and Draft stallions imported in last 15 months. **La Fayette, Ind., U.S.A.** Terms easy. All stock guaranteed.



ALEX. GALBRAITH & SON, WANESVILLE, WIS., BRANDON, MAN. **STALLIONS** left that they offer at a special bargain. New importation of prizewinners of the various breeds will arrive in August. Existing orders executed on commission.

TRUMAN'S PIONEER STUD FARM



BUSHNELL, ILL., U. S. A.

Has for 25 YEARS been headquarters for the CHOICEST

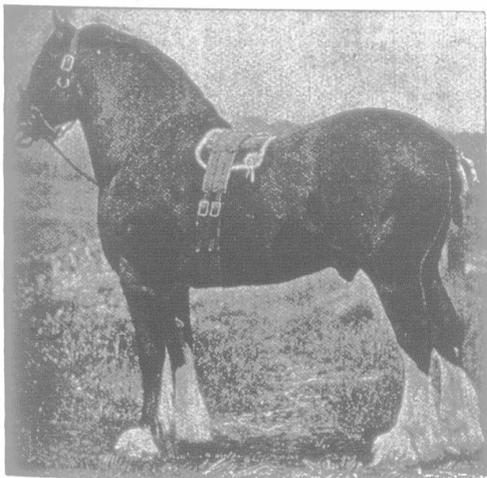
SHIRE, PERCHERON, SUFFOLK AND HACKNEY STALLIONS.

SEVENTH importation for 1903 arrived April 10th. Our importation of exclusively SHOW STALLIONS will arrive Aug. 1st.

20 to 30 Good Practical Salesmen Wanted.

Best lot of draft stallions in the United States or Canada. Notwithstanding the superior quality of our horses, it is a fact that our prices are lower than can be obtained elsewhere in America. If there is no first-class stallion in your neighborhood, please write us. For our 24th annual catalogue, etc., address—

J. G. TRUMAN, Mgr., Bushnell, Illinois, U. S. A.



ROBERT BEITH, BOWMANVILLE, ONT., IMPORTER AND BREEDER OF

Clydesdale AND Hackney Horses

Is offering for sale a number of choicely-bred Clydesdales and Hackney stallions; also a number of Hackney mares. The Clydesdales are sired by the noted horses, Prince of Albion, King of the Roses, Lord Stewart and The Prior.

IMPORTED CLYDESDALES

Another consignment of first-class imported Clydesdale stallions just arrived from Scotland. Personally selected. All in good health and splendid condition. These horses are all from noted sires, and range in age from two to six years. Our motto: "Superior quality with sufficient size." Intending purchasers should call on or write to

WM. COLQUHOUN, MITCHELL P. O. AND STATION (G. T. R.), ONT.

Imp. Clydesdales and Shorthorns

MESSRS. SMITH & RICHARDSON, COLUMBUS, ONT.

Importers of Clydesdale horses and Shorthorn cattle, are now offering 10 imported stallions, including sons of the renowned Baron's Pride, Prince Thomas, Royal Carrick and Mountain Sentinel; also 10 mares, 6 of them imported, and the balance from imported stock. Shorthorns, imported and home-bred, all ages. Stations:

Oshawa & Brooklin, G.T.R.; Myrtle, C.P.R.

10 miles east of Toronto.

Long-distance Telephone at residence near Columbus. Telegraph, Brooklin.



In answering any advertisement in this page, kindly mention the FARMER'S ADVOCATE.

BOOK REVIEW.

Any book reviewed in this department may be ordered through this office.

AGRICULTURAL CHEMISTRY.

We welcome, from Vinton & Co., publishers of world-wide fame, London, England, a copy of the sixteenth edition of that valuable handbook, "Chemistry of the Farm," by R. Warrington, F. R. S. This volume is well known, having been translated into several languages. During the twenty-one years since its original publication, great progress in agricultural knowledge has been made, but the volume has been kept thoroughly up-to-date, and we can safely commend it for farmers, students or lecturers. It contains 253 pages, and is bound in cloth. The contents include: Plant Growth, Atmosphere and Soil, Manures, Crops, Rotation of Crops, Animal Nutrition, Nutrition in Terms of Energy, Foods, Relation of Foods to Animal Requirements, Relation of Foods to Manure, and the Fairy. The work may be ordered through this office at \$1.00.

GOSSIP.

If you wish to have perfect peace of mind, don't bet. To be sure you will lose some notoriety and miss the fun, but you will have money to replenish the coal bin with next fall.—[Horse World.]

The Highland Society champion Shorthorn bull, Royal Archer, whose portrait appears in this number of the "Advocate," was three years old in February last. He is a scion of the Cruickshank Orange Blossom family on his dam's side, and owns for his sire Brave Archer 70018, bred by Mr. Fathie of Collynie, sire Scottish Archer, dam Bright Belle, of the Miss Ramsden tribe. Royal Archer was first as a yearling and commended as a two-year-old at the Highland Society's shows at Inverness and Aberdeen, and first at the Highland this year, also winning the championship as best Shorthorn in the show. The second-prize bull in his class, Mr. Deane Willis' C. I. V., also sired by Brave Archer, is now in the herd of Mr. E. S. Kelly, Yellow Springs, Ohio, who imported him two or three years ago at a cost of \$6,000.

Mr. D. Leitch, Cornwall, Ont., breeder of Ayrshire cattle, advertises for sale his stock bull, Rossland of St. Anne's—8961—, and writes this bull is still in his prime, being only six years old. His calves are an exceptionally fine lot and his heifers are extra heavy milkers. His breeding, as will be seen by the advertisement, comprises some of the best blood in Canada. He was exhibited as a calf at London and Toronto in 1898 by his breeder, Mr. R. Reford, winning first at the former show and heading the first-prize breeders' young herd at Toronto. He must be sold, as the majority of the herd are his progeny. We are having many enquiries lately for young stock through the "Advocate."

CLYDESDALES FOR CANADA.

Messrs. Dalgety Bros., of Dundee, Scotland, and London, Ontario, recently shipped from Glasgow ten Clydesdales and one Yorkshire coach horse by the Donaldson Liner Tritonia to Montreal. One of the Clydesdales is full brother to Mr. Alex. MacRobbie's fine big colt, which this year won first prizes at Aberdeen and Angus Shows, and last year was unbeaten in the North of Scotland. He was got by the successful breeding horse Lord Stewart, out of a mare by Baron's Pride. Others of the shipment are by the Glasgow champion horse, Gold Mine (9540), Mr. Park's noted prize horse, Prince of Brunstane, and other prize horses of outstanding merit and breeding. The shipment is made up of strong, big horses, likely to breed the class of animals aimed at by Canadians for export purposes.

KENDALL'S SPAVIN CURE

the old reliable remedy for Spavins, Ringbones, Splints, Curbs, etc., and all forms of Lameness. It works thousands of cures annually. Cures without a blister, as it does not blister.



Complete Cure for Bone Spavin.

Russell, Manitoba, Jan. 20, 1903. Dr. R. J. Kendall Co., Gentlemen: I had to treat a young horse of nine months which had a Bone Spavin and got kicked on the same leg and was very badly swollen; so bad that I had to bathe it in warm water, then applied Kendall's Spavin Cure. I had Typhoid Fever the same winter and only gave the Kendall's Spavin Cure half a chance, and it only took one and a half bottles to cure his leg with very little treatment, and it did so completely that you would never know that he had a spavin; he never has gone lame since.

Very truly yours, GEO. S. HARRIS. Such endorsements as the above are a guarantee of merit. Price \$1; six for \$5. As a liniment for family use it has no equal. Ask your druggist for Kendall's Spavin Cure, also "A Treatise on the Horse," the book free, or address

DR. B. J. KENDALL Co., ENOSBURG FALLS, VT.

CLYDESDALES

AYRSHIRES and POULTRY.



R. Ness & Sons, Howick, Que.

Importers of Clyde, Percheron and Hackney stallions, Ayrshire cattle, and poultry, have for sale 5 Clyde stallions, sired by Baron's Pride, Sir Everitt, and Royal Carrick, 1 Percheron, and 1 Hackney, winners. Ayrshires of both sexes, and poultry.

RED RIBBON STUD

Largest Importers and Breeders of

Shire Horses

in the Dominion,



including first-prize winner at Royal Agricultural Show in England, and winning more prizes at Industrial and other large shows than all others combined.

Stallions and mares all ages, home-bred and imported, always for sale. Over 50 to choose from.

MORRIS & WELLINGTON, Fonthill P. O., Welland County, Ont.

Thorncliffe Stock Farm

ROBERT DAVIES

usually has on hand some fine specimens of Clydesdales, Hackneys, Jersey and Ayrshire Cattle, Yorkshire Pigs.

Correspondence solicited. Visitors always welcome at

THORNCLIFFE, TORONTO.

A GOOD LINIMENT

For 80c. a gallon.

Can be made as follows: Absorbine, 4 ounces, Vinegar, 1 quart, Water, 3 quarts, Saltpetre (powdered) 1 ounce.

This combination will prove satisfactory and successful for curing BRUISES, STRAINS, COLLAR GALLS, to toughen the SHOULDERS for work horses; will reduce SWOLLEN ANKLES, HAD TENDONS, and all kinds of troubles where a liniment would be generally used.

Buy the ABSORBINE at the store, or send to LYMAN, SONS & CO., Montreal, agents for Canada, who will send it prepaid on receipt of \$2.00 for a bottle. One bottle ABSORBINE will make three gallons of liniment or wash as above formula. Write for a bottle and the free booklet giving formulas of Veterinary Remedies.



CARNEFAC

AT WINNIPEG FAIR



JULY 21ST 1903

1st-prize calf, weighing 775 lbs., 6½ months old.

Three prizes were given for fat calves under six and a half months old. Carnefac-fed calves took every prize.

- 1ST-PRIZE CALF WEIGHED 775 LBS.
- 2ND-PRIZE CALF WEIGHED 649 LBS.
- 3RD-PRIZE CALF WEIGHED 626 LBS.

Remember that 402 lbs. is a normal weight at this age. By feeding Carnefac the calf in the cut almost doubled its normal weight. If it will do it for this animal it will do it for yours. It can be done with Carnefac, it can't be done without it.

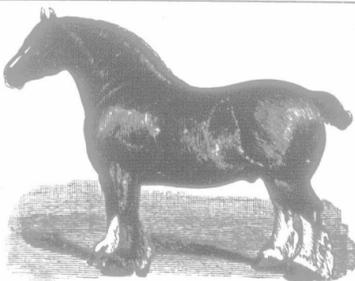
A CANADIAN TONIC FOR CANADIAN STOCK.

CARNEFAC STOCK FOOD CO

Winnipeg, Man. Eastern Office, 65 Front St. East, Toronto.

CLYDESDALES and HACKNEYS.

Another large importation will arrive in August. Mr. James Dalgety is now in Scotland for the purpose of selecting a better lot of horses than he ever before imported. Some of the lot have already been purchased, and include some extra big prizewinners. Others will come out that have made the season in Scotland. Intending purchasers should have this shipment in mind.



DALGETY BROS., LONDON, ONT., AND DUNDEE, SCOTLAND.

