

J. G. Rutherford, V. S.  
in Dec 20, 01

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VOL. XXXVII. WINNIPEG. MARCH 5, 1902. MANITOBA. No. 545

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### CONTENTS OF THIS NUMBER.

	PAGE.
A TERRITORIAL HAIL INSURANCE ACT .....	159
HARMONIZE VETERINARY INSPECTION IN THE DOMINION .....	159
THE BLOCKADE TO BE RELIEVED .....	159
GOVERNMENT HAIL INSURANCE .....	159
SOIL CULTIVATION .....	160
SOME NOTES RE GRASSES AND GRASS GROWING .....	160
CHICAGO HORSE MARKET .....	160
"NO SURRENDER" BY THE DODDIE CHAMPION .....	160
CHURCHBRIDGE CREAMERY ASSOCIATION .....	160
THE RESULT OF GOOD MANAGEMENT PLUS GOOD STOCK .....	160
STEAM ENGINEERS' CERTIFICATES .....	161
FAVORS BIG THRESHING OUTFITS .....	161
BORTHWICK (10700) 9720 (ILLUSTRATION) .....	161
TEETHING IN YOUNG HORSES .....	161
OUR SCOTTISH LETTER .....	162
SUMMARY OF THE BUSINESS OF 1901 AT THE DOMINION GOVERN- MENT CREAMERIES IN THE NORTHWEST TERRITORIES .....	162
AN ITEM OF INTEREST TO STALLIONERS AND HORSE BREEDERS .....	162
GO SLOW WITH FALL WHEAT .....	163
A CONDIMENT FOR PIGS .....	163
CONDUCTING BEEF RINGS (ILLUSTRATED) .....	163
STARTING A PLOWING MATCH .....	164
NINETY POUNDS PER COLONY IN MANITOBA .....	164
A WORD TO EDUCATORS .....	164
A PLEA FOR THE EVERGREEN .....	164
UTILIZE THE BY-PRODUCTS .....	165
POSTAL REFORM .....	165
DOCKING HORSES CONDEMNED .....	165
1902 FAIR DATES .....	165
THE KING'S SALE OF SHIRE HORSES AT SANDRINGHAM .....	165
THE HORSE SHOW DATE FIXED .....	165
FANDANGO (4256) 143 (ILLUSTRATION) .....	165
A PRACTICAL ADVANTAGE OF GOOD BLOOD .....	165
BEEF AND MILK .....	166
CARE OF THE BROOD SOW .....	166
OF INTEREST TO CANADIANS .....	166
DEATH OF MR. JAMES I. DAVIDSON .....	166
HORSE SHOWS .....	167
THE LATE MR. JAMES I. DAVIDSON (PORTRAIT) .....	167
THE REMOUNT SCANDAL .....	167
CHEWING OF THE CUD IN LIVE STOCK .....	167
THE LIVE STOCK CONVENTIONS OF MANITOBA .....	168
POULTRYMEN SHOW THEIR BIRDS .....	170
NO DETERIORATION IN STOCK RAISED ON SEPARATED MILK .....	170
MANITOBA VETERINARY MEDICAL ASSOCIATION .....	170
THE TERRITORIAL GRAIN GROWERS' ASSOCIATION .....	171
FLAX AND GRASS .....	171
THE ANNUAL MEETING OF THE WINNIPEG INDUSTRIAL .....	171
CARE OF EWES AND LAMBS .....	172
THE TUBERCULIN TEST .....	172
BREAK AND BACKSET PRAIRIE LAND .....	172
BRANDON HORTICULTURAL SOCIETY .....	172
FATALITY IN PIGS .....	172
BEST IMMIGRATION LITERATURE .....	172
ARE GASOLINE ENGINES SUITABLE FOR THRESHING? .....	172
HORSE STABLE CHANGED TO A MODERN HOPPEN (ILLUSTRATED) .....	173
A MODERN PEN FOR 50 PIGS (ILLUSTRATED) .....	173
PREVENTION OF MILK FEVER .....	174
PETER COLE'S BARN PLAN (ILLUSTRATED) .....	174
BREEDS AND VARIETIES .....	174
THE TRAVELS OF AN EGG .....	174
AGRICULTURE AIDED BY HER HANDMAID, SCIENCE .....	174
TREATMENT OF COWS AT CALVING .....	175
TRAVELLED COWS .....	175
SPLendid MILK RECORD OF HOLSTEIN HERD .....	175
THE HOLSTEIN-FRIESIAN VIEW .....	175
WHERE WE ARE AT IN THE DAIRY BUSINESS .....	175
QUESTIONS AND ANSWERS:—VETERINARY: FOUNDER; TOOTH TROUBLE AND LAMENESS; ECZEMA IN MARE; ENTERITIS (IN- FLAMMATION OF THE BOWELS); LUXATION OF THE PATELLA; INCONTINENCE OF URINE; RHEUMATISM IN PIGS; ERUPTIVE DISEASE IN MARE; PROBABLY TYPHOID INFLUENZA; FISTULA ON HEIFER'S LEG .....	176, 177
MISCELLANEOUS: POULTRY PAPER WANTED; BLACK LAMBS; A BATCH OF QUESTIONS; PLAN OF CIRCULAR BARN (ILLUSTRATED); RE CEDAR BLOCKS FOR STABLE WALL .....	177
MONTREAL MARKETS .....	177
CHICAGO MARKETS .....	177
BRITISH CATTLE MARKETS .....	177
HOME MAGAZINE.—THE FAMILY CIRCLE .....	178
"A MEMBER OF THE BENEVOLENT SOCIETY" (ILLUSTRATION) .....	178
"THE BLACKSMITH'S SHOP" (ILLUSTRATION) .....	179
THE QUIET HOUR .....	180
THE CHILDREN'S CORNER .....	180
GOSSIP .....	181, 182, 183, 184, 185, 188, 189, 190, 191, 193
THE ANGUS BREEDERS MEET .....	181
ANNUAL MEETING OF HAIL INSURANCE COMPANY .....	184
NOTICES .....	181, 183, 185, 186, 191
BOOK REVIEW .....	181, 185
ADVERTISEMENTS .....	157 and 158, 181 to 196

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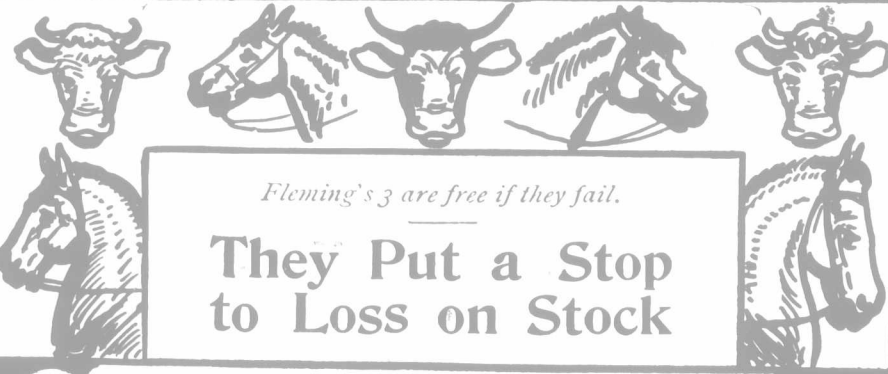
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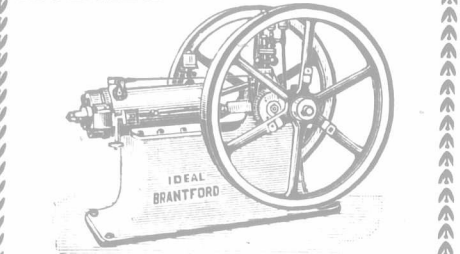
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AND HOME MAGAZINE

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Vol. XXXVII.

WINNIPEG, MANITOBA, MARCH 5, 1902.

No. 545

## A Territorial Hail Insurance Act.

On January 1st of this year, a Hail Insurance Ordinance went into force in the Territories. By this ordinance the Government is empowered to enter into a contract to indemnify against actual loss or injury to growing crop by hail to an amount of \$4 for each and every acre insured. The applicant for insurance shall pay to the minister in whose department the ordinance is administered, 10 cents for every acre insured. In case of injury by hail, the insured is to notify the minister and also the inspector appointed by the minister. Under the authority of the minister, an appraisal of the damage done is to be made.

For the purpose of adjustment under this Ordinance, no account shall be taken of the value of the crop, and in the event of partial loss the amount of compensation to be paid shall bear the same proportion to the total amount of insurance that the loss bears to the total amount of crop. Arbitration is provided for. Should the 10-cent levy not prove sufficient to meet the losses, the general revenue can be drawn upon, or an additional levy may be made on the insured up to another 10 cents per acre. In case of non-payment of assessments, the minister may collect by distress, for which provision is made in the ordinance. Provision is also made that no company or society shall carry on business in hail insurance within the Territories.

Elsewhere in this issue, in a letter from Mr. W. F. Sirett, are pointed out some of the weaknesses of this Hail Insurance Ordinance. One of the weakest points, we believe, is the excluding of private companies from doing business in the Territories, for private enterprise properly safeguarded by the Government would result in a much more general adoption of the use of hail insurance. A purely voluntary system, such as is proposed under the N.-W. T. Ordinance, implying that the farmer, in order to obtain insurance, must send in a written application to the Government, a very simple thing in itself, is, nevertheless, something the farmer that most needs the small protection given will not do. Mr. Sirett, in his letter, suggests an improvement in this part of the Act. Another weakness is the appraisal of damage done by hail, for no matter how fairly the work might be done, it would always be open to the charge of political bias. Another point also referred to by Mr. Sirett is the futility of the provision for the collection of arrears or additional assessments. The amounts in dispute will be small, and for that very reason all the more difficult to collect. It is impossible to think of any government issuing distress warrants for accounts of a few dollars against any voter. As we have occasion to say a year ago, this hail insurance business might very well be left in the hands of private companies, the interests of the public being safeguarded by legislation.

At the present time there seems to be a lack of determination on the part of the Legislatures of the Territories in granting charters to companies, for of late there have been too many charters granted to companies whose aims are the exploiting of profitable enterprises, and whose main objects are to be upon the farmer.

## Harmonize Veterinary Inspection in the Dominion.

The recent change in Dominion Veterinarian renders the time opportune to make a change with respect to veterinary inspection in Manitoba. Just now Manitoba presents the anomaly of carrying out a system of veterinary inspection, which has been well done as far as the limit would allow the present incumbent of that office, but is deficient on account of the inability of the Provincial Veterinarian to prevent diseased stock from coming into the Province. The Province has not the power to quarantine other Provinces, and diseased live stock may be run in to be attended to after crossing the provincial boundaries. Interstate quarantines have not been a success to the south, and we see no reason why the veterinary inspector should not be under the control of the Department at Ottawa, from which place he could receive advice when needed, and from which place he could, in obscure cases, send specimens for microscopical examinations.

An attempt was made a few years ago, by holding examinations, to bring the inspection of animals by the veterinary division of the Department of Agriculture under civil-service rules. However, in spite of the examinations, appointments were made of men who did not take the examinations. It did not seem to be recognized that the mere fact of a man holding a veterinary certificate was not alone sufficient to qualify him for a position as a guardian of the public health. We are accustomed to point the finger at the political morals of the great Republic to the south, and yet when it comes to the application of the principle of appointments to positions in the veterinary service, that country is superior to ours. The civil-service regulations regarding meat inspection in the United States are approved not only by the public, but by the veterinary profession, appointments being made as a result of competitive examination, and not as political preferment. The principle of qualifying examinations has been recognized in the Prairie Province for years, every member of the profession there having to pass such an examination before being permitted to practice; not only so, but the applicant for license must be a graduate of a three-year school. In consequence, the Province of Manitoba is held up as a model in veterinary legislation for the continent.

We submit, then, that the time is ripe to place veterinary inspection in Manitoba under the Dominion Veterinarian, and thus have the Provinces working in harmony, which has not been the case heretofore. Under the old regime glandered horses were allowed to remain unmolested in the Territories, or were allowed to be brought to Manitoba and sold there, by which means the Province was continually reinfected, with a consequent loss of about 50 horses from glanders yearly. During the summer of 1899 a disease broke out among swine in the Carman district, which was diagnosed by Veterinarian Stevenson as hog cholera, and traced by him to an infected district in Western Ontario, from whence the disease had been brought by a boar. In this case, Manitoba had no power to quarantine against importation of such animals.

If Manitoba complained, she was snubbed by the Dominion autocrat, and things went on just the same. An illustration of the futility of the change in the Dominion veterinary service was the outbreak of anthrax last summer, when it was left to a medical man to diagnose the trouble.

## The Blockade to be Relieved.

The Canadian Pacific, in response to the representations made by the Hon. Mr. Bulyea, acting on behalf of the Territorial Grain Growers' Association and the Winnipeg Grain Exchange, has announced that arrangements have been made whereby a supply of cars is being obtained from the Great Northern for the shipment of wheat to Duluth, where there is ample storage. If sufficient rolling stock can be secured from this course, it should relieve the present serious situation.

## Government Hail Insurance.

A CRITICISM OF THE N.-W. T. ORDINANCE. To the Editor "Farmer's Advocate":

After an inspection of the N.-W. T. Ordinance respecting hail insurance, I make a few comments upon it in order to start a discussion, as anything of the nature of a discussion on that question may advance a scheme for the better on the question of hail insurance. I understood that the Territorial Government had passed an Ordinance of the kind, and was in hopes that the Hon. Mr. Haultain would give something of a beneficial and comprehensive nature. In that I am deeply disappointed, for I fear the Ordinance before me will be found unworkable. As a voluntary plan, the commencement is all right, but it is indefinite as to compensation, but very definite as to the cash payment and subsequent assessment, viz., 10 cents in each case. I think there should be a valuation for partial loss of, say, 20 cents per bushel at least. The weakest point, to my mind, is the provision for collecting the unpaid portion of the assessment. It is not to be expected that any minister of the Crown will go to extremes to force payment of such small sums of money by distress upon voters to whom he is indebted for the position he holds; the consequence would be open defiance of the law to a greater extent than is now practiced by the patrons of the Provincial Mutual of Manitoba. This collecting of the premium notes is the weakest point in that institution, and would be infinitely worse under a public official. If you will allow me the privilege, I will outline a very desirable voluntary system that might be administered by the Government of Manitoba, and perhaps would suit the Territories also.

1st. Make the clerks of rural municipalities registration clerks for the registration of applications for insurance, and allow them one half cent per acre for their trouble.

2nd. The premium, whatever it might amount to, to be collected as a tax on the land insured (including, of course, the whole parcel), no tenant to insure without landlord's consent in writing, and the secretary-treasurer to be responsible to the Government for the handing over of said moneys when collected.

3rd. The Government to be custodians of the funds, and to adopt some system of appraising losses.

4th. The losses to be \$4 per acre for wheat, and \$3 per acre for other grain, with a valuation of 20 cents per bushel for partial loss on wheat and 10 cents per bushel for oats and barley. Personal application required, otherwise no insurance would exist, consequently no charges on the property. This would be a purely voluntary plan, and to save trouble of renewing yearly, might extend over a number of years, unless cancelled by a notice in writing to the secretary-treasurer of municipality.

This plan would be preferable to and cheaper than any yet in existence, but not as far-reaching nor as economical as the compulsory system.

The premium being charged to the land and collected as a tax, obviates all danger of loss, and saves the expense and vexatious plan of collecting by distress. I would be glad, Mr. Editor, if you would advocate strongly either the above voluntary plan or the compulsory one, for so I am convinced the Government will sooner or later be compelled to adopt one or the other of general insurance against loss by hail.

Largest Municipality, Mar. 1, 1902.

# THE FARMER'S ADVOCATE

## AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN MANITOBA AND N.-W. T.

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### Soil Cultivation.

#### THE PACKER AND WEEDER USEFUL.

To the Editor "Farmer's Advocate":

Your enquiry regarding the use of soil packer, roller and weeder duly to hand. I only got the packer last spring, and have as yet hardly had time to judge it properly. So far, I am well pleased with it, and think it fills an important place on my farm. I think it is generally conceded that the wheat plant thrives best on a pretty firm seed-bed, with as mellow a surface for an inch or two as is safe to risk, on account of windstorms. The same applies to the other grains, only probably to a less extent. The packer helps greatly to this end, and does not powder the surface up so much as a roller, while making the bottom closer than that implement. It is also a great help in seeding and working afterwards, making it easier travelling over the ground, and also materially assists in getting turned-in stubble and rubbish rotted, so that the ground is not full of unrotted stubble, etc. I also find that land upon which the packer has been used plows better afterwards.

The weeder is useful for killing weeds as they are coming up in the grain after sowing, also for keeping the land mellow on top, but sometimes care has to be taken not to stir too much in case of windstorms while the grain is tender. The weeder also works much better on land that has been packed.

My usual system now is to pack directly after plowing, in either spring or fall. If the land is ready, I put the drill right on without further work, and with a light six-section harrow, harrow once across the drilling. This leaves the land in good shape for the weeder if required afterward. Of course, I sometimes give more work than that, as the particular piece of land requires.

My fallow wheat last year was good, and not badly hurt with the rust; while lodged, some turned out well. The land was firm and clean and well worked down the previous season. I had some very nice wheat cover 30 bushels to the acre) on spring-plowed stubble treated with packer, and as above described.

Soil cultivation with us is as yet little understood, and we have much to learn as to how to handle our land to the best advantage with the time and help at our disposal.

Brandon.

H. NICHOL.

### Some Notes re Grasses and Grass Growing.

To the Editor "Farmer's Advocate":

Most farmers in south-western Manitoba, and also in some other parts, have come to the conclusion that the native slough grass cannot any longer be depended on for the hay supply.

The question is: What can we get to take its place? There are a number of grasses that have been tried with varying success.

The writer has been growing timothy for the last 19 years with a certain amount of success, some years having over one hundred tons. It has not been all that I desired, but I was satisfied with it till something better turned up. I have found the greatest drawback in growing timothy was that we are subject to droughts almost every year, and timothy, being a very short-rooted grass, is very susceptible to the same.

During all the time that I have been growing timothy, I have not had a failure, except the year before last, when it was nearly so, but some years I have got three tons per acre to make up for that. I prefer timothy hay to any other, if properly cured, for horse feeding.

My experience with native rye grass has not been so long as with timothy. It is a good hardy grass, and will resist drought better than timothy, and for that reason it is a little easier to get a good catch. Perhaps, too, in a dry year you can get a little heavier crop than with timothy, but I don't like the hay as well. One of the greatest mistakes that is made with rye-grass hay is in letting it get too ripe. It should be cut about the end of June.

Brome is a grass that has been greatly boomed of late years, and perhaps in some respects justly so. In my experience it is the coming pasture grass, and also for light land that is liable to blow it has its place. On low, damp land it might be as well not to try it, for fear that it might be a fixture. It is a grass that does not deteriorate so much as other grasses by being left to ripen seed, as it is of a more leafy, succulent nature than most grasses.

My experience with clovers has not been very great, but I have grown the common red, also alsike and white Dutch. I think the latter should have a place on all lands seeded for pasture, as it is perfectly hardy. My land is not very uniform in character, varying from the heaviest clay to sandy loam, and might be called a little on the dry side.

With reference to the amount of grass seed to sow per acre, I have found that from four to five pounds of timothy is sufficient. I usually sow it with a grass-seed attachment to the grain drill. My practice has been to sow on fallow with wheat as early in spring as possible, and any person that will follow this rule will rarely miss a catch.

With rye grass I do not follow exactly the same course, as I use ten pounds of seed per acre, and sow as early as possible on fallowed land. My practice has been to sow the wheat and then sow the grass seed crossways; that is, across the drills of wheat. I have found out that this way gives the best stand, as when the seed is mixed with the grain, the grain seems to rob it of most of the moisture.

The way to sow is this: I take a grain seeder and set it at about half a bushel of wheat, then put in half a bushel of seed, 1½ measure, which ought to sow about one acre, and then I put in two tomato cans of dry plastering sand and mix some. After that, every time seed is added, sand is added also. Do not put the seed more than an inch deep with the drill. The sand gives the weight to the seed, and with a little adjusting to get the amount right, you will soon be able to make a good job.

In seeding Brome it is safer to fallow the land to be seeded about as follows: Plow as early as possible in spring and harrow, then about the end of June, or early in July, plow again and harrow. If it is showery at the time, so much the better. Then sow the same amount as of rye grass and the same way, only add another can of sand to each half bushel, as the seed is lighter.

I have no experience with spelt. Some of the people in this part grew some the past year, and the yield was not as good as my barley by nearly twenty bushels to the acre. I have come to the conclusion that barley is good enough for feeding for me, and I will let the other fellows do the experimenting.

W. SAUNDERSON.

Glendon Municipality.

### Chicago Horse Market.

The following averages furnish food for thought to many a farmer-breeder, and doubtless will be used as a text from which to construct an occasional sermon on the breeding of horses. The figures presented are for the entire year of the Chicago horse market, in the twelve months of which a large number pass under the hammer at this big horse market: bratters averaged \$157; carriage teams, \$100; drivers, \$137; general purpose horses, \$102; chunks, \$52; saddlers, \$147; bus and tram horses, \$121.

### "No Surrender" by the Doddie Champion.

To the Editor "Farmer's Advocate":

In your issue of the 5th Feb., I notice a "reply" from Mr. McKellar to my defence of the Aberdeen-Angus breed of cattle.

It will be noticed that he does not attempt to controvert my statements, for, in the language of the manager of a famous herd of pure-bred cattle (not Angus) written to a third party, and now lying before me, it "was all true," but his letter takes the form of an apology for his misstatements, doubtless made in ignorance, his experience with the various breeds being apparently confined to a view from the top-rail of the Winnipeg stock-yards. In all probability, had he occupied a similar elevated position in Chicago on the same dates, he would have had a different tale to tell, and his isolated case of a high-priced sale of Shorthorns "cuts but a small figure" when compared with the sales of carload lots of Angus cattle (as reported in the "Producers' Journal") after the Chicago show last December, when 488 head sold at an average price of over \$8.20 per 100 lbs., and with the fact that Angus cattle or crosses have sold for the highest price in the entire year for the past twelve consecutive years in the greatest cattle markets of the United States.

With regard to his other "few figures," it will be noticed that Mr. McKellar has lost sight of the point at issue, viz., the form of the most valuable beef-producing animal, and refers to a report of pure-bred cattle sales in which the Shorthorns, notwithstanding the fact that their number included a few extremely high-priced animals, only averaged \$3.48 per head more than the Angus.

As I stated before, I consider the Shorthorn breeders have done incalculable service to the world's cattle industry, but "there are others," and from the showing of recent years, the products of the genius of Watson and McCombie compare most favorably with those of that of Bates and Cruickshank, and I think, with the breeder quoted above, that it is not "fair that the Shorthorns should get it all their own way," and think either of the muley blacks or the white-faces are better cattle for this country than the much-pampered Shorthorns.

With the latter part of Mr. McKellar's penultimate clause I am heartily in accord, and an adequate prize-list at the leading shows, together with the vastly-increasing demand for the breed, will doubtless induce the breeders to bring out more of their stock, and those in better condition.

Mr. McKellar is welcome to all that he can get out of his "extra," but the sale of "Prince Ito" for \$9,100 will have a tendency to depreciate its value in the eyes of some of his readers.

F. J. COLLYER.

### Churchbridge Creamery Association.

Probably since its organization, a few years ago, no dairying company in the same length of time has made greater progress or established so enviable a reputation as has the "Churchbridge Creamery Association." The company was formed four years ago. During the first season the factory turned out 20,000 pounds of butter, the second year 32,000 pounds, the third year 65,000 pounds, and last year, which was by far the most successful season in its history, the amount disposed of was something over 122,000 pounds. Most of this was shipped to British Columbia, but a quantity was exported to the British Isles. Mr. Wm. Roland, of Riversdale, Assa., is the president. The head buttermaker is J. M. Smith, who is a native of Nova Scotia. Cream is collected for the factory from a seventy-mile radius. The shareholders and patrons are well pleased with the returns received in the past, and consequently are making arrangements to go more strongly into the business in the future. From the above facts it would seem that the Churchbridge district is destined to become one of the foremost dairying parts of the West.

J. McK.

### The Result of Good Management Plus Good Stock.

At the 7th annual meeting of the Canadian Land & Ranch Co., Ltd., held at Winchester House, E. C., on January 25th, 1902, a dividend of 10 per cent. was declared, also a bonus of 10 per cent. upon the subscribed capital of the company for the year ending Oct. 31st, 1901. In addition, £2,000 (\$10,000) was placed to the reserve. The headquarters of this ranch are at Crane Lake, Assa. Mr. D. H. Andrews, well known to many of our Western stockmen, is the manager for the company in Canada.

**Steam Engineers' Certificates.**

BY ROTARY.

To the Editor "Farmer's Advocate":

The lack of an engineers' certificate system has been felt for many years in Manitoba, and now that the number of steam engines in use is increasing so rapidly, this lack is felt the more keenly, alike by employers and employees. The former have no means of ascertaining the extent of the knowledge of an engineer not personally known to them, and the latter are not in a position to prove the extent of their knowledge to one who questions it. This frequently results in incompetent men taking charge of expensive machinery, and an increased number of threshing accidents every year is the inevitable result.

But legislation will be worse than useless unless it is specially adapted to the conditions to be met in this Province, and not merely copied from systems in use in some of the other Provinces and in the Northwest Territories. In the latter place all steam engineers are classed together, no distinction being made between traction and stationary engineers. As the greater part of the engines in use in Manitoba are threshing engines, and as a stationary engineer may be totally unfit to handle a traction engine, and vice versa, engineers' certificates in this Province should be divided into these two classes, and subdivided into 1st, 2nd and 3rd classes.

In some of the States of the Union and in the N.-W. T. there are only three ways of obtaining a certificate: (1) By presenting a similar certificate taken out somewhere else; (2) by producing satisfactory proof that candidate has run an engine or engines for over two years; and (3) by serving as an assistant engineer for a period of twelve months. In any case, the candidate must take the required percentage of marks on an examination and pay the required fee.

If these regulations were put in force here, the result could not but be disastrous to threshers, who would be unable to secure engineers at any price. Not 10 per cent. of the engineers now practicing in the Province could obtain certificates under these conditions, and these, together with others that could be procured from the older Provinces, would still leave three-quarters of the traction engines in the Province idle. The purpose of legislation in the matter would be to make better engineers, and to give them a recognized standing, and the system that could accomplish this, while at the same time causing least inconvenience to all concerned, would be the best system to adopt. The requirements of such a system would furnish a profitable topic for discussion in the "Advocate." Several years' observation in north-western Manitoba would seem to warrant the following conclusions:

A first-class steamboat engineer may fail hopelessly in handling or learning to handle a traction engine, though in nine cases out of ten he will be a success as a stationary engineer. Therefore it would seem well to grant "stationary" certificates under case 1 above referred, but the wisdom of granting "traction" certificates is to be doubted, unless a season's practice is first required.

In case 2 it will be a difficult matter to say what the requirements should be, because the majority of traction engineers would have to obtain a certificate under this clause, if at all, for the first two years, more or less, after a certificate system would come into force. As threshing engines run only three months in the year, two years' practice would require eight seasons, and of this last comparatively few engineers can boast. The wisdom of substituting seasons for years in this clause can hardly be questioned, because two seasons' traction practice would do more to fit a man for running a traction engine than two years' stationary practice would.

Case 3 controls the future supply of engineers, and should receive due consideration. If twelve months' apprenticeship are required, an engineer in embryo will have to fire an engine for four seasons before obtaining a certificate. The fact that a candidate has fired a threshing engine for four seasons may mean everything or nothing, depending on the candidate himself, the engineer in charge, and, to use an algebraic expression, "the square of his previous knowledge" of the principles of the steam engine, which means that by doubling his previous knowledge he will obtain four times the benefit from his apprenticeship, and this is not exaggerating. For example, if he does not understand the working of the slide-valve, he may see an engineer set one repeatedly without being able to set it himself, while if he understands its action he can see the "reason why" at once, and will remember it. To this end, would it not be well to make the apprentice pass his theoretical examination before beginning his apprenticeship, and then shorten the term from four seasons to one? This system would have many advantages over the other, besides the one stated above. Among other things, it would produce as good a traction engineer in a much shorter time, and so help the supply to keep pace with the demand.

**Favors Big Threshing Outfits.**

To the Editor "Farmer's Advocate":

In reply to your letter asking for my views regarding a solution of the threshing problem, while I am quite willing to give them, threshers, as a rule, do not take advice kindly, but perhaps I may be able to interest some of the farmers.

I think a separator with a forty-inch cylinder and sixty-inch rear is about right, as it will handle the grain as fast as two men can pitch, and it will keep seven or eight stook teams, with four good pitchers, doing all they can stand. Some threshers put extra men on the loads and use larger rigs, but the tendency is to overcrowd the machine. For my part, I like a steady jog, about as fast as the men can stand for ten or eleven hours a day. An engine of about twenty-horse power will drive this size of separator fairly well, and is about as heavy as it is safe to cross most of the bridges with. As to equipment, I favor anything which will save labor and not give too much trouble; but that is just where the rub comes in. I heard a good thresher say last fall that if there had been no blowers nor self-feeders the threshing would have been done a good bit sooner. I use a 20-horse-power engine and a 40-60 homemade separator, with a 30-foot stacker, and think that I have a good deal less trouble than some of my neighbors. A sleeping caboose is absolutely necessary, but the farmers' wives can cook for the men easier and cheaper than the thresher can; when they get too lazy or

I think it very necessary for a man purchasing a machine to know how to run it; if he does not, he should go and learn first. I believe there is more money wasted on threshing machinery in this country than in all other machinery put together. Why, I know half a dozen rigs within ten miles of here, one and two years old, which have had their boilers refueled. It is a shame. Then, they leave the separator out the year 'round to rot, and complain because there is no money in threshing.

By the way, while you are advocating an agricultural college, do you not think it would be wise to have in such a college a branch devoted to teaching young men how to handle and take care of traction engines; how to operate a separator; and, perhaps, how to get the best value out of a gang of men composed of as many nationalities as there are fingers on your two hands?

GEO. KERR.

Rosedale Municipality.

Note.—In an article, "What Should Be Taught at an Agricultural College," appearing in Nov. 5th, 1901, issue, instruction in farm machinery, including engines, is included. Nearly all the up-to-date colleges give some instruction along these lines.—Ed.

"Some people who are against theoretical farming don't know what it means. Almost everything that wins is based on theory, and all successful farming is theoretically correct. We all do things every day we live with the expectation of certain results, yet we do not understand the why and wherefore."

**BORTHWICK (10700) 9720.**

Imported three-year-old Clydesdale stallion; weight, 1,875 pounds. (See Gossip, page 183.)  
PROPERTY OF ALEX. GALBRAITH, JANESVILLE, WISCONSIN.

proud to do so they had better move citywards.

An outfit like I have mentioned, with tanks, caboose, etc., will cost between \$3,500 and \$4,000, and should average about 1,800 bushels per day, and I think should thresh for 3 and 4 cents per bushel out of the stack or 4 and 5½ from the shock. Wages here have been from \$30 to \$40 per month, and teams from \$2.50 to \$3 per day. I do not claim that a threshing machine is a money-making investment, but it has to be done, and I think the large grain-growers are the men to do it. My idea is for about every six farmers who work not less than half a section of land each to club together and have one of their number get a machine and let the others make it worth his while. Then let him hire the men required to operate it; then just as soon as one neighbor has grain fit to thresh let a start be made, giving each one a day or half a day. They could surely agree, as in any case the thresher will have the final word. They will certainly agree better than if they jointly owned the rig, and if there is a break in the weather the men and teams can go home and do something else, and the thresher will not have a gang of 18 or 20 men to board while the grain is drying out. I am strongly in favor of threshing from the stook, even with the late wet seasons.

By following the plan I have outlined, the six farmers will get their grain threshed in less time than they could stack it, as the same men will put double the quantity on the table or feeder of a machine that they will stack, and then it is done with.