INTERNATIONAL IMPORTING BARN, SARNIA, ONTARIO

J. B. HOGATE, PROPRIETOR.

IMPORTER OF

Clydesdale, Shire and Hackney Stallions, and Spanish Jacks.



68 head imported in 1902. All sold but 2 stallions and 4 jacks.

My next importation will arrive about Sept. 1st—60 stallions and 20 jacks. Hogate buys bread-winners, and sells them at bread-winning prices. Hogate doesn't advertise all of his stallions to weigh a ton, but some of them do. You can fool some of the people some of the time, but you can't fool all the people all the time. Be sure and see my stock before you buy in the fall. Prices to suit all, consistent with quality. I will be pleased to see all my old customers in the fall, and as many new ones.

H. H. COLISTER, MANAGER AND SALESMAN.

BELGIAN STALLIONS and MARES

IMPORTED LAST SEPTEMBER. THOROUGHLY ACCLIMATED.

The up-to-date Belgian, big and medium weight, dark colors, short straight back, no hair on legs, immense horns, heavy built body. Not a shaggy bump of fat. A knockout in your stable. Highest value for your money. Write, or, better, come in.

BARON DE CHAMPLONIS, Importer, DANVILLE, QUEBEC.



GOSSIP.

BONNYCASTLE'S SHORTHORNS, COTSWOLDS AND BERKSHIRES.

Among the Shorthorn offerings this season at F. Bonnycastle & Sons, of Campbellford, Ont., may be found some choice young red bulls and heifers in the pink of health and in excellent growing condition. The eight young bulls under six months of age and the dozen young females are strikingly uniform in size, color and conformation, the reason of which can easily be discerned from an analysis of their pedigrees. The firm laid a solid foundation in the purchase of what proved to be a useful and very prolific race, a member of the Anchovy tribe, noted for uniformity of excellence and uniform production, possessing sufficient good dairying qualities to ensure the rapid development of the offspring. The firm, early recognizing the importance of good sires, and the acknowledged merit of the Cruickshank cattle, made their selections from families of that great herd, while in nowise neglecting individual conformation. Among the six bulls of this breeding shown in the present pedigrees, we note such strains as Cecelia, Duchess of Gloster, and Miss Ramsden, to be followed by a worthy son of the widely-noted Crimson Flower strain. The splendid young bull, Red King 2nd 33556, by Riverside Stamp 23589, dam Crimson Edith 33556, by Crown Prince 19637, is a young sire worthy of the grand old strains from which he sprang. He is a beautiful red, with soft, flexible, velvety skin, possessing a wealth of style and flesh, and standing well on his underpins, possessing the head of an impressive sire, with good horns. The worth of such an individual with his breeding is hard to estimate in a herd of upwards of 25 breeding cows possessing such family lines.

Lately added to the herd is the imported two-year-old heifer, Twin Countess 5th, by Challenger (74199), dam Countess 4th, Vol. 47, 295, E. H. B. She was purchased at the Isaac dispersion sale last spring, and is due to drop a calf early in September, to the highest-priced imported bull of the sale, Nonpareil Archer (81778), E. H. B. In her, the firm have undoubtedly secured a valuable addition to their herd.

Parties desirous of obtaining foundation stock and young sires can hardly go amiss in selecting from a herd where such discriminating care has been exercised in the foundation stock and the selection of sires.

In Cotswolds, the same vigilance has been exercised where breeding stock was required, selections being made from the leaders in the breed, the Snells in former years, and latterly the Garbutt flock.

At present, over thirty breeding ewes are raising lambs, with a dozen or more excellent yearlings to reinforce the flock and fill a limited number of orders. There are also a pair of good yearling rams, qualified to head pure-bred flocks. The yearlings were sired by a Ross-bred ram, Topper 22282, a sheep which rendered excellent service, and left a strong impression on his progeny, in size, quality and covering. The present stock ram, Rawlings 401, as his name indicates, was drawn from the flock of Messrs. Rawlings & Son, Ravenswood, and would attract attention in any company in equal flesh. He carries immense length with a grand top and a well-covered skin. The firm are, perhaps, particularly strong in Cotswold quality this season, and have quite a list among their offerings worthy of attention of buyers.

The Berkshires are strong in the acknowledged leading strains, the same care and judgment being exercised all through in their selections. Four breeding sows are kept on hand, two are from the herd of Mr. Wilson, Snelgrove, the others being strong in Enterprise blood, and show much of the grand old sire's size, smoothness and quality which made his name famous. The firm always pinned their faith to the Berkshire, following their conviction with sufficient confidence to purchase and mate only those calculated to prove their contention—the only argument which ever

(Continued on next page.)

HORSEMEN! THE ONLY GENUINE IS

GOMBAULT'S CAUSTIC BALSAM.

The genuine without the signature of The Lawrence, Williams & Co. Sole Importers & Proprietors for the U.S. & CANADA. CLEVELAND, O.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe aches. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY or IRONING. Impossible to produce scar or blemish. Every bottle is warranted to give satisfaction. Price \$1.00 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for use. Send for free descriptive circulars. THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

ELM PARK STOCK FARM

Fresh importations of High-class ABERDEEN-ANGUS CATTLE AND SUFFOLK SHEEP.

We have now on hand females from good herds in Scotland, England and Ireland, and never were in such a good position to sell nice herds to beginners.

Come and see us at Toronto Exhibition. Suffolk Rams are doing well, ten by our Imp. Ram. They always stand high in carcass competition at Smithfield.

JAS. BOWMAN, - GUELPH, ONT.

ABERDEEN-ANGUS. For Sale: One two-year-old bull and one yearling bull, sired by Laird of Tweedhill. Will sell right. W. HALL, Washington P. O., Drumbo Station.

THE SUNNYSIDE HEREFORDS.

Onward at head of herd. FOR SALE: Six choice young cows and heifers, 11 young bulls, ranging in age from 4 to 8 months, 5 of which are good enough, individually and by breeding, to head any herd. Sons of Protector, Golden Star, Pretorian and Sunny Slope Tom 1st in the lot. O'NEIL BROS., Southgate, Ont. Iderton station, L. H. & B.; Lucan station, G. T. R.

SALE! INGLESIDE HEREFORDS.

Young bulls, cows and heifers of most up-to-date type and breeding. If you want good Herefords at good-value prices, send for illustrated catalogue, and state requirements. Also ½ and ¾ bred Hereford cows and heifers. H. D. SMITH, Compton, Que.

We are offering some young Durham bulls, cows and heifers, and 20 Berkshires and 10 Yorkshires, of both sexes. Prices reasonable.

Could supply a carload of 2-year-old stock steers. Correspondence solicited, or come and see our stock. No sale, no harm. Visitors welcome to

CAMDEN VIEW FARM,

A. J. C. SHAW & SONS, Thamesville, Ont.

GEO. B. BRISTOW, breeder of high-class Scotch Shorthorn cattle of the noted Village Girl and Wimple families.

LAKELAND FARM, Rob Roy P. O., Duntroon Sta., Co. of Grey.

A. J. WATSON, CASTLEBERG, ONTARIO, CAN.

Offers for sale young Shorthorn bulls and heifers of the choicest Scotch breeding. Also one five-year-old bull, grandson of imported Indian Chief.

Beechgrove Shorthorns. Present offering: 3 females from 1 to 4 years old, heavy milking strain; also one roan bull calf 8 months old. Prizewinners; a thick, beefy lot.

C. McNULTY, Rathburn P. O., Orillia and Arthly stations.

SPRUCE HEDGE SHORTHORNS.

We are offering females of all ages. Among them are prizewinners and youngsters that are sure to win.

JOHN MCKENZIE, Keward P. O. and Chatsworth Station, C. P. R.



Imp. Bapton Chancellor No. (28286)

For sale at reasonable prices—Five imported bulls, nearly all roans. Twelve imported cows and heifers. Also a number of nice Canadian-bred bulls, cows and heifers, in calf or with calves at foot.

H. J. DAVIS, Woodstock Ont., C. P. R. and G. T. R.

IT HAS COMMANDING MERITS

which are bringing it into great favor.

"SALADA"

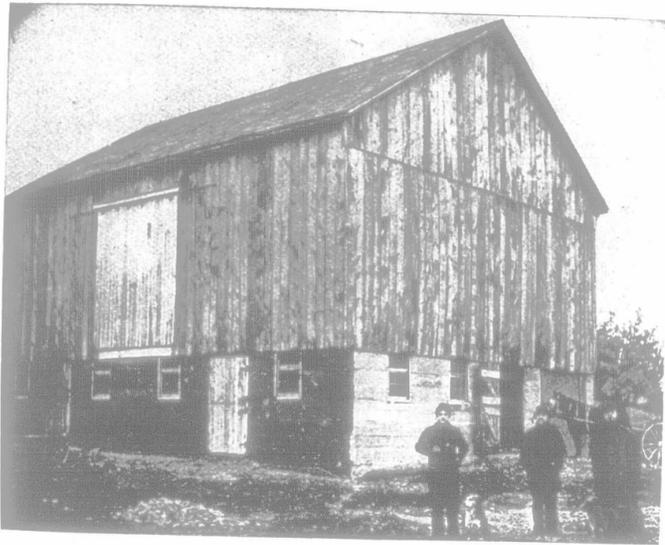
CEYLON NATURAL LEAF GREEN TEA. Pure to a leaf. Delicious beyond compare. No nerve or stomach disturbing properties. Sealed lead packets only. 40c. per pound. By all grocers.

BETTER THAN STONE OR BRICK!

GOOD QUALITIES OF

THOROLD CEMENT

RECEIVE ANOTHER TESTIMONIAL.



BARN OF F. H. EICHENBERGER, DELAWARE, ONT.
Size, 36x46 feet. Basement built with Thorold Cement.

Read what Mr. Eichenberger says:

Delaware, Ont., December 22, 1899.
Gentlemen.—It gives me great pleasure to testify to the good qualities of your Thorold Cement. I built a barn, 36x46 feet, in the wall of which I used 55 barrels of your Thorold Cement, and consider I have a first-class job—better and cheaper than either stone or brick.
Yours truly, F. H. EICHENBERGER.

EST. JOHN BATTLE, (Manufacturers of Thorold Cement,) THOROLD, ONT.
(and Dealers in Portland Cements.)

MAITLAND BANK SHORTHORNS
Males and females, imported and home-bred; best Scotch breeding; show animals. Right prices.
D. MILNE & SON,
Ethel Station and P. O.

Scotch Shorthorns and Leicesters
Young bulls, cows and heifers of the best Scotch families.
LEICESTERS.—A grand lot of yearling and ram lambs, ewes and ewe lambs now for sale.
W. A. DOUGLAS,
CALEDONIA STATION, TUSCARORA P. O.

Shorthorns, Cotswolds, Berkshires
FOR SALE.—Seven bull calves from 1 to 8 months old; a few young cows with heifer calves at foot; a choice lot of yearling ewes, ram lambs and ewe lambs; young pigs of the long bacon type, from 6 weeks to 2 months old.
F. BOYCASTLE & SON,
Campbellford P. O., Ontario.

Shorthorns, Clydesdales, YORKSHIRES.
I offer for sale a young red bull calf by Republican (Imp.) out of Nonpareil 34th (Imp.)—a good one. Also young Yorkshires and Clydesdales, all ages. Also Count Amaranth at a bargain, if taken soon.

A. E. HOSKIN, SPRINGVALE FARM, COBOURG STA. & P. O.

Shorthorns, Lincolns and Berkshires. Five bulls fit for service, from good milking strains; choice cows and heifers; can supply show stock. A litter of Berkshires, 4 months old; also brood sows. Prices right.
F. MARTINDALE & SON,
Caledonia Station, York, Ont.

H. SMITH, EXETER, ONT. SCOTCH SHORTHORNS
Bred for utility. More fat show champions produced than in any other herd. Some choice heifers to spare. Come and see them, or write. Farm joins Exeter, on G. T. R.

LORNE STOCK FARM. SHORTHORNS, OXFORDS and STANDARD-BREDS.
We now offer possibly the best 2-year Wildbrino colt in breeding and quality in Ontario. Young stock for sale. Address: A. McKillop & Sons, West Lorne, Ont.

Shorthorns, Leicesters and Berkshires. FOR SALE.—1 yearling bull, bull and heifer calves; Berkshire bears and sows, ready for service, and suckers ready to wean. Write for wants, or come and see F. Jeffs & Son, Bond Head P. O., Bradford and Beeton Sms., G.T.R.

GOSSIP.

(Continued from page 828.)

proves the value of the different breeds, and many good sires have done service in the herd. A few young things are constantly on hand, of both sexes, and outside buyers may rest assured that the firm will not ship an inferior individual. The present stock boar is Cassie's Boy 8309, by Colonel Brant 5950, and out of Norval Maid 6409, an animal of excellent type, and one from which the firm have raised much good stock.

"A man dat specks dis worl' to reward him foh doin' nuffin'," said Uncle Eben, "is jes' like a man dat goes fishin' an' don' put no bait on de hook."

Mr. A. E. Hoskin, Cobourg, Ont., breeder of Clydesdales, Shorthorns and Yorkshires, in ordering a change in his advertisement, writes: "The stock is all doing well. I have four registered Clydesdale fillies that I would sell, a good lot, with great legs and feet. One three-year-old filly, sired by McInnis, is in foal. She is a show mare if put in condition. Have had numerous enquiries for Shorthorns, which are doing well, as also are our Yorkshires. Have some boars and sows to sell."

Good prices were realized at English sales of Oxford Down sheep last month. At the annual sale of rams from the flock of Mr. James Hobbs, Maisy Hampton, which had gained 24 first prizes and four championships this year, lot 1 sold for 26 guineas; lot 2, the second-prize winner at the Bath and West Show, brought 27 guineas, while lot 3, the third-prize winner at the same show, brought 40 guineas. No. 25 sold for 58 guineas, the highest price of the day, to Mr. Hitch for Mr. Horlick's flock. The average for the 59 rams sold was £15 7s., as compared with £11 14s. last year.

Gen. Cassius Marcellus Clay, who died last month at his home in Whitehall, Kentucky, in his 93rd year, was a breeder of Southdown sheep, of which he maintained a flock of considerable extent, in the breeding and care of which he evinced no little interest and enthusiasm. He was a conspicuous figure during his life as editor, politician, author and statesman. He bequeathed the Whitehall estate to the nation, to be used as a national park, and provided that the income from his coal mines and from the sale of 360 acres of another estate shall be used to keep the park in good condition.

CANADIAN STOCK FOR INTERNATIONAL.

It is hereby ordered, that Canadian cattle may be imported into the United States for exhibition purposes at International Live Stock Exposition, to be held from November 28 to December 5, 1903, at Chicago, Ill., without being subjected to the tuberculin test, provided they are accompanied by a certificate issued by a Canadian official veterinarian stating that such cattle are free from contagious diseases. And provided further, that the cattle which are not sold to remain in the United States shall be returned immediately to Canada at the close of the Exposition.

This Department must be notified of any Canadian cattle that will remain in the United States, and the tuberculin test will be applied to them by an inspector of this Department before shipment to destination is allowed.

All Canadian cattle, sheep and swine intended for this Exposition must be shipped directly to the Exposition grounds and not unloaded in any public stock yards. WILLIS L. MOORE, Acting Secretary.

U. S. Dept. of Agriculture, July 30, 1903.

\$5,000 Reward.



Anybody can secure that amount who will prove that any letter or endorsement which we publish in any way, relative to the merits of

Tuttle's Elixir

is spurious or untruthful. It needs nothing but the truth to support it. It is undoubtedly the best veterinary remedy known to man.

Used and endorsed by Adams Express Company.

Tuttle's American Condition Powders

A specific for impure blood and all diseases arising therefrom. TUTTLE'S FAMILY ELIXIR cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, "Veterinary Experience," FREE.

Dr. S. A. TUTTLE, 66 Beverly St., Boston, Mass. Beware of so-called Elixirs—none genuine but Tuttle's. Avoid all blisters; they offer only temporary relief, if any.

LYMAN, KNOX & SON, Agents, Montreal and Toronto, Canada.

R. & S. NICHOLSON
Sylvan P. O. Parkhill Station, Ont.
Importers and breeders of

SHORTHORNS

Have for sale:
13 IMPORTED HEIFERS,
20 HEIFERS (choice).
Safe in calf to Imp. Spicy Count.
Home-bred herd composed of Nonpareils, Minas, Clementinas, Crulokshank Lovelys, Shethin Rosemarys, A. M. Gordon's Estelles, Miss Symes, etc.

Maple Grange Shorthorns

CLARETS, LAVINIAS AND RED ROBES.
Sired by such Scotch bulls as Albert Victor (Imp.) 6315; Baron's Heir (Imp.) 28854; Scottish Bard 22512, and Commodore 28854. Golden Abel (Imp.) heads the herd. Stock always for sale, male and female.
R. J. DOYLE,
Owen Sound, Ont.

For Sale: 4 bulls, sired by Imp. British Statesman (63729) = 20833 =, 2 reds, 1 roan and 1 white, from 12 to 17 months old. Also a number of calves, bulls and heifers, sired by Imp. Diamond Jubilee = 28861 =. 8 ms of their dams are cows sired by Imp. British Statesman, Diamond Jubilee is now at head of our herd. FITZGERALD BROS., Mount St. Louis P. O.; Elmvale Sta., G. T. R.; Hillsdale Telegraph Office.

Greengrove Shorthorns Number 35 head families. For sale: Several young bulls, by Wanderer's Last, Imp. Fitz Stephen and Freebooter. Females of all ages.
W. G. MILLSON,
Goring P. O., Markdale Station.

Scotch-Topped Shorthorns—(Imp.) Captain Mayfly (No. 28858), winner of sweepstakes at Toronto (1900), let at Toronto and London (1902), at head of herd. Animals of all ages and both sexes for sale.
JOHN C. BRICKER,
Elmira P. O. and Station, on G. T. R.

HIGH-CLASS Shorthorns

AND CLYDESDALE HORSES

Imp. Spicy Count 36117, 3 years old. Four bulls, 12 to 20 months. Cows and heifers.
JAS. McARTHUR, Goble's, Ontario.

Shorthorns and Yorkshires—Stock bull, Scotch Lad = 35908 =, and 1 bull, 12 months, for sale. Up-to-date Yorkshires, bred straight from imp. stock. Pigs of spring litters for sale.
G. W. KEAYS,
Hyde Park, Ont.

SHORTHORNS FOR SALE

10 choice Shorthorn heifers and 10 young bulls, of choicest quality and breeding, at reasonable prices.
G. A. BRODIE,
Stouffville Sta., Bethesda, Ont.

T. DOUGLAS & SONS,

STRATHROY STATION & P. O.,
BREEDERS OF Shorthorns and Clydesdales

88 Shorthorns to select from. Herd bulls (Imp.) Diamond Jubilee = 28861 = and Double Gold = 37854 =. Young bulls, cows and heifers for sale at all times. Also one (Imp.) stallion and two brood mares.

ROSEVALE SHORTHORNS.

Herd comprises Augustas, Polyantus, Crimson Flowers, Minas, Strawberrys and Laviniyas. For sale, both sexes, the get of Imp. Marengo Heydon Duke, Imp. Baron's Heir, Imp. Golden Able and Imp. Golden Conqueror.
W. J. SHEAN & CO., Owen Sound P. O. & Sta.

HIGH-CLASS SHORTHORNS

Now offering 5 bulls, from 4 to 17 mos. old, sired by Royal Duke, he by Royal Sailor (Imp.). Also females, all ages, some in calf. Prices moderate.
J. R. McCALLUM & SON, Iona Sta. & P. O., Ont.

Choice Shorthorns and Shropshire Sheep.

I am now offering bulls from 8 to 16 months old. Heifers of all ages, some in calf. Present stock bull, Roan McKay = 37867 =.

CHAS. CALDER, Brooklin.

DE LAVAL CREAM SEPARATORS

First in the field they remain, after twenty-four years, the most Efficient, the most Reliable, the most Durable.

There are no others "just as good."

Our free catalogue will explain.

MONTREAL
WINNIPEG
NEW YORK
CHICAGO
SAN FRANCISCO
PHILADELPHIA
POUGHKEEPSIE

THE DE LAVAL SEPARATOR CO.
77 YORK STREET, TORONTO.

SHORTHORNS

WE ARE OFFERING FOR SALE a grand lot of young imported Scotch cows and heifers with calves at foot or safely in calf to the best imported bull obtainable.

Herd Numbers 150 Head.

Send for New Catalogue.

VISITORS WELCOME, AND CORRESPONDENCE PROMPTLY ATTENDED TO.
TELEGRAPH OR TELEPHONE.

H. CARGILL & SON,

Also have a choice lot of Oxford Down Sheep, either sex, at reasonable prices. Cargill, Ontario, Canada

Shorthorns and Leicesters.

HERD ESTABLISHED 1855.

Scotch Booth and Bates families to select from, grand milking qualities being a special feature. (Imp.) Rosicrucian of Dalmeny = 45220 = heads the herd. Young stock of both sexes to offer; also Leicester sheep. JAMES DOUGLAS, Caledonia, Ont.

CHAS. RANKIN, WYEBRIDGE, ONT.

IMPORTER AND BREEDER OF

SHORTHORN CATTLE and OXFORD DOWN SHEEP.

Herd headed by Pride of Scotland (imp). FOR SALE—Females and bulls of all ages, from noted Scotch families.

Queenston Heights Shorthorns

Two Scotch bull calves, choice heifers, at reasonable prices.

HUDSON USHER, - QUEENSTON, ONT.

Farm 3 miles north of Niagara Falls.

OAK LANE STOCK FARM.

Shorthorns, Cotswolds, Yorkshires and Barred Rock Fowls.

FOR SALE: Three bulls (2 imp.), cows and heifers, both imported and Canadian-bred. Still open to take orders for N.W. trade. Write for prices. Satisfaction guaranteed.

GOODFELLOW BROS., MACVILLE, ONT.

W. R. Bowman, Mt. Forest.

IS OFFERING

YEARLING DURHAM BULL

of an excellent dairy strain (weight 1,200 lbs.) for \$75.00. Two Aberdeen-Angus bull calves 13 and 9 mos., at \$75 and \$90. Yorkshire boars and sows, Suffolk Down sheep, shearing ewe and ewes in lamb.