**Teething in Young Horses.**

Soon after the colt's birth, teething troubles start, although in the majority of cases of only minor importance. Animals have what are known as milk or colt or temporary teeth, and a permanent set. The coming-in of the permanents is when the trouble starts. The permanent grinders (molars) push up from below and force the crowns off. Many of these crowns are found in the feed-boxes of young horses; sometimes, however, the crowns (milk teeth) are not shed as they should be, food gathers underneath, or the sharp edges press the gums, with the result that the colt refuses to feed, slobbers badly, the feed-box in many cases being "mussed up," and he has a bad breath. The usual period for this to happen is during the second, third and fourth years of the colt's life. When such symptoms appear, soft mashes should take the place of hard grain, the veterinarian should be consulted and dilatory crowns removed. If this is done, the improvement noticed by the owner will be almost magical. The grinders (molars) are the teeth usually affected, the nippers rarely so. Changes, however, occur in those teeth during colthood, by means of which the observant are able to tell the animals' age: At three years the center pairs of temporary nippers are changed for the larger and permanent ones; at four, the pairs next the center ones are exchanged, and at five years old the corner permanents appear, at which time the horse is said to have a full mouth and has arrived at maturity.

**Our Scottish Letter.**

**THE GLASGOW STALLION SHOW.**

The season of horse shows has opened, and the Scottish Stallion Show of 1902, the first of the year, has just taken place. It has been a very good show in the main, and especially amongst the older horses the quality was high. The show for the third time was held in the Scotstown Show Grounds, about four miles west of the center of Glasgow. The Clydesdale stallion trade has undergone great changes during the past twelve years. At the beginning of that period, or perhaps earlier, very few horses were hired for service in districts until this stallion show, which then, indeed, was more a hiring fair than a show. In the year 1879 as many as 120 three-year-old stallions were shown in the Glasgow market on this day, and an almost equal number of aged horses. This year there were not more than 80 horses of two, three and four years old on the ground. Prior to the show, no fewer than 78 horses had been hired for service during the season, and of these 36 were owned by Messrs. A. & W. Montgomery, Netherhall & Banks, Kirkcudbright, and 21 were sons of their noted stud horse, Baron's Pride 9122. The other horse-owners in Scotland who had horses hired before the show were: Mr. James Kilpatrick, Craigie Mains, Kilmarnock; Mr. Matthew Marshall, Straman; Mr. Wm. Dunlop, Dunure Mains, Ayr; Mr. Andrew Dewar, Arnprior, Kippen; Mr. Peter Crawford, Dargavel, Dumfries; Mr. Wm. Clark, Netherlee, Cathcart; Mr. John Findlay, Springhill, Baillieston; Mr. John Crawford, Maurachhead, Beith; Messrs. Mieklem, Begg, Kirkealdy; Mr. D. L. Picken, Milton, Kirkcudbright; Mr. Herbert Webster, Morton House, Fence Houses; Mr. A. B. Matthews, Newton-Stewart; Mr. James Argo, Crannabog, Rothie-Norman; Mr. Ceur, Merrylee, Cathcart; Mr. William Park, Brunstane, Portobello; Mr. Ewen, Indrewer, Banff; Mr. William Taylor, Park Mains, Renfrew; Mr. W. S. Park, Hatton, Bishopton; Mr. W. R. Trotter, So. Acomb, Stocksfield-on-Tyne; Mr. St. Clair Cunningham, Hedderwickhill, Dunbar; the Seaham Harbour Stud Co. (Ltd.); Mr. Alexander Scott, Greenock; Mr. David Riddell, Blackhall, Paisley; Mr. Malcolm Currie, Stubble Broomhill, Kirkintilloch; and Mr. Alex. Simpson, Whitecross, East Kilbride.

The impression on anyone who viewed the show must have been entirely favorable to the modern Clydesdale as an animal of weight and substance with plenty of action. The thirty aged horses—that is, four years old and upwards—were great, handsome animals, well colored, and, in general, well fitted to produce heavy draft horses. Most of them had exceptionally good action and stood well on their limbs. The champion of the show for the fourth time in succession was the great horse, Hiawatha 10067. He is now ten years old, and is owned by Mr. John Pollock, Papermill, Langside. His breeder was Mr. Hunter, Garthland Mains, Stranraer, and his sire, Prince Robert 7135, was second at the Royal, Windsor, in 1889, as a two-year-old, and in 1892 was first in the aged class at the Glasgow Stallion Show. He has bred good stock, and still survives as one of the best horses of his years. The chief trophy of the Clydesdale world is the 50-gs. Cawdor Challenge Cup, presented by the Clydesdale Horse Society. It was won by Hiawatha in 1898, 1899, 1901, and now, for a fourth time, in 1902. An owner only needs to win it three times before it becomes his property. Hiawatha, when first he won it, in 1898, was owned by Mr. Matthew Marshall, Stranraer, but in 1899, 1901 and 1902 he was owned by Mr. Pollock. He is a horse which has come slowly to maturity. He was narrow and "shelly" to begin with, but he has gone on thickening every year, and certainly never was such a horse as he is now in his tenth year. Two of his sons, Marcellus (11110) and Labori (10791), competed with him for the cup. They did not meet in the class competition, as Labori was only entered for the cup, and their respective merits were not compared by the judges. Marcellus is owned by Mr. Matthew Marshall, and was last year generally regarded as the better horse of the two. This year few would be prepared to take up such a position. Labori is owned by Mr. A. B. Matthews, and is a marvelously improved horse. He moves well and stands on capital legs and feet. He was brought out in the best of bloom and would have made a strong second to his sire. Marcellus stood second in the class competition to his sire. He was hired in July last, on very high terms, to travel in Strathmore; in fact, he is the highest priced horse of the season. Labori has been hired by the Gervain & Ballantrae Society in Ayrshire, and doubtless the members there congratulate themselves on their bargain. The third prize horse in the open class was Mr. Wm. Taylor's Sir

Simon 10465, bred by Mr. Cross, of Knockdon, and a very notable show horse. He is a dark brown son of the famous Sir Everard 5353, and was bred at Knockdon, by Mr. Cross. He is nearly six years old, and in competition with all the other aged horses in the show, except Hiawatha, Labori, and Marcellus, he was awarded the £80 premium to travel the breeding district around Glasgow. Mr. Walter S. Park's Lothian's Bert 10374, a very thick horse of great weight, followed in fourth place. The fifth was Mr. Peter Crawford's Carabineer 10522, an upstanding, lofty son of Baron's Pride; the sixth, Mr. A. B. Matthews' very big powerful horse, Enigma 10739, whose sire was the American-bred stallion, Prince Cedric 10253; and the seventh, Mr. Peter Crawford's Hillhead Chief 10774, a strong, useful, clean-boned horse.

The three-year-old horses were about equal in numbers to the older ones, but they were not at all equal to them in merit. The winner in the open class, which also competed for the Cawdor Cup, was Mr. William Park's Marmion 11429, a horse with extraordinary action and up to plenty of substance. The hair on his legs is rather curly, and although he has a good hind leg, the horse which stood next to him has a better. This is Mr. Matthew Marshall's Manorama, to which the Glasgow junior premium of £80 had been awarded earlier in the day. Manorama is a bay horse, with a faultless hind leg. He was bred by Mr. Thomas Crawford, Dowhill, Girvan, and is strongly inbred to Prince of Wales and Darnley. His sire was the Cawdor Cup champion horse, Prince Alexander 8899, and his dam was by another Cawdor Cup champion, Prince of Kyle 7155. Both these horses were got by Prince of Wales 673, out of mares by Darnley 222, so that the quality of Manorama may be easily understood. If he had as good a fore foot as he has a hind leg, he would be an out-and-out champion. After Manorama came Baronson 10981, a horse of choice quality, with excellent feet and legs, but very moderate hind action. He is also owned by Mr. Marshall. The fourth horse was Mr. Cunningham's Alexander Everard 11242, the biggest horse in the class and the Dalkeith premium horse of this year. Mr. Jas. A. Wallace had fifth, with a promising colt named Nick o' Time 11441, and Mr. Taylor was sixth with Sir Edward (11193), a colt which ran Manorama close for the Glasgow premium. The last horse ticketed was Carnegie 11296, owned by Mr. Currie.

In the two-year-old class there were some promising young horses, but the leader was easily found in Mr. W. S. Park's thick colt, Ardlethen 11246, a son of Gold Mine 9540, and bred in Aberdeenshire by Mr. Robert Copland.

A shipment of nine useful, well-bred horses was this week made by Messrs. Dalgety Bros., London, Ont., to Canada. Amongst them are sons of William the Conqueror 9093, the champion Prince of Carruchan 8157, the good breeding horse, Prince of Galloway 8919, all sons of Prince of Wales 673; the champion Hiawatha 10067; the good big horse, Prince Cedric, sire of Enigma; the big, flat-boned stallion, Ethiopia 5750, for many years stud horse at Keir; and Gallant Poteath and The Gallant, both sons of Top Gallant 1850, a great horse twenty years ago, and the former first at the H. & A. S. Show at Inverness in 1892. These horses should prove profitable in Canada as breeding animals.

SCOTLAND YET.

**Summary of the Business of 1901 at the Dominion Government Creameries in the Northwest Territories.**

The gathered-cream system is in vogue at all creameries except Wetaskiwin, where, in addition to the cream supplied, 80,579 pounds of milk were taken in. A uniform charge of 4 cents per pound of butter for manufacturing was made at all creameries. The prices realized are certainly satisfactory, especially when it is considered that one-third of the output was shipped to Montreal for export to Great Britain.

Name of Station.	No. of patrons.	Tons of butter received.	Average price realized at creamery.	No. of days in operation.	Gross value of products.
Calgary	64	27,427.6	28.178	19.28	163,854.20
Churchbridge	23	97,427.3	121.119	19.41	232,200.88
Edmonton	39	42,219.9	46,508	20.00	133,200.29
Gravel	89	13,957.4	33,119	19.42	10,450.93
Imperial	13	83,883.3	90,481	19.46	17,238.49
Maple Creek	19	5,035.8	5,792	20.83	11,200.18
Moose Jaw	21	15,542.1	20,500	20.19	14,000.21
Moosomin	122	40,283.0	42,831	19.15	82,600.44
Olds	39	27,163.3	23,166	19.41	12,790.98
Prince Albert	40	11,243.0	16,231	19.30	14,010.09
Qu'Appelle	62	24,870.6	28,050	19.21	20,000.00
Red Deer	111	4,865.2	60,150	19.40	11,583.12
Regina	77	32,333.3	34,001	19.43	18,724.41
Saskatoon	53	40,515.9	43,117	19.21	29,944.37
Saskatoon	8	4,437.4	4,377	19.33	8,900.18
Timber Lake	11	28,253.8	31,227	19.15	60,200.87
Wetaskiwin	27	7,218.4	13,184	19.17	2,998.16
Whitecourt	28	39,818.0	37,710	19.11	14,100.00
Yorkton	88	33,400.0	34,431	19.31	16,718.48
<b>Total</b>	<b>1,000</b>	<b>672,900</b>	<b>672,900</b>	<b>19.25</b>	<b>1,800,000</b>

**An Item of Interest to Stallioners and Horse Breeders.**

**WHY DO MARES BREAK SERVICE?**

The pure-bred brood female is usually looked upon as a good investment by most stockmen. There are, however, many instances to be found of big sums of money being invested, with practically no return. Especially has this been the case with some mares, the writer having known instances of registered mares for which their owners paid from \$400 to \$600 each, and from which, owing to bad management or misfortune during the period of pregnancy, never a live foal was obtained. While many causes may be advanced for such results, the question asked above, "Why do mares break service?" will draw the attention of horsemen to an occurrence which to many has been a serious annoyance, and which has been considered by many a horse breeder as something entirely beyond his control.

Most breeders will understand what is meant by breaking service, but for those who do not, we explain: Mares are often known to settle after service as if safe with foal, only to come in season again during the third month.

This fact has caused the lengthening of the season by the stallioner from eight weeks to ten, or even twelve weeks, which, of course, means added expense to the stallion owner and an additional draft on the procreative powers of the stallion, usually, too, at the hottest time of the year.

Prof. Cossar Ewart, whose investigations into the problem of telegony (influence of a previous impregnation on subsequent pregnancies) have interested the scientific and stock-breeding world, made, some time ago, investigations looking to the cause of the trouble under discussion. From examinations made of horse embryos in various stages of development, and the tracing of the processes of evolution in the history of the horse, some valuable deductions were drawn, one of which was that at a certain period, a critical one, the young equine may be thrust into the world, only to perish; that period past, natural development can go along and the foal be born in due course. From the beginning to the end of pregnancy in the mare, the connections between the embryo and the womb are easily broken down; hence, if the mare's womb is in an unhealthy condition or contractions of that organ are set up, the horse embryo is easily loosened from its uterine attachments, and is lost.

From examinations made of embryos of various ages, it has been found that about the 7th week is the period at which the connection between the mare and embryo is the weakest, because just at that time a change is taking place, namely, the embryo is ceasing to be sustained from the yolk-sac of the ovum, and is beginning to get its sustenance from the blood vessels developing in the fetal and maternal membranes.

At the end of the 6th week, as at the end of the 3rd week, the reproductive system is in a more or less excitable condition. The physiological changes occurring during oestrus (the period of heat) are likely to appear in a more or less pronounced form at the end of both the 3rd and 6th weeks; in other words, the habit which the nervous and other systems have of becoming periodically excited is not apparently quite thrown off for some weeks after a fruitful service. In mares, the eggs (ova) which have started to develop in the ovary may be matured and discharged some weeks after the mares, if bred, have settled to the service. Such cases have been known to stockmen. There is a case on record of a mare bearing twins, a foal and a mule, the service of the jackass having been given 15 days after the service by the horse. The escape of the eggs is accompanied by an extra supply of blood to the ovaries and the womb (uterus), accompanying which phenomena will be increased nervous excitement of these organs, increased secretion of the glands, and contractions, more or less powerful, of the muscular fibers of the embryo-carrying and nourishing organ, the womb or uterus. This periodic disturbance is likely to be greater in mares not previously bred. On the other hand, owing to the development of the blood vessels in mares who have born foals or recently foaled, the congestion is not as marked in the uterine or ovarian blood vessels, consequently there is less likelihood of the disturbance of the sexual organs being so great. From what has been already mentioned, there are two causes for the breaking of service: First, the periodic disturbance appearing at the 3rd and 6th weeks; and second, at the end of 7th week, owing to the weak connection existing at that time between the embryo and the dam.

**THE CASE FOR THE STALLIONER**

From the results of the above studies, the following deductions may be made:

1. Mares which have been indoors during the winter, and which are to run at grass during the



### Starting a Plowing Match.

In starting a match, strength and permanence should be constantly and strenuously aimed at. Commanding attractiveness in prizes, fine work, keen competition, and other details are essential to this. There should be strong competition in all the classes, but especially in the principal classes, so as to make the work as highly educative and telling as possible. If success is achieved in this, the entire domain of agriculture will be permeated and benefited by higher ideals and methods of work, for you fire the ambition of a young man, so that by dint of determined effort he converts failure into success, you have set in motion forces that will try and excel in all the other various branches of farm work and management. The match should be strong in its independence of every factor that would seek to make it a mere vehicle of advertising any particular kind of plow at the expense of the work. No small danger in this respect threatens the widest success of a movement possessing immeasurable possibilities of the highest good to the country, and an iron heel should be put down on any attempt to prejudicially interfere with the true aims and purposes of a match. The scope of the work should be the widest—open to all comers. Strong and persistent efforts should be made to encourage young men and boys to compete, and the prizes should be both specially attractive and numerous in these classes. All good plowers should be solicited to enter the lists and promote in every possible way the success of the enterprise.

There is nothing contributes to the strength and popularity of a match more than capable, impartial judging, and too much care cannot be taken in the selection of the judges. They should have at least two qualifications for the work, viz., that they are good plowers, possessing good judgment and tried and trusted capacity. If you have such men in the locality, use them by all means. Put your best judges on the principal classes, in well-matched teams. Get one of the best score cards for the judges' use, having ample space for the points to be entered, and given to the secretary, to be handed to the contestants at the end, that they may see where they failed and where they succeeded. Each plowman should get one. The aggregate points made by each should be given out, although they failed to get a place in the prize list. Nothing helps the permanence of a match more than a valuable gold or silver medal or cup. A strong effort should be made to have a gold medal for each of the most important classes, to become the property of the winner for two or three successive years, as may be thought best; and a silver medal or cup for the less important. Nothing is too good. Put your best and most influential men on this work, and don't leave it for lads to do, however willing and able. On this and all the other important details of the work much thorough and energetic preparatory work should be given to have it an assured success. There is no enterprise more worthy of the very best work and effort of a community than a plowing match. Its accruing benefits cannot be overestimated. It is almost needless to add that the committee of management should be the most energetic and progressive in the place, and large enough to divide up the work so as to make it pleasant for all. The best plowers should have charge of the selection of the soil and its laying out, and special care should be taken to have it as even as possible in texture. That all alike may have an equal chance in the competition, three-quarters of an acre is ample for single-furrow plows and double that quantity for gangs. Weed-pulling should be strictly disallowed; an inspector over each class to take notes. No small amount of crooked work has been done in this way in the past. The matter of prizes and the providing of meals for spectators and likewise that for contestants and judges should each have a committee of management. A prime requisite for every contest is a barrel of spring water to allay the thirst of the plowmen and give refreshing comfort to the spectators. Have some hay for the horses too, and, if possible, a handy place for watering them. In the successful make-up of a match everything tells, and every detail should be arranged for beforehand. Boom your match and make it popular. Make use of press and pulpit, if need be, to give it a place in the sympathy and good wishes of the community, and, finally, don't forget your friends in the rush. Have neat complimentary tickets for the donors of prizes and give them the best treatment in your power. To begin your match, the raising of a flag is about the best way of beginning work, and the best ending is short, interesting addresses and the distribution of your prizes. "GO AHEAD."

Brandon, Man.

Mr. J. Q. Dixon, of Missouri, U. S. A., writes: "The copies of the 'Farmer's Advocate' received are the finest journals of the kind I have ever seen, and I have seen many, in every country from Suez to San Francisco."

### Ninety Pounds per Colony in Manitoba.

To the Editor "Farmer's Advocate":

In your issue of Jan. 6th appeared an article entitled, "Beekeeping and Horticulture in Colorado." The writer points out the results attained in apiculture in that State, and reasons that from the fact of the almost similar climatic conditions existing here, the beekeeping industry might prove of real value to us. He also suggests that the Department of Agriculture make inquiry into methods employed and the results obtained, for our guidance in the starting and fostering of this industry.

As to our taking a leaf out of the book of the beekeepers of Colorado, it might be all right, but is more than likely to be all wrong. Of course, there are general principles, in beekeeping that must be adhered to under all circumstances, but to be successful the beekeeper must be acquainted with the conditions existing in his own locality. Your correspondent may not be aware that the apiarian industry is already started in Manitoba and has passed the experimental stage, and that it has been conclusively demonstrated that bees can be kept and will pay higher dividends on the money and labor expended than anything else on the farm—that is, in a suitable locality, and there are many such in this Province, where thousands of pounds of honey are annually wasted for want of bees to store it. Our climate is no obstacle to the development of apiculture; in fact, the beekeeper has less to contend against in Manitoba than in countries nearer the equator. Some may doubt this statement, but we would invite those doubters to read the yearly reports of beekeepers from the east, south and south-west, and mark the drawbacks they have to contend with, viz., heavy winter losses, partial and utter crop failures, heavy losses of bees from the cessation of the honey flow at critical times, arising from droughts and other causes, bee enemies, etc., and that scourge of the beekeeper, foul brood, which often devastates whole apiaries. In my seventeen years' experience in beekeeping, winter losses only once reached 6 per cent., and 2 per cent would be a full average for those years. The honey crop only once or twice went below 50 pounds per colony and has often gone up to and over 100 pounds per colony, the greater yield being when I had fewer bees and there was more unbroken prairie. As the bees increased and the wild prairie decreased, the results of overstocking has become apparent in the reduced yield per hive. Last year, with the prairie mostly all broken in the neighborhood and with about 80 colonies, spring count, honey crop averaged 90 pounds per colony, with 51 colonies increase. (In the public prints I gave last year's crop at 6,000 pounds; I now find it runs over 7,000 pounds.) The above yield is exclusive of winter stores, which would amount to about 3,000 pounds, and if we were to add 4,000 pounds more for brood-raising in summer, we might have some idea of the amount of honey that can be collected inside a radius of probably less than two miles, and that from the sources nature has provided. Clovers are growing, but not in sufficient quantities to materially affect results. Our honey crop does not depend upon a few honey-producing plants that yield at certain seasons and often fail from drought or other causes. From the time the willow and elm open in the spring, followed by the wild-fruit bloom, until the frost nips the golden-rod, etc., in the fall, we have more or less of a continuous flow; hence the absence of crop failures. Foul brood, as far as I am aware, is unknown in this Province; so is the wax moth. The bees' enemies are not numerous. The kingbird will not refuse a good fat drone, and as the water in the ravines goes down and the flowers grow up, the frogs will pick up a few, but I never saw much loss in either case. Apiculture, although in its infancy here, is no weakling; all it needs is a chance to develop. How is that to be obtained? Ye editors and all interested, speak out!

Roseaudale Apiary, Roseau.

JAS. DUNCAN.

### A Word to Educators.

Teach the children, if you must, of the sowing of the dragon's teeth, but also teach them of the sowing of clover and peas, which can double the yield of corn in Illinois, and greatly increase the yield of cotton in Georgia. Tell them the story of the wooden horse, if you wish, but be sure to give them more horse sense than the Trojans had. Teach them all you know of the milky way, but do not neglect to teach them the way to milk. That is, lead them as far and soar with them as high as you may, but be sure, all the time, to let their feet rest on the earth, for it is from the earth that all are sprung, and upon it yet there are untold pleasures, undiscovered beauties and marvellous strength for the good of mankind. Ex-

### A Plea for the Evergreen.

(Extracts from a paper read before the Western Horticultural Society by A. P. Stevenson, Nelson, Man.)

It is to the eye, to the love of the beautiful, we must appeal largely to make farm life more attractive. This keeps the boys and girls on the homestead instead of going to town, for we must acknowledge that in home adornment our city friends are far ahead of us.

The object of this paper will be to induce the farmers of Manitoba and try to show them how they may assist in the adornment of the home grounds by planting many evergreens, which should be used for the groundwork, a few deciduous trees being used for variety, and thus have a shelter and beauty in the winter, when both will be more appreciated than they are in the summer.

When it is taken into consideration how easily native varieties can be transplanted and how fast they grow in almost any kind of soil, we are greatly astonished in traversing the country to see how very few have availed themselves of the bountiful supplies which nature has furnished in many parts of our Province, and which can be had for merely the trouble of digging.

#### VARIETIES.

The sort which is found to succeed best in your locality is the sort most largely to plant. For example, in our part of the Province the Scotch pine succeeds well and we have planted largely of that variety; also the native spruce, balsam, fir, and arbor vitae. Austrian and white pine, Norway spruce, and red cedar have not proved a success with us; but it is not desirable to enumerate, as each one will be obliged to content himself with such as will be best adapted to his needs.

The important thing is to plant and to do the work with care, when in nearly all cases success will result; the percentage of loss with me is no larger in evergreens than in deciduous trees.

#### PREPARATION OF SOIL—PLANTING.

Any soil that will grow a good crop of wheat will be suitable for evergreens. It must be well prepared, deeply plowed and finely pulverized; it may be the oldest land on the farm, but it must be mellow and in good heart. Holes should be dug 10 feet apart, and we are now ready for the trees, and if they are to come from the bush, would choose a cloudy day in the spring (never in the fall), just about the end of seeding, when the buds are beginning to swell; don't wait until they have grown. This is the very best time to move all sorts of evergreens, although we know that an expert can transplant them successfully at almost any season of the year.

Carefully dig and cover such trees as you wish, always remembering, and I wish to impress this fact upon the mind of everyone who undertakes this business, that the roots must not be allowed to dry in the least or be exposed to the sun or wind for a moment if you wish first-rate success; if the roots should once become nearly dry, throw them away at once, as it will only be labor lost to take them home and plant them; also, if you wish to make fine trees in the future, you must be content to select small ones, from 2 to 3 feet high. In transplanting larger specimens to the lawn or grounds, extra care must be taken to preserve as many roots as may be, and, if possible, to take up a good ball of earth with each one. Large trees should have larger holes and be well watered, planted firmly, and a little deeper than in their original position; if the position is exposed to the wind, the trees should be stayed for a year till the roots have firmly taken hold.

Trees of almost any size can be successfully transplanted if the necessary time and care be taken, but such trees are very costly for the general planter, and, when fine specimens are to be the result, the small ones will be far the best every time, even if there is no difference in the cost.

#### AFTER CARE—KEEP DOWN THE WEEDS.

Having brought our trees through the first season all right, we are apt to congratulate ourselves that our work is done. On the contrary, here is just where many planters are shipwrecked. Now is just the time to make or mar the beauty of our trees, if we wish them to be what evergreens ought to be, with branches sweeping the ground in all the luxuriance of full foliage. In order to attain this perfection of form and foliage, it is necessary to keep down every vestige of weeds and grass while the tree is making its new growth. After a tree has attained its annual growth, say about the middle of July, it will be able to take care of itself; yet, if the time can be had, it would be well to keep all grass and weeds away from it always.

For trees on the lawn, which are not yet large, a good plan is to invert the sod with the spade to the depth of three inches each spring, say in May, at least as far out as the lower limbs extend. This plan will not do in light, sandy soil, but is best in that case to mulch with well-rotted manure or chip manure. Little conical heaps of straw must not be piled up about the stem, but ground out under the lower branches, growing thence at the center is approached, where



it is not necessary to have anything. Thus we have a kind of reservoir, in the middle of which is the tree, and which will retain the moisture. In this way we keep the soil rich and loose, for the small rootlets will always be found to extend further out from the trunk than the branches.

**Utilize the By-products.**

One of the reasons advanced by Canadian packers for the advantage the American packer has over them in being able to pay, on the whole, better prices for live stock, is the fact that the American utilizes the by-products. From the blood is got albumen, used in the arts and in medicine; horns and hoofs used for gelatine, and handles for brushes, for buttons, etc.; bristles for brushes; tankage for artificial manure, and so on; so that, as it is aptly put, "nothing is lost in the pig but the squeal." With all the above, the packer has been looking for further profits, according to the National Provisioner, who states as follows:

"The oily, greasy, thick pig skin is arousing new interest. Heretofore, the slaughter house has not seriously bothered itself about skinning the hog while his green hide left on the carcass and unencumbered with expense brought 8 cents per pound and more as pork, or 12 cents per pound when weighed in as cured ham or smoked bacon. The scientist will not let things alone, however, and it may yet pay to strip the hide from the hog for commercial purposes. The leather splitter has demonstrated his ability to shave hides almost into tissue leather. With this implement at his command and a new process in his possession, an American inventor claims that he can split a pig skin to the fineness of a cologne bottle-stopper cover and manufacture that article at a ridiculously low price. He can make the finest of 'imported' kid-glove stock, can displace oiled paper with a better and a cheaper article and do the same with the fine texture of rubber goods now used for waist shields. A hog hide can be treated so finely and split into so many separate skins as to astound the uninitiated. With this prospect before it, the hog skin has a right to come off and to expect much, in the near future."

**Postal Reform.**

Last week, at the annual meeting of the British Empire League in Ottawa, on motion of Hon. Geo. E. Foster, seconded by Hon. Senator Ferguson, a resolution was passed whereby newspapers and periodicals could pass from one part of the Empire to the other at the lowest possible rates, in order that the people in all parts could the better keep in touch with each other.

We have just received the following letter on the subject from Lord Strathcona, Canadian High Commissioner, London, Eng.:

To the Editor "Farmer's Advocate":

Dear Sirs,—I beg to acknowledge your letter of the 30th ult. and the copies of the "Farmer's Advocate" for February 5th, to which you refer. It will give me much pleasure to comply with your request, and I hope that in the near future it may be found to be possible to do something to remove the anomaly that at present exists in regard to the interchange of newspapers and book matter between the United Kingdom and Canada, as compared with the arrangements between Canada and the United States. The matter is an exceedingly important one, and I am sure it will receive the consideration it deserves at the hands of the Governments of the two countries.

Believe me, Yours very truly,

STRATHCONA.

17 Victoria street, London, S. W., 14th February, 1902.

**Docking Horses Condemned.**

The fashion, or fad, of docking horses' tails has survived the protest of the growing spirit of kindness and humanity, and the adverse legislation that expresses the best thought of the age. But it has probably received its quietus in the mandate that has gone forth almost simultaneously from King Edward VII. and President Roosevelt. King Edward, whose influence in matters of custom and usage is paramount in Britain, has made it known that he will neither purchase nor own nor even use a horse that has been mutilated by docking, while President Roosevelt has set the fashion in the United States by issuing specific instructions to the effect that horses purchased for his use at Washington must not be docked.

**1902 Fair Dates.**

Chicago	July 15 and 16
St. Louis	July 17 to 19
Indianapolis	July 21 to 26
St. Paul	July 23 and 24
Western Agriculture and Arts Association	July 29 to Aug. 1
New York	Aug. 5 to 6

**The King's Sale of Shire Horses at Sandringham.**

(Special correspondence.)

One of the most notable sales of this season in the Shire horse breed is the one named above. It is four years since, in 1898, His Majesty the King, then, of course, H. R. H. the Prince of Wales, held his previous sale of Shire horses. At that sale his 54 head made the then record average of £224 7s. 9d., and although this high average was not equalled upon the present occasion, the realized £192 12s. 2d. was of sufficient magnitude to disclose the high merit and quality of the animals sold, which numbered 45 head, 20 being under two years of age.

It is needless to enter into details as to who were present, for practically all the principal breeders or their agents were there, as well as many hundreds of other interested spectators. To the disappointment of all, His Majesty the King could not be present, but it was a great satisfaction and pleasure to the large company present that Her Majesty the Queen, accompanied by some other members of the Royal Family, witnessed the grand parade of the animals included in the sale previous to its commencement.

It would be tedious to go into many details or to give all the various prices, as these could hardly interest your readers sufficiently to war-

and Westonia to Mr. Parnell at \$525. The two-year-old mares were an almost equally fine lot. The top price here was \$2,250, to Mr. L. Salamons, Mr. P. L. Mills' representative again being the last bidder but one. Autumn Blossom making, to Mr. C. Keevill, the next best price, \$650. The three-year-olds made a grand average and sale, two making \$1,500, Queen's Birthday, to Mr. L. Salamons, and Lady Darling to the Marquis of Winchester, two others making \$1,350 and \$1,150, respectively.

The following summary gives full range of prices and average for each age and the entire sale:

Description.	No. Sold.	High-est.	Low-est.	Aggre-gate.	Aver-age.
Brood mares.....	10	\$2,875	\$375	\$11,125	\$1,112.50
Four-year-old mares..	4	1,150	325	2,425	606.25
Three-year-old mares..	9	1,300	330	8,550	950.00
Two-year-old mares...	10	2,250	275	6,825	682.50
Yearling fillies.....	7	1,750	275	6,450	921.43
Stallions.....	2	2,500	700	3,200	1,600.00
Two-year-old stallion..	1	850	...	850	850.00
Yearling stallions....	2	1,150	900	2,050	1,025.00
	45			\$41,275	\$917.22

**The Horse Show Date Fixed.**

As the result of the vigorous demand of the Horse Breeders' Association for an earlier date for the Canadian Horse Show for the accommodation of stallion owners, the date for the show at Toronto has been fixed for April 10th, 11th and 12th, and it is understood that the Breeders will join with the Hunt Club in holding a combined show as usual.



FANDANGO (4256) 143.

Imported Hackney stallion, owned by Mr. F. C. Stevens, Maplewood Hackney Stud and Stock Farm, Attica, N. Y. (See Gossip, page 188.)

rant the valuable space they would occupy, therefore reference has been limited to the more important lots of each age, and a special summary in dollars and cents been prepared, the dollar being taken as equivalent to one-fifth of the good old English coin, the guinea, which, though no longer in actual use, is always at pedigree stock sales the denomination used. Lord Rothschild gave \$2,875 for Solace of 1894, by Lord Arthur, out of Madam Albani, who was dam of the \$3,000 filly, Victor's Queen, sold in the 1898 sale. This was the top figure realized of this age, and also in the sale. Her sister, by the same sire, Southern Wood Echo, made the next best price of the brood mares, \$1,500, to Mr. L. Salamons. Mr. F. Crisp gave \$1,250 for Calwick Mavis, and Mr. A. Henderson, M. P., \$1,050 for Rocks Regina. The four-year-old mares, four in number, were not so eagerly sought for, \$1,150 being top price for Girton's Dolly Varden, to Mr. F. Crisp, followed by \$625 for Barrow Heiress, to Messrs. Thompson. The two stallions, Benedick, foaled 1898, and Premwithar, foaled 1899, realized, respectively, \$2,500 and \$700, whilst the two-year-old colt went to Mr. P. A. Muntz, M. P., at \$850. A pair of grand yearling colts, notably Royal President, sold well, the one named above going to Lord Coventry at \$1,150, and the other to Mr. Walpole Granville at \$900. Seven yearling fillies of grand merit were keenly competed for. Sir J. B. Maple, Bart., M. P., secured the pick in Mountain Echo, at \$1,750, Mr. P. L. Mills being the runner up, Lord Llangattock, after a strong contest with the last-named buyer, getting another grand filly at \$1,550. Two more made high values; i. e., Torfrida to Mr. Kearns at \$1,350,

**A Practical Advantage of Good Blood.**

The late Kirk B. Armour, of the Armour Packing Co., Chicago, was not only a practical packing-house man, but also a lover of improved live stock. Such a man was above mere fads in breeding, because his business forced him to consider the utility of live stock, and his efforts were constantly directed towards the blending of good breeding with usefulness, without which combination the breeder of pure-breds might as well go out of business. The following remarks of the deceased packer should be taken to heart by all stockmen, whether breeders of grades or pure-breds:

"The sale of a product increases directly in proportion to the possibility of offering a good article at a fair price. The more general the improvement in cattle, the greater the increase of beef consumption. From an animal of poor quality only the loins and ribs find a ready market. In a good animal the butcher is not only able to dispose of the whole carcass more readily, but the consumer is able to get a choice piece without being forced to take the more expensive cuts.

"The man who sticks year in and year out to the use of a good pure-bred bull will make a better showing than a man who economize on a bull for fear that cattle will not always bring their present values."

Beef and Milk.

The article under the caption, "Dual Purpose Cows," in your Feb. 5th issue leads me to record a few personal opinions and observations. For many years I have been in search of that Mecca, the "farmer's cow." That she may ultimately appear I have not the slightest doubt. Her evolution, while it may possibly be a matter of time only, is surely no greater problem than many which have been met and solved by thoughtful breeders in the past. Your correspondent may, perhaps, be pardoned for venturing to question the existence to-day of more than a very few animals meeting the strict requirements of our ideal in the shape of this two-purpose producer. Were we content with mediocre quality along either line, we might admit that there are thousands of dual-purpose cows at work. But should we be content with half-way production or performance when greater is possible? So many times have we heard at stockmen's conventions the theory advanced that the cow which would yield 4,000 lbs. of milk in a season, and give her owner a moderately promising steer calf, is the right animal for the average farmer. Theory of this kind absolutely fails to hold out anything more than half-way success. Such is sufficient for the man with no very strong desire to improve his stock, whether along beef or dairy lines, but there has never been a time when there was greater demand among the rank and file for continuous improvement along a more definite line. Was it work of this kind which produced a Cicely or a Blackcap Judy among beef types, or a Brown Bessie or a Pauline Paul among dairy types? Without a definite standard — an ideal, if you please — we shall each one breed and mould our animal forms according to our own sweet will. Will the result be uniformity or working towards a common type? I fancy not.

A short time since, the writer saw a comment in one of our leading stock journals upon a sweepstakes class of beef animals, in which he had the pleasure of placing awards at one of our recent large expositions. In one ring competed modern specimens of the Shorthorn, Hereford and Angus breeds. The comment read that had the animals all been of recognized Shorthorn colors and markings, they would have very closely typified Shorthorn ideals. The point is this: Our best breeders of beef animals have agreed that utility must be the measure of their work, and since all are working toward a utility standard, it means that all are eliminating many of the most essential points of breed differences.

On the other hand, our best breeders of pure-bred dairy types are unanimous in the opinion that there is a dairy form which should obtain among all dairy breeds, modified, of course, by minor points of breed difference. Where, then, is our middle-way breed or type to come in? Naturally, half way between the two, and for such a type we grant there is a very large place. Taking the whole country over, we believe that, whether rightly or wrongly, there is, and always will be, a large class of men who will demand the half-way cow. But what are the actual facts as we find them? Do we expect to evolve our best dual-purpose forms from cross-breeds of our best beef and dairy forms? We have a surplus of breeds already. Further, what of our present recognized dual breeds? We find that there is not among their advocates that same singleness of purpose which binds together either breeders of beef or dairy forms. One man may be reaching the happy mean between beef and dairy form, another is inclining towards beef development, and a third is placing greatest weight on dairy shape and production. In the course of three or four generations, each of these two men will have departed very far from dual-purpose standards. How, then, are we going to preserve these? The tendency towards beef or milk will be strengthened in proportion to current prices for these products on the open market. With beef and dairy quality must always have consideration, as your article suggests, but it must always be subservient to the ability to develop a good carcass for the block. On the other hand dairy breeders care nothing more for beef form than that their animals shall have their bones decently clothed. Straight dairy types are never affected by variations in the latest quotations on beef steers, but our up-to-date dual-purpose type is bound to be shaken by every changing wind of doctrine.

What the writer would like at the present stage of affairs would be to have someone come forward and outline a standard of what shall be acceptable to all our dual-purpose breeders, and which shall comprehend within its limits the essential elements of both lines. We are ready to do it.

Animal Husbandry  
Agricultural College, Mich., Feb. 10, 1902.

Editor of the Farmer's Advocate:

Care of the Brood Sow.

The feed and care of the brood sow will depend somewhat upon the season of the year, but at all times the feed should be of a flesh-forming rather than a fattening or heavy food. Some people think that the brood sow should be thin in flesh in order to raise a good litter of pigs, but this is a mistaken idea. While she should not be too fat, better results will be obtained if she is in a good condition of flesh. There is difference between a brood sow in good breeding condition and one that is too fat.

After the sow is bred she requires a liberal supply of nourishing feed. In the summer months a good pasture is excellent, with a little meal in addition, as ground peas, barley or wheat, and kitchen slops. In winter, in the place of pasture, roots will answer well, as mangel's, sugar beets, or turnips. Salt, charcoal or some earthy matter should be supplied freely, especially when confined to the pen. Sods of earth gathered and stored in the fall is a good thing for pigs in winter. When brood sows are supplied with such things they keep in good health, and are more likely to drop well-nourished pigs.

Exercise is very important, and in the winter season the sow should run out, when the weather will permit, in a yard with some straw, and a little sprinkling of grain scattered over will often keep them working the straw over for an hour or two. A barnyard is a good place for them to take exercise, rooting among the manure.

As the farrowing time approaches, say a week or ten days before she is due, it is well to put her in a pen by herself and feed her night and mornings. For two or three days before farrowing, it is better to keep her in the pen altogether. A fender should be placed around the sides of the pen in order to protect the young pigs. A scantling placed eight or ten inches from the floor will answer the purpose. The sow should be handled before farrowing. She should at least be so accustomed to the feeder that she will be quiet and restful in his presence. It is better to feed the sow sparingly for a week before farrowing, and also for the week following, and the feed should be of a laxative character. The feed may consist of shorts, bran, ground oats, and roots.

It will be well if the attendant or herdsman is around at farrowing time, but if all is well, the sow should be disturbed as little as possible. If the pen is comfortable and the young pigs are strong, they will soon help themselves, but if they appear weak some assistance may have to be given them at intervals for a while. The sow should not be disturbed until she gets up of her own free will, and then she may be given a warm drink, with a little shorts or oatmeal added. The feed may be gradually increased the first week, and then she must be liberally fed. It is very important when the pigs are quite young that the feed for the dam be sweet and wholesome. After the young pigs begin to eat, a small trough may be placed in an apartment inaccessible to the dam, but where the young pigs can help themselves, and warm sweet skim milk may be given for a few days, then shorts may be added.

If the pen is warm at farrowing time, the sow should not have too much bedding, but must be dry. Cut straw or chaff is good, and the bedding should be changed often, as it is important that the bedding for the young pigs be kept dry. After the young pigs are a week or ten days old they can, with advantage, run out with the dam on the pasture or in the yard when the weather is favorable. The age to wean young pigs will depend on circumstances. When only one litter a year is raised, they may run with the dams till they are ten weeks old, but if two litters are raised they will be weaned somewhat earlier.

Prevencher, Man. GEORGE CRAIG.

Of Interest to Canadians.

As mentioned in the report of the International Show appearing in our Christmas issue, the bacon hog is invading Iowa. The packing house is located at Ottumwa, in that State. The following query appearing in the columns of a value American contemporary shows a little more light on the matter.

BACON HOGS.

A southern Iowa correspondent writes: "A packing house has started a two or three carloads of Yorkshire bacon hogs, and scattering them over its territory about 500, trying to induce farmers to raise hogs to supply the market. These hogs were introduced by 25 pigs sent out from the East by the Iowa State Fair, and they are now being scattered over the State. The hogs are of a small size, and are of a dark color. They are very hardy and will thrive in the winter months. They are also very profitable, as they will yield a large amount of bacon. It is thought that they will be a valuable addition to the Iowa breed of hogs."

Death of Mr. James I. Davidson.

The death of Mr. James Ironside Davidson, which occurred on Feb. 15th, 1902, at his beautiful home at Balsam, in Pickering Township, Ontario, has removed from the scenes of this life a good man, and from the roll of Canadian purebred stock breeders one of its most prominent, successful and interesting figures, a man of sterling character and unsullied honor, of splendid physique, kindly disposition and genial manner, and one who numbered on his list of friends a host of lovers of good stock in Canada and the United States, and also in the Old Land, from which he came. Born in Aberdeenshire, Scotland, in 1818, he emigrated to Canada in 1842 and settled on the farm on which he died.

His specialties in stock-breeding were Clydesdale horses and Shorthorn cattle, of which he was a sound and safe judge, an eminently successful importer and breeder, and a liberal and judicious feeder. Mr. Davidson began breeding Shorthorns about 1860, but it was in 1871, when the Shorthorn world was going wild on line-bred cattle and paying fabulous prices for paper pedigrees, that, rightly reading the signs of the times, he made his first importation of composite-blooded cattle from the herd of Mr. Amos Cruickshank, of Sittytton, which subsequently won a world-wide fame on its merits, and has played a prominent part in modifying the type of the breed the world over, bringing it more into conformity with the requirements of modern markets. This consignment comprised five heifers, and transferred to America some of the most valuable blood of the Cruickshank herd, from which have descended a large number of the best cattle in the breeding herds of Canada and the United States, and predominates largely in the most successful show cattle of the present day.

Enjoying the personal friendship and confidence of Mr. Cruickshank, Mr. Davidson became for some years the principal importer and distributor of his cattle on this side of the Atlantic, and from 1881 to 1887 had practically a monopoly of the handling of such stock as could be spared from the Sittytton herd for the American trade, his operations being on an extensive scale, totaling nearly 200 head, and bringing to him considerable wealth, although he was never extortionate in the naming of prices, but always aimed to give good value to purchasers, and rejoiced to learn of the success of the stock after passing from his hands.

While Mr. Davidson was a loyal disciple of the sage of Sittytton, he entertained no undue prejudices regarding pedigree formulas in breeding, and made no protest against the use of a sire of other strains, provided he had individual excellence and came from a line of good ancestry. This liberality was well exemplified and amply rewarded in his selection in 1873, in company with Mr. John Miller, of Pickering, of the bull, Crown Prince of Athelstane 2nd 456, born in 1872, bred by Hon. David Christie, sired by the imported Booth bull, Knight of St. George, and out of Crown Princess of Athelstane, of Mr. Christie's notable importation of 1864 from the herd of Mr. Douglas, of Athelstaneford. This bull, bred to some of Mr. Davidson's best Cruickshank cows, proved one of the happiest hits in American Shorthorn breeding at that period, his offspring being noted for their constitution, thrift and feeding quality, and contributing some of the most successful breeding and show cattle of their day. Mr. Davidson, who later became sole owner of this bull, knowing his value as a sire, always refused to price him, and retained him in service until his death, which occurred at seven years of age.

Mr. Davidson was a modest man, of retiring disposition, and had no ambition for office or public life, but there came a time when his political friends were agreed that he was the only man in the constituency who could carry it in their interest, and reluctantly accepting a nomination, he was in 1881 elected with a comfortable majority to represent the riding in the Canadian House of Commons, which he did with credit, bringing his sound judgment to bear upon public problems with good effect.

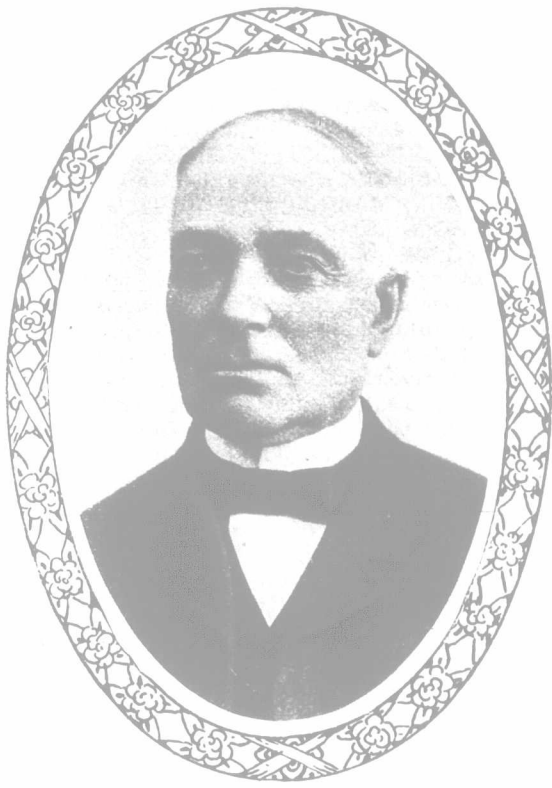
Mr. Davidson was a useful and consistent member of the Presbyterian Church. He married, in 1844, Barbara Hendrie, of Aberdeenshire, who was twenty years his senior, and to them were born four sons and one daughter, all of whom survive. The eldest son, John, of Astbarn, Ont., James I., and Mrs. Wm. M. Mason, who lived with their father, and the youngest son, George, of Monticello, Iowa. Mr. Davidson passed with a strong and vigorous constitution, with the exception of falling weakly in his advanced health up to within a week of his death, when he had an attack of pneumonia which could not be controlled, and he passed away peacefully in the 84th year of his age. He was universally esteemed by all who had the pleasure of knowing him.

### Horse Shows.

Spring horse shows are of two or three classes: those in which classes for stallions alone are made; those which include classes for breeding animals, both male and female; and those which include not only the breeding classes, but all classes—harness horses, saddle horses, hunters, and horses shown on the halter. The first class of show is much the more common, mostly every leading horse section holding one. In most cases the prizes are not large. There are prizes given for stallions of all recognized breeds and classes, and while the money offered is not sufficient to induce owners of stallions to go to the trouble and expense of exhibiting, the opportunity of exhibiting their animals before the horse-breeding public is usually considered sufficient inducement. Farmers and others who contemplate breeding one or more mares attend these shows for the purpose of seeing the stallions of the particular class or classes which they are breeding. Seeing several animals of the same class together gives one a better opportunity of judging their respective or comparative merits than seeing each horse singly, and he will usually decide upon the horse he will patronize. This decision is usually influenced to a greater or less extent by the awards, and this is especially the case if he be not a good judge of horses himself, he naturally taking it for granted that the best animals will win the best places. It is a matter of great importance for a man to win at the spring shows with his stallion. The honor of winning the prize is of much greater importance than the prize money, as it gives his horse a reputation and gains him patronage in the stud. Hence, while it is important in all cases that correct judgment be given in the ring, it is of greater importance in the case of stallions than in others. The man who exhibits a stallion in any class and is beaten by an inferior animal, either through incompetency or favoritism on the part of the judge or judges, suffers a greater injustice than is generally supposed; hence the necessity of extreme care being exercised in the selection of judges. In many cases a man is asked to judge, not because he is supposed to have any special knowledge of the characteristics of the class or classes upon the merits of which he is to pass judgment, but because he is considered a horseman, and at all events is a good fellow and a particular friend of some of the directors or probable exhibitors. He promises to act. Possibly he is aware of his inability to do justice to exhibitors, but he does not like to refuse the invitation of his friend, and concludes that at all events there will be some one associated with him whose judgment will be more valuable, and between them they will pull through some way. The day of the show arrives. Something unexpectedly occurs which makes it inconvenient for him to attend; he has not time to supply a competent substitute nor yet to send word to the directors of his inability to be present. Under circumstances somewhat like this it is often noticed that one or more of the judges who had promised to act are not on hand. Something must be done, and done quickly. Time is up, the crowd is present, stallion owners or grooms have their exhibits ready and are waiting to be called. The directors consult, and decide that they are forced to get some one or two of the crowd to act, so they buttonhole the first man they meet who has any knowledge of horses, and endeavor to persuade him to judge. It may be he is incompetent and knows it, and will not be persuaded into accepting, as he realizes the importance of the functions which he is asked to perform. Nothing daunted, they tackle the next man, and eventually succeed in filling the vacancies created by the absence of those originally selected. In many cases those acting will have a friend or neighbor with an exhibit in some of the sections, while the other exhibitors are strangers, and it is noticed that the friend often receives a better place than the merits of his exhibit warrant. This may be done either through ignorance or incompetency, but it is a great injustice to the exhibitor with the better animal. It is certainly laudable for a man to do his neighbor a kindness when it is not done at the expense of another, but when he is doing an injustice to another to favor his friend, it is dishonest. I favor the single-judge system, but this is open to argument. Whether one, two or three judges be selected, care should be taken that each is competent. It is not sufficient to have one good man and one or two indifferent ones. I claim that one good judge will arrive at satisfactory decisions more quickly than two or more, and he will be more particular, as if he make a mistake he alone is responsible, and cannot lay the blame on anyone else; while if there be two or three judges their opinions may differ. If there be three, two may agree, and the third, even though he may be right, will have to give way to the two. On the other hand, no two may agree, or if there be only two, each will have his own opinion, and they must either agree or call in others; as a rule, one will give way in

order to save trouble. Then, at the next disagreement, the one who gave way at first will hold fast to his opinion, and claim that as he gave in last time, it is only fair that his associates give way to him this time, and usually this is done. Hence the facts are that the awards are not altogether to the satisfaction of any one of the judges, and each has the opportunity of laying the blame of any mistake on his associates. No man is justified in accepting an invitation to act as judge unless he thoroughly understands, as far as it is possible to understand, the desirable qualities of the classes he undertakes to judge. He should be so sure of his knowledge that having once made up his mind how the awards should be placed he will not consent to any other allotment. He, of course, must be thoroughly honest and know neither friend nor foe in the ring. In order to do justice to himself, the exhibitors and the society that employs him, he must judge the exhibits solely on their merits, not in the slightest degree taking into consideration who the exhibitors are. In fact, he should not know who owns the animals. In some cases it is not possible to prevent this knowledge, still care should not be taken to impart it. In shows where there are catalogues, you will usually see the judge or judges furnished with them, and all they have to do is to turn up and see who owns a certain number. Now, I think this is not right. If a case should occur in which the judge has difficulty in deciding between two exhibits, even though he is trying to be perfectly honest, if he be a friend of one exhibitor human nature will assert itself and incline him to favor his friend, while the animals alone should be considered.

I would like, also, to say something about judging other classes than stallions, and espe-



THE LATE MR. JAMES I. DAVIDSON.

cially the saddle and hunting classes. I claim that no man can be a good judge of saddle horses unless he can ride, and especially can no man give satisfaction in judging hunters unless he be a cross-country rider. The value of a saddle horse and his right to win depends so much upon his mouth, manners and paces, that it requires a man who can ride to place proper value upon these points. And the same remarks apply to the hunter, in addition to his manner of performing over obstacles. No man who is not a cross-country rider can thoroughly appreciate the difference between the comfort experienced when mounted on a horse with good mouth, good paces, and a nice way of taking his jumps in his stride without altering his pace, and one that is a puller or the extreme opposite, has unpleasant paces, and bucks over the jumps. Many judges of the hunting classes seem to consider that if a horse takes his jumps without knocking them down or tipping them, that it is all that is required, apparently not knowing, or forgetting, that a good hunter must be able to gallop fast and stay, and take the leaps with comfort to his rider and ease to himself. Another point that is often apparently overlooked by the judges in these classes is that hunters are of three classes, viz., light, medium and heavy weights, and that no horse can belong to any two of these classes. How often do we see a horse win in the lightweight class one day, and with the same judges win in the heavyweight class the next. This is certainly wrong; we do not blame the exhibitor so much as the judges. The conditions for this section read something like this: "Heavyweight hunters, up to 200 pounds to hounds, carrying not less than 180 pounds over six hurdles, etc." I have frequently heard judges justify their actions in giving the same horse prizes in both

classes by saying that he carried the specified weight of 180 pounds, and hence could not be disqualified. Now, this is rather funny philosophy. The conditions state that he be up to 200 pounds to hounds, and the fact that a horse can, with apparent ease, carry 180 pounds over a few hurdles on the tanbark or grass does not show his ability to carry 200 pounds across country after hounds for ten or fifteen miles or more. I consider it the duty of the judge or judges in the hunting classes to line the entries up as soon as they appear in the ring and look carefully over them. If any be out of their class they should be disqualified and sent out of the ring—not allowed to compete at all. No hunter should be on any account allowed to compete unless he be well up to the weight demanded; hence, where there are only two classes given, viz., heavy and light weights, medium weights must compete in the lightweight class. Shows are supposed to be educational to those who are seeking knowledge in the line of live stock, as well as entertaining to the general public and profitable to the exhibitor. Supposing a prospective breeder, intending to produce heavyweight hunters, should attend one of these shows with the idea of seeing the ideal animal of this class. He watches with keen interest the lightweight hunter class perform, and sees a grand little fellow of say 1,050 pounds, with all the attributes of a hunter, win first place. This is amusing and instructive, as it gives him pleasure to see the noble animals perform, and teaches him what an ideal lightweight hunter should be, as regards type, style, size, action and performance, but it is the heavyweight in which he is particularly interested. He waits until the "heavyweight" class is called, and is surprised to see some of the same animals that competed in the lightweight class a few hours or the day before but his surprise is intensified to see the champion of yesterday win to-day in this class before the same judges. This man, who is looking for information, is supposed to know little about horses, and nothing about the tricks of exhibitors, but naturally supposes that the men who are asked to judge at a high-class show understand their business, else they would not have accepted, and that when these gentlemen give a prize to an animal in a certain class, that that animal is at least a fair representative of the class, and when he notices the same animal win in two classes where such difference in size is demanded, he must arrive at the conclusion that he has come to the wrong place for information. Many instances of somewhat the same nature could be cited in other classes. Such things should not be. In all classes where the exhibits are not at least fairly typical, they should be disqualified, and the judge should be able to give his reasons for the disqualification. If judges were required to publicly give reasons for their awards, state why the first-prize animal should be placed ahead of the second, the second ahead of the third, etc., it would make it much more interesting and instructive for both exhibitors and spectators, and would have the effect of preventing a person from accepting the position of judge unless he felt quite competent. As it is, if a judge makes a mistake, either through ignorance or favoritism, he is subjected to uncomplimentary remarks by those who know better, but he hears few, if any, of those remarks. But if he had to give reasons for his awards, he would often hold himself up to ridicule in endeavoring to justify them, and would either quit the business or qualify himself to do better work, and be more careful. Of course, no man can expect to satisfy all exhibitors or have his reasons accepted in all cases by some exhibitors who have failed to take first place. Still, if he be "the right man in the right place," he will be able to satisfy himself and the majority of those who understand the desirable characteristics of the class under discussion. Opinions will differ, but if a man can give his reasons for his decision, he will be respected by others who are capable of judging, even though their opinions may not agree with his. Therefore, I claim that in the selection of judges, either for the stallion classes or other classes of stock, or, in fact, for any animal or article that is up for competition, greater care should be taken than is generally exercised, and I also claim that no man is justified in accepting a position as judge unless he is well qualified, and can convince the public of such qualification by publicly giving reasons as above stated.

"WHIP."

### The Remount Scandal.

In the British House of Commons, it has been charged that the Government paid £33 per head for horses bought in the open market in Hungary for £10 and £12, the difference going into the pockets of certain smart individuals who obtained contracts from the War Office, and sold them again and again, at large profits. About the only defence set up was that of incompetence on the part of departmental officials, but the British Weekly, voicing a very general sentiment throughout that country, says: "The public demands that the incompetents be discovered and punished, and the fools fired out."

### Chewing of the Cud in Live Stock.

It has been commonly observed by people having anything to do with live stock that sheep, goats and cattle chew their food (or cud, as it is commonly termed) a second time, while pigs and horses do not.

Chewing of the cud is technically termed rumination, and animals performing that digestive act are classed as ruminants, a term which includes goats, sheep, cattle, deer, antelope, and camels.

Ruminants are built on a somewhat different plan from other live stock, in that they are possessed of four stomachs in place of one.

Strictly speaking, it is only in one of these stomachs the digestive process goes on; the others may be considered as enlargements of the gullet and places in which food is prepared for the fourth (true) stomach. These four stomachs have received names: the first one, the largest, with a capacity in mature cattle of 45 to 60 gallons, is termed the paunch, or rumen; the second the honeycomb, or reticulum; the third the manyplies, or omasum; while the fourth, or true stomach, is spoken of as the rennet, or abomasum. The reason for animals ruminating is that when in the wild state, and when liable to be preyed upon by stronger members of the animal world, such as lions, tigers, etc., by this method food could be taken in rapidly and chewed at leisure in a place of safety. An important thing for live-stock breeders to know is that fright, harshness, or the presence of strangers, causes stoppage of this re-chewing for a time hence, as far as possible, all such contingencies should be avoided. Food when taken in by a ruminant is partially masticated and mixed with saliva in the mouth, then is passed on down the gullet to the paunch and the honeycomb, the fluid and finer portion going on to the manyplies. After a certain time has elapsed, this food, which has been churned up in the paunch by reason of the movements of that organ, is returned again to the mouth, where the bulk of it is finally fitted for the true digestive process in the fourth stomach. It has been estimated that about seven hours are needed for rumination to be completed, hence it will be seen that the practice of the cattleman in bedding down the stock and allowing them a period of quietness and rest after feeding is based on sound principles and observation of facts.

### The Live Stock Conventions of Manitoba.

The middle weeks of February in Winnipeg are always lively ones, due to the Bonspiel, the gatherings of the fraternal societies, and the breeders' meetings. This year was no exception, and the attendance at the meetings of the associations and the number of memberships was larger than ever before. The innovation of having stock-judging demonstrations at the afternoon sessions, recommended by the "Advocate," Dec. 5, 1901, was adopted and proved a drawing-card and a great success. As working further along that line, we believe if the associations could secure a suitable man, that a week or a two weeks' course could be held and would be well attended and very beneficial. The passing of a resolution in favor of an agricultural college by the breeders' and horticultural associations may be taken as an effectual refutation of the mossback-like claim that we don't want a college, because there are no students with intellect enough to attend one and therefore Manitoba is not yet ready for an agricultural college. Many new faces were seen at the meetings, indicating that the breeding of pure-bred stock is infectious. The absence of eastern speakers was much to be deplored, but "absence makes the heart grow fonder," and some very good men were substituted from the south. The same lack of discussion was apparent this year as referred to last year, due, we believe, to lack of time. Breeders generally seemed to feel pleased at the prospects for business, and reported a fairly good season already past. Judging from the expressions heard on all sides, the live-stock demonstrations are here to stay, and only require more experience to bring them nearer perfection. The meetings are beneficial, for the instruction given, the opportunity afforded of meeting other breeders, and for the chances for business opened up. Some breeders and exporters took advantage of the convention to bring in registered stallions and bulls and expose them for sale. The Sheep and Swine Breeders opened the ball on Feb. 17th, followed by the Pure-bred Cattle Breeders, Feb. 18th; the Horse Breeders and Dairymen, Thursday, Feb. 20th, and the Horticultural Association brought to a close, on Friday, Feb. 21st, the most interesting and instructive week of meetings ever held by the breeders' associations.

#### THE SHEEP AND SWINE BREEDERS.

The 8th group, the largest of this association, on Feb. 17th, opened with a large number of members present. The president, J. A. McGill, presided, and the secretary, J. A. McGill, acted as secretary. After the usual business of the association, consisting of the reading of reports and the secretary's and auditor's

reports, the election of officers was proceeded with, and resulted as follows: President, W. G. Styles, Rosser; 1st Vice-President, Jas. Bray, Longburn; 2nd Vice-President, Wm. Wallace, Niverville; Secretary-Treasurer, G. H. Greig, Winnipeg. Auditors—H. McKellar and R. Waugh. Directors: Sheep representatives—J. B. Jickling, Carman; D. E. Corbett, Swan Lake; Jas. Riddell, Rosebank; A. D. Gamley, Brandon. Swine representatives—J. A. McGill, Neepawa; W. E. Baldwin, Manitou; A. Graham, Pomeroy; W. L. Tramm, Crystal City. Dr. S. J. Thompson was re-elected representative to the Winnipeg Industrial, and A. D. Gamley to Brandon. C. W. Peterson, Deputy Commissioner of Agriculture for the Territories, addressed the meeting re matters relative to the furthering of the sheep business in the West, taking up more particularly the fencing problem. A motion was passed recommending that woven wire be placed on the free list, and that the C. P. R. give reduced rates on pure-bred rams, to allow of their being moved around more easily for stud purposes. Mr. Peterson was made an honorary member of the association. Motions passed asking the Government to have the reports printed for early distribution; suggesting the appointment of expert judges for the local fairs; urging the immediate establishment of an agricultural college by the Provincial Government; urging the Winnipeg Industrial board to provide modern judging rings with proper seating accommodation, and with reference to the appointment of a live-stock commissioner, the following resolution, moved and seconded by S. Benson and F. W. Brown, was, after considerable discussion, passed: "The Sheep and Swine Breeders' Association in annual meeting assembled, realizing the relationship that should exist between successfully conducted Institute work and the advancement of the pure-bred live-stock interests of the Province, declare ourselves in sympathy with the proposition to have a live-stock commissioner for the Province and director of Farmers' Institutes, the two positions being united for the time being for the purpose of efficiency and economy. The morning session was concluded with five-minute talks on Tamworths and Poland-Chinas by W. E. Baldwin, Manitou, and W. L. Tramm, Crystal City, respectively.