MERCER'S SHORTHORNS

Comprise Missies, Stamfords, Floras, Clarets, Princesses, Red Roses, Young Sterlings, Fashions and Matchless. They number 60 head for sale. There are several choice heifers, 17 heifer calves, 3 bulls fit for service and 4 bull calves. A few older females.

Thos. Mercer, Markdale P. O. and Station.

Lakeview Shorthorns.

Herd represented by such noted families as Stamfords, Minas, Marr Floras, Crimson Flowers, Village Girls, Bucan Lassies, and Lavinias. Some yearling and two-year-old heifers for sale. om James Gowes Strathairn P. O., Meaford, Ont.

SHORTHORNS.

Dark red bull calf, Blue Ribbon 2nd, 16 months old, sired by Blue Ribbon (imp.) 17095 (63703), dam by Royal George (imp.) (64728). Bull calf, 10 months old, dark red; also yearling and two-year-old heifers. Imp. Royal Prince heads the herd. om JOHN McFARLANE. - DUTTON, ONT.

SHORTHORNS.

Importer and breeder of choice Shorthorns. Scottish Hero 156726 at the head of herd. om JAS. A. CRERAR, Shakespeare, Ont.

R. Mitchell & Sons,

Nelson, Ont.

Present offering three extra good bulls from 12 to 14 months, two imp. in dams, and one from imp. sire and dam.

Also a number of Scotch heifers in calf.

Burlington Jct. Station and Tel. Office.

GOSSIP.

Among recent sales for export, reported from Mr. John Barron's noted Barrowfield herd of Large English Yorkshires, is a very choice consignment to Canada of four boars, four gilts and a sow to Mr. Gus. Langelier, Quebec.

A steer of 1,100 lbs., owned by a farmer near Kenny, Ill., got hold of a stick of dynamite the other day, and in attempting to swallow it there was an explosion that blew the animal to pieces, some of which were lodged in adjoining trees.

"See here!" exclaimed the stranger, as he stumbled into his twentieth puddle. "I thought you said you knew where all the bad places were on this road?"

"Well," replied the native, who had volunteered to guide him through the darkness, "we're a-findin' them, ain't we?"

Through the persistent advocacy of Chief F. D. Coburn, of the Department of Live Stock at the World's Fair, St. Louis, in the face of considerable opposition from some sources, the butter made there next year during the proposed cow demonstration will be judged by giving a possible credit of 15 points in a total score of 100 to "aroma" and 30 points to "flavor," instead of a possible 45 points to flavor alone.

Alex. Hume & Co., Menie, Ont., breeders of Ayrshire cattle, in renewing their advertisement, write: "Our imported yearling bull, which arrived safely at our farm August 7th, is doing nicely, and is a very promising one. He was the first animal to enter our new stock barn, with cement floors and walks. It has been another good season, so far, for dairymen; good prices and plenty of pasture. Cows have milked well. We met with ready sale for all our young calves. Thanks to our ad. in your valuable paper. Received many inquiries we could not fill. We will be pleased to meet with all our old friends and many new ones at the Dominion Fair in Toronto, as we will be again exhibiting there, and will have a few choice ones to part with.

DECREASE IN U. S. HOG EXPORTS.

The great American hog appears to be losing his popularity abroad, at least until he has been reduced to hams, bacon and lard. The largest number of live hogs ever sent abroad was 95,654 in 1891, the value of porcine exports in that year being \$1,146,630. Last year the total value of hog exports was but \$88,330, and the number sent out 8,368. —[Live Stock World.

TRADE TOPICS.

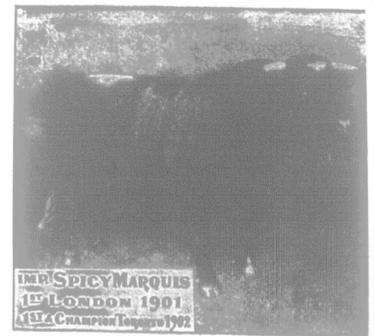
BEAUTIFUL AND USEFUL.—The Sawyer-Massey Co., of Hamilton, Ont., have issued a booklet containing some very pretty views of scenery around that fine city, and also a lot of useful information regarding the superior thrashing machines and engines built by that progressive firm.

MACDONALD INSTITUTE. From the Ontario Agricultural College, Guelph, we have received a copy of the provisional announcement of the Macdonald Institute, devoted to instruction and training for farmers' daughters, teachers and others, in domestic science and art, nature study, home economics and manual training. A full and efficient staff of instructors in these various important departments is being installed. Our readers would do well at once to write for the pamphlet and other particulars. W. H. Mulrow, B. A., D. Paed., is dean of the institution.



Steer a Safe Course
The safest course for delicate skins is to use
BABY'S OWN SOAP.
No Other Soap is as Good. 033
ALBERT TOILET SOAP CO., Mfrs. Montreal.

TROUT CREEK SHORTHORNS



JAS. SMITH, Manager, Millgrove, Ont. W. D. FLATT, 378 Hess St. South, -om Hamilton, Ont.

FOUR BULLS (red). Ury and Stamford dams, sired by Squire Wimple, winner of first here and British Columbia; now owned by Mr. Ladner, Ladner's Landing, om ROBERT BATTY, Glenbournie Farm, Meaford P. O. and Sta.

Shorthorns and Lincolns. A few choice bulls from 12 to 15 mos. One bull 23 mos. Also females any age for sale. J. K. HUX, RODNEY, ONTARIO. L. E. & D. R. E. and M. C. R.

S. DYMENT, BARRIE, ONT.

Breeder of Scotch Shorthorns

Imported Morning Star at head of herd.

Shorthorns, Berkshires and Leicesters.

FOR SALE: Choice two-year-old heifers, well gone in calf; also yearling heifers, bull calves. Boars and sows fit for breeding, and young pigs. om ISRAEL GROFF, ALMA, ONTARIO.

JAS. GIBB, SUNNYSIDE STOCK FARM, BROOKSDALE, ONT.

BREEDER OF SHORTHORN CATTLE, for sale.

SHORTHORNS.

Imp. Christopher = 28859 = heads herd. A few choice young cows, heifers and bulls for sale, of milking strain. Also Summerhill Yorkshire pigs. om A. M. Shaver, HAMILTON Sta. Ancaster P. O., Ont.

HAWTHORN HERD

Of Deep Milking Shorthorns.

FOR SALE: Four young bulls, from 8 to 24 months old, from A1 dairy cows. Good ones.

om WM. GRAINGER & SON, Londesboro, Ont.

W. G. PETTIT & SONS

FREEMAN, ONT., CAN., Importers and breeders of

Scotch Shorthorns

The herd now numbers over 100 head. Fifty of them imported direct from Scotland, consisting of the most popular and richly-bred Cruickshank and Aberdeenshire families.

BULLS IN SERVICE.

Imp. Scotland's Pride, a Cruickshank Clipper, by Star of the Morning; Imported Scottish Pride, a Marr Roan Lady, by Scottish Prince; and Imp. Prime Favorite, a Princess Royal, by Bapton Favorite.

Bulls, cows and heifers suitable for foundation stock or show purposes for sale. New descriptive catalogue ready August 15th. om

What John T. Gibson, Director Dominion Sheep Breeders Association, Says About Zenoleum Dip:

"I find Zenoleum very good both for sheep and cattle. Keeps them free from ticks and lice and is also a very good disinfectant."

JOHN T. GIBSON, Denfield, Ont.

Send for copies of "Zenoleum Veterinary Adv." and "Piggie's Troubles" and see what others say about it. Books mailed free. Single gallon of Zenoleum disinfectant, five gallons \$6.25, freight prepaid.

"The Great Coal Tar Carbolic Dip." KEMER DISINFECTANT CO., 113 BATES STREET, DETROIT, MICH.

The Books are Free

Spavin Lump Jaw

You can cure Bone Spavin, Bog or Blood Spavin, Ringbone, Curb, Splint or any blemish hard or soft, Fistula, Poll Evil, Sweeny or Knee-Sprung, also Lump Jaw in cattle, with very little trouble or cost. Our two booklets tell you how and prove that you can do it, and we will guarantee you success in every case. Over 140,000 farmers and stockmen are doing it our way. If you have a case to cure write us and we will send you the books free.

FLEMING BROS., Chemists,
46 Front St., West, Toronto, Ont.

ARTHUR JOHNSTON,
GREENWOOD, ONTARIO,

Offers for sale at times' prices, 6 young SHORTHORN BULLS, from imp. dams and by imp. sires.

6 YOUNG BULLS, of purest Scotch breeding,
10 YEARLING and 8 TWO-YEAR-OLD HEIFERS.

Pickering Station, G. T. R.
Claremont Station, C. P. R. om

GREEN GROVE SHORTHORNS.
This herd comprises such noted families as Cruickshank, Orange Blossoms, Nonpareils, Crimson Flowers, Mysies, Languishes, Butterflies and Jessamines, and is headed by the noted Watt bred bull, Spicy Robin = 28250 =, winner of second prize at Toronto and London, 1902. A choice lot of yearling and two-year-old heifers off Spicy Robin for sale; also a few young cows in calf, and a good lot of bull calves.

GEORGE D. FLETCHER,
Erin Shipping Station. o Binkham P. O.

MAPLE LODGE STOCK FARM
ESTABLISHED 1854.

SHORTHORNS.—First-prize milking strains, best Scotch breeding. Young bulls and heifers for sale.
LEICESTERS.—A grand lot of ewes, bred to our imported rams, and a few choice rams now for sale.

A. W. SMITH,
Ailsa Craig Sta., G. T. R., Maple Lodge P. O., Ont.
3 1/2 miles.

Shorthorn Cattle, Lincoln Sheep

Imp. Prime Minister at head of herd. Imp. Clippers, Miss Ramadens, and other Scotch families. Lincolns won more than half the money and first for flock at the Pan-American; International, Chicago, 1901 and 1902.

J. T. GIBSON, om DENFIELD, ONT.

ROSE COTTAGE SHORTHORNS.

Royal Prince = 31241 =, by imp. Royal Sailor, at head of herd. For sale—4 bulls, 3 heifers (3 to 9 months old), 3 yearlings, one 2-year-old heifer and 9 cows in calf. Scotch and Scotch-topped.

H. K. FAIRBAIRN,
om Thedford P. O. and Station, G. T. R.

J. & W. B. WATT

BRANDERS AND IMPORTERS OF

Shorthorns, Clydesdales and Berkshires

We breed our show cattle and show our breeding cattle. The imported bulls, Scottish Beau, Viceroy and Scottish Peer, head the herd.

Imported and home-bred cows and heifers for sale. A few choice young bulls on hand.

Our herd at Toronto won three firsts, a second and third out of five herd classes.

Salem P. O. and Telegraph Office. Elora Sta., C. P. R., G. T. R.

Shorthorns and Shropshires. Scotch and Scotch-topped families of Shorthorns. Young bulls and heifers for sale. Shropshires, bred direct from imported stock: Mansell and Cooper strains. **BRUCE BROS.,** Souville Station, G. T. R. o Gormley, Ont.

SHORTHORNS (IMP.)