For the afternoon session, the association adjourned to the Case building, which had been fitted up as a stock-judging pavilion, and carried to a successful conclusion a new departure, viz., demonstrations of stock judging, using live animals for illustration. That such a move on the part of the Association was immensely popular is borne out by the attendance, which ran up into the hundreds. Prof. J. J. Ferguson, Professor of Animal Husbandry, Michigan Agricultural College, took up "Types of Bacon Swine." The pigs, supplied by courtesy of the Gordon, Ironside & Fares Co., were grades, of which one was a large Berkshire weighing about 320 lbs., a shaggy Tamworth of about 220, and a white, chunky pig, of about 190 lbs. Prof. Ferguson went briefly into the requirement of the British and American markets, and described the animals suited to supply these different markets. The British market demands a long, 180-lb. deep, thick-bellied hog, with little fat and plenty of firm, lean meat, the sides being the important part, being used for the production of Wiltshire sides; whereas the American market called for a thick, fat-backed, large-hammed hog, weighing 300 lbs. or more. The hog wanted for our best market was one that reached the required weight after about 7 months of growth and careful feeding. At the present time 40 per cent. of the hogs put on Canadian markets were typical bacon hogs, 25 per cent. were "fats," another 25 per cent. were "immatures or bruised," and about 10 per cent. unsizable. Prof. Ferguson warned the breeders against extremes in breeding, stating that in the production of pigs of extreme length, the pigs are apt to lack in breadth through the heart, and consequently would lack in constitution. The ideal bacon pig should be smooth, with an even layer of fat along the back from head to tail, the fat being little more than one inch thick. The lecturer pointed out on the Berkshire the tendency to be too fat on the back, especially over the shoulder, and contrasted in favor of the Tamworth. The Professor thought it would be a mistake to try to change the characteristics of the Berkshires, Poland-Chinas, Chester Whites and Duroc-Jerseys so that they might qualify as bacon hogs. In reply to a question as to the benefit to be derived from retaining those characteristics, he thought that all farmers were not going to raise bacon hogs, and that as far as the farmer was concerned, the Berkshire might be termed a general-purpose pig. He strongly deprecated breeding from immature sows. A good brood sow should be retained as long as she will breed. He had found that the brood sow was at her best from the time she was three until five years old. Immaturity in the boars used results in smaller litters and a lack of impressiveness as sires. Many of the hogs raised nowadays are too fine and light in the bone. The cross of the Berkshire boar on the Yorkshire or Tamworth sow gave good results. "Softs" were chiefly pro-

duced by breeding immature pigs, also from lack of exercise. The hogs used were afterwards slaughtered and their carcasses shown, when the judgment of the lecturer was borne out. Following Prof. Ferguson, a demonstration in "Judging mutton types of sheep" was given by Dr. Hopkins, late Instructor in Animal Husbandry, Wisconsin Agricultural College, four sheep (three Shropshires and one Cotswold), kindly loaned by Messrs. A. Baxter, Jno. and Matthew Oughton, being used for the purpose. The lecturer drew attention to the increasing demand for mutton, and stated that one of the former objections—the strong flavor due to the Merino blood—was being overcome by the use of sires from the mutton breeds: Leicesters, Lincolns, Cotswolds, and the Down breeds. It was made plain that in speaking of mutton types of sheep there were the two classes to be considered—breeding sheep and fat sheep. In the judging of sheep, the age should be looked for by examining the teeth, and then, standing off at some distance, get an idea of the form, which should be low, long and compact, also the style of the sheep. The head should be broad, full, and in the male should give a bold appearance to the sheep, full bright eyes, a short face, fine, erect ears, a large muzzle. In the pure-breds, the person judging should look out for scurs (aborted horns). The scrag, or neck, should be examined, which should be full and strong, especially in the male. The examination just below the throat should be thorough, as the wool there may conceal goitre, a serious trouble in breeding ewes; lambs from ewes so affected usually die at or soon after birth. The shoulder or neck vein, formed by the blending of the neck with the shoulder, should be full and smooth, the brisket should be prominent, and the sheep should be wide between the fore legs, which is one of the indications of constitution. On top of the shoulder-blades there should not be a hollow between them, neither should the spine stick up above them. The well-sprung rib should be found from the shoulder back, an important point, as the ribs well sprung, the back would be wide, and it is on the back, loin and leg where the high-priced cuts are. A broad, straight, and wide, thick loin, and a deep, thick flank are essential. The width and levelness should be carried out to the tailhead, the thighs should be full and deep and no cutting-up between the hind legs (the region of the twist) should be tolerated. Placed on short legs, with not too coarse bone, the mutton sheep will approximate closely to the above description. Constitution is indicated by the girth; the skin, which should be pink, and the fleece, which should be dense and even over the body, with plenty of yolk in it. The fleece should be examined over shoulder and thigh, the former being the place where the finer wool is to be found. Dead hairs in the wool indicate exposure, black spots impurity of blood. Here again the demonstrator's address caused a lively discussion.

At the evening session, Mr. C. W. Peterson advocated expert judges for agricultural fairs, saying that such were essential to the success of those institutions. The address showed the speaker to have studied the conditions, having gone back to the transactions of the Bath and West of England Agricultural Society for 1799. If expert judges were provided, the educational feature of the shows would be developed, as reasons would be given for the placing of awards. No discussion followed Mr. Peterson's arguments, being to all intents and purposes unassailable. Prof. J. J. Ferguson then spoke on "Swine feeding for profit." Pigs were the least expensive stock to work into, and great improvement could be had from the common pigs by the use of good pure-bred males. Persistency was insisted upon, and it was said there was little to choose between the breeds; a pound of gain resulted from 5 to 5½ pounds of feed. It did not pay to keep sows for one litter a year. Grade sires meant uncertainty in the resulting progeny. It was unprofitable to feed breeding stock a grain ration during the winter. He advocated 30 lbs. of mangels, divided into two feeds each day, 2 lbs. of whole oats being fed at noon; mangels to be fed whole. Turnips had to be pulped, and might be mixed with bran and shorts. Three to four weeks before farrowing, the root allowance should be decreased, and the bran and shorts mixture substituted. He was a great lover of bran as a stock food. The dairy and pig business should go hand in hand, there was nothing like milk for pigs, and he was not afraid of unlimited quantities; had fed as much as 30 lbs. a day, along with grain—a mixture of two parts shorts, two parts fine oatmeal and one part bran. Barley should on no account be fed to sows during the first month after farrowing, or milk fever would result and the young pigs would die. The Professor read a letter from Nelson Morris, the big Chicago packer, which went to show that the Americans were not likely to be serious competitors for the British bacon trade. He urged the farmers to get the packers to agree to give them an extra price for the bacon type before starting to breed such hogs. Mr. Bedford was delayed en route, and did not address the meeting.

## PURE-BRED CATTLE BREEDERS' ASSOCIATION.

The annual meeting of the Pure-bred Cattle Breeders' Association convened in the City Hall, Winnipeg, on the morning of Feb. 19th, 1902. President Andrew Graham, Pomeroy, began the proceedings with the usual address, in which he referred to live-stock work now being done by the Ontario Minister of Agriculture, and how the eastern breeders were pushing for the Western trade. He stated that there should be at least 20 pure-bred sires used where one was used today. Reference was made to the bringing of judges from the West, thus bringing the Territorial and Manitoba breeders together. Congratulations were extended to the breeders by the President on the appointment of a Westerner, Dr. J. G. Rutherford, to the position of Dominion Veterinarian. The secretary, G. H. Greig, then read the report for 1901, and referred to the work done by the Association's representative, Wm. Sharman, in the Territories in disposing of Manitoba-bred bulls. The success of the Hon. Thos. Greenway's herd at the Pan-American was referred to, as was the matter of expert judges for local fairs and the printing of the annual report. The Secretary's suggestion re having stock-judging demonstrations at the annual conventions was acted upon by all the associations (see reports). The financial statement showed a healthy condition of affairs. The election of officers resulted as follows: President, J. G. Washington, Ninga; 1st Vice-President, Jas. Bray, Longburn; 2nd Vice-President, F. J. Collyer, Welwyn, Assa. Directors—W. S. Lister, Middlechurch, Shorthorns; J. E. Marples, Deleau, Herefords; Hon. Wm. Clifford, Austin, Polled Angus; J. M. Campbell, St. Jean, Galloways; Hon. Thos. Greenway, Crystal City, Ayrshires; D. Munroe, Winnipeg, Holsteins; Jas. Walsham, Portage la Prairie, Jerseys. Additional directors—Andrew Graham, Pomeroy; S. Benson, Neepawa; Jas. Yule, Crystal City, Andrew Graham, representative to Winnipeg Industrial; J. A. McKellar to Brandon. Messrs. H. McKellar and Waugh, Winnipeg, auditors. Resolutions, as follows, were passed: One referring to the improvement of the judging rings at the exhibitions, and one in favor of appointing a live-stock commissioner to act as joint secretary of the associations. The agricultural college question came up, and the following resolution passed, to which J. H. Irwin, one of the agricultural college commission to visit the colleges, spoke, lauding the work done by those institutions:

"Whereas the Provincial Government has taken up the question of an agricultural college and appointed a commission on the subject, the members of which commission did visit several of the leading agricultural colleges and returned fully convinced that such a college should be established at an early date; that such an institution should be run entirely independently of university connection, and that an agricultural college is an essential to the future progress of Western agriculture;

"Therefore be it resolved, that this Association tender its thanks to the Government for the steps already taken in the matter, and respectfully urge that the establishment of an agricultural college be proceeded with with the least possible delay. This Association desires further to controvert the statement made by irresponsible parties that the farmers are not desirous of such a college, and is of the belief that such statements are not made in the best interests of the farming community."

A resolution, the outcome of last year's fiasco in the judging at the Industrial, was moved by Jas. Yule and Jas. Bray. In the past, the judge has been worried by parties interested in the cattle shown and by certain press men; hence the following resolution, which it is hoped will have the desired effect:

"That we, the members of the Cattle Breeders' Association, through our representatives to the Winnipeg Fair Board, would beg to suggest that no one but judge, director in charge and the parties in charge of the cattle being judged, be allowed in the judge's ring while the judging is going on; that a tent be provided for the press men inside the ring, and after the awards are given the aforesaid press men to have the opportunity to inspect the animals before they are taken to the stables."

The enrolment of members was the largest on record, many new men putting in an appearance.

Similarly to the Sheep and Swine Breeders' Association the preceding afternoon, the cattle breeders met for the purpose of holding a "stock-judging demonstration," under the supervision of Profs. Ferguson and Sheppard. Prof. Ferguson took up "Dairy Cattle," and presented a Holstein cow owned by D. Munroe, Winnipeg, for illustration purposes. The differences between dual-purpose and special-purpose (either beef or dairy) type of cattle was taken up, the Professor expressing his disbelief in the dual-purpose cow, and recommending using beef-bred stock if it was intended to raise beef, and dual-bred stock if dairying was to be engaged

in. The ideal dairy cow was described as being of good size, having the triple-wedge shape, with plenty of room for heart and lungs. A large barrel and wide loin was essential, as was plenty of width between the pinbones, thus ensuring easy and safe calving. The hide should be mellow and of medium thickness. A greater length of head was permissible in the dairy type than in the beef type. Prof. Ferguson was in favor of dehorning except for pure breeds, in which viciousness should be the cause for their removal. The eye neck, prominent, wide-open backbone (vertebrae), ribs flatter and further apart than in the beef animal are indications of good dairy performance. The escutcheon was mentioned, the udder, milk vein and well receiving considerable attention. The udder should be large, running well forward and up behind; teats should be squarely placed, of good size, and the substance of the udder should not be too firm (meaty, as it is termed); such udders show no signs of shrinking after being milked out. Large milk veins and milk wells were of special importance.

Prof. Sheppard, of the Agricultural College, Fargo, N. D., took up the beef breeds, animals for illustration purposes being furnished by W. S. Lister, Middlechurch, in the noted show cow, Rosabella, and a Shorthorn bull, by H. O. Aycarst, also of Middlechurch. The wants of the breeder, feeder and butcher were referred to in order. The breeder desires an animal conforming to breed type, the feeder one that will turn the largest quantity of feed into the greatest quantity of high-class edible meat at a profit, while the butcher wants an animal with as little waste as possible and the greatest percentage of meat on the high-priced cuts. In judging cattle a system should be followed, starting with the general outline, which should be long, straight top and under line, compact and low to the ground. The head, neck and shoulders were referred to; the two latter should be heavily fleshed. Deep flanks, both fore and hind, were to be desired by the feeder. By means of a chart, the Professor showed the relative values of parts: Hind shank, 2c.; round, 6c.; loin, 19c.; flank, 2c.; rib, 16c.; plate, 3c.; chuck (which includes the shoulder and part of the neck), 5c.; the figures being obtained from Swift & Co., Chicago. The attention of the audience was drawn to the fact that while the loin and rib only contributed one-third of the weight of the dressed carcass, they sold for about two-thirds of the total obtained.

The evening meeting was held in the City Hall, when Prof. Sheppard again addressed the convention, Mr. Walter Lynch, Westbourne, being in the chair. The Professor strongly advocated an agricultural college for the young people, and said that the older farmers must depend on the farmers' institutes, the agricultural papers and the experimental farms in order to keep up-to-date.

Hon. Thos. Greenway, in a neat and convincing speech, deprecated the excessive grain-growing, one-style farming so much in vogue, and urged the more general adoption of live-stock breeding and feeding, believing that such methods, namely, raising hogs and cattle, were more profitable than growing wheat to sell at 50c. a bushel. Mixed farming was undoubtedly the most profitable. Prof. Ferguson again addressed the audience for a short time on "Breeding the dairy cow." He advised keeping a good sire until six years old, and again spoke against the dual-purpose cow; above all means to use pure-bred sires on the common herds and to strive for uniformity.

As a result of the visit of several of the Western breeders to the Dominion Shorthorn Breeders' Association, a meeting of local Shorthorn breeders was held with the view of endeavoring to have rectified what they consider injustice at the hands of the central organization in Toronto. A committee was appointed to take steps to form an association which would look after the interests of Western Shorthorn breeders on the Dominion board. It was stated that although representatives from Manitoba were present at the annual meeting of the D. S. H. B. Association, they were not consulted in the matter of men to represent Manitoba breeders. A meeting will be called for the week of Winnipeg fair to take up the question.

## HORSE BREEDERS' ASSOCIATION OF MANITOBA.

The annual meeting of this Association was held in the stock-judging pavilion; S. Benson, Neepawa, 1st Vice-President, in the chair. The membership shows a satisfactory increase in numbers, indicative of the renewed interest and greater profits in horse-breeding. The constitution of the Association came in for a few changes at the hands of the members. The following officers were elected: President, Dr. S. J. Thompson, Winnipeg; 1st Vice-President, W. W. Fraser, Emerson; 2nd Vice-President, Dr. W. R. Taylor, Portage la Prairie. The directors are as follows: J. A. S. Macmillan, Brandon; R. I. M. Power, Carleton; R. Muir, High Bluff; Sam McLean, Franklin; J. G. Washington, Ninga; H. Galbraith, Hartney; Andrew Graham, Pomeroy; Jno. Cannon, Cypress River; Geo. H. Greig was

appointed Secretary-Treasurer. R. I. M. Power is again representative to Winnipeg Industrial, and Henry Nichol to the Brandon Fair. Dr. A. G. Hopkins was elected representative to the Territorial Horse Breeders' Association, which convenes at Calgary in May.

Mr. C. W. Peterson, Deputy Commissioner of Agriculture, Regina, suggested that the secretary of the Association be made managing director of the Association, and thus do away with the necessity of the trips to Winnipeg of the executive, with the attendant expense. This method was followed in the Territories, and worked well, the executive only being called to meet once a year, or when important business came up. The Association decided to stay by the old system.

Mr. Power, in reporting the horse exhibit at the 1901 Industrial, criticised adversely the appointment of an associate judge by the exhibition board, and was upheld in his views by the Association.

At the afternoon session, Dr. Torrance demonstrated the system followed in the examination of a horse for soundness, and while doing so gave an explanation of the various unsoundnesses, their causes, results, and appearance on the animal. A good discussion followed this demonstration. Dr. Curryer, L. D. S., of the Minnesota Institute staff, then took up the "Desirable and undesirable points in the horse," using a number of charts and the animals served him as illustrations. This speaker's address was practically an amplification of that of the preceding speaker. In the evening Dr. Curryer again addressed the audience on "Training the horse." The speaker impressed upon his hearers the necessity for kindness and firmness when dealing with horses. The training of the colt should begin at weaning time, which would do away with the breaking method usually followed later in the colt's life. Various methods for restraining horses were shown, as follows: For halter breakers, a rope with a slip noose was placed around the body at the flank, the long end of the rope being carried between the fore legs and up through the ring of the headstall, thence to the tie-ring, it being left a little longer than the halter shank. On the animal jumping back and breaking the halter strap, the noose would give him a squeeze that would cause the halter breaker to jump to his place; a few experiences like this and he would be cured. It was recommended when turning a team of horses on the prairie while camping for the night, that the head of each be tied by the halter shank to the tail of his mate, and thus they would not stray away during the night. With a balky horse of a team, it was recommended to tie him short by the tail to the double-tree, and start up the other horse; the tension on the tail would invariably cause the balker to move on. The lecturer insisted on the use of an old-ried horse with the colts when training them to drive. A somewhat similar device to that used for halter breakers was used to get colts to lead, Dr. Curryer insisting on the principle being observed that if one wants a horse to go forward to apply the stimulus behind the middle line of the body, and if backward, ahead of the middle line. The lecturer showed that he had studied kindergarten methods with colts to perfection. Votes of thanks were tendered to the gentlemen loaning horses for the demonstrations.

## DAIRY ASSOCIATION.

The 16th annual meeting of the Dairy Association was held on February 20th. The President, William Champion, occupied the chair. The directors submitted a lengthy report, reviewing the work of the year, included in which was the Dairy Package Branding Act passed by the Local Legislature last year, the introduction of butter-making contest at the Winnipeg Industrial, which proved such a marked success, and the market reports furnished by the executive to the various factories and creameries. Reference was also made to the improvement in the quality of cheese, and to the general improvement in the condition of the dairy industry.

Resolutions were passed endorsing the Manitoba Dairy School and favoring the appointment of a live-stock commissioner and director of farmers' institutes for the Province. Reports were read from several of the creamery and cheese factory representatives present. A nominating committee having been appointed by the meeting, the election of officers was disposed of very expeditiously, no amendments being offered to the report of the committee. The officers for the year are: President, William Ryan, Ninga; 1st Vice-President, R. Waugh, Winnipeg; 2nd Vice-President, D. W. McQuaig, Macdonald; Secretary-Treasurer, Geo. Harcourt, Winnipeg; Directors—W. Champion, Reaburn; F. W. Brown, Portage la Prairie; W. Grassick, Pilot Mound; Nathan Clark, Killarney; U. S. Jory, Crystal City; B. B. Olson, Gimli (representing the Icelandic interests); J. T. Regher (representing Mennonite interests), William Lacomodiere (representing the French interests). Representative to the Winnipeg Exhibition Board, W. B. Gilroy, Austin.

A cordial vote of thanks was tendered the retiring secretary, Miss C. E. Hind, and regrets were expressed that she found it necessary to sever her connection with the Association.

The attendance at this convention, while not large, was representative of the various dairy districts. Papers were read by Mr. Wheatland, of the Government Dairy School, on the "Oil-test churn"; by W. A. Wilson, of Regina, Superintendent of the Dominion Government Creameries for Assiniboia and Saskatchewan, on the "Making of high-class butter"; by Hugh McKellar, Chief Clerk of the Department of Agriculture, on "The future development of dairy work in Manitoba," and by S. A. Bedford, Superintendent of the Brandon Experimental Farm, on "Grasses and fodder crops." C. A. Murray, Superintendent of Dairying, gave a practical demonstration of butter judging.

At the evening session, Mr. J. E. Hopkins, of the Moose Jaw Creamery, gave an address on "The dairy cow and milk production in the West," and Prof. Farrington, of the Wisconsin Dairy School, gave a most interesting address on the production of milk by the average cow, illustrated with stereopticon views. A portion of Prof. Farrington's address appears elsewhere in this issue.

#### THE WESTERN HORTICULTURAL SOCIETY.

The annual meeting of the above Society was held on Friday, Feb. 21st. At the afternoon session the report of the executive committee and other matters were first disposed of, and the election of officers for the year was proceeded with, resulting as follows:

President, Professor A. B. Baird; 1st Vice-President, Angus McKay, Indian Head; 2nd Vice-President, S. A. Bedford, Brandon; 3rd Vice-President, A. P. Stevenson, Nelson; 4th Vice-President, M. Bull, Winnipeg; 5th Vice-President, J. J. Gunn, Gonor; 6th Vice-President, J. Caldwell, Virden; Secretary, Melvin Bartlett, Winnipeg; Treasurer, W. G. Sptt, Winnipeg. Councillors—Richard Alston, Alderman Barclay, G. H. Greig, and Thomas McIntosh, all of Winnipeg.

By a vote of the Association it was decided to hold a horticultural exhibition in Winnipeg on August 28, 29 and 30. A resolution was also passed endorsing the proposition to have an agricultural college established in the Province. It was also decided to ask the Local Government to print copies of the Act prohibiting the destruction of insectivorous birds for distribution throughout the schools of the Province.

Following the initiative of the stock associations in introducing demonstrations of stock judging, the Horticultural Society introduced a new and what proved a very interesting feature in the way of an address on the judging of vegetables and roots, by Superintendent Bedford. Mr. Bedford heartily concurred in the object of the Society in taking up the work of vegetable judging, as it was a matter which he found much neglected by agricultural societies when selecting judges for these departments, and frequently both exhibitors and the public were at a loss to understand the reason for the placing of awards. In his address he gave credit to Mr. Brown, the gardener at the Farm, for valuable assistance in preparing the standard of excellence which he presented. He dealt with a number of the most common roots and vegetables, and demonstrated from specimens presented the desirable and undesirable qualities, and indicated by a scale of points about how much value should be attached to each point.

Superintendent McKay, of the Indian Head Experimental Farm, contributed a valuable paper on "Fruit-growing in the Territories." He referred to the conditions of climate and location that rendered fruit-growing with them somewhat difficult. While not yet successful in growing apples, they had succeeded with crabs of the Baccata type, and looked forward to the time when they could send fruit to the Horticultural Exhibition in Winnipeg far superior to anything Manitoba could produce. Mr. McKay stated that so far as he could find the Manitoba plum was not native to the Territories, but at the Farm they had succeeded in growing the Manitoba plums, and also several other varieties of improved natives, such as the Aitken and Weaver. The most useful varieties of small fruits suitable for growth in the Territories were enumerated, and information given as to methods of cultivation, etc. This paper was followed by one on "Gardening for profit," by Prof. W. T. Macoun, Horticulturist of the Ottawa Experimental Farm. Mr. Burch, of Alston's greenhouses, also contributed a paper.

At the evening meeting Mr. Alex. McIntyre read an exhaustive paper on the "Improvement of rural school grounds," and Prof. Macoun, of the Ottawa Farm, gave an address on "What the Experimental Farms are doing for horticulture." This lecture was fully illustrated with stereopticon views. A. P. Stevenson, of Nelson, contributed a paper on evergreens.

#### Poultrymen Show Their Birds.

PROF. GILBERT SPOKE!

The annual struggle for fame, dollars and advertising among the Provincial poultrymen took place in Winnipeg during the second week of the Bonspiel. The fashionable feline favorites were also on view; in fact, the pussy had quite a corner in the show, and was the cynosure of the feminine world. Mrs. Benson, of St. Paul, managed the exhibit of cats, and worked up considerable enthusiasm among the local cat fanciers.

The utility man or woman was more interested in the feathered tribe whose mission in life is to fill the egg basket, or as capon or dressed fowl minister to the tastes of the epicure, the invalid, or the picnicker.

A large number of birds were on exhibition, the principal winners in the utility breeds being mentioned: Brown Leghorns, C. A. Jordan, Fargo, N. D., and Thos. Chambers, Brandon. In Partridge Cochins, Wm. Anderson, Brandon, was the whole thing. Light Brahmas were a fine exhibit, the bulk of the prizes going to J. W. Higginbotham, Virden, and Geo. Hanby, Winnipeg; as table fowl this breed is hard to beat. In Blue Andalusians, G. Wood, Louise Bridge, took the bulk of money, Wm. Anderson also winning a prize. In Langshans, S. Ling, Winnipeg, was a heavy winner; Miss Fowler, Headingly, also pulled out some of the plums. Chambers, of Brandon, won on Minorca pullet; E. M. Rose and T. Reid, of Winnipeg, being the heavy exhibitors in this class. The old-time favorites, Banded Rocks, were out in force: Geo. Wood, Holland; T. Chambers, Brandon; G. H. Grundy, Virden; W. Rutherford and L. D. Camiff, Fargo, N. D., being the principal exhibitors and winners. Wyandottes were also a good lot, being shown by W. Wilding, Winnipeg; G. Wood and J. Kitson, Macdonald, the former winning the bulk of the prizes in White Wyandottes. In the Silver Laced variety, Dr. S. J. Thompson won a prize for breeding pen. In Dark Brahmas, Wm. Anderson, Brandon, was the standard bearer. Midwinter and Kitson were the competitors in Javas.

The massive Bronze turkey was much in evidence at this show, a cockerel shown by Maw weighing 25 lbs. Kitson, Wilding, and Maw, Winnipeg, were the principal winners with this profitable fowl. Midwinter and Maw divided the prizes in Toulouse geese between them; other varieties of geese were shown by Midwinter.

In ducks, Maw won with Rouens; J. A. Muller, Cypress River, with Cayugas, and Maw winning the bulk of the prizes with Pekins; some prizes in this class going to J. Menlove, Virden; King and Kidd, Winnipeg.

The 9th annual poultry show was the most successful yet held. Next winter the exhibition will be held at Virden, where a strong local society now holds forth. Judge Holden, of St. Paul, again did the scoring satisfactorily. The report of the secretary showed the exhibition of poultry at Brandon to have been a success financially. The association reported the regulation grant of \$350, and \$150 extra for coops by the Provincial Government. Officers for 1902 are: President, J. W. Higginbotham, Virden; Vice-Presidents, A. B. Stovel and Thos. Chambers; Treasurer, Wm. Rutherford. Executive—H. A. Chadwick, St. James; Wm. Anderson, Brandon. A. B. Stovel representative to Winnipeg Fair Board.

The association is doing some good work, but needs to branch out as kindred associations have this winter. Demonstrations of poultry cramming, killing, plucking and dressing for market should be held, fowls being used for the purpose. If not possible to carry out the above in full, possibly a competent lecturer with a good set of lantern slides might be secured and the general public more educated. The money obtained by the poultry association from the Government is intended to be used to foster the industry and to educate the farmer to produce more high-class poultry and eggs. Demonstrations are what count nowadays, and it would be well for the feathered enthusiasts if they could arrange to go to the country via the Farmers' Institutes in a campaign of poultry education. Models or plans of up-to-date poultry buildings, appliances and incubators should also bulk largely at a poultry show.

Prof. A. G. Gilbert, of the C. T. F., Ottawa, delivered a lengthy address, in which he advocated the Banded Rock, White Wyandotte, and Buff Orpington for general use. The demand is for well-fleshed, white-meated birds. Green food, in the form of sugar beets and mangels, was necessary, a mash three times a week being ample, cut bone at the rate of one pound to fifteen hens fed three times a week had given good results. Exercise was essential if winter eggs were desired. May-hatched chickens make the best winter layers, and the incubator was a necessity if one wished to get early chicks. The first few weeks of a chicken's life was the period calling for the greatest attention.

The first feed should be stale bread crumbs, and in very small quantities. The second day crumbs mixed with milk, sameed out. On the third day add oatmeal and feed often, and keep this up for

ten days. After that add table scraps and cooked vegetables.

Judge Holden recommended strict adherence to one breed, and advised that no more be kept than can be properly attended to.

#### No Deterioration in Stock Raised on Separated Milk.

Although the cream separator has evidently come to stay, and has apparently found appreciation in a great majority of farm homes, still there remain a few staunch, old-fashioned people, who are not as yet converted to its use. Some of these protest against the cost. Some are satisfied as long as they get through anyhow, and some again (mostly prejudiced or inexperienced people) will maintain that calves raised on separated milk, from which all but a very small fraction of cream has been extracted, will be stunted in growth, and even when yearlings, or older, will still show, to an experienced eye, that they have been fed on separated milk, which is placed on a par with cheese-factory whey, or, as one man said, "bewitched water."

Having used a separator now for a matter of nine years, and being acquainted with others who have used them for a like period, perhaps I may be allowed an opinion as to whether the objections above are correct, or whether they have any foundation in fact. I have not noticed any deterioration in the cattle so raised, if they were otherwise treated as well as calves raised by other methods were. In fact, I think the calf fed on separated milk, fed warm and new, has the advantage over those fed on milk with some of the cream in it, and given, perhaps, at a great range of temperature, and sometimes sour, occasionally upsetting the digestive apparatus and causing a setback which may take many good days to recover. Of course, a calf running with the dam will come in at weaning time a great deal fatter, but a superfluity of fat is not necessary to a generous growth, and I notice that when suckers and hand-fed calves are fed in one lot all winter they equalize pretty well before spring, and probably when over one year old it is difficult to pick them out, breed and feed being equal. A calf coming from the dam is certainly worth more at the time, but about the only man who pays more would be the butcher. A great many yearlings have been shipped west from this neighborhood the past four years, and never a complaint has been offered as to the calf fed on milk from the separator. The general run of prices is from \$16 to \$18, and occasionally as high as \$20 for yearlings if well wintered. One thing is certain, the buyers keep coming for more. It seems to me, as learned from experience, that after the first month the curd in the separated milk, together with the other and lesser constituent parts, assisted by a small ration of ground grain, or bran and oats, say, about a gallon for six head daily till grass greens over in spring as yearlings, provides all the nutriment necessary to make a good growthy heifer or steer. Probably the commencing to feed a calf in this manner prepares the digestive organs to do their work at an earlier age, and the hand-raised calf is growing while the sucker, having derived his nourishment from the butter-fat in the milk, has to prepare the digestive organs for the change in feed, and loses some ground while so doing. Of course, there is some work and trouble in milking cows and raising calves, but the income from the cows is about doubled thereby. It is a sure and lasting income, and probably in many cases an occupation like this will prevent some other useless and unnecessary expenditure. "Satan still finds mischief for idle hands to do," and "No gains without pains" is just as good an adage to-day as it was when written in the copy books some forty or fifty years ago. F. SIMPSON.

Municipality of Shoal Lake, Man.

#### Manitoba Veterinary Medical Association.

The above association held its 12th annual meeting in the City Hall, Feb. 26, and elected officers for the year. Dr. S. A. Coxie becomes president, and Dr. Livingstone, Melita, vice-president. F. Torrance, B. A., D. V. S., was again elected registrar and secretary-treasurer. Drs. Swenerton and Henderson, Carberry; Taylor, of Portage la Prairie, and W. A. Dunbar, Winnipeg, were elected members of the council. The association is in a prosperous condition. Dr. W. A. Hilliard, Minnedosa, reported an interesting surgical case. It was resolved to ask the Dominion Government to take up the investigation with respect to swamp fever, as the Provincial Government had done nothing in the matter. The semi-annual meeting will be held at Brandon during fair week there, the last week in July. Interest in the association's meetings would be increased by the holding of clinics, which would give the younger members of the profession new ideas, and freshen up the older members. The Province is now well supplied with graduate veterinarians capable of attending to the various animal ills.

**The Territorial Grain Growers' Association.**

The 1st annual meeting of the Territorial Grain Growers' Association was held at Indian Head on February 12th. A large and representative gathering was present. The election of officers resulted as follows: President, W. R. Motherwell, Abernethy; Vice-President, M. Snow, Wolseley; 2nd Vice-President, G. W. Brown, M. L. A., Regina. Executive Committee—R. J. Phin, Moosomin; J. Dorrell, Moose Jaw; J. A. Brown, Spy Hill; W. P. Osler, Summerberry; G. Spring Rice, Pense; P. Dayman, Abernethy. Secretary-Treasurer, J. A. Miller, Indian Head.

In opening the convention, President Motherwell spoke on the necessity of organization among the grain-growers, pointing out that in other branches of agriculture, such as dairying, stock-raising, etc., the benefits of organization were recognized. He believed a very large organization of grain producers would result from this movement. In the six weeks since the matter of organization had been first talked of, branches had been opened in many points from Moosomin to Regina, and from Yellow Grass to Prince Albert, and inquiries were being received every day from other points in the Territories and from Manitoba. He intimated that some changes in the Grain Act were desirable.

G. W. Brown, M. L. A., Regina, said that the farmers in his district felt that organization was necessary. He thought in organizing they should not attempt too much, as it was in attempting too many reforms that other organizations of farmers had been wrecked. He thought they should devote their attention to improving the transportation question. He believed that if they went at this question earnestly enough, the railway corporations would be as friendly toward them as they now are to the grain dealers and middlemen.