Cows and heifers, imp. and home-bred. Bulls, imp. and home-bred—all ages. Representing the fashionable blood of Scotland.

EDWARD ROBINSON,
MARKHAM P. O. & STN.

SHORTHORNS.

THORNHILL HERD. ESTABLISHED 27 YEARS.

Imp. Royal Member and Sailor Champion now at head of herd, which are all bred on straight Scotch lines, and are of the up-to-date kind. Present offering: some choice young bulls.

REDMOND BROS., Millbrook Sta. and P. O.

GOSSIP.

A famous Missouri calf case has been in progress for six years, at a cost of about \$3,500, and comes up again in November at Fayette. A calf strayed away and got into a pasture with other calves. It is now a steer worth \$35.

Mr. George Isaac, Bomanton, Ont., the well-known exporter of Clydesdale horses and Shorthorn cattle, sailed recently from Glasgow with six well-bred stallions purchased in Aberdeenshire. He secured two of these from Mr. Charles Lawson, Mains of Cults, and one each from Messrs. Jas. Leys and George Anderson, Fingask. These are useful, well-bred, big horses, says the Scottish Farmer, and are likely to extend Mr. Isaac's reputation as an importer of high-class stock into Canada. Some of the horses were in the prize list at the Aberdeen Show, and others of them have taken prizes at local shows.

The well-known Clydesdale stallion, Prince of Kyle (7155), the property of Mr. Jas. Kilpatrick, Craigie Mains, Kilmarnock, died last month. He was full brother to Sir James Gilmour's famous 3,000 guinea horse, Prince of Albion, and like that horse had a very successful career in the showyard in his younger days. He was the second winner of the Cawder Cup, and was also successfully shown at the Royal and Highland Societies' shows. Amongst his progeny are the well-known horses, Cawder Cup and King o' Kyle, the former sire of the Glasgow junior premium horse this year, Pearl Stone.

The wisdom of the united protests against the low valuation of horses imported from the United States, made by the Territorial, Manitoba and Ontario breeders' associations, was shown, when a band of 150 cayuses crossed the line in Southern B. C., recently. These plugs—and no other name describes them—cost \$2.50 apiece on the range, and under the new regulations making the minimum valuation \$25, the importer had to contribute \$5 apiece to King Edward's Canadian treasury. The only fault of the regulation, if any, is that the valuation is yet low, and if doubled would hurt no person. It is such stuff as above mentioned that Manitoba's Provincial Veterinarian blames for annually seeding that Province with glanders.

The sale of the herd of pure-bred Shorthorn cattle belonging to Earl Manvers, Holme Pierrepont, Nottingham, resulted in the very satisfactory averages of £54 5s. for 47 cows and heifers, and £99 16s. for 14 bulls, or a general average of £81 3s. over the total 61 head. Mr. P. L. Mills paid 350 gs. for the three-year-old red bull, President, by Marengo; Mr. Bunster, 265 gs. for the red yearling bull, Duke of Kingston; Mr. Barker, 205 gs. for the two-year-old roan bull, Conqueror; and Mr. Mills, 135 gs. for the two-year-old bull, Merry Ruthwell. For cows, the top prices included 86 gs., given by Mr. Mills for the five-year-old red cow, Crimson Rose; 81 gs. by Sir Oswald Mosey for the three-year-old red cow, Pierrepont Lady Foggarthorpe III., and 76 gs. by Mr. Bunster for the yearling roan heifer, Mirabel.

"Paw," said the historical youth of the joke column, looking up from an agricultural volume with his eyes bulging. "It says here—"

"Shut up," was paw's rejoinder. "don't you see I'm readin'?"

"But say, paw, I want to know. Honest, it's sumpin', paw. It says here: 'No feed will make any difference in the percentage of butter-fat in the milk of a given cow.' What in tarnation, paw, is a given cow? It says a whole lot here about given cows. What breed is a given cow, paw? Is it any breed, paw? If it is, paw, ortent it be spelt with a big G, like Gurnsey?"

"Look-a-here, Steve," said paw, impatiently. "them given cows is only any old cow that the speriment stations and professors lectures about and 'vestigates with to prove things by. They haint no breed. They're a good deal like the north pole; you never see 'em, but they're figured on just the same."

PORTLAND CEMENT
Concrete Silo



BUILT FOR SHERMAN HARRIS, VERSCHOYLE, ONTARIO,
14 feet in diameter and 30 feet high, with
"RATHBUN'S STAR" BRAND
MANUFACTURED BY The Canadian Portland Cement Co., LIMITED
SOLE SALES AGENTS:
THE RATHBUN COMPANY
310 and 312 FRONT STREET WEST, TORONTO, ONTARIO

Spring Grove Stock Farm
Shorthorn Cattle and Lincoln Sheep.

HERD prize and sweepstake at Toronto Industrial Exhibition, three years in succession. Herd headed by the Bruce Mayflower bull, Prince Sunbeam, imp. Present crop of calves sired by imp. Wanderer's Last, sold for \$2,005. High class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply om

T. E. ROBSON, ILDERTON, ONT.

BONNIE BURN STOCK FARM
40 rods north of Stouffville station, offers Scotch Shorthorns, 40 Shropshire sheep, cheap, good breeding; also Berkshire pigs. **D. H. KUSSELL,** Stouffville, Ont.

MAPLE SHADE FARM
Home of the oldest herd of **CRUICKSHANK SHORTHORNS** in Canada.

SHROPSHIRE FLOCK founded 1871. Carload of yearling rams of choice quality, ready for inspection. Call or write om **JOHN DRYDEN & SON, Brooklin, Ont.**

Present offering of **Shorthorns:** Our stock bull, fering in **Heir-at-law** = 31533 =, a grand stock-getter and sure, 3 years old. Also 1 bull, 13 months; heifers and cows. Shropshires, all ages and sex. **BELL BROS.,** Bradford, Ont.

SHORTHORNS. Lady Fannys and Beautys for sale 5 bulls, from 6 to 14 months old; 7 heifers, from 1 to 3 years old, some of them in calf to Prince Eclipse 33049. om **James Caskey, Tiverton P. O., Kincairdine Sta.**

GRANDVIEW SHORTHORNS
For Sale.—1 bull, by Royal Beau; also a few females. Herd headed by the Marr Missie bull Marengo = 31055 =. om **J. H. BLACK & SON, ALLANFORD P. O. and STATION.**

Pennabank Stock Farm. Our 1903 crop of lamb, sired by a Rudyard bred ram, are now offered, together with cows, shropshires, by Mansell, Cooper and Knox rams. Shorthorns of choice breeding and good individuality also for sale. **HUGH PUGH, Whitevale, Ont.** om

BELLEVUE SHORTHORNS.
Both sexes, imported and home-bred. All ages. Prizewinners at home and abroad. **EDWIN BATTYE, Gore Bay P. O. and Port. MANITOULIN ISLAND.**

CHOICE SHORTHORNS.
We are now offering 12 heifers from 6 months to 2 years of age, and 7 bulls from 6 to 10 months old, some of them extra choice and prizewinners—a low-down, thick lot. Also, Yorkshires. **WM. McDERMOTT, Living Springs P. O., Fergus Station.**

Imp. Shorthorns and Lincolns

A. D. McGUGAN, RODNEY, ONT., P. O. AND STA.,

Imported Aberdeen Hero at the head of the herd, which is composed of the best Scotch families. Ten grand shearing and two-year old ewes for sale, in lamb to a Royal winner. Also ewe lambs from imported Dudding ewes at reasonable prices. om

Ten Yearling and Two-year-old Heifers sired by Nero of Glen Rouge, and bred to Dentonia's Achievement. om **E. B. HINMAN & SONS, Grafton, Ont.**

I GUARANTEE A \$5.00 PACKAGE OF BARREN KOW CURE postpaid, to make any cow under 10 years old breed, or refund money. No trouble, no risk. Given in feed twice a day. om **L. F. Selleck, Druggist, Morrisburg, Ont.**

A SNAP IN JERSEYS. Three fine young cows, bred, and a good young bull, not akin to cows or progeny. Price, \$225 for the four. Write for particulars. **W. W. EVERITT, Dun-Edin Park Farm, Box 552, Chatham, Ont.**

JERSEY BULLS. Three choicely-bred Jersey bull calves for sale. The dam of one, Bijou of Glen Rouge, has a test of 19 lbs. 8 ozs. of butter in 7 days, a piece of the World's Fair champion, Merry Maiden. Also the 3-year-old bull, Brampton Rex, a sure stock-getter, very gentle, and a prizewinner. **THE MISSES MACDONALD, Metcalfe St., Guelph, Ont.**

**ARE YOU THINKING OF SELECTING
A CREAM SEPARATOR THIS YEAR
FROM ANY OF THE FAIR EXHIBITS?**



If so, will you do it by guess, or will you use the same good common sense that serves you so well when you buy anything else? Will you buy a machine with no other recommendation than that of a salesman, who slaps you on the back, tells you "fairy stories" of how many machines he has sold in the past and that you must buy his Separator to be "in the swim," or will you look into the separator proposition a little and endeavor to select a good machine, instead of buying a good big lot of talk and an inferior separator? Now, if you intend to select a real good separator, just look at the NATIONAL, then look at all the other machines, then look at the NATIONAL again, then buy it. We know that you WILL BUY IT when you see it, because your good judgment won't let you do anything else. It is the simplest machine in the world, and is unexcelled by any. It is safe and durable and easily washed and the handsomest machine on the Canadian market to-day.

MADE IN THREE SIZES:
STYLE "B"—Capacity 250 lbs. per hour.
No. 1 — 330 to 350 lbs. per hour.
No. 1 A—450 to 500 lbs. per hour.

Write to the following general agents for our booklet, "Will It Pay":
The Creamery Supply Co., Guelph, for South-western Ontario.
The T. C. Rogers Co., Guelph, for Northern and Eastern Ontario.
Mr. Jos. A. Merrick, Winnipeg, Manitoba, for Manitoba and N.-W. T.
Mr. H. E. Nunn, Truro, N. S., for Maritime Provinces; or to

The Raymond Mfg. Co., of Guelph,
GUELPH, ONTARIO.

**CANADA'S GREATEST
JERSEY HERD.**
127 SELECTED JERSEYS 127

We have now for sale 15 imported and home-bred bulls, out of noted dairy and prizewinning cows, and by such sires as Brampton Monarch, Imp. Also cows and heifers, all ages. Call and see our exhibit at the leading shows. Farm within 2 miles of station, C. P. R. and G. T. R. om **B. H. BULL & SON, Brampton, Ont.**

SPRING BROOK HOLSTEINS.

Meet me at Toronto Exhibition. Will again exhibit. Come and see my stock and get prices. A choice lot of young bulls to offer, of rare quality and breeding. **A. C. HALLMAN, Waterloo Co., Breslau, Ont.**

Lyndale Holsteins

We are now offering a number of young bulls, fit for service, sired by Lady Waldorf's De Kol. Spring calves of both sexes.

BROWN BROS.,
Lyn P. O. and Station.

HOLSTEINS, TAMWORTHS, COTSWOLDS.

Present offering: Young boars and cows fit to breed, and younger ones. Choice animals. Ram and ewe lambs and two 2-shear rams. Perfect covering. **E. O. MORROW, Hiltou Ont., Brighton Sta.**

4 HOLSTEIN BULLS 4

FOR SALE: From 4 to 7 months old, having sires in their pedigrees from such strains as Inka, Netherland, Royal Aggie, and Tritonia Prince, and out of imported females that have proven their worth at the fair. **THOS. B. CARLAW & SON, Warkworth.**

Riverside Holsteins

Choice young bulls for sale, from 3 to 7 months old, whose sire and dam are in the Canadian Advanced Record of Merit.

MATT. RICHARDSON, & SON,
Haldimand Co. Caledonia, Ont.

Brookbank Holsteins

16 to 25 lbs. of butter in 7 days' official test are the records of this herd of Holstein cows. Heifers of equivalent records. Bulls for sale whose sires and dams are in the Advanced Registry, with large official butter records.

GEO. RICE, Currie's Crossing, Ontario,
OXFORD COUNTY.

HIGH-CLASS AYRSHIRES.

My present offering is one yearling bull, one 4 years old, and also cows and a choice lot of spring calves, of both sexes.

F. W. TAYLOR,
Wellman's Corners P. O., Howick Sta.

Maple Park Farm Holsteins.

Home of all the leading strains. Nothing forsale. **SIDNEY MACKLIN,**
Streetsville P. O. and Station, C. P. R.

Ridgedale Farm Holstein-Friesians for Sale.

2 yearling bulls; also bull and heifer calves; all of choice breeding. Prices always reasonable. Write, or come and see them. **E. W. WALKER, Utica P. O.** Shipping stations: Port Perry, G. T. R.; Myrtle, C.P.R. om

Holsteins and Tamworths

Present offering: 12 March and April sows, 10 June boars and sows; sired by Elmdale Ned 2503, a typical sire of the bacon type. Write for what you want, or call and see the stock. Enquiries promptly answered.

BERTRAM HOSKIN,
Grafton Station, G.T.R. **THE GULLY P. O.**

IF YOU WANT A HOLSTEIN BULL, bred from producers, and that is again capable of siring producers, at a living price, write

H. BOLLERT,
Cassel, Ont.

Ayrshire Bulls

of last August, November and March births. Also a few heifers due to calve in fall and early winter.

W. W. HALLANTYNE,
Neldpath Farm, Stratford, Ont.

SUNNYSIDE AYRSHIRES.

Our present offering is 10 heifers, from 10 mos. to 2 years of age; 1 bull, 6 mos. old, and 8 young cows—a rare good, straight-lined lot, and will be sold right. **J. W. LOGAN, Allan's Corners P. O., Howick Sta., Que.**

W. F. STEPHEN, Trout River, Que., breeder of Ayrshire Cattle. A few choice bulls fit for service and several bull calves, sired by Klondike of St. Annes 8897, and from deep milkers, with good udder and teats. Carr's Crossing, 1 mile, G.T.R.; Huntingdon, 5 miles, S.L. & A. R.

High-class AYRSHIRES,

including cows, heifers and young bulls out of our prize and sweepstakes cows. Foundation selected with due regard to quality and productiveness. Come or write.

WM. WYLIE, HOWICK, QUEBEC.

Spring Burn Ayrshires and Oxford Downs
Our special offer at present: 10 bulls from 1 to 9 months old, 4 two-year-olds, 2 shearlings, and 7 ram lambs; a choice lot. Prices reasonable.

E. J. Whittaker & Sons, North Williamsburg, Ont.

Ayrshires and Yorkshires

We will have an exhibition and for sale some choice Ayrshires at the coming Dominion Exhibition. Yorkshires 180 months old, of right type, on hand.

ALEX. HUME & CO., MENIE P. O.,
Boards Station, G. T. R.

GOSSIP.

Mr. H. J. Davis, Woodstock, Ont., importer and breeder of Shorthorn cattle and Yorkshire swine, makes a change in his advertisement, in which he offers for sale imported cows and heifers, and Canadian-bred bulls, cows and heifers of choice breeding. He recently received from quarantine a fine importation of Large White Yorkshires from the celebrated herd of the Earl of Rosebery, Dalmeny Park, Edinburgh. They are all of the most improved type, and the sows are all due to farrow shortly. Has also a couple of good young bulls, due to leave quarantine next month. They are of the best breeding, and the animals themselves are of the sort for herd-headers.

This has been a banner year on the Pennabank Stock Farm of Mr. Hugh Pugh, Whitevale, Ont., breeder of Shorthorns and Shropshires. The Shropshire ewes dropped one of the largest crops of lambs in the history of the flock from the service of the imported Rudyard-bred ram brought out by Robert Miller, of Stouffville, and used by him quite extensively. In addition to their good quality and evenness, this year's lambs are noticeable for their uniformly good color, the brown of the faces and legs not extending into the fleece as is frequently seen. The ewes in the flock are mostly by Mansell and Cooper-bred rams, and shearlings by a Knox ram imported by the Hon. John Dryden, and lately used in Mr. Hanmer's flock at Mount Vernon. The Pennabank Shropshires will be found at the local shows, where in recent years they have been getting a good share of the awards.

Sales of Shorthorns have been so good that the herd is considerably reduced in numbers, but the best females have been retained. Scotch Stamp 33979, by Prince of Uxbridge 3039, dam Olga 16880, by 2nd Vice President 9957, is still lord of the harem. Delilahs and Victorias are the principal families represented, and their calves this year are a nice even lot. Young stock of both sheep and cattle are now offered, a carload of lambs being available on short notice.

GOOD SHIRES AT AUCTION.

Walter Harland Smith announces an auction sale of registered Shire stallions and mares, including prizewinners in Toronto, October 7th. This consignment is the property of S. George Mackaness, Abington Lodge, Weston Favell, Northampton, England. Every animal is young and of good quality. Note the advt., and write Mr. Smith, the Repository, Toronto, for a catalogue.

TRADE TOPICS.

GET STRONG.—How? Use Bovril. What's that? Something especially valuable for invalids. See advt., and make enquiries.

THE OXFORD SEPARATORS.—Are you interested in getting cream out of milk? If so, and you have not a separator, read our advt. of the "Oxford Cream Separator," made by the Durham Manufacturing Co., Durham, Ont. Then write for particulars at once.

EDUCATION AT HOME.—The attention of our readers is called to the advertisement of the Canadian Correspondence School, of Toronto, Ont. This institution was founded in order to give persons an opportunity to secure a liberal education in certain subjects by home study. The advantages of this system of training are many: You study in your spare time, at comparatively small expense, and your studies do not interfere with your ordinary occupation. The education is not theoretical, but it is practical. The staff of this institution are very competent to teach in their various departments. Instruction is given in agricultural science, civil service, household science, etc. Students are prepared for matriculation examination, and no essential study is omitted in the course. We advise our readers to read the ad. of this very practical institution, and write at once for a catalogue giving full information regarding its advantages.

**GET AN
EMPIRE**

The Empire Cream Separator turns more easily, is more easily cleaned and kept clean, is more satisfactory in every way than any other cream separator made, because it is simplest in construction and has fewest parts. It will pay you to investigate. Book free.

Empire Cream Separator Co.
28 Wellington St. W.
TORONTO, CANADA.

**THE
Empire Way
MAKES COWS PAY**

DAVID A. McFARLANE,
Breeder of high-class **KELSO, P. O.**
AYRSHIRES.

Young stock for sale from imported and home-bred foundation. Prices reasonable.

STOCKWOOD AYRSHIRES.

Our herd now numbers 40 head of all ages, with milk records from 40 lbs. a day up. Stock of both sexes for sale. Bulls a specialty.

WATT BROS., Allan's Corners P. O.,
St. Louis Sta., near Howick, Que.

AYRSHIRES AND YORKSHIRES.

My Ayrshires are all bred from imported stock; Yorkshires from Mr. D. C. Platt's imported stock. Choice young animals for sale.

James McCormick, Sr., Roekton, Ontario.

Menie Stock Farm Choice young **AYRSHIRE** bulls and heifer calves, from 2 to 9 months old. Also cows and heifers all ages. Write **WM. STEWART & SON, Menie, Ont.**

Maple Cliff Dairy and Stock Farm

BREEDERS OF **AYRSHIRE CATTLE, BERKSHIRE and TAMWORTH FIGS.**

Special offer this month in young boars of both breeds, fit for service. One young bull, 2nd at Toronto last year as yearling.

Farm adjoins Central **R. REID & CO.,** Experimental Farm. **Hintonburg, Ont.**

HIGH-CLASS AYRSHIRE CATTLE

FOR SALE: Both sexes; bulls and heifer calves from 2 to 9 months old; cows and heifers all ages. Famous prizewinners bred from this herd, including Tom Brown and White Floss, sweepstakes prizewinners at Chicago. **DAVID BENNING & SON, "Glenhurst,"** Willamstown, Ont.

Tredinnock Ayrshires.

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchincrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars address **JAMES BODEN, Mgr.,** St. Anne de Bellevue, Quebec.

Farm close to St. Anne Station, Quebec. **G.T.R. & C.P.R.,** 20 miles west of Montreal. om

**IMPORTED AND HOME-BRED
AYRSHIRES
FOR SALE.**

5 bulls 1 year old—2 of these imported, the other 3 have such grandams as Alice 2nd of Lessnesock, Edith of Lessnesock and Mayflower 2nd of Drum-sue. Females all ages.

Robt. Hunter & Sons, Maxville, Ont.

HOMECROFT FARM for dairying and pure-bred

stock. Ayrshires, Chester Whites, and Barred Rocks. We have some fine bulls fit for service. Also hogs of all ages. Prices reasonable. Try us. **J. F. PARSONS & SONS,** Barnston, Que.

AYRSHIRE CATTLE

SHROPSHIRE SHEEP, B. P. ROCK FOWL and 20 YOUNG LARGE ENGLISH BERKSHIRES FOR SALE.

J. YUILL & SONS, om Carleton Place, Ont.

**FOR SALE
At a BARGAIN.**

The well-tried stock bull, Roseland of Ste. Annes 891, six years of age. Sire Kelso Boy, by Silver King. Dam White Lady of Ste. Annes, by Glencairn 3rd (imp). Has been in use in my herd for 5 continuous seasons.

DAVID LEITCH,
FAIRVIEW FARM, CORNWALL, ONT.

SHARPLES TUBULAR FARM CREAM SEPARATORS



A lot of people make separators, and all are made with the bucket bowl excepting one—
The Tubular.
There is but one Tubular type of separator and we make that. Our competitors cannot make it because our patents prevent. They have to make the old style bucket bowl or none at all. The Tubular is a great improvement, and it is just a question whether you want this improved machine or one of the old style bucket bowl machines. Write for free catalog 193.
THE SHARPLES CO., P. M. SHARPLES,
Chicago, Ill. West Chester, Pa.

NETHERLEA AYRSHIRES.
Present offering: 3 bulls fit for service, prize-winners; also a few young females, sired by Napoleon of Auchinbrain (imp.), whose dam's record was 72 lbs. a day, and all of them out of record cows.
F. D. McCALLUM,
Danville P. O. and Station, Quebec.