The Hon. Mr. Bulyea, Commissioner of Agriculture, addressed the convention at some length. He considered the producers entitled to all the advantages from their labor. His Department had estimated the wheat crop of the Territories at 12,750,000 bushels, so that for every cent per bushel less than the actual value the farmers were losing \$127,000. From present indications, he considered that in two years the wheat acreage of the Territories would be doubled, as the large bulk of the immigration now coming in from the south were men in a position to farm on an extensive scale. With double the acreage and a yield such as that of 1901, it was easy to see how serious the situation would be. His Department was prepared to assist the organization by paying the expenses of organizers if a systematic series of meetings was arranged for. He pointed out the benefits that accrued from farmers' elevators. His Department had been working in accord with the grain board at Winnipeg to find an outlet for wheat. He thought the C. P. R. should make as low a rate from, say, Moose Jaw to Duluth over the Soo line as to Fort William; they could get Great Northern cars, and there was storage at Duluth for 10,000,000 bushels. He referred to the seriousness of the situation, stating that between Wolseley and Balgonie from 200 to 300 temporary warehouses had been built in which to store wheat, and he said thousands of bushels would be ruined if it was not put into proper storage before spring, and he thought the C. P. R. should not pursue a dog-in-the-manger policy, but should be willing to let the farmers realize the best possible prices for their crop, even if they did not get all the haul out of it. The Canadian Northern had offered to take over wheat from the C. P. R. at Winnipeg for their Port Arthur elevator, but the C. P. R. would not allow them to do so. He considered the best outlet, however, was over the Soo line to Duluth. A number of other delegates addressed the convention, all showing a desire for organization and unanimity of purpose. Secretary J. A. Miller showed that the membership numbered about 500. A number of resolutions were submitted to the meeting, the most important being that moved by R. J. Phin, seconded by Livingston, and which was carried unanimously:

That whereas the farmers have not been able to market their wheat because of the C. P. R.'s refusal to furnish cars for that purpose; and whereas there is still remaining in the farmers' hands one half of the grain grown during the past season; and whereas a large quantity of wheat has been sold to the elevator and milling companies at a price and at a lower grade than its value, caused by the companies stating that they have only bins to receive wheat of the lower grade, and owing to this the farmers have been forced to take from 7 to 9 cents per bushel less than the value of their wheat at Fort William; and whereas there is now an elevator at Port Arthur ready to receive wheat, and also plenty of elevator space at Duluth; and whereas it is a well-known fact that the C. P. R. have not at present the motive power sufficient to handle the business of the country; Therefore be it resolved that the C. P. R. be requested to

furnish cars sufficient to forward grain as it is offered, and the shipper be allowed to ship to Winnipeg, thence by Canadian Northern to their elevator at Port Arthur; and also to ship to Duluth over the Soo line, at a rate of freight charged the farmer to Fort William; and that copies of this resolution be forwarded to the Superintendent of the C. P. R. at Winnipeg and to the Department of Inland Revenue at Ottawa.

Other resolutions that were carried called for amendments to the Grain Act to compel railway companies to erect loading platforms within 30 days after approval by the Commissioner; that the railway companies be compelled to provide farmers with cars for loading from wagons, whether or not there be warehouses, elevators or loading platforms. It being considered that our grain is deteriorated by mixing before it reaches the British markets, it was resolved to ask the Dominion Government to appoint a commission of inquiry, and to send 500 bushel lots of our highest grades to England for the purposes of comparison with Manitoba wheat as received there through the regular channels. The value to the farmers of having farmers' elevators being recognized, it was resolved that the executive appoint a man to advise and assist in the building of such elevators, and farmers were recommended to associate themselves with the Manitoba and Northwest Farmers' Elevator Association. A resolution was also passed urging the extension of the G. N. W. Central Railway to Loon Lake during the coming summer, and it was also resolved that in the opinion of the convention full provincial powers should be granted to the Territories to enable them to build railways to prevent the recurrence of the present disastrous grain blockade.

**Flax and Grass.**

Much prejudice exists among the farmers of this Province against the general growing of flax. The most serious of these objections is the late harvest, coming at the time we are busy threshing wheat, etc., and also the bad weeds that are almost invariably in the seed. On this farm last season there were about 200 acres under flax, 160 being on backsetting—that is, land broken and backset the year previous (1900), disked twice and harrowed twice in the fall, then harrowed twice again in the spring—seeded with shoe drill, 28 lbs. seed being sown to the acre. Immediately after seeding the land was well packed with heavy iron roller. The remaining 40 acres was broken in the spring (1901), well rolled, and seeded same quantity per acre.

Some object to flax growing, claiming that it is very exhaustive on the soil. This, I think, only takes place where continuous cropping of flax is practiced, and it may be prevented to a great extent by good cultivation. Deep plowing in the fall, exposing the soil to the frosts of winter, encourages the oxygen and carbonic acid of the air to act upon it, and by admitting these friendly agents to all parts of the soil the dormant supplies of plant food becomes soluble and active.

In Minnesota and the Dakotas, I understand, the general way of harvesting flax is to remove the knotter from the binder and allow the flax to accumulate in the sheaf carrier until full, then drop it off in windrows. This is the plan we followed last season, but in growing it again I would favor handling it in precisely the same way as we do other cereal crops. As it is very difficult to thresh loose flax, the self-feeder had to be discarded when threshing it loose.

**TIMOTHY.**

When seeding down with timothy we generally sow about eight pounds seed per acre, not more, and we have never missed having a good catch. Oats is the favorite nurse crop. This year I will be able to give an opinion on barley as a nurse crop. We usually sow the timothy broadcast after the oats are about two inches high, using the light harrow immediately in front of the seeder, and the roller after.

Brome grass was sown on five acres last year, but I am afraid it is a complete failure, as I could see very little sign of it coming in the fall before the frost came.

We have not tried spelt so far. A neighbor had a very good yield from a small plot of two acres. T. M. CAMPBELL, Montcalm Municipality, Man.

An advertiser of Jersey cattle in the "Farmer's Advocate" desires us to remind enquirers that in writing for prices and other information, it is important that the writer sign his name to his letter and state his post-office address if he hopes for a reply. Our correspondent states that he has had two unsigned letters of enquiry for stock in the last few months, and probably the writers have written him down as an indifferent business man, but how can a man reply in such a case? The name and address should not only be given, but should be written plainly, as these are not easy to guess, and it is a fact that the signature is often the most carelessly written part of the letter.

**The Annual Meeting of the Winnipeg Industrial.**

The annual meeting of the Winnipeg Industrial Exhibition Association was held on Feb. 20th. In the report of the retiring president, Mr. F. W. Thompson, reference was made to the marvellous growth of the exhibition. He said:

"Nearly \$16,000 has been paid out in prizes. \$7,308.21 was expended in permanent improvements and maintenance, and \$7,381.08 in advertising our Province. Every dollar expended goes to the people, either in cash or its equivalent in value, and while on this point, it might be well to emphasize the fact that the Winnipeg Industrial Association has no assets. The grounds and buildings are owned by the City of Winnipeg, and the directors give their time to the work of the association absolutely without emolument.

"As to next year's fair, we would urge the greatest possible enterprise and enthusiasm. The Winnipeg Industrial is a school to the agriculturist, a study to the mechanic and artisan, a magnificent advertising medium to the whole Canadian Northwest, and is a great source of pleasure and profit to everybody. Its success depends upon the public, and everyone can contribute to its prosperity to a greater or less extent if they choose to do so.

"The action of the board in promoting excursions from the Western States has proved a great success, as large numbers have visited our city and country, and the great influx of settlers from across the line is almost entirely due to the impressions and information gained by their visits to our fair."

It was also shown that the regular grants from the city and Province, together with the ordinary sources of revenue, were insufficient to meet the ever-increasing demands for expansion and development of the fair, and in view of the great work that is being done by the Exhibition Association as an immigration medium for all Western Canada, it was thought more liberal support ought to be accorded it by the public, the city, the Province, and the Dominion. It was resolved to seek financial aid from the Dominion Government.

The revenue for 1901 is summarized as follows:

Subscriptions to prize list.....	\$ 1,713.75
Grant from City of Winnipeg (2 years)...	10,000.00
Grant from Provincial Government.....	5,500.00
Entry fees.....	3,159.65
Privileges and booths.....	4,530.76
Advertising.....	2,088.39
Admissions—Gates.....	12,768.10
Admissions—Grand stand.....	13,571.60
Sundry items.....	761.54
Bills payable.....	5,000.00
Balance (overdraft).....	5,102.68
	<b>\$64,202.77</b>

The attractions cost \$13,280.36, and there were \$15,378.76 paid out in prizes, distributed as follows:

No. of Entries.	
452. Horses, city.....	\$1,170.50
Horses, country.....	5,910.00
613. Cattle.....	3,103.00
228. Sheep.....	952.00
301. Swine.....	1,065.00
299. Poultry.....	330.50
108. Turkeys, geese, ducks, pigeons, and rabbits.....	121.00
157. Dairy produce.....	664.00
58. Field grains.....	315.00
241. Preserves and domestic manufactures.....	186.00
170. Plants, flowers, and birds.....	222.00
83. Textile fabrics and miscellaneous.....	32.00
13. Fine arts, professional.....	22.00
202. Fine arts, amateur.....	209.00
566. Ladies' and children's work.....	313.00
Medals, cups and special prizes.....	139.76

The election of directors resulted as below: J. T. Gordon, Geo. E. Galt, F. W. Thompson, F. W. Drewry, D. E. Sprague, I. M. Ross, A. A. Andrews, R. Barclay, Mayor Arbothnot, G. H. Maulson, Geo. H. Greig, J. A. Mitchell, T. W. Taylor, Dr. Torrance, Wm. Whyte, W. Brydon, and D. Smith.

At the meeting of the new directors held the day following, J. T. Gordon was elected president, and G. E. Galt, vice-president, and the various committees were appointed. The two committees in which our readers are chiefly interested are as follows:

Prize list—Geo. H. Greig, chairman; J. T. Gordon, I. M. Ross, D. Smith, T. W. Taylor, Dr. Torrance, Wm. Whyte, R. I. M. Power, Andrew Graham, S. J. Thompson, W. B. Gilroy, and representatives from Poultry and Horticultural Associations.

Grounds and Buildings—I. M. Ross, chairman; Mayor Arbothnot, Wm. Brydon, Robert Barclay, J. A. Mitchell, D. Smith, A. L. Estep, R. I. M. Power, Andrew Graham, S. J. Thompson, V. S. W. B. Gilroy, R. I. Drewry, (our Manufacturers' Association), and representatives of the Manitoba Poultry and Horticultural Associations.

### Care of the Ewes and Lambs.

As a rule, owners of pure-bred flocks and good grades plan to have the lambs coming along in March, and as the greater part of this month is generally pretty cold, provision should be made for extra care and watchfulness during the lambing season. If the house is not as warm as it needs to be, a little labor may make it more comfortable. Sheep love liberty to go out in the fresh air and sunshine, and this should not be denied them by day, but when lambs are expected they should be closed in the house at night, and the shepherd should be prepared to lose some sleep if need be in caring for the flock at this season. He should see the sheep before retiring for the night, and if there are indications of an increase before morning, will, if he has the interest of a good shepherd, take short naps and visit the fold again and again, till the little stranger is safely started in life. The ewes, if they have not been liberally fed, should have their bill of fare improved a couple of weeks before the lambs come, by adding a few roots and a little oats and bran to induce the necessary flow of milk. It is wise to provide a few light hurdles, say six feet long and thirty inches high, to be used when twins come, or a weakly lamb, to confine the ewe and lambs for a day or two, till they become acquainted. It is not well, however, to keep them so confined longer than two or three days as a rule, as both are better for exercise, and there is less danger of the ewe being overfed if sharing with the other ewes, while the stimulus of competition in securing her share of the feed is good for her in many ways. When a number of the ewes have lambed, it is well to divide the flock, which may be done by the use of hurdles tied to stakes, as those nursing lambs should be more generously fed than is necessary for those that are to lamb late, and which if fed as well as the nursing ewes need to be, are apt to become too fat. When a ewe loses her lamb from any cause, she may, by a little good management, be made to adopt one of a pair that another mother may not be able to do well for. This may be facilitated if the lamb is deadborn or dies soon after birth, by rubbing it over the lamb that is to take its place, so that the smell of her own may be upon it. If the lamb dies at an older stage, strip its skin off and fit it on the lamb to be substituted. This can be done so that the lamb's head and feet only will show, and if the ewe and lamb are confined together a few days, there will be but little difficulty in making them take to each other. The most stubborn case can be overcome by tying the ewe by the neck for a week, if need be. When a ewe has been in labor for more than an hour, it is well to make an examination, and if the presentation is found to be normal, the nose and two fore feet coming forward together, she should be given longer time, in order that nature may work out its own deliverance. If a false presentation is discovered, the lamb must be gotten into proper position, the oiled hand being introduced for that purpose, and as gentle assistance as possible should be given. In the case of a presentation of the hind feet first, it is decidedly best to bring the lamb away in that position. If the birth has been long delayed and the lamb shows little signs of life, clear the nostrils and breath into its mouth, to inflate its lungs. After difficult and painful parturition, the injection into the vagina of a weak solution of carbolic acid will greatly relieve the ewe, and may prevent inflammation, which may cause straining and inversion of the uterus. Let the ewe lick her lamb, and if she refuses, wipe it dry and cover it with a woolen cloth till it gains strength enough to suck. If the lamb is too weak to stand after an hour or two, hold it up with one hand under its breast, and with the other work the teat into its mouth and draw a little milk to give it a taste. If this cannot be managed successfully, lay the ewe gently on her side, having an assistant to hold her, while you milk a little into the lamb's mouth and induce it, if possible, to suck. Do not gorge it at first—a little at a time is nature's way. When the lamb has become dry and has sucked, he will stand a good deal of cold without suffering, but in a time of very severe frost, his ears may need some attention, as they are the point that is most likely to freeze. Hand rubbing is best to prevent this.

The lambs' tails should be docked when they are two weeks old. This may be safely done with a sharp knife, as the lamb is held standing, cutting from the under side upward, at the second joint from the root, the thumb pressing on the upper side. If afraid of cutting the thumb, wrap it with a cloth. Another way is to have an assistant hold the teat of the lamb, with its back against his knees, when the operator, taking the tail in one hand, cuts downward with the knife in the other. Lambs docked at two weeks of age seldom suffer from loss of blood, but at an older age are more liable to. If one is observed bleeding for more than half an hour a soft cord tied moderately tightly around the stump will generally stop it; the cord should be cut off next day. If the ram lambs are not to be kept for breeding purposes they should be castrated at the same time as docking, or, rather, immediately

before. If one has had no experience in this operation, and is nervous about undertaking it in the professional way, let him try the American rancher's plan on one of least value, a few days before the general; that is, clipping off with the shears the whole scrotum, with its contents, not too close to the body. This should be done when the lambs are quite young, not more than a week. A touch with a solution of carbolic acid would ensure against germ infection. The professional plan is to cut off the point of the scrotum, and with a pair of forceps draw the testicles, one at a time, casings and all, pressing meantime with the finger and thumb of the left hand upon the body. The English shepherds draw them with their teeth, and make sure and safe work. An enclosure for the lambs should be provided when they are two or three weeks old, where they can be fed separately from the ewes, which is almost a necessity if they are to do their best. A "creep" must be arranged through which the lambs can pass and the ewes cannot. Place some straw on the sunny side of the pen, on which the lambs can lie and bask, for they love the sunshine, and it is good for them.

### The Tuberculin Test.

In Parliament at Ottawa last week, in reply to a question by Mr. W. H. Bennett, M. P. (East Simcoe), based on the recent resolution of the Dominion Shorthorn Breeders' Association, asking the discontinuance of the compulsory use of the unreliable, unnecessary, and in many cases injurious tuberculin test, and for a reduction in the 90-day quarantine against imported cattle, the Minister of Agriculture, Hon. Mr. Fisher, is reported in the daily papers to have said it was not the intention of the Government to discontinue the test or the quarantine.

What was probably the last official circular under the old regime of Dominion Live Stock Inspection was a striking commentary on the farcical nature of the test. Heretofore the Department had been making free tests of the herds of dairymen and others who applied therefor, but in the circular in question it was gravely announced that it was undesirable for many reasons to test dairy cattle with tuberculin from March 1st to Oct. 1st. It was pointed out that those advanced in pregnancy could not be safely tested, and the removal of animals from field to stable, flies, heat, etc., make the test unreliable; hence the Department would not undertake to make tests in the period mentioned. Notwithstanding this acknowledgment, however, the stockman who desires to import into Canada some of the best breeding animals available in Great Britain, or in case of breeding animals exported to the States, the use of this toxin is still imposed. It might hurt the scrub or grade, but the pure-bred must stand it, no matter at what time of year. With the appointment of a new head to the Dominion Live Stock Inspection Department, in touch with the real live-stock interests of the country, a more enlightened policy is looked for.

### Break and Backset Prairie Land.

To the Editor "Farmer's Advocate":

In answer to your enquiry about new land, we never sow on deep breaking, though some of our neighbors have done so with very good success this year. We always break as light as we can, as early as possible in the season, and roll each week's breaking at end of week, then backset when summer-fallow is done, or sometimes when summer-fallow is too wet to plow you can backset. We think that in this way we can kill the roots of rosebushes and willow scrub, which are our worst enemies, and if not killed in the first year, are very hard to kill later.

Flax we find grows all right here, but is very hard on the ground, and takes far more out of it than anything else. We think it only worth growing for our own use, not for sale, though it is very high in price just now.

Central Assiniboia.

G. SPRING RICE.

### Brandon Horticultural Society.

The annual meeting of the above society was held in Brandon on Feb. 20th. This society has accomplished a lot of useful work during the past year. The name of the society was changed to the Horticultural and Forestry Society of Brandon. The officers for the year are: Honorary President, Senator Kuechler; President, Dr. McInnis, M. P. P.; 1st Vice-President, P. McKenzie; 2nd Vice-President, J. A. Osborne; 3rd Vice-President, J. P. Wadge; Treasurer, D. H. Scott; Secretary, P. Middleton; Auditor, W. Warner; representative to W. A. & A. A., W. Warner; Botanist, J. P. Wadge; Entomologist, H. W. O. Beger; Executive Committee—Messrs. Beger, Patmore, Tooke, Campbell, Hesson, Bennett, Brown, Sherrin, Anderson, Morrison, Enlay, Williams, McPherson, Fallatt, Rign, Robertson, Norman, S. H. Clement, and Hutchinson.

### Fatality in Pigs.

On the 11th Jan. last I purchased a sow which farrowed seven pigs the same day. They thrived unusually well, being fed milk, bran and middlings until about a week ago, when one pig seemed dumpish. In three days after, another was taken the same way. Their bowels were constipated. Then they were taken with a violent diarrhea. This lasted for three days, when they got weak and could not stand, but would suck the milk from the mother when I held them to her. The rest of the pigs seemed a trifle dull, but otherwise all right at night. The next morning I found a fine one dead—not one of the sick ones, but one which the night before I thought perfectly well. It had no symptoms of diarrhea whatever. In a few hours one of the sick ones died, not struggling in the least. They are not bloated nor very much diminished in flesh. The other sick one died the same night. None of them ate anything from the trough. The mother is in fine condition. The other four are now dumpish, and have every appearance of dying also. I cannot account for the death of these pigs. About two weeks ago today I started adding to their feed some swill which I got from a boarding house. It contained apple and potato peelings, also some orange, lemon or banana peelings. These I cooked and mixed with the milk, chop and bran. Could there be anything in this swill which affected these pigs, or can you account for it in any way? I have fed and fattened hogs all my life, and have never lost a pig before. Please prescribe?

SUBSCRIBER.

Ans.—A post-mortem of the pig that died without showing any symptoms of sickness would probably have revealed the cause of death. My opinion is the whole trouble was caused by the food, probably from some indigestible substances in the swill mentioned, causing constipation, which, in the first two mentioned, resulted in spontaneous diarrhea, which weakened the pigs so much that they could not recover, while in the other one a complete stoppage of the bowels resulted; this frequently causes death very quickly. If any of the others have diarrhea, give  $\frac{1}{2}$  dr. tincture of opium in a little milk every three hours until the diarrhea ceases. On the other hand, if any be constipated, give  $\frac{1}{2}$  oz. raw linseed oil. If you feed any more of the swill, remove all orange, lemon and banana peelings, and thoroughly cook the rest. See that both sow and pigs get exercise, and feed raw roots daily.

### Best Immigration Literature.

To the Editor "Farmer's Advocate":

Sir,—In reply to yours of the 3rd, I received the book you sent me with thanks, and trust you will have received the order I sent you on the 18th. I shall be pleased to send you any more new subscribers I can get. I have no doubt the postage takes a large share off the publisher's profits. I see an extra effort is to be made by the Immigration Department of the Dominion. If Canada wishes to make known her resources in England, she could have no better advocate than the "Farmer's Advocate," in my opinion, as its contents would be read with confidence by the average farmer, where an immigration pamphlet would be thrown on one side as highly colored. An exchange of ideas with the Colonies would be to the advantage of both, I think. There is only the towns or the Colonies for the surplus population of the country districts, so it rests with the people to choose.

I remain,

Yours respectfully,

STEPHEN THORNER.

Yorkshire, England, Jan. 27th, 1902.

### Are Gasoline Engines Suitable for Threshing?

To the Editor "Farmer's Advocate":

I was much interested in an article in the "Advocate" of Feb. 5th, by F. Bolton, re "A solution of the threshing problem," which thoroughly coincides with my ideas.

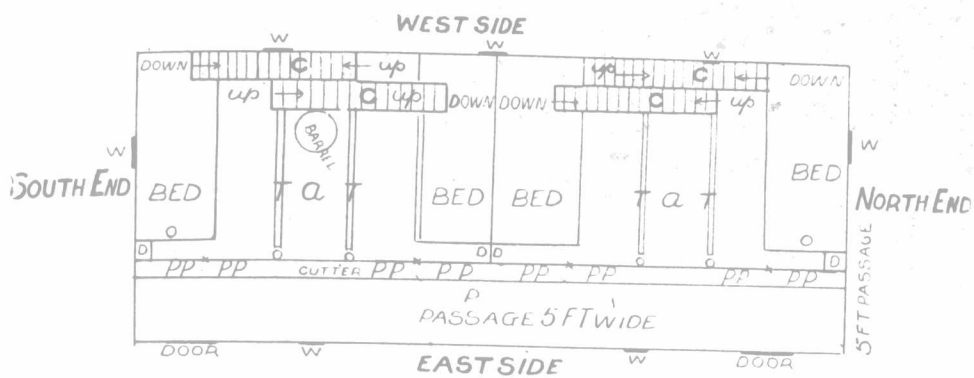
The chief problem to solve is the practicability of gasoline engines for threshing. There appears to be a great diversity of opinion as to their fitness for threshing; of course, as stationary engines, they are evidently all right. The question is, are they reliable as portable engines?

There were two working in or near this district last year, and from what I hear they were not satisfactory. I have had this scheme in my head for several years, and have made some enquiries, but have never been well enough satisfied to think of trying it yet. If such an outfit as Mr. Bolton suggests can be made to work satisfactorily, the solution of the stacking problem will have been solved, saving a lot of hard work and worry.

F. E. NEUMAN.

Glenwood Municipality.





PLAN OF ROBT. NEELY'S PIGPEN WITH OVERHEAD BEDS.

Horizontal Construction Plan.

P, passage; G, gutter; A, feed alley; B, elevated beds (5 x 11 ft.); C, gangway; T, feeding trough; D, small trough; W, window; O, door; PP, double doors.

**Horse Stable Changed to a Modern Hog-pen.**

Mr. Robert Neely, of Dorchester Township, Middlesex, Ont., having enlarged his stables and barn, found it necessary to change his stables to another part of the building, and being in need of a hogpen, he "set his brains at work" to transform the old horse stable into a modern ahead-of-date hogpen, and succeeded.

For facility in cleaning out (which one could do and not soil their "Sunday shoes"), convenience in feeding and handling the hogs generally, the writer has seen nothing to excel it. The floor is of Portland cement, with a perfectly smooth surface. The dimensions of house are 20 feet wide by 50 feet long, divided into four pens 10 feet wide by 12 feet long, with an alleyway between each two pens for feeding from, and a passage all along the east side. Between this passage and the pens is a gutter 15 inches wide by 8 inches deep; at one end 4 inches deeper than the other, so that liquid is easily soaked up and handled. As the floor of the pens has a fall of 4 inches in 12 feet (the distance from west side of pen to gutter), all liquid gravitates that way, and with a steel scraper the coarse dropping can all be scraped there in a few minutes by opening the double doors, which swing back across the long passage. Being 5 feet wide, they exactly close off the passage. The pens are cleaned out every day, the manure being wheeled out through the passage in a barrow, put on the manure sleigh with horse and cattle manure at the door and taken to the field. These double doors between passage and pens are fastened on the inside by an iron hook to raised bed, and on the outside, next passage, by a piece of board 1 by 4 inches and 5 feet long, bolted on one door and falling into two curved pieces of iron bolted on the other, holding them securely. Some litter of straw or horse manure thrown in the gutter soaks up all the liquids.

Wherever there was a post required a pin was put in the cement floor until it set, and was then drawn out. Where a post was placed a gudgeon was inserted in the end of post which was put in the hole in the cement, and the post toe-nailed at the top. The doors that swing over the feed troughs are made of two pieces of 2x4-in. scantling, one at top and bottom, with inch lumber well nailed, and swing on a piece of 1/2-in. iron flattened at one end, bolted to under side of top scantling and let into a 3/4-in. auger hole in post at each end. A simple slide in the middle of these doors prevent the pigs from getting at the trough when feeding them.

The troughs, 9 feet long, are at present wood, but will be changed the coming summer to substantial Portland cement ones. In each corner, opposite the feed troughs and next the passage, is a short trough, with chute attached, that comes to a level with swing doors opening into passage. This is for feeding charcoal, sulphur, salt, and also for holding dry chop the last three weeks of finishing hogs for market. Mr. Neely considers it most important to have dry chop always before the pigs during that period.

The raised sleeping beds as arranged in this pen are something entirely new. The beds are supported by 3/4-in. iron rods fastened at top by wood screw into sleeper, and at bottom through a plank with nut and large washer. There are four of these 3/4-in. rods on each side of bed, and four short planks crosswise. On these are laid, lengthwise, 10-in. plank, which make the floor of bed. These beds are 3 ft. 6 ins. above cement floor at front end, and are boarded up all around to ceiling with picket stuff 1x3 ins., with a 2-in. space between. In front of this, next passage, just over the gutter, is a small door entering bed to put in straw for bedding, which they will keep clean for two weeks and over. In this quiet retreat the pigs seem perfectly contented, clean and healthy. The inclined walk to these beds is made very easy by having them cross one in front of the other, so that the pigs from one eat out of the opposite trough, and vice versa.

These walks, which are slatted every 8 inches, are 11 feet long by 18 inches wide, and boarded up about 3 feet high with inch lumber, and there was no squealing or crowding, which one generally hears and sees in hogpens.

The posts used were 6 inches square, plank 2 inches, lumber for doors, etc., 1 inch (rough), and scantlings 2x4 inch.

The floor and gutter are of Portland cement concrete—1 part cement to 6 of gravel and sand.

The mason who laid the floor wanted to know of Mr. Neely where to put the hole in gutter to run off the liquid manure, but he was warned that if he made a leak hole in that gutter it would be a "dear job" for him.

The pen is lighted by 6 windows, with 12 8x10 lights in each. Two doors open out to yard on east side and straw-stack at east side, where on sunny days the pigs are allowed a little run for health's sake. The walls of this building are stone, which some would object to, but with the arrangement inside it would seem that Mr. Neely has a first-class pen at the small cost of about \$50. The pen will accommodate 40 hogs. If building again, Mr. Neely would make building 22 feet wide, to allow more trough room.



FRONT OF TWO OF MR. NEELY'S PENS.

Vertical Construction Plan.

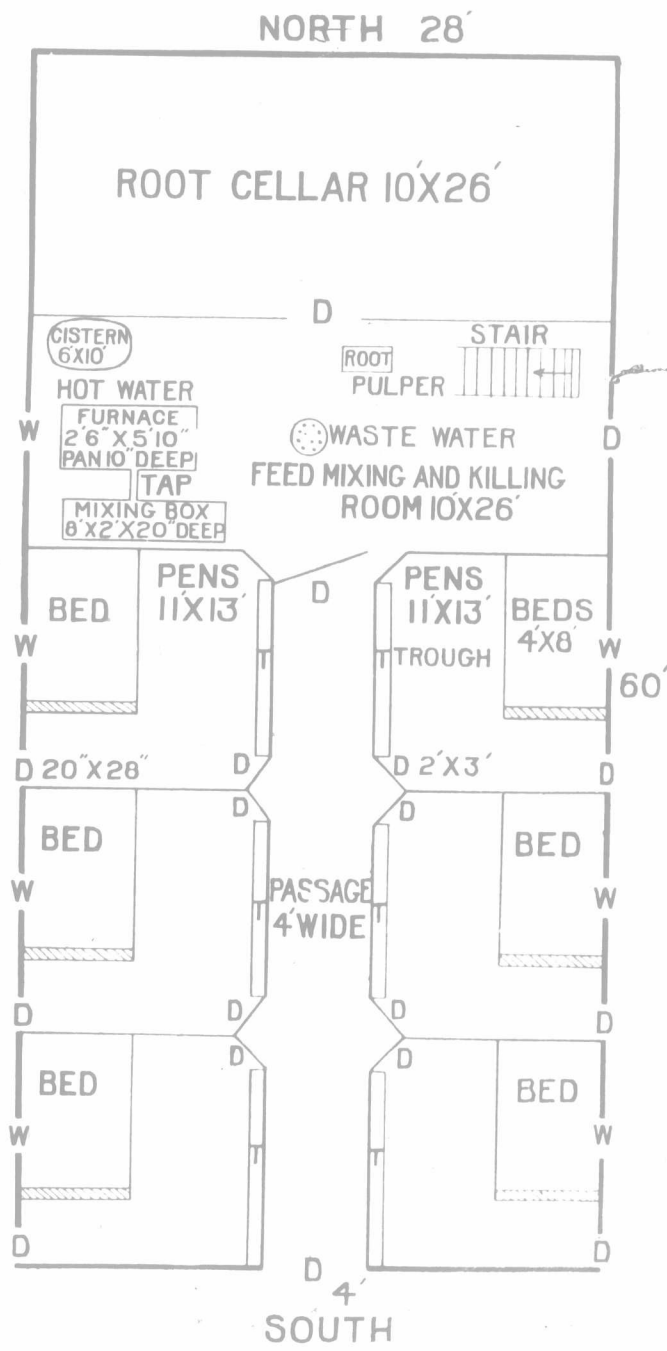
B, elevated bed; O, door; S, chute; E, double doors; F, door into alley; H, swinging door.

In the pen at the time of writer's visit was one extra nice litter of 10 Yorkshire grade pigs with mother worthy of special mention. They were a few days over 8 weeks old, bacon type, and weighed about 60 pounds each. Little pigs run with mothers two months or more before weaning. They are then fed a mixture of oats and barley ground fine, with occasionally some shorts and pulped roots. When young pigs are quite small the sows are fed shorts. Chop and pulped roots are mixed with water or whey in barrel. He finishes his hogs at six months old, weighing from 200 to 210 pounds. The north sleeping pen is used for sows to farrow in. Around the outside, 8 inches from pickets and about 1 foot high, runs a pole about 4 inches in diameter, which saves the young pigs from being crushed; none have been lost in that way. A small door (6x12 in.) between two center pens is used to allow little pigs to leave sow and feed by themselves when they begin to learn to feed. In fattening hogs, Mr. Neely finds it a very great advantage in promoting health and gain to skip a meal (say on Sunday) one day each week. He has practiced fasting hogs that way for five years, and highly recommends it. He never has a crippled hog.

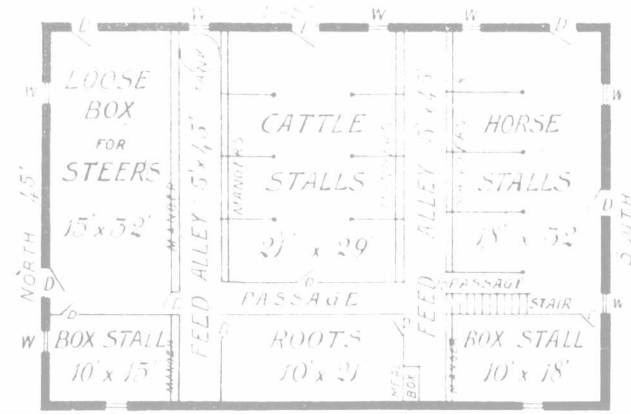
**A Modern Pen for 50 Pigs.**

In response to requests from several quarters, we publish herewith plans of a very complete pig-house erected last year by Mr. Duncan McCallum, Middlesex County, Ont. The dimensions are 28 x 60 ft., containing six pens 11 x 13 ft., accommodating over 50 pigs; a feed room 10 x 26 ft., and a root cellar 10 x 26 ft., with a second storey for straw and feed. The ceilings are 12 ft. above and 10 ft. below; hip roof. The north end of building runs partly into a bank, so that through the upper end door roots can be thrown into cellar conveniently. The south section, 20 x 28 ft., of the upper storey is used for bedding straw; a space 10 x 28 ft. for clover, to be cut and mixed with feed; and the balance, 30x28 ft., for chop, corn, etc. In the ceilings above pens and hot-water boiler, are five ventilator openings, 3x3 ft. These extend upward in second storey, closely boarded with inch lumber, diminishing in size till at a point 4 ft. above the floor they are 10 inches square. Then they run upward, slanting together and extending upward to peak of roof, entering galvanized-iron ventilators 3 ft. high, with a fan that turns freely so as to catch the wind from whatever point it blows. The opening is protected by a wire screen to keep out the birds. There is a steel shut-off in vent up-stairs, to be closed on very cold nights. In the side of the ventilator, above the floor, is a door, hinged at top, so that the bedding can be freely pushed through it into the pens below. The long rafters are 2 ft. over 1/2 pitch, and the short top rafters 1-3 pitch. There are two windows (20 x 30 in.) at south end, up-stairs. The ceiling is one-inch matched lumber. There is a door 4 ft. 6 in. wide in south end, up-stairs, between the two windows, for taking in straw and clover, and another, 4 ft.