EUROPEAN ADVERTISEMENTS.

W. W. CHAPMAN,
Secretary of the National Sheep Breeders' Association,
Secretary of the Kent or Romney Marsh Sheep Breeders' Association,
and late Secretary of the Southdown Sheep Society.
Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.
Address: **MOWBRAY HOUSE, NORFOLK ST., LONDON, W. C., ENGLAND.**
Cables—Sheepcote, London.

HAMPSHIRE DOWN SHEEP.

"RESERVE" FOR CHAMPION IN THE SHORT-WOOL CLASSES, SMITHFIELD, LONDON, 1901.

Splendid Mutton, Good Wool, Great Weight.

This highly valuable ENGLISH BREED OF SHEEP is unrivalled in its wonderfully early maturity and hardness of constitution, adapted to all climates, whilst in the quality of mutton and large proportion of lean meat it is unsurpassed; and for crossing purposes with any other breed, unequalled. Full information of

JAMES E. RAWLENCE,
SECRETARY HAMPSHIRE DOWN SHEEP BREEDERS' ASSOCIATION,
SALISBURY, ENGLAND.

THE RIBY HERD and FLOCK
OF SHORTHORN CATTLE AND
LINCOLN LONG-WOOL SHEEP
HENRY DUDDING,
Riby Grove, Great Grimsby, Lincolnshire.

To get Champions by the produce of Champions. These can always be secured from the Riby Grove Herd and Flock, the largest in England, comprising the choicest lines of blood extant. There is a world-wide reputation, and suffice to say that at no period of its history, dating back 150 years, were they stronger in merit or quality. 86 awards were won in 1901, and equally good results secured in 1902, culminating in those great victories at Smithfield Show, where its pen of wethers won the 100-guinea Challenge Cup for the best pen of sheep of any age or breed; and at Chicago Live Stock Show, in December last, where a ram from this flock won the \$400 prize offered for the heaviest sheep in the world. **CABLE—Dudding, Keelby, England.**

American Leicester Breeders' ASSOCIATION.

A. W. Smith, Pres., Maple Lodge, Ont.
Pedigrees now being received for Vol. 4. For information, blanks, etc., address:

A. J. TEMPLE, Sec., CAMERON, ILL., U. S. A.

A CARLOAD of young Dorset ewes, a few good Chester White hogs, and an eight-months old shorthorn bull for sale reasonable. om
H. HARDING, Thorndale, Ont.

Shropshire sale, numbering upwards of 50, of both sexes, from imported rams and prize-winning ewes. Prices reasonable. om
MOWAT BROS., Hillsdale, Ont.

TRADE TOPICS.

BUILT RIGHT.—The use of cement has worked a revolution in the construction of walls and floors on the farm. A pioneer in every step of progress was Mr. Isaac Usher, Queenston, Ont., and he still is a leader in the procession of progressive manufacture. This summer and fall, hundreds of structures, including dwelling houses and factories, will be built, and it is most important that the work be laid out properly, and good cement used in the proper way. Look up Mr. Usher's advertisement in this issue, and write him for information, which he will cheerfully give.

EFFICIENCY IN ENGINES.—In recent years, no power has come so rapidly to the front as the gasoline engine. The McLachlan Gasoline Engine Co., Limited, has succeeded in producing one of the most perfect gasoline engines in the market. This efficiency has been reached after years spent in the experimental stage. Whether stationary or portable, vertical or horizontal, whether marine, for threshing or for any other purpose, their engines are everywhere giving the best satisfaction. Recently, they shipped one of the largest marine engines ever built in Canada to the Rev. J. Paquin, Wewminkong, Ont., for freight and passenger purposes on the Upper Lakes. He writes as follows: "I have just given a fair trial to the 16-h.p. marine engine purchased from you. We had a run down from Manitoulin Island to Owen Sound, a distance of one hundred miles, in thirteen hours, in very heavy weather. The engine worked without a hitch the whole time, no matter how much the boat would pitch and roll. I believe a longer experience will only strengthen my opinion of your engine, that it is the most reliable and easy to handle." They have similar testimonials from every quarter. Their engines do their work well, are easy to handle, and cost but little to run them. Call at their office, 201 Queen St. East, Toronto, or write for their catalogue and price list, or to W. C. Wilcox & Co., Winnipeg. See advertisement in another column.

A PROSPEROUS COLLEGE.—The Forest City Business and Shorthand College, of London, Ont., has just entered upon its nineteenth year, under the management of J. W. Westervelt, its principal and founder. The college has won its way, inch by inch, among the colleges of Canada, until to-day it stands in the front rank. Its students are examined by an independent board of examiners. Candidates write under a number, similar to the plan in use for the examination of teachers. It requires but a moment's thought to see that the students who are thus examined must of necessity be better prepared than students of schools setting up their own standard. Mr. Westervelt informs us that the season of 1902-3 was the most successful in the history of the school, upwards of two hundred and fifty students being enrolled. Eight of the graduates have been placed as teachers in business or shorthand colleges, and the remainder have received good positions in mercantile offices in the different cities and towns of the Dominion, as well as the United States. The principal says that there never has been such a demand as at present, especially for young men. The expansion of trade in Canada has created a demand for wide-awake young men and young women of good English education and correct habits, possessing a knowledge of commercial and shorthand work, and young men who neglect the opportunities presenting themselves every day will probably regret it in years to come. It does not follow because a young man from the farm takes a business course that he must, therefore, leave the farm. No class of young men require just such a training as the Forest City Business College gives more than the young man from the farm. He has to do business on his own account sooner or later, and the better prepared he is the better for himself. A business education will save him ten times the cost. Whether he leaves the farm or stays there, he needs it.

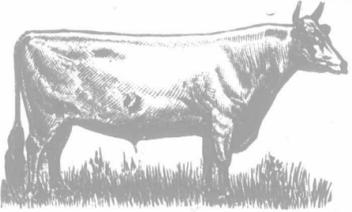
NOTE CLOSE MESH AT BOTTOM



Page Acme Poultry Netting
A bird cannot fly through as small a hole as it can crawl through, so Page Poultry Netting is made with small meshes at bottom and large at top. No. 12 gauge wire top and bottom—no sag. Get Page fences and gates—they're best.
The Page Wire Fence Co., Limited, Walkerville, Ont. Montreal, P. Q., and St. John, N. B.

AYRSHIRES

WATSON OGILVIE,
PROPRIETOR.
Ogilvie's Ayrshires won the herd and young herd prizes at Toronto, London and Ottawa in 1900; also at the Pan-American, in 1901, and in 1902 they won all the herd prizes and medals, sweepstakes and diplomas, with one exception. The herd is headed by Douglassdale (imp.), size of teats, and milk (quantity and quality), champion at the Pan-American and at Ottawa, Toronto and London, in 1902, ably assisted by Black Prince (imp.). Stock, imported and home-bred, for sale at all times.



ROBERT HUNTER, Manager.
Near Montreal. One mile from electric cars. **Lachine Rapids, P. Q.**

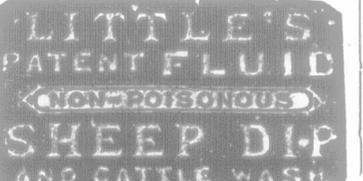
SPECIAL OFFERING FOR THIS MONTH
Ayrshire Bulls. Isleigh Prince 13438, fine individual, white, brown spots, aged 3 yrs.; one 10 months, brown and white. Few fine calves.
Guernseys. One bull, 8 months; one bull 3 years and 6 months. A fine specimen of the breed. Address, for particulars, etc.,

ISALEIGH GRANGE FARM, DANVILLE, P. Q.

"Farnham Farm" Oxford Down Sheep

We are offering at moderate prices 200 imported and Canadian-bred Rams and Ewes of most modern type, of different ages. We intend to exhibit at Toronto, Syracuse, London and Ottawa.
GUELPH, G.T.R., and TELEGRAPH. HENRY ARKELL, ARKELL P. O., O. P. R.

LITTLE'S PATENT FLUID SHEEP DIP AND CATTLE WASH
NON-POISONOUS



THE ORIGINAL Non-Poisonous Fluid Dip

Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.
For sheep. Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.
Cattle, horses, pigs, etc. Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.
Prevents the attack of Warble Fly.
Heals saddle galls, sore shoulders, ulcers, etc. Keeps animals free from infection.

No danger, safe, cheap, and effective
Beware of imitations.

Sold in large tins at 75 cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranch men, and others requiring large quantities.
SOLD BY ALL DRUGGISTS. SEND FOR PAMPHLET.
Robert Wightman, Druggist, Owen Sound
Sole agent for the Dominion.

SHROPSHIRE.

We are now offering an extra good lot of shearing Shropshire Rams and Ewes, some fitted for show, also ram and ewe lambs. All at very reasonable prices.
JOHN MILLER & SONS,
Claremont Station, C.P.R. BROUGHAM, ONT.

LEICESTERS.
Ten pairs of Shearing Ewes, and this year's crop of lambs. Well woolled, well grown, and good quality.
Mac Campbell,
Northwood Station, G.T.R. Samson P.O., Ont.

FAIRVIEW SHROPSHIRE.
Who wants a good flock-header? We are here, both home-bred and imported. Also a few show ewes, and a fine lot in fields. All guaranteed fully as good as described. Have in past satisfied customers and will again. Your orders will have my best attention.
JOHN CAMPBELL, Fairview Farm, Woodville, Ont.

PRIZEWINNING COTSWOLDS.
Imported and home-bred stock, prizewinners at all the leading fairs. **ELGIN F. PARK,** om Box 21, Burgessville, Ontario, Canada.

Lincoln Sheep and Shorthorn Cattle

Choose Lincoln Lambs of both sexes. Several carloads choice yearling rams and two carloads of one and two-year-old ewes, ready for Sept. and Oct. delivery. Also some choice young bulls, cows and heifers, which will make good herd foundations.

F. H. NEIL, PROP.
Telegraph and R.R. Station, LUCAN, ONT.

SHEEP BREEDERS' ASSOCIATIONS
American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to **MORTIMER LEVERING, Secretary, Lafayette, Indiana.**

Dorset Horn Sheep

THE largest flock in America. The most celebrated prizewinners at the Columbian Exhibition and Canadian exhibitions. Contains more Royal winners than any other. Awarded 5 out of 8 first prizes at Toronto, London and Ottawa in 1900. Flock of 300. Stock for sale always on hand.

John A. McGillivray, Uxbridge, Ontario.

LINDEN OXFORDS—A fine bunch of fitted and field rams; also some choice ram lambs, sired by English and Canadian prize-winners; a number of show sheep among them.
R. J. HINE, Dutton, Elgin Co., Ont.