6 in. wide, at north end to take in the roots. The diagram shows clearly how the house is laid-out below. From the cistern (6 ft. wide by 10 ft. deep) water is obtained for the heating pan, which is 10 inches deep, set on a brick arch 2 ft. thick, 2 ft. 6 in. wide by 5 ft. 10 in. long. Between that and the pens is the food-mixing box (wood), 8 ft. x 2 ft. x 20 in. deep. Two plans of preparing food were tried this winter: First, the pulped roots and meal were first put in the mixing box and then the hot-water tap from heater turned on, the water running into a galvanized-iron distributor the full length of the box. The upper part of one side of the distributor is perforated so that the hot water runs out evenly over the whole mass, which soaks 24 hours before being fed. Mr. McCallum did not consider that the raw pulped roots were eaten freely enough, so another plan was tried, viz., boiling the pulped roots separate till quite soft and then putting a layer of them 4 inches deep in the bottom of the box. On this he put about 3 or 4 inches of finely-ground chop (raw); then another layer of boiled roots, then chop, and so on till there was enough to feed the hogs on hand for a couple of days. Sufficient hot water was added to soak the chop well. The chop consisted of 1 part ground wheat to 3 parts of barley and oats, mixed half and half. On this food the pigs did far better than on the raw-root mixture; in fact, he never tried a food on which pigs thrived and gained so well. The mixing box should be thoroughly cleaned out every second day. The feed troughs have Portland cement bottoms with 2-inch blue oak sides, 9 inches wide at top, 6 inches at bottom, and 6 inches deep. Seven 1/2-inch rods bolt the back and front of each trough together, and also prevent the pigs from crowding along the troughs when feeding. An inch board 8 inches wide slants upward from trough next feed alley as a receiving board, and is very convenient in feeding. The feed is emptied in between this board and swinging front, and when the latter is pushed back the food falls into the trough. The partitions between pens are three feet high, and the front of pens swing back over trough, as stated. There is a 4-inch fall in each pen floor to the door (20 x 28 in.) opening into yard, through which the manure is cleaned. The pig beds are 4 x 8 ft. and 8 in. high, of plank resting on grout. The remainder of the floor is cement, 4 in. thick. The lower portion was 1 part cement to 5 of gravel, and the finishing coat 1 to 3, the walls being 1 part cement to 6 of gravel. The sleeping-bed of the breeding pens on west side are being arranged to lift up so that there is a projecting apron to



PLAN OF D. MCCALLUM'S HOG HOUSE.



BASEMENT PLAN OF PETER COLE'S BARN, 45 X 66 FEET. BUILT IN HURON CO., BY MR. MAT. MAINS.

prevent the sows from crushing their young. The doors next feed alley are arranged so as to fold together, letting the pigs move from one pen to another or from pens into alley. The root-house walls are of Queenston cement concrete, 10 ft. high and 12 in. thick. The remainder of the walls are 3 ft. high and 10 in. thick, cement concrete; above that double-boarded, with felt paper between, the inside being hemlock lumber and the outside V siding. There are three windows on each side, one to each pen, each having 9 lights 8 x 10 in. At west side of feed room there is a 4-light window 20 x 30 in. In the east side of feed-room is space for slaughtering pigs. There is an overflow pipe from cistern southward under floor, into which a waste-water pipe runs, so that all wet at killing time is drained away. The cistern is filled from roof, water being collected in galvanized-iron eavestrough. Dressed lumber was used for the exterior and the building is nicely painted. The hogs are usually sold alive for the bacon trade and have for years proved a very profitable branch of the operations upon this farm.

**Prevention of Milk Fever.**

To the Editor "Farmer's Advocate":

The last case of milk fever we had was in 1895. The veterinary said: "It is your own fault having these cases; you feed too highly near calving." I did not feel flattered (that by either ignorance or stupidity I had lost the cow, so concluded that we would not lose another from the same cause. Since that, when we start to dry a cow we always reduce the grain ration, and in some cases feed no grain for a week or ten days before calving. In about three or four days after the cow comes in, increase the grain feed gradually as long as she increases her milk flow. Another thing we think very important is to milk the cow out dry when you have her nearly dry. Leave her for six or eight days, then go and strip her out dry. This treatment we have found equally good to prevent garget. Of retention of membranes, we have only had one case in ten years, and that was when the cow was on grass. We feed a large amount of wheat to our cows—whether that is the reason or not, we have no trouble from it. I never saw but one case of inversion of the uterus, that was forty or more years since. We have had from fifteen to twenty-five cows freshening each year since '95, and have not had a cow lose a teat or one get off her feet with milk fever, although two cows that we sold since that have died of milk fever. We think the vet. was not far wrong in his statement.

H. C. CLARRIDGE.

**Peter Cole's Barn Plan.**

Enclosed find plan of my barn for publication. The barn is 45x66, with 21-foot posts. The cow stable stalls are nearly 8 feet wide, and horse stalls 5 feet wide, with cement floors. The doors A and B are double, while the rest are 4 1/2 feet. The windows are 3 feet by 5 feet.

Huron Co., Ont.

PETER COLE.



UPPER FLOOR, PETER COLE'S BARN, HURON CO.

**Breeds and Varieties.**

BY JOHN R. PETTIT.

Every farmer that keeps poultry—and we believe that the majority of farmers do, although many of them at a loss financially, and with the thought that such stock is little more than a necessary nuisance—has, or should have, definite purposes in view. Among others, we but naturally think that the main one is financial gain, and in order that this may be accomplished another aim must be to always keep pure-bred, high-class stock, and to be constantly improving the utility qualities of the breed or breeds chosen. We believe the utility fowl is the bird for the average farmer, and more, that the average farmer, in order to be most successful, should not dabble in too many breeds, and, in fact, carry on the work of a "fancier."

It is far more important to the farmer what breed he selects than what variety of the breed chosen. At least, speaking generally, this is the case, although there are exceptions which may be noted. Take, for instance, Plymouth Rocks as a breed. In this grand American fowl we have several distinct varieties, viz., Barred, Buff, White, and Partridge. These are again divided into classes, according to the style of comb, such as single-comb, rose-comb, and pea-comb. This is all the result of ardent labors of the fancier, and as far as the color goes, it has nothing to do with the utility characteristics of the Plymouth Rock as a breed, although in some climates the comb has. No matter which of these colors a Plymouth Rock may carry, when it is dressed it has the same yellow flesh, yellow shanks, and absence of black pinfeathers. But the color has nothing to do with the egg yield, which is contrary to the ideas that many entertain. Again, take the Leghorns as a breed, and we see the same colors and combs as in the Rocks, but again the color has nothing to do with the famous laying quality of this grand breed. So we can readily understand that the color of feather has no consequence with the farmer as far as egg production goes.

But in the selection of breeds, a subject is presented to the farmer that is of great importance. The average farmer looks to his flock as a source of profit in two distinct lines—first, for an abundant supply of eggs, and secondly, when the days of usefulness as egg producers are over, as dressed poultry for market. Some contend that there is no difference in breeds as regards laying qualities, providing one gets a "laying" strain of a breed. While we believe in "laying" strains, and acknowledge that by careful selection of breeders the laying capacity of any breed may be greatly increased, we will not admit that one breed is as profitable along that line as another. We have our breeds that are egg-machines, and that naturally, and by this method of careful selection of breeding stock, marvellous egg records have been made.

As utility fowls, we have four breeds that have made themselves famous. They are the Leghorns, Minorcas, Plymouth Rocks, and Wyandottes. The Leghorn has been and is to-day acknowledged the "egg-machine" of poultrydom, and the fact that they are so much in use on the extensive egg farms in the United States is sufficient evidence that they have been properly named. We believe if they were a little larger they would be the ideal "all-round" fowl. They mature very early. Last fall we had Leghorn pullets shelling out eggs when only five months old, and pullets of our strain have laid when only four months old. Can this be said of any other breed? Many are of the opinion that Leghorns will not lay in winter. This is a very wrong impression, as they are most excellent winter layers when properly housed. They have the advantage of being active and taking on flesh very slowly, and are in this respect ahead of heavier breeds. It is an extremely easy thing to get Rocks so fat and lazy that they will not lay, and it is more difficult to again get them back into laying condition. While the Leghorns are small when dressed, they are of good color and plump. The Minorcas have won for themselves a very high name as egg-producers. They not only produce a great number, but without doubt they give us the largest eggs of any breed. They often weigh 2 1/2 lbs. to the dozen. They are also very active workers, and it is a difficult matter to get them overfat. The White variety is so far little known, but no doubt will in time be much in use, as it has the same laying quality, and when dressed has not the black shanks and pinfeathers that are a drawback to the blacks.

As "general-purpose" fowls, the Rocks and Wyandottes are to-day very popular. This is because of their handsome carcass when dressed, and of being "good winter layers." No doubt the former is a strong argument in their favor, but as far as "winter laying" is concerned, this year our Leghorns are beating our Rocks. But we know why our Rocks are not laying better than they are. We, in the outset, got them too fat. And we doubt if 99 out of every 100 average farmers would not do the same thing with warm houses. When properly fed, they certainly

are excellent winter egg-producers. But it is seldom that pullets of this breed will do much at laying before they are near seven months old. Here is where Leghorns have a great advantage. A good Leghorn pullet will go a considerable way toward paying for her raising in two months' time in the fall when eggs are a good price. Rocks must be carefully handled in summer months or they will want to sit all the time. But this can be greatly overcome by the caretaker. Break them up as soon as they exhibit a desire to stay by the nest, and keep them in a lean condition.

Wyandottes are much of the same nature as Rocks, and need much the same care. They have proved to be excellent farmer's fowls, and are becoming very popular.

No farmer would err in selecting any of these four breeds. With proper care and careful selection of breeders, any one would prove good layers and profitable utility fowl.

**The Travels of an Egg.**

A chance whim of a little girl has given a history to a hen's egg. Mrs. Beeson, of 13 Bexley street, Windsor, purchased some eggs, and upon one she discovered some writing. It read thus: "Pearl Wright, Harrow, Ontario. Box 386. The one that gets this egg, please write. I will answer." The egg found its destiny, after traveling between three and four thousand miles, in the Royal borough of Windsor, not far from Harrow-on-the-Hill in the Old Country, and the invitation to correspond was accepted by Mrs. Beeson, who sent a Christmas card to the unknown writer. This brought the following reply: "Harrow, Jan. 9th, 1902.—Dear Mrs. Beeson and Children.—Received your letter and Christmas card on Dec. 23rd. I was out at a friend's when I wrote my name on an egg, which Mr. John Stocker sent away with the others. My friend said, 'I wonder who will get that egg?' So I find that Leghorn egg took a trip to the Old Country. I hope it was good. I am going to school, am 14 years of age, and glad to say happy and cheerful. There is plenty of everything here. My father is of English descent and my grandfather on my mother's side came from England. There are hundreds of English people here who came poor but are well off to-day. You do not see any beggars on the streets, as all have plenty to live on. My eldest sister is at the Methodist College, St. Thomas, Ontario. I suppose the Canadian contingent that served in South Africa, when it came to Windsor, was very nice. I send you a Christmas card, wishing you all the compliments of the season." The writer's hope for the goodness of the egg is hardly realized in the way she thinks, as the shell is still unbroken. Its possessor treasures the egg in its entirety too much not to be able to resist the attractions the shell covers. Were every egg to have its place of origin stamped upon it, geography might be taught through the kitchen, and tempt more of our own people to join the National Poultry Association, whose efforts are all directed to fostering poultry-rearing in the Old Country.—Windsor (Eng.) Chronicle.

**Agriculture Aided by Her Handmaid, Science.**

Dr. Hopkins, Agronomist at the Illinois College of Agriculture, has been able to demonstrate to the farmer the practical relation of science to agriculture, and also that the agricultural college is a dividend-paying institution, looking at it from the viewpoint of an investment. The Drover's Journal states that corn breeding has grown to be a distinct industry in the corn belt, from the stimulus of an idea originated by Dr. Hopkins, and that the results of such breeding has been to increase the income to agriculturists in the corn section \$300,000 a year. The Illinois Agronomist bred corn by analysis. He found that the manufacturers of glucose, starch and alcohol wanted more of the carbohydrate constituent in corn, while the feeder (especially the swine-grower) needed less carbohydrates (fat-formers) and more protein (flesh-former) in the corn. Taking the market demands as his guiding star, the Doctor set to work to meet it as follows: He made analyses of samples from a large number of ears, selecting for seed those ears containing the highest percentage of the desired constituent, and planted in an isolated field, to avoid cross-pollination by other corn, even of the same variety. From the crop obtained, a large number of ears are selected and samples of each ear are analyzed, seed being taken, as before, from the ears which are found to contain the highest percentage of the constituent which it is desired to increase. This process is repeated each year.

Starting with the Boone County White variety in 1896, the average per cent. of protein was 10.92. In five years Dr. Hopkins produced two crops with a difference in protein of 9.45 per cent., the highest being 16.11, the lowest 6.66 per cent.

**Treatment of Cows at Calving.**

To the Editor "Farmer's Advocate":

Our treatment for the troubles accompanying the "coming-in" period of the cows in our herd is almost entirely preventive. When our cows are near calving, we do all we can to avoid excitement and prevent a rise in temperature of blood. Reduce quantity of concentrated food or such as produces fat, and at the same time remember that too much bulky food should not be given at that time. As soon as a cow has calved, we like to give a pound of Epsom salts, which helps to cool the blood and assists the expulsion of the after-birth, as well as regulating the digestion, removing fever, etc., and greatly lessens the chances of milk fever. The retention of the membranes is frequently caused by some undue excitement. Gentle treatment and good wholesome food leave very little else to be done. In extreme cases, we milk before parturition, but whenever possible allow the calf to draw the first milk. The calf needs it and does better with it. If necessary, we gently remove the placenta with the hand, loosening whenever attached, without pulling. For garget, we bathe well with very hot water, and then apply white liniment. It is a very bad case of garget that cannot be removed in that way with plenty of rubbing.

A. W. SMITH.

Middlesex Co., Ont.

**Travelled Cows.**

When the "Ophir" set out upon her memorable voyage in March last, conveying the Royal visitors to the Colonies, she carried with her two half-bred Jersey cows. These admirable animals continued to give an abundant supply of most excellent milk until the vessel was within a day or two of Portsmouth, when it began to get a little thin. When one considers the extraordinary variations of climate through which these cows have passed, their performance is seen to be really remarkable, and our readers, says the Globe, will probably be glad to hear that, as a reward for their services, they have been sent down to Sandringham, there to pass the remainder of their lives in all the ease and dignity befitting cows who have done their duty.—Mark Lane Express.

**Splendid Milk Record of Holstein Herd.**

The manager of the Annandale herd of Holsteins, belonging to the estate of the late Mr. E. D. Tillson, Tilsonburg, Ont., reports the following results from the herd in milk production during the past year: "This herd of 65 cows (six of them two-year-old heifers) averaged 9,353 lbs. milk in 12 months. Five of his best cows averaged 13,117 lbs. milk in 11½ months; the best cow in herd has produced 17,731 lbs. milk in 10 months. This showing, we think, is exceptionally good, and this standard has been reached by careful breeding and severe 'weeding' during the past 10 years."

**The Holstein-Friesian View.**

Mr. F. L. Houghton, Secretary American Holstein-Friesian Association, sends us the following summing up of the final figures of the records of the ten breeds of cows, each represented by five animals, in the six-months test at the Pan-American, showing yields and profits in the four points on which prizes were given, net profit in butter-fat, in churned butter, in total solids, and in total solids plus gain in live weight:

BREED.	Lbs. milk.	Ev. cond. fat.	Lbs. fat.	Estimated value for lbs.	Value butter.	Churned but. for lbs.	Value.	Ev. cond. total solids.	Lbs. total solids.	Value per 100 lbs. milk.	Gain in live weight.	Cost feed.	Profit on milk made & sold.	Profit on milk & gain in live weight.	
Holstein	39260.2	3.25	1275.8	1591.0	375.25	1430.3	357.57	12.47	4742.6	126.80	391.64	164.66	211.64	192.88	262.64
Ayrshire	32998.2	3.69	1219.4	1434.7	358.67	1415.6	353.90	12.6	4185.3	126.68	220.10	98.58	217.70	212.92	235.70
Shorthorn	31885.6	3.57	1138.8	1339.6	334.90	1307.5	326.89	12.8	4086.6	126.79	802.12	171.81	161.80	196.79	220.85
Brown Swiss	30892.6	3.63	1123.1	1321.35	330.34	1296.4	324.10	12.7	3943.8	126.93	198.147	26.183	68.176	81.267	67.213
Red Polled	28694.9	3.98	1141.81	1343.3	355.85	1319.45	329.86	13.1	3773.7	139.61	319.138	93.197	82.191	83.261	61.212
Guernsey	27127.6	4.60	1248.1	1498.3	367.10	1429.4	357.36	13.9	3775.0	139.75	195.136	99.250	111.220	37.262	89.267
Jersey	26987.1	4.58	1231.9	1453.0	363.25	1409.1	352.28	13.6	3770.1	139.39	189.137	74.225	51.214	54.261	56.277
French Canadian	24664.7	3.99	984.1	1157.7	289.45	1179.6	291.91	13.3	3287.3	126.85	288.113	16.176	35.181	81.182	75.191
Dutch Belted	24893.5	3.4	817.5	997.0	249.25	977.1	241.27	12.3	3664.1	125.67	376.132	32.116	89.111	91.143	61.154
Pooled Jersey	20328.8	4.66	948.31	1115.6	278.90	1180.25	270.66	13.9	2831.7	124.81	275.109	47.169	61.160	56.145	43.153

- The Holstein-Friesian cows made 6,262 lbs. more milk than their nearest competitors.
- The Holstein-Friesian cows made 33 lbs. more of butter and \$8.15 worth more than their nearest competitors.
- The Holstein-Friesian cows made \$54.97 more profit on total solids than their nearest competitors.
- The Holstein-Friesian cows made a greater gain in live weight than any of their competitors among the dairy breeds, and were exceeded only by Shorthorns.
- The Holstein-Friesians made \$32.07 worth more profit on total solids, plus gain in weight, than their nearest competitors.

These results were gained at an expenditure of \$2.57 more for feed than the next largest consumer. Does this demonstrate anything but the truth of what the late Col. H. C. Hoffman said 25 years ago: "The Holsteins will make more milk per cow, more milk and beef, more milk and butter per cow and more of each for the worth of the feed than any breed or mixture of breeds known to America."

**Where We Are At in the Dairy Business.**

A STRONG PLEA FOR BETTER MILK.

To the Editor "Farmer's Advocate":

Sir,—Notwithstanding the fact that Canada has spent thousands of dollars annually for the last fifteen years or more in various methods of instruction along dairy lines, we are to-day face to face with the fact that the quality of our cheese is not satisfying the demands of the British market. During the past season, complaints have come thick and fast from the British dealers who are handling Canadian cheese, and it is evident to those who are in a position to know, that unless there is an improvement in the quality of our goods, we are soon going to lose some of the trade which we have so long held against all competition.

It may be possible that the taste of the British people is becoming more critical and exacting, as is always the case where the taste is pampered and catered to. Every dairy country in the world is doing its level best to send its finest goods to the British market, and that market has the world to choose from, and if we are going to hold our ground we cannot rest on our oars and point to the laurels already won as an excuse for lethargy on our part. Take the case of the United States, for example, to show the mighty efforts which are being put forth to get a share of the British trade. It is no secret that the exporters of dairy products from the U. S. had the door of the British market shut in their faces a decade or so ago on account of their folly in trying the smart game of foisting upon the British consumer a spurious article under the name of cheese. They have repented of their folly long ago, and are now determined that they will try to establish a reputation founded on honest and upright dealing, as evidenced by the announcement of the Secretary of Agriculture in the U. S. Crop Reporter for Jan., 1902. The extracts in this announcement go to show that the U. S. Government is taking up the matter in earnest, and is willing to help all honest producers by placing the Government stamp and certificate upon honest goods, providing that such dairy products and the packages in which they are forwarded are of a quality to bring credit to the country from which they are exported.

Are all our exported dairy products a credit to our country? It would seem that they are not, and if not, why are they not? Our methods of ripening our cheese may be at fault, but not more faulty than they have been in past years.

Our cold-storage facilities, both on land and on sea, are surely better than they were a decade ago, so where does the trouble lie? The indications would point to the British dealer as a more critical buyer, and our improvements have not kept pace with his demands for an improved quality of cheese.

Twenty years ago Canada was exporting large quantities of dairy butter to Great Britain, which satisfied their demands simply because it was as good as they could get from any other part of the world, but as soon as they got a taste of "separator" butter from the now famous dairy countries of Europe, they promptly turned their backs upon our "dairy" butter, and we had to keep it at home and use it up the best way we could.

However, as soon as we adopted the co-operative system of manufacturing and of taking the cream from the milk by the centrifugal method, we have again got a strong foothold in that market for a medium grade of butter, and the volume of trade in that line is very rapidly increasing. I say a medium grade of butter, for I believe that the bulk of our butter is not of the finest quality even when it leaves the creamery. It is true that our butter is giving fairly good satis-

faction, but a great deal of it lacks that fine quality which it is possible to get from good milk.

Many of our factories are faulty in their sanitary surroundings, it is true, and many of our makers are not as careful and as cleanly as they should be. Our curing rooms and cold storages may be at fault, but no cold storage or curing room is going to turn out fine goods if they were not fine when they went in, and without good milk it is impossible for any maker to turn out the finest product.

That every factory or creamery receives more or less good milk is readily conceded, but is there a butter or cheese factory in Canada to-day which does not get more or less milk which is not as good in quality as when it was drawn from the cow? And is it not this poor milk which is keeping down the quality of our dairy products more than any other factor? Where the milk is drawn from the cow in a cleanly manner, in clean surroundings and a pure atmosphere, where it is carefully strained, aerated and cooled, it will usually reach the factory in a condition fit to make the finest goods. This all seems easy enough to be done, but I doubt if there is fifty per cent. of the milk sent off our farms to-day which is treated in this way. There is not an article of food coming from the farm which is as susceptible to taints and odors as milk, and none that is more abused or carelessly handled. Would we tolerate for one moment to have our drinking water go through such a process of handling as does our milk? And yet we allow the milk to become contaminated with filth of different kinds without a thought of the consequences. Our farmers have got to wake up to a realization of the fact that a great deal of the milk sent to our factories does not reach there in as good condition as it ought to be, if we are going to make anything more than a medium class of goods. We may bring the rod down right and left on our factorymen, and we may improve our cold-storage and transportation facilities to our hearts' content, but we are not getting at the root of the evil until we open the eyes of the producer of poor milk and lead him to see that he is doing more to keep down the quality of our dairy products than all other causes combined. A good many could be moved by moral suasion if we had some machinery by which they could be reached and the matter laid plainly before them, but there are others who have to be touched through their pockets, for they will neither read nor listen to what is said on the subject. The Babcock test alone should not determine the value of milk for either cheese or butter making, unless it is all alike, good. It is just as unreasonable for a patron who furnishes milk unclean and badly cared for to receive as much per pound of fat as the patron who furnishes clean and wholesome milk as it is for the patron who furnishes 3-per-cent. to receive as much per hundred as the patron who furnishes 4-per-cent. milk, and until we make a discrimination we are going to get more or less milk which is a menace to the quality of our dairy products. If a farmer takes a load of dirty grain to market he is docked in both price and weight, and that grain is put into a bin reserved for such grain, and our milk should be treated in the same way. It would entail more work, but we are not going to improve the quality of our dairy products without work.

It would not be long, however, until a very small vat would hold all the poor milk.

This course would bring us face to face with another difficulty, for the patron with rejected milk would not tamely submit to such a procedure without a protest, and would be more than likely to hie himself off to the nearest factory and offer his rejected milk, which, in nine cases out of ten, would be accepted by the rival factory, and the nuisance would be perpetuated in that factory, while the "maker" in the other factory would be discouraged in his attempts to improve the quality of his product, and the only consolation that he would have would be the fact that he was improving his product at the expense of losing a patron.

This is a source of infinite trouble in many dairy sections on account of the rivalry which exists between "makers." Many "makers" have not the moral courage to stand up and tell a patron that his milk is not in a fit condition to make butter or cheese from, for fear that the patron will leave the factory and go over to his rival.

If we had a system of inspection which included the milk supply as well as the factory, it would throw the responsibility off the shoulders of the "maker" onto the inspector, whose business it would be to look into the cause of the off condition of the milk and help the patron to apply a remedy. Time has come when we must carry knowledge and information to the very doors of our milk producers, and if they cannot be reached by public meetings, they must be visited per-

sonally, if their milk is not up to the standard. Meetings should be called in every school section at times most convenient for the farmers to attend, for the purpose of discussing the dairy business generally and the needs of their own locality in particular. This cannot be done by the limited number of men now employed by our associations, and the Government would have to come to their aid with a liberal yearly grant. This would undoubtedly be opposed from many quarters as an unjustifiable expenditure of public money, but supposing that the value of our dairy products by this means could be increased from an eighth to a quarter of a cent per pound, it would increase our receipts from abroad from a quarter to half a million dollars annually, and surely an expenditure of, say, \$10,000 annually would be justified by a result like the above, which is not only possible, but probable.

The writer has in mind a cheese factory whose patrons meet at the close of each season's work in a social gathering, where entertainment is provided in the way of speeches, music, etc., the business of the past year is discussed, and the proceedings wind up with refreshments provided by the ladies. A friendly feeling is cultivated, and it begets an interest in the business of the factory, which has a beneficial influence all around. This is a plan worthy of imitation, and at such meetings the inspector for the district might be expected to take part and give his experience in the work during the season. All meetings in connection with dairy work should have the educational feature well to the front, for we have much yet to learn, and no opportunity should be lost to drop in a word of encouragement or of exhortation to those who produce the milk.

J. STONEHOUSE.

## 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.

#### FOUNDER.

Is there any cure for founder? I have a mare, eight years old, that got an overfeed of wheat about three months ago. I called in a vet. at the time and he gave her a dose which loosened her bowels. He also instructed me to poultice her feet, which I did, but I fear I did not continue same long enough. She appears to be very sore on front feet and will not attempt to walk unless driven. I should esteem it a favor if you could assist me in this matter.

SUBSCRIBER.

Ellisboro, Assa.

Ans.—Yes, if taken in the early stages and properly handled. Would advise you to give the following powders once daily in the feed: Nitrate of potassium, 4 ounces; Armenian bole, 1 dram. Mix and make into 16 powders. Examine the feet and see if the sole of the foot has descended; if so, special shoeing will be needed—a bar shoe or a leather sole with a packing of tar and tow between it and the sole. Would advise the application of a blister to both fore feet, from the top of the hoof to the fetlock. Clip the hair off those parts, but do not apply any blister in under (at the back part of) the fetlock. Get the following made up at the drug store: Bismuth of mercury, 2 drams; pulverized cantharides, 2 drams; lard, 2 ounces. Use one half for each leg. Apply the above to the clipped parts and rub in well for 10 minutes. In two days, apply lard (clean) to the blistered surfaces, and continue doing so alternate days. During the first 12 hours after the application of the blister, the mare should be tied so that she cannot bite the blistered surfaces. Would advise you to procure a copy of "Veterinary Elements" (price, \$1.50), at this office, and read up the construction of the foot and founder. It may be necessary to blister a second time, some two weeks later. If not clear on the matter, write again.

#### TOOTH TROUBLE AND LAMENESS.

1. I have a horse, ten years old, that doesn't seem to eat very well. Have taken him to the veterinary twice, but he doesn't seem to know what is the matter with him. The horse has been given powders prescribed by the V. S.; he shows no improvement. His teeth have been examined; he doesn't seem to be able to grind his food. I can hear the other horses grind from one end of the stable to the other, but this one I can't hear when I am up close to him. Can you tell me what to do for him? 2. Have another horse with a front foot very lame. He was cut with barb wire some time ago; could not tell you when, for I bought him a year ago; he seems to get worse; he was cut between the hair and hoof, and has a lump three inches long and as big as a man's finger. Would you kindly

give some idea, through the "Farmer's Advocate," how to treat these horses?

Melita.

Ans.—1. From the description you give, the horse may have a decayed tooth or a splintered one, which should, however, be found on a careful examination. Feed ground feed for the present. Try another veterinarian; he may see something the other man has overlooked. When you take the horse to be examined, tell the V. S. all you know about the case; it will aid him in arriving at correct conclusions. If the horse can grind his food, powders would be useless.

2. I would advise you to poultice the foot well, and if no pus (matter) results from the enlargement, would recommend the application of a good smart blister to the top of the hoof. Clip the hair off the parts and apply the blister mentioned on page 131, Feb. 20th issue. Follow the directions given there.

#### ECZEMA IN MARE.

A four-year-old mare in foal began biting her hind leg about three weeks ago. One side of the leg is now completely denuded of hair and is quite sore. Now she is biting the shoulder on the opposite side. She is in good condition, has nice coat, with perfectly clean skin. She has not eaten a bushel of oats or other strong food this winter. She is fed good hay and a gallon of bran daily. I have given her  $\frac{1}{2}$  lb. Epsom salts daily for two weeks without effect.

SUBSCRIBER.

Ans.—Your mare has eczema, a skin disease that often appears without well-marked cause. Some horses are predisposed to it. Under ordinary circumstances it is good practice to purge, but this mare being in foal, that would be dangerous. High feeding is a cause in many cases, but in this case I consider the ration has been too light, especially for a breeding mare. Give her a little boiled oats and bran twice daily, in which mix 2 ozs. Fowler's solution of arsenic. Dissolve 1 dram corrosive sublimate in  $1\frac{1}{2}$  qts. warm soft water. Give the affected parts a thorough washing with strong, warm soft-soap suds, and rub until dry. Then rub a little of the solution mentioned well into the parts twice daily. If the disease extends you will have to treat all parts affected, and if you have comfortable quarters it will be well to clip her, as that gives a better chance to treat, but you will need to be very careful of her after clipping.

#### ENTERITIS (INFLAMMATION OF THE BOWELS).

A twelve-year-old horse in good condition took suddenly sick after a moderate drive of 4 or 5 miles. Seemed in great pain, rolled and tumbled and appeared to try to lie upon his back; then would lie stretched out on his side for awhile, get up quickly, but lie down again at once. He continued this way for about 24 hours. He died in about 48 hours after the first symptoms. During the last 24 hours he was on his feet most of the time, but walked around in a circle, holding a mouthful of hay, but not eating any. His bowels and kidneys acted normally the first 12 hours, but were inactive afterwards. An experienced veterinarian treated him for inflammation of the bowels, but the medicine had no effect. The case is a mystery to us all. What was the trouble and cause of death?

SUBSCRIBER.

Ans.—Your veterinarian was doubtless quite correct in his diagnosis: the horse had inflammation of the bowels. It is not surprising that the medicine did not produce the desired effects, as in a well-marked case of this disease medicine has little or no action. A post-mortem would have revealed the correctness of the diagnosis. The disease was probably caused by something he had eaten, or as a result of the drive just when his general constitution was such as to render intestinal disease easily produced. Conditions of this kind cannot be recognized.

#### LUXATION OF THE PATELLA.

I have a four-year-old mare in foal. On several occasions last fall I noticed her drag her leg for a few steps, then she would draw it up suddenly as though she had stringhalt, and would be all right. About three weeks ago she showed the same symptoms. She has exercise every day. Some say it is a kink in the hock.

N. D.

Ans.—Your mare suffers from occasional luxation or displacement of the patella or stifle bone (commonly called stifted). This is due to a stretching or weakness of the anterior and internal ligaments of the bone. When the bone is out of place she has not power to lift the leg, but when it returns to its proper position she suddenly regains power, and this causes the violent action mentioned. Place her in a wire box stall, clip the hair off the front and inside of the joint and apply a blister. It is not necessary to give details of blistering, as this is frequently given in these columns. It is necessary that she have a box stall, as the accident is much more liable to occur if she be tied. It is probable one blistering will effect a cure, but if not, you must repeat it.