SHROPSHIRE shearing rams, shearing ewes, ram and ewe lambs of choice breeding. Prices right. **GEO. HINDMARSH, Ailsa Craig, Ont.**

SHROPSHIRE—A flock of 110 head, fine, healthy sheep. Can supply 2-year, 1-year and ram lambs; also 2-year, 1-year and ewe lambs. Prices reasonable. **ABRAM RUDELL, Hespeler, Ont.**

SHROPSHIRE FOR SALE—11 2-year-old rams, 11 shearing rams, 16 ram lambs, 20 ewe lambs, also shearing and older ewes. Registered or eligible. Low-set, well covered, in fine condition. Sires from Campbell and Dryden flocks. Prices moderate. **MALCOLM McDOUGALL, Tiverton, Ont.**

W.S. CARPENTER

Breeder and Importer of
SHROPSHIRE SHEEP
Model Farm, Simcoe, Ontario.
Am offering a choice lot of yearling rams, yearling ewes, ewe lambs and ram lambs sired by Imported Mills ram, "Ruddington Knight" and lambs by Thorpe Victor, first-prize yearling ram at Toronto, 1902. If you want something with price consistent with quality, a card will bring them.



LIVE STOCK are free from insects and skin diseases when **West's Disinfecting Fluid** is used.
The WEST CHEMICAL CO. TORONTO.

Liver Complaint and Biliousness

Accompanied by Stomach Troubles and Headaches are Cured by Dr. Chase's Kidney-Liver Pills.

Pale, sallow, yellow skin tells of a torpid, sluggish liver and impurities in the blood, which will be entirely removed by Dr. Chase's Kidney-Liver Pills. By acting directly on the liver and bowels this great medicine brings prompt and lasting cure for all derangements of these organs, cures indigestion and dyspepsia, and removes the cause of headaches and biliousness. One pill a dose. Twenty-five cents a box at all dealers. Portrait and signature of Dr. A. W. Chase on every box.

BEST and CHEAPEST
IN THE MARKET.

Kemp's Instantaneous Sheep-Dipping Fluid.

1/2-gal. Imperial tin for **75c.**

STRENGTH EQUAL TO ANY.

Instantly kills ticks and parasites on sheep and lambs. Improves and waterproofs the wool. A sure remedy for vermin, mange, etc., on horses, cattle, sheep, and dogs. Ask your druggist for Kemp's Dip. I will express it, prepaid to any part of the Dominion, for \$1.

W. W. STEPHEN, Agent,
MEAFORD, ONT.

"BROAD LEA OXFORDS."
Am offering choice ewe and ram lambs, shearing ewes and a few shearing rams for flock headers. Also young Yorkshire pigs of the best bacon types. Teeswater, C. F. R. **W. H. ARKELL,** Mildmay, G. T. R. on Teeswater, Ont.

TAM WORTHS.
Young pigs for sale, from medal-winning sow, O. A. C. 110, and other good ones, sired by Imp. Starlight, Pan-American First, and Bold Boy, Toronto winner. **JOHN HORD & SON,** on Parkhill P. O. and Station.

Newcastle Herd of Tamworth Swine
Have for a number of years taken a share of the best prizes offered at Toronto Exhibition, but this year has excelled all past records, having taken the sweepstakes for the best herd; also both silver medals for best Tamworth boar and best Tamworth sow, besides many other prizes in the various classes. Our present offerings are: A few choice young sows, 4 to 5 months old; 2 yearling sows, in pig; and we are now booking orders for spring pigs, both sexes. Enquiries promptly answered. **COLWILL BROS.,** NEWCASTLE, ONT.

TAM WORTHS.
FOR SALE: Two young sows, bred to Dandy = 2954 =, a good typical sire; also several young boars and sows of very best breeding.

BRONZE TURKEY EGGS—\$3 per setting.
HAZEL DELL **D. J. GIBSON,** STOCK FARM, Bowmanville, Ont.

BERKSHIRES AND YORKSHIRES.
For Sale—Boars fit for service; sows in farrow and ready to breed, and younger stock, all of the ideal bacon type. Pairs not akin. **JOHN BOYES, Jr.,** Rosebank Farm, on Churchhill, Ont.

IMPROVED CHESTER WHITES
Boars fit for service. Sows ready to breed. Young pigs in pairs, not akin.
LARGE ENGLISH BERKSHIRES.—Sows ready to breed, and young pigs in pairs, not akin. Pedigrees registered. For prices write or apply to **TILMAN E. BOWMAN,** Berlin, Ont.

GLENBURN STOCK FARM
ENGLISH BERKSHIRES of bacon type; choice young stock for sale; also Short-horn calves, Shropshire rams and ram lambs. Prices reasonable.
JOHN RACEY, Jr., Lennoxville, Que.

FOR SALE:
Yorkshires and Holsteins
Best type and quality. Young stock constantly on hand. Prices right. **R. HONEY,** on Brickley P. O., instead of Warkworth.

YORKSHIRES FOR SALE.
Young sows, bred for Sept. and October farrowing, and young stock of spring farrowing on hand. Prices reasonable.
WM. HOWE, North Bruce Ont.

GOSSIP.

Messrs. J. M. Gardhouse, Weston, Ont., and Henry Wade, Toronto, have been appointed judges of live stock at the British Columbia Provincial Exhibition, to be held at New Westminster, the first week in October. Capt. T. E. Robson, Elderton, will judge at Victoria, B. C., and other places in the Province, and take part in farmers' institute meetings there in October.

Mr. A. C. Hallman, Breslau, Ont., breeder of Holstein cattle and Tamworth swine, writes: "Never was there a finer lot of black-and-whites gathered together at Spring Brook Stock Farm than can be found there to-day. This herd now numbers nearly forty head of Holsteins of a rare combination of the leading families of the breed. My silver-medal bull, Judge Akkrum De Kol 3rd, has done splendid work. His impress is very strong. All the young stock is sired by him, and they show a strong combination of the good points which careful breeding and good mating will insure. I have decided to show some stock, and would kindly invite a careful inspection of my herd. Will offer stock of all ages and both sexes. Have a rare lot of young bulls to offer."

SMITH & RICHARDSON'S CLYDE FILLIES.

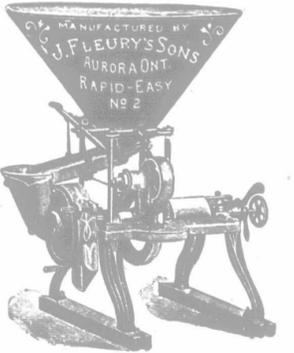
There should be no reason why one looking for good fillies should not find something to his liking in the new importation of Smith & Richardson, Columbus, Ont., for both the modern, big, rangy type and the older blocky form are well represented in the lot. Then, there is one, Salome 5th, a two-year-old, that combines both types. Rosaline, a big, breedy-looking two-year-old, is of the modern type. She carries herself well, and her bone and feet will stand the closest inspection. She was bred by John Wilson, of Tinwald, and was sired by Sir Mark (10648), by Fortune Still (9752); dam by Darnley (222). For dam he has Lady May (14879), by King of Kyle 10213, and his grandam was Sunbeam, by Lord Lyon. Miss Wilson (4775), Vol. 26, another two-year-old, is after the same type as Rosaline. She was bred by Peter Wilson, Muirside, Holyrood. Her sire, King of Kyle (10213), was by Prince of Kyle, by Prince of Wales, out of Mysie, by Darnley; and her dam, Jenny of Muirside, was by the noted Prince of Currahan (8151), by Prince of Wales. Miss Wilson is now in foal. One of the outstanding fillies is Lady Sally. She shows a splendid top with a good front, and excellent feet and legs. The Dean (10973), by Royal Gartley (9844), was her sire, and on the dam's side there is Lady Grace (14114), by Scottish Standard; grandam Lady June, by Henry Irving (4440). Then she follows the same line as Rosaline, through Sunbeam, by Lord Lyons and Trim (939), by Sir Colin (1299). The low-set, solid type of Clyde is exemplified in Madge of Hallcroft (4176), a two-year-old. She promises to be a useful mare if mated with horses of considerable size and good action. There is little lacking in the quality of her bone, and she moves straight and clean. She is now in foal to Locomotion, of the same importation. Madge was sired by Ornament (10603), and he by Baron's Pride (9122). Her dam was Ursula (13985), by Flashwood's Best (2211), by Flashwood (3604), own brother to the great McGregor, and got by Darnley (222). Salome 5th (4777), the combination type of filly, is one of the most attractive just at present. She has a very nice top, and is not wanting in quality of underpinning. She is now in foal to Campaigner, the massive two-year-old of the new importation. Her sire is Count Cedric of Glasniek (11018), by Prince Cedric (1087), by Prince of Wales, and her dam is Salome 4th (13920). The junior filly of the lot is Lady Metro, a scathing type, and of choice breeding, and will grow into a big one. Besides these named fillies, there are several very good un-named females in the same lot, which can be bought for low prices.

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H. G. COOMBET, Cumberland, Ont.

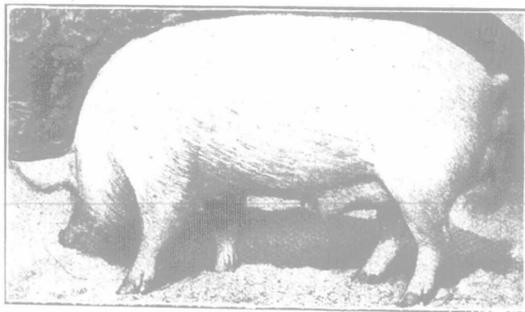
"I am using one of your No. 3, 10-inch 'RAPID-EASY' Grinders, and do not hesitate to say that it is giving every satisfaction. I have had considerable experience with flour grinders, and believe your 'RAPID-EASY' Grinder does more work with the same power than any other machine. IT IS THE BEST GRINDER ON THE MARKET TO-DAY."
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D. C. FLATT & SON, Millgrove, Ont.

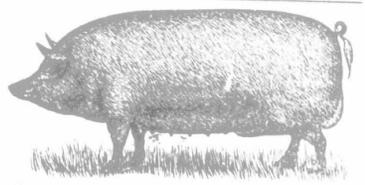
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T. J. COLE, BOX 188, BOWMANVILLE, ONT.

YORKSHIRES
For Sale:—1 boar, Cotgrave King 11649, farrowed Oct. 25th, 1902, sire Summer Hill R. G. (imp. in dam); dam Cotgrave Lassie 7th (imp.); also young boars and sows. Write on **C. & J. CARRUTHERS,** Cobourg, Ont.

GLENBURN YORKSHIRES won Gold Medal at Ottawa, 1902. Herd averages 100, headed by the choice boar, Oak Lodge Prior and Pine Grove Squire. Twenty brood sows, 12 six-months sows, due to farrow March and April; 40 sows and boars, four weeks to three months old; pairs not akin.
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at living prices—A choice lot of imported boars and sows, a number of good spring boars and sows. Also sucking pigs, furnished not akin. Importation made yearly from the leading herds of England. Write on **H. J. DAVIS,** BOX 518, WOODSTOCK, ONT.

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Herd headed by Long-fellow 10th of H. F., assisted by the noted prizewinner, Highclere Crown 3rd. Sows, the best money will buy, and are winners. Young stock of both sexes and all ages for sale, not akin.
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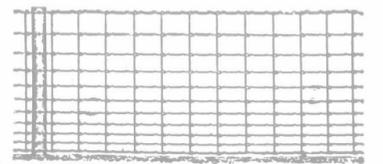
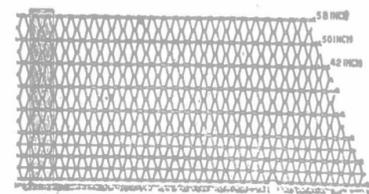
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