#### INCONTINENCE OF URINE.

A colt about nine months old, doing fairly well, but does not appear to have proper control of his urine. I first noticed him in September. The urine will drip and run quite a stream occasionally without his notice. The dam is a Clyde. She got a considerable quantity of saltpetre last winter, but none during the summer. Give cause and remedy, or is he likely to outgrow the trouble.

J. C. A.

Ans.—The condition is usually due to a paralysis of the muscular coats of the bladder and urethra. It may be induced by excessive dosing with saltpetre or any other diuretic, and it is possible the medicine given to the dam while pregnant had the effect of weakening the urinary organs of the fetus by overstimulation, and while the condition was not noticed as first, the organs being congenitally weak, the trouble was easily induced. The practice of giving saltpetre regularly to horses cannot be too highly condemned. If a horse be affected with certain diseases of the kidneys, the administration of saltpetre in proper doses is correct treatment, but the common idea that they require the drug regularly is entirely false. It is bad practice to give any animal drugs unless there be some disease to treat or some imminent disease to prevent. It is probable age will have the effect of removing the trouble, but you can assist nature by giving the colt 30 grs. powdered nux vomica three times daily. If you notice any muscular twitchings or nervous excitement after a few doses decrease the dose, and if nothing of this kind be noticed, you might increase the dose until such symptoms be noticed, and then go back to the original dose. In order to get the full benefit from this drug it is necessary to give in doses sufficient to produce its physiological actions expressed as described. In addition to giving the drug, inject cold water into the rectum two or three times daily.

#### RHEUMATISM IN PIGS.

When about three and a half months old, three of our pigs became affected with something like rheumatism. We first noticed a stiffness of the hind legs. They gradually became worse for two or three weeks. Since then they will not come to the trough for food unless very hungry, and after eating will crawl back and lie down, until again forced by hunger to come to the trough. They were kept in a warm pen, but got little exercise. For the first three months they were fed on shorts and skimmed milk. Since then we have added about equal parts peas and oat chop and rye meal. Please state cause, and cure, if any?

N. McK.

Ans.—Symptoms such as described are caused, in most cases, by damp surroundings, or by lying in warm quarters and being exposed to drafts or cold when out of sleeping quarters. They may also be caused by overfeeding and want of exercise. Give them Epsom salts or raw linseed oil in their food until they begin to purge, and then give a little of equal parts Epsom salts, sulphur and powdered charcoal every day, to keep their bowels acting freely. Give raw mangels or turnips daily, and cook all other food, but allow it to become cool before feeding. If possible, force them to take a little exercise, and when they begin to improve, see that they get sufficient exercise.

#### ERUPTIVE DISEASE IN MARE.

A 12-year-old mare that raised a foal last year (in Aug.) began to bleed at nose. An examination revealed small red spots on the mucous membrane. The local veterinarian called it petechial fever. His treatment effected a cure. A week or two later her body became covered with lumps about the size of pigeon eggs; her mammary gland became swollen, hard and sore; her legs swelled until they became round. This continued until November, when the colt was weaned. Since Christmas her legs, mammary gland and lower part of her abdomen have been swollen. The veterinarian gave her a ball and some powders, which relieved her for some time. Until about a week ago she has been idle and fed on oat straw and a little chop. Now she is doing some work, and gets timothy hay and some oats. Exercise reduces the swelling in the legs, but it reappears during the night, and the lumps have little, pointed dry scales on them, and she becomes quite stiff, especially in hind legs. She is in good health, and eats well.

W. M. E.

Ans.—The first symptoms given rather indicate farcy, but no doubt your veterinarian would have diagnosed this disease if it had existed. She is no doubt predisposed to a disease of the skin known as edema. Give her a brisk purgative of eight to ten drams aloes and two drams ginger. After the bowels regain their normal condition, give three dram doses hyposulphite of soda three times daily in damp food. Give regular work or exercise, and feed easily-digested food. Give a feed of bran, with a little linseed meal, about three times weekly, and give a couple of carrots daily. If those little lumps reappear, and especially if they become raw at the points and redden the skin, or if those spots reappear in the nostrils, have her examined by your veterinarian, as these symptoms indicate farcy, or glanders.

**PROBABLY TYPHOID INFLUENZA.**

Had a horse four years old; took sick, stopped eating; thought it might be indigestion; gave him one pint of linseed oil, but it did not do him any good; sent for a vet., he was not at home, his assistant came, who thought it was marsh fever; gave the horse an injection, but little came away; he made water all right. He did not kick nor roll about—just stood with his head down in the manger and pressed his head against the wall; would shake his body, but not his head; did not eat anything for eight days, then died hard. Never sweat any till the last day, although he was in a warm stable; was in good condition; was not doing much work, just chores; was not thirsty.

Keyes P. O. **SUBSCRIBER.**  
 Ans.—In swamp or marsh fever the appetite keeps up. The symptoms point towards an attack of typhoid influenza. In several of such cases the dullness is extreme, and the horse seems to have partially lost control of his limbs. If the disease is what we suspect, others may take it. The dose of oil was too small to do any good; about double the quantity given would have been better. The pressing of the head against the manger showed that the blood in the brain vessels was not in its natural condition, which may be due to a number of causes. In all such conditions the bowels, kidneys and skin should, as far as possible, be kept working. If you could give us an idea of the feed given, whether the pulse and temperature was increased, it would aid materially in a diagnosis. As it is, the symptoms given may be found in several disorders.

**FISTULA ON HEIFER'S LEG.**

Last November we noticed a small lump on the leg of a three-year-old Shorthorn heifer. We supposed she had bruised it. We opened it and allowed the matter to escape, but instead of healing, the leg swelled up to the hock and continued to discharge matter. We washed it with warm water and a little carbolic acid two or three times a week.

W. E. H.  
 Ans.—There is either some foreign body, as a piece of stick, in the leg, else the bone is injured. It is possible a cure will result from the present treatment, especially if a little of the lotion be injected into the opening every day. It would be wise to get a veterinarian to probe the wound, and if any foreign body can be found he will remove it, and if the bone be diseased he will enlarge the opening in the soft tissues and scrape it.

**Miscellaneous.**

**POULTRY PAPER WANTED.**

I take the liberty of writing to you to find out where I can get a first-class poultry magazine or paper, and what is the subscription price per year?  
 J. B. Sidney, Man.

Ans.—The Canadian Poultry Journal, Toronto, is the best poultry journal published in Canada; price, \$1.00 per year. The Reliable Poultry Journal, Quincy, Ill., is one of the best American poultry papers; the subscription price is 50 cents a year.

**BLACK LAMBS.**

In your issue of Feb. 5th, "Sheep Breeder" complains of a Shropshire ram when bred to his pure-bred ewes producing a large proportion of black lambs. Many years since, in Ontario, I knew of a flock of pure-bred Leicesters throwing many black lambs, and the owner and myself decided the cause could be traced to a black dog frightening the sheep. The black lambs grew into fine looking Leicesters in every particular but color.  
 WILL, CHAMPION.

**A BATCH OF QUESTIONS.**

Would you please answer following questions: 1. How many years have I been a subscriber to your valuable paper? 2. What is meant by the term, Shire horse? I mean what is his origin, and where is he bred? Is he superior to the Clyde as a draft horse? 3. When were the first Durham or Shorthorn cattle imported into Canada, and by whom? 4. Is it absolutely necessary for our stock-breeders to continue importing horses, cattle, sheep and swine from the British Isles? We hear a good deal sometimes about the benefit of what some people call the introduction of fresh blood into our flocks and herds. Now, I would like to know where the breeders of Britain get their fresh blood; or perhaps it is our climate that is faulty, though I have always heard it said we have a good country and climate for raising all kinds of domestic animals.  
 J. S.

Ans.—1. We do not know. Long enough, we trust, to be convinced that it is good value for its cost.

2. It is supposed that the original stock from which the Shire horses have descended came from Holland, but the honor of providing the oldest pedigreed horse of the breed belongs to Leicester-shire, the animal being Blaze 183, foaled in 1770. The English shires, or counties, notably Nottingham, Leicester, Derby, Stafford, and Lincoln, may be regarded as the nursery of the breed in its early history, but it has since become widespread

in most of the counties of England. As a rule, the Shires are larger and heavier than the Clydesdales and make a splendid appearance, but until recently they did not compare well with the latter in cleanness and quality of bone and feet. However, under more strict rules of inspection for soundness, of late years, in judging at the leading shows, very great improvement has been made in this regard, and the best Shire horses compare well with the best Clydes in soundness and in quality of bone. It is generally conceded that Clydesdales trace their origin to an importation of Flemish stallions to Lanarkshire, Scotland, about the middle of the 18th century, and that they derived their name from the valley of the River Clyde, or, in other words, from the most fertile portions of the County of Lanark.

3. In 1825 or 1826, the New Brunswick Board of Agriculture imported four Durham or Shorthorn bulls from England, and these are believed to be the first brought into Canada direct from England. In 1833, the first importation that has been of much value to the country was made by Roland Wingfield, an Englishman, who brought to Guelph six heifers and two bulls.

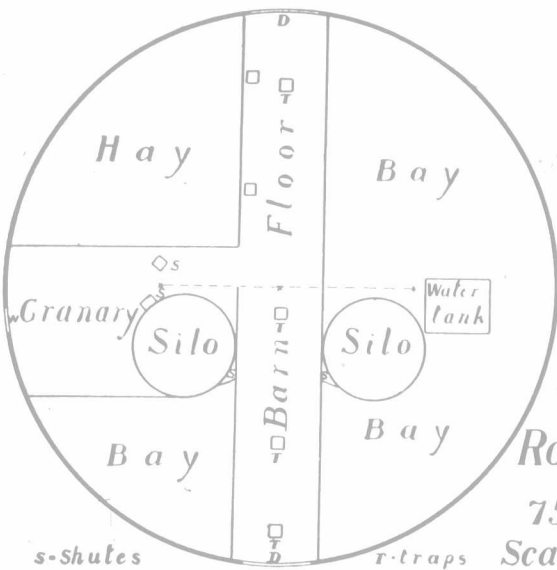
4. The experience and observation of breeders tends to the belief that to keep up the vigor of the stock and to make steady improvement, it is necessary to make occasional importations of fresh blood, and the records of the prize-lists at the leading shows support this theory. The milder, moister climate of Great Britain may in part account for their success, the animals living more out of doors, but it is largely due to their liberal feeding of roots, the richness of their permanent pastures, and the variety of soils in different sections, a change from one soil to another being often as helpful as from one country to another.

**PLAN OF CIRCULAR BARN.**

Can you or your readers give plan of a round barn that will hold as much as a barn 45x80 feet, cost of material, etc.?  
**SUBSCRIBER.**

Stanstead Co., Que.  
 Ans.—We reproduce, for Subscriber's benefit, a plan of circular barn, with description, prepared by Mr. D. P. L. Campbell, of Prescott Co., Ont., and published in the "Farmer's Advocate" some five years ago.

The rectangular form of silo is rapidly giving way to the round, the latter being better and cheaper. In barn building, however, the round form does not find the favor it is entitled to, for not only is it cheaper to build, but much less liable to be damaged by storms. Two reasons may be given why so few round barns are to be seen in passing through the country: First, the supposed difficulty of building circular walls; second, the waste of room. With regard to the first, it will be found that a circular wall can be constructed without any real difficulty, as the sills and plates are easily secured by sawing slightly



Plan of Round Barn 75 ft in Dia; Scale 1/8" = 1 inch.

crooked logs into two-inch thicknesses, and by laying a pattern on these and marking them they can be cut with a narrow band saw. Then place two thicknesses on foundation wall so as to break joints and spike together. Next comes studding, 2 1/2 x 5 inches and 8 feet long, toe-nailed, plumbed and stayed. On top of these place two more thicknesses of planks and spike as before. The ends of beams over basements are laid on them. If the siding is to be laid on horizontally, it can be nailed to the studs; but as it will resist the influences of the weather better by being perpendicular, it can be done by nailing scantling, 1 1/2 x 2 inches, horizontally on outside of studding every four feet. To these nail the siding. Next, for a wall 24 feet high, take 2x4 scantlings 16 feet long; toe-nail on top of first stage, plumb and stay, and proceed with siding as before. Spike on plates and the wall is ready for the roof. Now make a circle half the diameter of barn by bending and nailing together four thicknesses of 1x4 inch lumber. Support this on posts half the pitch of the roof to serve as a purline plate.

The sarking consists of strips one inch square and placed at a distance apart equal to the length of shingle exposed to the weather, which will be about five inches from center to center.

By examining the accompanying plan it will be seen that there will not necessarily be any more waste space than in any other form, as the irregular space is devoted to feed room. At the same time the plan affords considerable elasticity, which can be modified to suit circumstances and requirements. For instance, if more cattle stalls are required they can be arranged to replace box stall and extend across the building, cutting off part of root cellar, leaving a passage opposite sheep alley. The advantages of two silos are recognized, and the root cellar can be filled from floor above. The dotted line from water tank represents water pipe with taps (X) convenient to water animals or dampen feed. The tank is placed so as to avoid freezing.

Now, as to cost, it will be found much cheaper than the rectangular form. Let us compare the two:

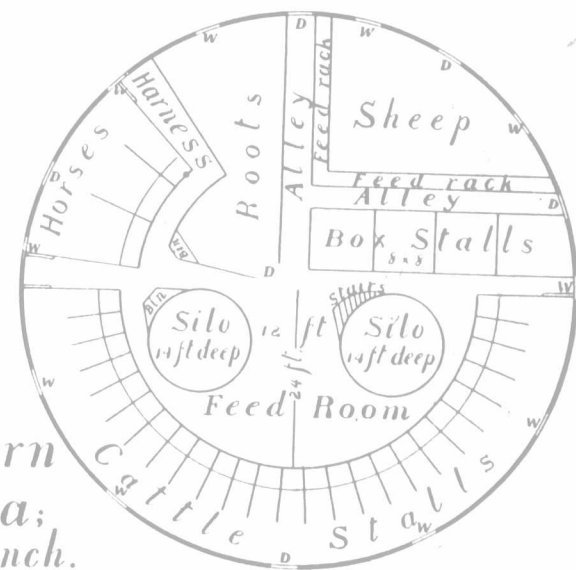
	Length of Wall	Feet of Siding	Area of Roof
Circle	233.57	7,513	5,178
Rectangle	270	9,410	5,880

Amount of material less required: 1,867 feet of siding; sarking, 4,800; shingles, 712. While for the frame of a circular barn a few logs would provide scantlings enough, the frame timber of a rectangular barn would make a raft.

**USE CEDAR BLOCKS FOR STABLE WALL.**

As I have seen some half dozen cedar-block walls put up in our neighborhood, I think I can say conscientiously they make a good, warm, and much drier stable than stone, when well built. How to build: First dig a trench for foundation, about two feet deep and two feet wide; then fill trench with small stone, and on top of stone build about a foot of good stone-mason work, twenty inches thick. Now for the blocks. To build up corners you require pieces 8 x 8 and 4 feet long, time about each way, one outside and one inside of wall, and in building up alongside of doors and windows, split the round blocks through the center and lay flat side of block to jam. Where door opens inside, it is advisable to trim off blocks so that inside of jambs will be flaring. Before building with the blocks, remove all bark and limb knots, and when building, put each block down solid with two or three light taps with an axe. Door jambs should be 6x8 inches, or if they were 10 inches wide all the better, and windows 3 x 10 inches. As I have seen many questions and answers through your valuable paper which have been very instructive to parties who are going to build, I have written the above with pleasure.

NOAH COTTON, Carpenter and Builder.



**Montreal Markets.**

Montreal, Feb. 27.—The butchers were present in large numbers, and there was an active demand, with higher prices paid for good or even moderately good cattle, but there was a larger proportion of thin, dry cows and scraggy bulls than for over two months past, and these were rather slow of sale, with low prices. A few of the best cattle sold at about 5c. per lb.; pretty good brought from 3c. to 4c. do., the common stock selling at from 2c. to 3c., and some of the leaner old cows at from 2c. to 2c. per lb. A lot of six ordinary-looking bulls, averaging near 1000 lbs., were sold at 3c. per lb. Very young calves sold at from \$2 to \$3 each; others at from \$4 to \$13 each; three of the best were sold for \$33, about 6c. per lb. Sheep sold at from 3c. to 3c., and the lambs at from 4c. to 4c. per lb. Fat hogs are a little off in price, and sold at from 6c. to a little over 6c. per lb., weighed off the cars. A number of the milk cows were sold at from \$30 to \$52 each.

**Chicago Markets.**

Chicago, March 14.—Cattle—Good to prime steers, \$6.50 to \$7; poor to medium, \$4 to \$5.50; stockers and feeders, \$2.50 to \$5.30; cows, \$1.25 to \$4.25; bulls, \$2.30 to \$4.60. Hogs—Closed active; mixed and butchers', \$3.85 to \$3.35; good to choice heavy, \$3.25 to \$3.30; rough heavy, \$3.00 to \$3.15; light, \$3.00 to \$3.80; bulk of sales, \$5.80 to \$6.10. Sheep and lambs. Sheep steady; lambs 10c. higher; good to choice wethers, \$4.75 to \$5.25; fair to choice mixed, \$3.80 to \$4.25; native lambs, \$4.75 to \$5.50; western lambs, \$5.50 to \$6.60.

**British Cattle Markets.**

London, March 3rd.—United States cattle, 6d.; sheep, 6d. Liverpool, March 3rd.—Canadian cattle, 9d.



"We look too high for things close by,  
And lose what Nature found us;  
But soon we're taught the world hath nought  
Like Home and Friends around us."

### "One of the Girls" Moralizes.

Where nothing blossomed and nothing stirred,  
Uprose the note of a little bird.  
"Why carolest thou in the death of the year,  
Where nobody travelleth by to hear?"  
"I sing to God, though there be no comer,  
Praise for the past, and the promise of summer!"

Those of us who have been in our winter woods (and most country girls have jumped on a bobsleigh and gone "logging" with the men, for a bit of fun), can never forget the little wood birds, with their tuneful throats, singing from frozen leafless boughs their notes of love and pleasure, clear as the summer songstress. With what incentive I never could understand, but we can accept this pretty idea of the poets and say it is in praise for the past and promise of summer.

While these little birds are singing in our frozen woods, what are we doing in comfortable, warm homes, sure of food, warm beds, and the promise of more than summer? Never a song of praise from us. No, indeed, we won't sing! Because father has a windmill with all the latest attachments, and we haven't a new washing-machine. That is what women write about us in the home department of our agricultural papers, and call us "pack-horses" and "drudges." One woman lately, in her "nerve-wasted" article, holds out the cheerful hope of an insane asylum gathering us all in at the end, because worn-out farmers' wives are filling up such establishments. On the same page with this article was another called "Notes on the toad," and, plebeian as it sounds, I could not help thinking what wholesome reading it was, for it made me try to remember whether our toads do hop, or have they the European mode of locomotion; eat flies, bumblebees, ants, or what? In the spring I mean to watch the ugly but interesting creatures and find out. I know such articles like the one first mentioned are written in the kindest spirit, intending to frighten men into making our kitchens more convenient and getting us up-to-date articles. But there is not a single man who would ever think it was written for his benefit, because he had bought a good churn only twenty years ago! His wife a drudge, the idea! No woman in the country has such a good time as she. Every stormy day in winter, and every rainy day in summer, she can have a horse to go and see all her friends for one hour, if not more. And his sympathy rivets itself upon some poor widow who is trying to grow her pigs and potatoes on a rock in Muskoka, or some other barren land. Our fathers are only men, after all, not inhuman mortals, and if, after a good dinner, a woman would ask for her wants to be supplied, in a straightforward way, being pleasant about it, she would stand a much better chance of getting what she requires than by having a sympathetic friend write up her case in the paper.

Cheerfulness in a home has wonderful power in refining and raising the characters of its inmates, and keeps nerves from going to waste. A cheerful home does not suggest impossible things, not furnishings of costly Persian rugs or Bagdad curtains, but bright, pretty wall papers, clean curtains, and a house where boys and girls are not afraid to laugh and sing.

So many parents think it necessary to have their walls hung with nothing but religious pictures, and only books of a religious nature allowed in the house, and a gospel hymn book the limit to family music. This is to keep the children in the "straight and narrow way." But I think we can live quite as near heaven with surroundings which will cheer weary hearts and soothe tired nerves. Let us have pictures of artistic beauty, not unnatural reproductions from Gustave Dore's famous pictures, in which he would never recognize his handiwork. I did not mean the fact that the pictures were religious made us feel "desolate and oppressed," but because they were ugly. Now, do not say I am wicked!

There is something so noble in contentment, and it seems to me there will be a great, big golden crown for each one who takes his part in life's duties cheerfully, standing up bravely to take the storms as well as the rainbows of life, whether we be wives and daughters of senators or of farmers. "If we do what our circumstances

allow, we do well. Act nobly! Angels could do no more."

As children of the farm, we have many everyday blessings of which we never think. A blessing for each day of the year, if we were to look them up. The proud privilege of watching the oxen kneel of a Christmas midnight; see the sun dance on the hills Easter morning; and when May-day comes, we can jump our own fences, walk over our own broad acres, and away to the streams and groves to celebrate the feast of Flora! And that old invitation that Herrick sang many years ago, "Come, my Corinna, come, let's go a-May-ing," will repeat itself in the heart of every country girl.

Under the hawthorn boughs we recall the feats of archery in the May-days of long ago, with its darning band—Robin Hood, Friar Tuck, and Maid Marian. But I am getting ahead of time.

It was a happy jump, though, that brought me to the hawthorn boughs, since there is a connection between my first and last—birds and flowers. With the best of wishes, from

ONE OF THE GIRLS.

### Our Pictures.

Perhaps there are no pictures which could be chosen for the pages of the "Farmer's Advocate" more likely to "come home" to its readers than those by Landseer, with which we, nearly all of us, are more or less familiar. There seldom is any need to give name or title to any picture from his brush, whether of a single figure or group. So carefully has he studied the animal he portrays that it tells its own tale. Though dumb, it speaks to us, as it were, in tones sometimes quizzical and droll, sometimes patient and pathetic, but never requiring interpretation. The secret of Landseer's success was, that to his genius he added careful observation and patient study of anatomy. Hayden made him, as a boy pupil, dissect a lion before he painted that king of beasts. But, whilst being content with nothing short of technical perfection, Landseer, as in his group in the "Blacksmith's Shop," and his "Member of the Benevolent Society," so portrays the inner consciousness of the four-legged subjects of his magic brush, that he lets us into the secret, too, without a possibility of missing its meaning.

H. A. B.



"A MEMBER OF THE BENEVOLENT SOCIETY."

### Things to Know

**TO CLEAN WHITE KNIFE-HANDLES.**—Dissolve a little salt in some lemon juice; rub this on the handles with a soft rag till the stains are gone. Rinse in clean warm water, dry thoroughly, and polish with a soft leather.

**ICING A CAKE.**—To prevent the icing from running off, rub a little dry flour over the cake, then pin a band of oiled paper round, and you will have no difficulty in making the icing stay on as you want it to do.

**SILK SUNSHADES.**—These are rather apt to split at the seams while stored away for the winter. An excellent preventive of this catastrophe is to put a long roll of tissue paper into each fold before putting them in their winter resting place.

**TO CLEAN SUEDE GLOVES.**—These, to be really successfully cleaned, must be done before they are very dirty. Put them on your hands. Then take a basin of dry oatmeal, and rub this well into the gloves. This cleans them beautifully, and is very little trouble.

### Suggestive Thoughts.

Hope is the word which the finger of God has inscribed upon the brow of every man.

Those who think that money will do anything may be suspected of doing anything for money.

Cheerfulness is also an excellent wearing quality. It has been called the bright weather of the heart.

Diamonds are found only in the dark places of the earth; truths are found only in the depths of thought.

"The foolish and the dead alone can change their opinions," once said that great American, Abraham Lincoln.

### Treatment of Colds.

A cold may be brought on by exposure, over-fatigue, lack of sufficient clothing, or lack of nourishing food. Whatever tends to lower the vitality will induce cold, as the system when fatigued or enfeebled is not able to resist disease.

One should dress in such a way as to keep even heat, and preserve an even circulation over the whole body. Women's dress is often very unhygienic, with heavy skirts fastened by means of bands so tightly about the waist that it is impossible to expand the lungs, while the feet are protected only with cotton stockings and thin-soled shoes. On being told to wear thick shoes and stockings in order to protect her throat, a girl asked what her feet had to do with her throat. She did not know that when the blood is driven from the extremities by the cold it goes to other parts of the body, which are sensitive or easily inflamed, and congestion and disease follow.

An eminent physician advises women, instead of burdening themselves with so many heavy skirts, to wear two entire suits of underwear, cotton next the skin and woollen over the cotton, with cotton stockings under woollen ones. In severe cold weather, this manner of dress keeps one comfortably warm. The same physician advises for a cold, a capsicum foot-bath, mustard plasters applied to chest, back, abdomen, arms and legs, and a stimulant as follows: To three ounces of pure glycerine add one dram of aqua-ammonia and one ounce of fluid extract of ginger. Take one teaspoonful in a glass of hot water an hour before each meal or when chilly.

One dram of menthol crystals added to four ounces of white vaseline makes an excellent remedy for a cold, either to snuff or to be taken in a microscopic quantity at the end of the tongue,

as the vaseline is healing and the menthol warms the throat.

A glass of sage tea, to which half a teaspoonful of alum and half a teaspoonful of salt has been added, makes a healing gargle for a sore throat. A teaspoonful of listerine, half the amount of salt and quinine the size of half a pea, added to a glass of water also makes an excellent gargle.

A good preventive against cold is to close the mouth and breathe through the nostrils so that the frosty air may be properly warmed by passing through the air chambers of the nose before reaching the lungs. One of the simplest and best remedies to stop a cough is within the reach of everyone, and that is deep, full breathing.

Experts in this country and abroad now declare that consumption is curable and preventable. General cleanliness and avoidance of dust are recommended, but special stress is laid upon sunlight and fresh air as the most effective remedies. Patients are advised to breathe fresh air into the lungs by night as well as day and to sleep with their windows open. The quality of the air must, of course, be considered.—(Frances Bennett Callaway.)

### Humorous.

Why is a one-dollar greenback better than a new silver dollar? Because when you fold it you double it, and when you open it you find it in-crases.

Why is Buckingham Palace the cheapest piece of property in England? Because it was bought for a penny.

Doctors: "Your mother-in-law is in a very bad way, she is at the gates of death." Son-in-law—"Oh, Doctor, do pull her through."

What made the apple turn over? Seeing the same one fall.

Why was the window curtain sad? Because it could not help the fallen blind.

**Travelling Notes.**

In my letter which appeared in our Home Magazine of the 5th of December, I gave some account of the magnificent reception tendered to the Duke and Duchess of Cornwall and York (the Prince and Princess of Wales) upon their return from their now historical visit to the loyal Colonies of the motherland. In this letter I want to tell you something of another popular demonstration, somewhat similar in detail, although differing in purpose; and later on, if I should then be privileged to witness that still more wonderful pageant on the occasion of the coronation of His Majesty King Edward the Seventh, for which elaborate preparations are already being made, and in anticipation of which the whole civilized world seems to be standing upon the tip-toe of expectation, I shall hope to tell you about that too. I only wish, in the telling, that I could convey to you who may read my records of these stirring scenes one half of the inspiration they are to those who actually see them, and what an object lesson of love, loyalty and pride of country can be learnt by those intelligent enough to interpret the meaning of each scene as it flashes past. It makes one's heart bound with pride to know that every one of Britain's Colonies has an inalienable ownership in the historical significance of every sign and symbol; that the story told by the colors of each regiment, or by the trophies of each brigade of England's naval heroes as they

and 2nd Life Guards. The latter wore large scarlet cloaks completely covering their white, scarlet and gold uniforms, and indeed they nearly covered the horses, too, for the cloaks are purposely made to fit both very neatly as occasion might require. Next came the Foot Guards, taking up their position in front of the police, the officers being nearly all titled men. Some of these young officers tickled my Canadian sense of humor. They were such perfect dudes. Their uniforms, cut after the German fashion, fitted them perfectly, imparting a somewhat ladylike air, but they were also, I knew well, types of many who had looked much as they did, mere play soldiers, until the battle cry sounded in their ears, when they had given proof of the true heroism which was enshrined within. Next in order came the Yeomen of the Guard, marching down with their tall halberds. These were splendidly picturesque figures, in their Tudor hats and slashed doublets, stalwart veterans, with broad, bemedalled and beribboned chests. They had carefully and neatly trimmed their venerable beards, which were nearly all either wholly white or iron-gray in shade. Pathos and dignity were alike represented by these men, who could probably have each told of stirring scenes in their days of youth and vigor. After speaking of such as these, it seems almost invidious to mention how large a feature in this wonderful procession were the coachmen and footmen and generally resplendent flunkeys in their gorgeous liveries.

Then the horses! They were such magnificent creatures!—black, bay, and cream, with trappings of gold and silver, their manes richly dressed with carmine silk. Queen Victoria's eight cream-colored Hanoverian horses, ridden by postillions, drew the State carriage, which, with its Royal occupants, was the cynosure of all eyes. I will not attempt to describe its grotesque carvings, its paint and pictures, its glass all around it, for the very good reason that I had no notice to spare just then for anything merely inanimate, only for our King, in his field marshal's uniform, sitting bareheaded within, and for the sweet Queen Consort by his side, with her ermine cloak covering her full-dress costume, and her small diamond crown upon her pretty womanly head, gracefully bowing their acknowledgment of the homage so freely offered them. As they passed my little corner I waved my handkerchief with frantic loyalty, as a good Canadian should, and my reward was a smile and a bow from both, let who will claim them likewise.

As the King passed through the masses of his cheering subjects, he was to them not only a sovereign beloved of his people, but the living, breathing symbol of a unity which makes the British Empire unique amongst the nations of the earth.

To the Colonial mind, with its practical bent, and its present pathway to hew before it, perhaps all this pomp and circumstance may seem mere froth and bubble—just empty show; but a very little thought and a little careful reading between the lines will bring out the deeper meaning underlying each State ceremonial, and with the knowledge of that meaning and the inferences to be drawn from the same, must come an ever-increasing sense of personal responsibility towards upholding the integrity of an Empire upon which it is said that the sun never sets.

P. S.—Mollie desires to thank a friend, B. M. H., from Halifax, for her kind words of appreciation of her Travelling Notes, she having quite lately been over much of the same ground. This friend adds: "My father has taken the 'Advocate' for a long time, and we all enjoy reading it very much."

**Kissing Children.**

Children are kissed too freely by relatives, friends and strangers. I know a lady who insists always on kissing her friends upon the lips when she meets them. The ordeal for her friends is a terrible one, yet not one of them has the heart to refuse the proffered caress, or to give the cheek in place of the lips. They would love her just as dearly and thank her just as feelingly if she pressed their hands merely and withheld her lips.

Parents ought to teach their children from their very earliest years to be chary in giving

their lips. Parents themselves ought to avoid kissing infants on the mouth. The sweet cheeks, the dear little soft necks, the dimpled hands, all-over tempting nooks for kisses without endangering the child's comfort or health. I have seen a father, whose breath was vile with stale tobacco smoke, press his mouth to that of a tiny infant, never thinking that the poor baby's lungs were being poisoned by the contact, says a writer in the New York Telegram.

**The Joy of Coming Home.**

"There's joy in sailing outward  
Though we leave upon the pier,  
With lag's grieved and wistful,  
Our very dearest dear;  
Though the sea shall roll between us  
For perhaps a whole round year.

"There's joy in climbing mountains,  
In fording rushing brooks,  
In peering into places  
We've read about in books,  
In meeting stranger people,  
With unfamiliar looks.

"But the joy of joys is ours,  
Untouched by any pain,  
When we take the home-bound steamer  
And catch the home-bound train;  
There's nothing half so pleasant  
As coming home again."

—Margaret Sangster.

**The Beauty of Wrinkles.**

WITHOUT THEM THE FACE WOULD BE MEANINGLESS AND VOID.

In a recent number of the Weekly Scotsman, a lady gave full instructions on "How to Remove Wrinkles." Why should one try to remove them? Wrinkles may mean the "first approach of old age," but that "they make sad havoc with a woman's beauty" is a statement not to be tolerated for one instant.

What makes the wrinkles and why are they there?

We all love the soft, chubby face of the baby because it is part of its very helplessness. All is smooth and clear as a blank tablet, but as the mind of the child develops, Nature, the only perfect artist, pencils softly and delicately, day by day, lines which become an index of the mind, lines without which the face would be meaningless and void. But nature is not self-willed over her traceries. The great mother allows the individuality of each one of her children to guide her hand to engrave, be they the graceful upward curves of the happy, contented mind, which makes the most out of life and sees its best and purest side, or the harsh downward strokes of discontent and bad temper, which but rarely catch a rosy glimpse of the sun through the long or short avenue of years down which all must pass.

What nonsense to say that wrinkles make havoc with beauty!

Fancy our sweet old grandmothers with all their wrinkles obliterated—those lines graven deeply by happiness, by sadness, by pain and suffering endured and hidden with smiles, by trials conquered and overcome! Could we spare one wrinkle from their beautiful old faces? The stages between babyhood and old age have each their separate charms, and no woman need fear to become less attractive by growing old as long as she grows old gracefully.

Time steals from the complexion the soft, peachlike bloom of girlhood, but adds in its stead an indefinable something which tones in exquisitely with the firmer lines of the face, with the silver strands which discover themselves glistening among the raven or golden locks, and with other but more subtle changes.

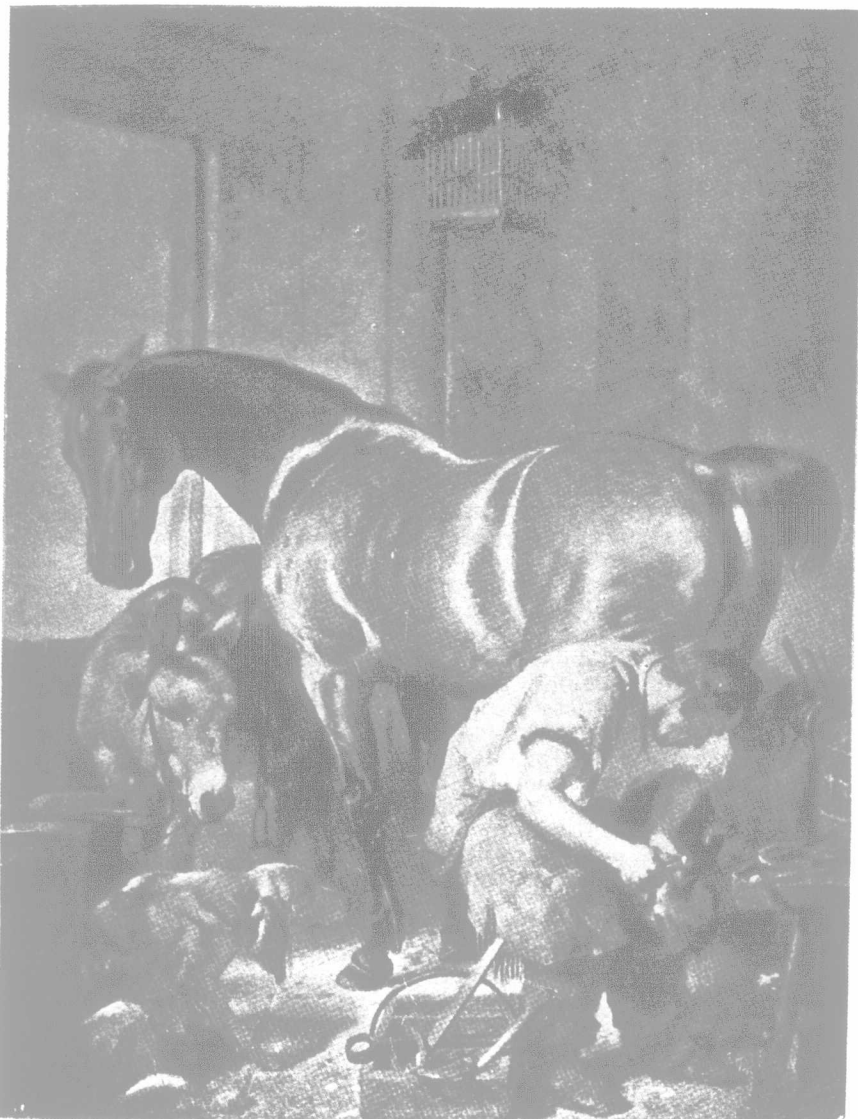
The writer wonders to what class of women such advice as "How to remove wrinkles" appeals. Certainly not to the young girl in the first blush of youth and womanhood, nor to the unmarried woman of to-day, who is known for her sound common sense; nor to the happy wife and mother, whose face becomes more beautiful day by day, as she in retiring forgetfulness of self lives again in her children; nor to our peerless old grandmothers, whose sweet faces revel in the profusion of wrinkles.

There may be some women who might take the advice seriously, and go through the ape-like gesticulations recommended, but surely these would be the freaks of womanhood and not the average daughters of Eve. Nature broods no quacks in her domain, and to tamper with her work is simply to mutilate it, and to produce ludicrous caricatures.

Our great masters in painting, Sir Joshua Reynolds, Velasquez, and Rembrandt, for instance, how they admired strongly-lined faces of both men and women. They did not spend their time portraying smooth, inane faces of the chocolate-box order. They saw the real beauty and meaning of Nature's tracery, and strove humbly to imitate, not to alter.

Why should old age be treated so discourteously as soon as his shadow falls on the pathway of life? When he is far away, hidden in the long vista of years and of uncertainty, we woo him, and exert our utmost to drive his dreaded adversary away. Yet when he favors us, and comes to meet us, we turn our backs on him to bar and efface his advent, which, after all, is only by favor, for it is not on the many that he smiles, but on the few.

S. D. W.



"THE BLACKSMITH'S SHOP."

march past, is the story of the flag under which they live and prosper and for which their sons are prepared to lay down their lives to-day, as their fathers did in days of yore.

The 16th of January, the date fixed for the opening of Parliament, being an ideal day, with a suggestion of April rather than of mid-January in the air, one of the primary conditions for the complete success of a great pageant was assured. The procession, in which the State carriage was a striking feature, was watched by large and enthusiastic crowds, who cheered with the utmost heartiness the King and the Queen, the Prince and Princess of Wales, and other Royal and distinguished personages, all along the route from Buckingham Palace to Westminster. Although the procession was not timed to start till 1.30 p. m., people began to collect on the line of route as early as nine o'clock in the morning, every hour adding its thousands of spectators. I got a splendid position in "The Mall," between two of London's noble policemen (they number 18,000), who assured me if I would remain under their protection that I would get a good look at the King. Nor was the waiting tiresome, for the whole morning there was a continual blaze of color and excitement. The military display alone was a fine sight, order and precision ruling the marked-out position of every man and horse, from general to private. First came the police, then the Hussars on horses and the commissioned officers with leopard-skin harness; then the 1st

## THE QUIET HOUR.

## Beauty.

"Wonderful the whiteness of Thy glory!  
Can we truly that perfection share?  
Yes; our lives are pages of Thy story,  
We Thy shape and superscription bear.  
Tarnished forms, torn leaves, but Thou canst mend  
them;  
Thou Thine own completeness canst unfold  
From our imperfections, and wilt end them—  
Dross consuming, turning dust to gold."

The love of beauty is very strong in the human heart, and why should anyone try to crush out this healthy instinct? Beauty of face or figure is one of the greatest talents God gives to be used for Him. It may be a mighty power for good or evil, for men in all ages have been greatly influenced by it. The Bible does not hide the fact that Esther's beauty helped very largely to save the Jews when King Ahasuerus had allowed the order for their destruction to be sent into all his provinces. On the other hand, the great beauty of Bathsheba led King David into crimes which seem utterly foreign to his noble character. But we are often told that beauty is only skin deep, and a love of beauty leads to vanity and worldliness. But why should beauty be only skin deep? A true King's daughter "is all glorious within," and the King Himself shall "greatly desire her beauty," as the Psalmist says. God is "the perfection of beauty," and we ought to pray, "Let the beauty of the Lord our God be upon us." The command is given over and over again, "Worship the Lord in the beauty of holiness." Even the plainest face may be transfigured and glorified by a beautiful spirit within, "for character is always writing its name on the face with indelible ink." Those who spend much of their time consciously in Christ's presence cannot help reflecting some of His beauty. As the face of Moses shone when he had been talking to God as a man talks with his friend; as the face of the martyr Stephen was bright with spiritual beauty as he gazed up into his Master's face; so we all know people who show by their appearance, as well as by their words and actions, that they have been with Jesus.

But this lasting beauty must come from within; it is no use trying to cultivate an outward imitation of it. The world is not easily deceived, and scorns mock Christianity, while it respects the real article. Trying to cultivate an amiable expression is something like the plan of the man who brought the hands of his clock to a watchmaker, asking him to "fix them."

"Where's the clock?" said the watchmaker.  
"There's nothing wrong with the clock," was the answer, "but the hands won't keep time."

Of course the hands couldn't be regulated, as the trouble was in the works, and it is just as impossible to cultivate the beauty of holiness in the face without setting the heart right. If Christ reigns in our hearts, if all our thoughts and affections are in subjection to His will, we can hardly fail to grow like Him.

"As some rare perfume in a vase of clay  
Pervades it with a fragrance not its own,  
So, when Christ dwelleth in a mortal soul,  
All heaven's own sweetness seems around it thrown."

There is an old legend that when the people living in Nazareth were in trouble they used to say, "Let us go and look on Mary's Son." It did them good even to gaze in that face which was so bright with the beauty of holiness. Surely this must have been a fact, for even to look at the faces of His true disciples, who are reflecting very imperfectly His image, is a help and an inspiration to-day, as it has been in all the centuries since He walked visibly among men. Is there any necessity for Christians to bring dishonor on their religion by making themselves disagreeable? Good manners don't wear out with using, like good clothes. There is no need to keep them for Sundays and holidays. If used every day they improve all the time, and they form a very important part of the beauty of holiness. It has been said that behavior is a mirror in which everyone displays his image. That surely applies to everyday behavior, for anyone can put on company manners for a little while, but it is the everyday manners that reveal the true character of a man or woman.

"It was only a glad 'good morning'  
As she passed along the way,  
But it spread the morning's glory  
Over the livelong day."

What a wonderful parable that first miracle in Cana of Galilee was. Those who obey the order, "Whatsoever He saith unto you, do it," obey it willingly and heartily, as the servants who filled the water-pots up to the brim, soon find that a miracle has been worked. The days fitted to the brim with commonplace duties are beautified and transfigured. As the flat, tasteless water, used for purifying purposes, was changed into good wine, so the "trivial round, the common task," become a delight and a joy. But they must be done, "not with eye service, as men-pleasers, but as the servants of Christ, doing the will of God from the heart, with good will doing service, as to the Lord, and not to men."

A beautiful life may be lived anywhere. Even in the worst slums of New York, as Jacob Riis

says, there are thousands of devoted lives laboring earnestly to make the most of their scanty opportunities for good; of heroic men and women striving patiently against fearful odds, and by their very courage coming off victors in the battle; of womanhood pure and undefiled. That it should blossom in such an atmosphere is one of the mysteries of life. And yet it is not an uncommon thing to find sweet and innocent girls, singularly untouched by the evil around them, true wives and faithful mothers, in the worst of the infamous tenement houses.

"We who are of the earth need not be earthy;  
God made our nature like His own, divine.  
Nothing but selfishness can be unworthy  
Of His pure image meant through us to shine.  
The death of deaths it is, ourselves to smother  
In our own pleasures, His dishonored gift.  
And life—eternal life—to love each other;  
Our souls with Christ in sacrifice to lift."

"If I could be such a beautiful old lady as that, I shouldn't mind growing old," said a young girl one day, speaking of a white-haired visitor.

"Well, if you want to be that kind of an old lady, you'd better begin making her right away," laughed a companion. "She doesn't strike me as a piece of work that was done in a hurry; it has taken a long time to make her what she is. If you are going to paint that sort of a portrait of yourself to leave to the world, you'd better begin mixing the colors now."

What sort of portrait are we painting day after day, week after week, year after year? Are we reflecting as a mirror the beauty of Christ, growing more like Him every day, steadily preparing for the time when "we shall be like Him: for we shall see Him as He is?" HOPE.

## Ingle Nook Chats.

My dear Guests,—

"Ah! March! we know thou art  
Kind-hearted, spite of ugly looks and threats,  
And out of sight, art nursing violets."

The ever-increasing length and brightness of our still wintry days fill our minds with thoughts of the fast-approaching spring; and spring-time is universally admitted to be synonymous with flower-time, and already we are beginning to plan for our garden. Almost every journal we pick up contains offers of bulbs and seeds at such reasonable rates that we long for space and time to grow them all. It is unwise, however, to attempt too much; a small plot carefully attended to will give more return than a larger one if neglected, as a large one frequently is. It is always well to begin preparations in time, and just here I shall offer one suggestion: buy your seeds from a reliable and tried seedsman, and then, circumstances being ordinarily favorable, you may hope for good results; cheap seeds often prove expensive from the fact that they do not always turn out as represented. Study your catalogues and make your selections now, and order as early as possible, thus avoiding disappointments.

The wise virgins among us will have a reserve store of earth laid by, in which seedlings may be started long before King Frost gives up his reign; but should such provision not have been made, there is usually some sunny corner where a small quantity of earth may be procured sufficiently early to start the ordinary annuals. Have any of you tried planting bulbs for winter flowers? If so, what do you do with them when they have ceased to bloom? I have a few tulips in bloom now, and mean to put the bulbs in the garden, where I hope they will bloom again after a year's rest.

The care and culture of plants can scarcely fail to be instructive and interesting to all who are in any degree given to looking beneath the surface of things. We plant a bulb, a thing possessing in itself no visible beauty; we water it, and after a time some green leaves appear; and then, oh! miracle! some bright morning we find a burst of beauty—the blossom that has suddenly emerged from its prison in the heart of the ugly tuber. Who, gazing daily upon such wonders of nature, is not strongly impressed with the remembrance of that glorious resurrection which awaits humanity, when, its earthly duties done, it, too, rests in the bosom of all-embracing mother earth? Ruskin says: "Flowers seem intended for the solace of ordinary humanity. They are the cottager's treasure; and, in the crowded town, mark, as with a little broken fragment of rainbow, the windows of the workers in whose heart rests the covenant of peace."

The plight of those who fail to appreciate the beauty of flowers because, perchance, they are common, is pitiable indeed; but we number amongst our guests few, if any, of those unfortunate ones who are thus debarred from the enjoyment of one of earth's purest pleasures. Then blow and bluster away, bluff old March, your horridous wind; but assure us that soon, very soon, we may look for the "April showers and May dews" that always follow in your wake.

Just a moment's chat with a few of my numerous guests. Next "chat" will be largely occupied with the rollout of August XVII. My dear "Elin," I am pleased to know that our Corner served to brighten the tedious hours of convalescence; I hope you are

fully recovered. "Ewart"—You are quite a new letter-writer for a boy of nine, and have made a very good beginning in the puzzle line. We have had great storms here, too, but I hope they are over now. "Ethra"—I think some of our guests made a similar suggestion some time ago; I should like to act on it, but it means an immense amount of labor—more than one would suppose at first thought. Some day perhaps we may do so; in any case I thank you for the suggestion.

I hope the drawing contest announced in last issue will have many competitors, as it is something new in our columns. It should be of special interest to school boys and girls, a large number of whom will, I hope, enter it.

THE HOSTESS.

Ingle Nook Chats, Pakenham, Ont.

## THE CHILDREN'S CORNER.

## Do What You Can.

There's enough for you children to do in the house,  
To keep you as busy as any old mouse,  
There are errands to run,  
Little tasks to be done

That will do much to lighten your mother's hard work,  
So children, don't shirk,  
But do what you can;  
You'll be glad when you're grown

To a woman or man.

There's enough for you children to do all about,  
If you try you will very soon find some work out,  
There are chickens to tend  
Little tasks without end,

You will find you can do if you just take a start,  
So, children, be smart,  
And do what you can;  
You'll be glad when you're grown

To a woman or man.

There's enough for you children to do anywhere,  
So hurry around and each do your full share,  
And just see how bright  
You will feel when at night

You can think you have done what is honest and fair,  
So, children, take care  
To do what you can;  
You'll be glad when you're grown

To a woman or man.

And, children, whatever you do, do it well,  
People always in looking it over can tell  
If you hurry it through,  
Whatever you do,

Not caring at all if it's done ill or well;  
So whatever you do,  
Do the best you can;  
You'll be glad when you're grown

To a woman or man.

## Grandmother's Remedy.

Bobby was almost always as happy as he could be; and Beth's fat little face was ever ready to entertain a whole family of smiles, morning, noon and night. But one day Bobby growled and grumbled, and two deep wrinkles in Beth's forehead drove all the smiles away. And what do you suppose was the reason?

"Girls don't have to do anything!" declared Bobby, as he sat down, with a thump, on the shoe-box in grandmother's room. "Girls don't have to feed hens or fill the wood-box! I wish I was a girl, so I do!"

"Girls don't have to do anything!" exclaimed Grandmother Stone, in surprise. "Well, well, well! You come with me a minute, Bobby; and we'll see if you are right."

Bobby followed grandmother into the sitting-room. But when they got there, both were surprised; for sitting in the big rocker was Beth, her eyes full of tears.

"I wish I was a boy same as Bobby!" she said, sorrowfully. "I'm tired as anything of dusting rooms. Boys don't have to dust or mend stockings, or do anything! Oh, dear! dear! dear!" And Beth hid her curly head in the duster, and sobbed.

"Well, I never did!" exclaimed grandmother. "Supposing you do Bobby's work to-day, and he will do yours. I know that he will be delighted to change work with you."

But would you believe it? Grandmother was mistaken, for Bobby shook his head.

"I'm going to feed the hens myself!" he said decidedly.

Beth wiped her eyes in a hurry. "Girls never fill wood-boxes," she murmured.

And then they both laughed, and stopped grumbling for that day. So you see grandmother's remedy was a wise one, after all.

## The Stamp.

I stick to my duty, I wish you to know,—  
The very best thing I could do;  
I travel wherever they tell me to go,  
And that's an example for you.

I'm put in the corner and willingly stay,  
Though weary the journey and long;  
The envelope frequently asking the way—  
I never have known him go wrong.

But though he's so clever your houses to find,  
O'er mountain and valley and sea,  
I hope I may beg you to hear this in mind:  
He must be attended by me.

Miss Milly wrote down where she wished us to go,  
And dropped us right into the box,  
And in a few hours at your portal, you know,  
We called you with two little knocks.

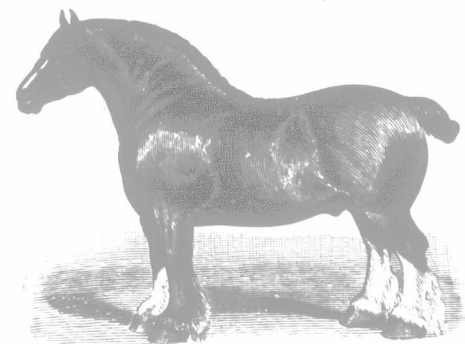
Yes, here we are now, and we haven't been long,  
But, oh, 'twas a journey for me!  
Come, open the letter! I've finished my song  
And stuck to my duty, you see.





**VINCENT & MACPHERSON,**  
The Leading Western  
Undertakers and Embalmers.  
**Rosser Avenue, Brandon.**

**J. E. SMITH**



SIR ARTHUR.

**Shorthorn Bulls and Heifers for Sale**

The get of Golden Measure (imp.) = 26057 = (72615), or Lord Stanley II. = 22260 =. The greatest stock bull that Russell's great herd ever produced.

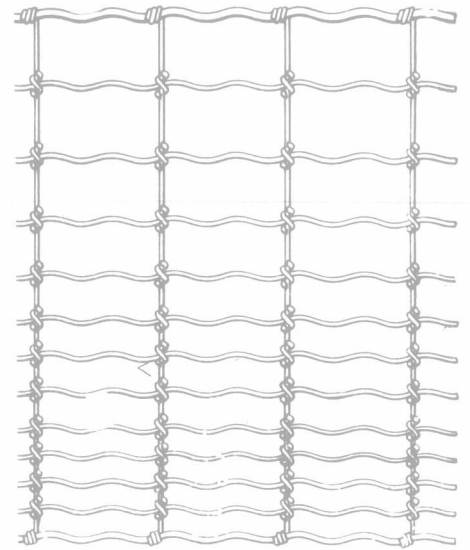
**CLYDESDALE STALLIONS**

Mares and fillies, all ages. Write or wire:

**J. E. SMITH,**  
BOX 274, BRANDON.

Improved farms for sale or to rent.

**LAMB FENCE**



A ready-made fence, complete in the roll. The high carbon wire used in the "Lamb" will better retain the spring and has more tensile strength than common hard wire. The large hard wire upright in one piece gives the fence greater support than a small or soft wire could do.

**H. R. LAMB,**  
LONDON, ONT.

**BOOK REVIEW.**

Any book reviewed in this department may be ordered through this office, at the price stated.

A handy little book, about pocket size, has recently come to the editorial table in the "Young Engineer's Guide." It is one of the most practical little works we have seen, and to the farmer who has a portable or traction engine, and to the young thrasher starting business, or the fireman who wishes to rise in steam-engine practice, it will appeal especially. The work is clearly written, is not expensive, and is about the best thing we know of for the beginner. As an evidence of its utility, the book is now in its 22nd edition. We often have inquiries for just such books, and it should meet with a large sale in Canadian West. It can be supplied from this office for \$1.25, post-paid.

IN WRITING  
PLEASE MENTION FARMER'S ADVOCATE.

**GOSSIP.**

On Mr. J. Lennox's farm, which lies one mile south of the town of Saltcoats, may be seen a well-selected herd of Shorthorns. At present the herd is headed by the bull, Major 26697, bred by Jno. Gardhouse, Highfield, Ont. Major, who is a beautiful deep red, with plenty of bone, is sired by the imported bull, Guardsman 18956, dam Welcome's Pride. The cow, White Rose, was also bred by Mr. Gardhouse. She is a half-sister to Major. Her dam is Highland Rose. Among the other females of the herd is the cow, Red Rose, bred by J. & A. Sammerville, Elder's Mills, Ont. Red Rose is the choice of the lot. She is a thick-set, deep-red animal, square and blocky with straight lines. She was sired by Reporter II, 18644, dam Ada III, 24579. Lady Annie, sired by Danley 21323, dam Glenrose 27618, is a red four-year-old, a little too rangy. Of the younger members of the herd, which are as yet unregistered, is a beautiful pair of twin bulls, 21 months old, got by Major out of Red Rose. Mr. Lennox always meets with success at the local fairs. He also has a number of fine high-grade cattle.

**A RECORD-BREAKING HEREFORD SALE.**

Four hundred and eighty-one thousand dollars was the price paid last month by Geo. A. Ricker, a Quincy, Illinois, banker, for the Riverside Hereford Cattle Company's ranch and herd of 1,200 head of registered Hereford cattle, at Ashland, Nebraska. This is believed to be the largest transfer of registered cattle that has ever been made. The cattle alone were estimated at \$300,000 in the deal.

THE ANNUAL GENERAL MEETING OF THE MANITOBA ASSURANCE COMPANY was held at the Company's office in Winnipeg on Feb. 13th. The president, the Hon. Hugh J. Macdonald, K. C., in the chair. The president, in moving the adoption of the report, pointed out that the past year had shown a very satisfactory business. The old board, consisting of the Hon. Hugh J. Macdonald, K. C.; J. T. Gordon, M. P.; D. B. Hanna, W. J. Tupper, H. S. Crotty, J. A. Thompson, and H. H. Beck, were re-elected. A vote of thanks was tendered the managing director, officers and country representatives. F. R. Whitehead was re-elected auditor. A dividend of 6 per cent. on the paid-up capital was declared. The new board met immediately after, when the Hon. Hugh J. Macdonald, K. C., was re-elected president; J. T. Gordon, vice-president; and H. H. Beck, managing director.

**U. S. OFFICIAL VETERINARIANS.**

Following is a list of United States Official Veterinarians, furnished by Dr. Salmon, November 27th, 1901, as "A correct list of inspectors to whom are referred practically all of the inspections and tests of cattle for export to Canada":  
Bennet, D. S. E., 44 Kilby Street, Boston, Mass.  
Corlis, Dr. W. S., Watertown, N. Y.  
Cowie, Dr. Chas., Ogdensburg, N. Y.  
Cumming, Dr. David, 719 Park St., Port Huron, Mich.  
Dealman, Dr. J. E., Sault Ste. Marie, Mich.  
Huntington, Dr. F. W., 37 Union St., Portland, Me.  
Green, Dr. L. K., Detroit, Mich.  
Ketchum, Dr. F. D., South St. Paul, Minn.  
Knowles, Dr. M. E., Helena, Montana.  
Mayne, Dr. H. D., Malone, N. Y.  
Morin, Dr. C. L., St. Alban's, Vt.  
Potter, Dr. H. T., Calais, Me.  
Russel, Dr. F. L., Orono, Me.  
Volgenau, Dr. E. L., Live Stock Exchange Building, East Buffalo, N. Y.  
Ward, Dr. G. W., Newport, Vt.  
Zink, Dr. C. H., Live Stock Exchange Building, East Buffalo, N. Y.

**The Angus Breeders Meet.**

A number of the breeders of Aberdeen-Angus cattle, meeting together at the Provincial sale at Guelph, discussed the merits of the breed and their possibilities in the past and the great possibilities of their future. All were of the opinion that something should be done to enhance the interest of the breed in Canada. They therefore decided to meet at the Commercial Hotel in that city, at 1:30 p. m. on the 26th of February, when, after some discussion, it was thought best to form an association, not to interfere with the American Aberdeen-Angus Breeders' Association of America, as all were thoroughly satisfied with the workings of that Association, but to give a stimulus to the business in Canada, and the following officers were therefore elected: President, James Bowman, Guerin, Vt.; President, John Varcoe, Godrich; Secretary, J. W. Burr, Comingsby; the executive committee to be composed of the president, vice-president, secretary, and the following members: William Stewart, Lucasville; Walter Hall, Washinton; Alexander McKinnon, Hillsburgh; James Sharp, Recks del; and James A. McLeod, Glenville; the name chosen for the Association being the Canadian Branch of the American Aberdeen-Angus Breeders' Association; the fees to be charged for membership to be \$1. All who are interested in the breeding of Angus cattle should help on this good work, as the aim of the Association is the promotion of the breed in general in Canada. All correspondence with the secretary will be promptly attended to.

**Letter from ex-Dairy Supt. of Manitoba**  
GIVING HIS OPINION OF THE  
**De Laval Machines.**

The De Laval Separator Co., 248 McDermot Ave., Winnipeg; Winnipeg, February 14, 1902.

Gentlemen,—After years spent in constant touch with the various makes of cream separators, it affords me pleasure to advise you, and through you the dairymen of the West, that I am thoroughly convinced of the unqualified superiority of the "Alpha" De Laval.

In my capacity as dairy instructor for nine years, I had unlimited opportunities for comparison of separators in dairy stations and elsewhere. My observations have led me to believe that the "Alpha Disc" bowl makes practical and perfect separation of milk, not only at animal heat, but at low temperatures as well, without impairing its capacity.

Recently I had the pleasure of visiting the large factory in Montreal where the "Alpha" is made, and witnessed the construction of machines from the rough to the finish. In design, workmanship, material, durability and finish, the "Alpha" De Laval machines easily rank first. In short, they embody every feature that counts for value in a cream separator, and are in a class by themselves.

A few years ago in the Canadian Northwest little attention was paid to the construction or skimming qualities of a separator, but things have changed since then, and to-day the practical dairymen are buying solely on the basis of merit.

I have recently severed my connection with The Melotte Cream Separator Co., therefore am not interested in the sale of any separator, but believe it is only a short time till the "survival of the fittest" will be seen.

In conclusion, I beg to advise you that The Pure Milk Co., of Winnipeg, are now waiting for the arrival of the No. 1 "Alpha" Turbine Clarifier, and we will then be ready to receive the No. 1 "Baby" Cream Separator, and will advise you when we wish you to deliver it.

Yours truly,  
C. C. MACDONALD.

**Montreal, Toronto, New York, Philadelphia, Chicago, San Francisco.**

**THE DE LAVAL SEPARATOR CO.**

Western Canadian Offices, Stores and Shops:  
**248 McDermot Ave., - Winnipeg, Manitoba.**

**FOR SALE:**  
**DRAFT HORSES**  
OF ALL AGES.

OWING to lack of range, we have decided to cut our herd of draft horses down to one-half, and sell 2,000 head at greatly reduced prices. This great selection of mares, geldings and growthy youngsters of all ages represents the results of seventeen years of judicious mating to strictly high-class Percheron, English Shire, Clydesdale and Hackney sires. We can furnish high-grade brood mares and fillies with foal to imported and home-bred registered stallions, and have always on hand a large and first-class selection of registered and high-grade Percheron and English Shire stallions, also registered mares and fillies of same breeds. Correspondence solicited. Inspection invited.

**LITTLE MISSOURI HORSE COMPANY,**  
W. G. CLARK, SUPT. GLADSTONE, NORTH DAKOTA.

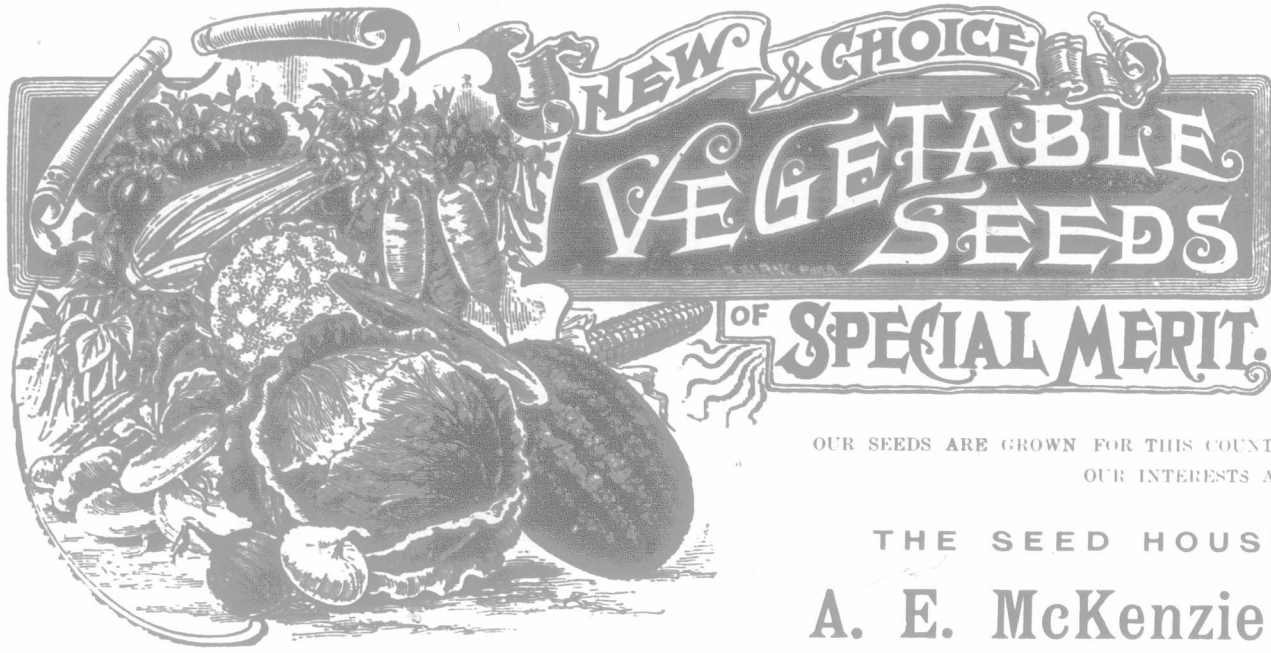
FEW FARMERS KEEP A SYSTEM OF BOOKS, and are thus deprived from accurate knowledge of the results from a year's business. One of the reasons for such neglect has been the want of a simple system of book-keeping already arranged for the farmer's purposes. We have had brought to our notice just such a book—"The Farmer's Account Book and Farm Record." See our advertising columns. The author, Geo. S. Forest, Inc., has also gotten out a very neat, cheap, handy and comprehensive herd register (price, 50 cents), which might be improved by the addition of page number and an index, when it would be well-nigh perfect. The account book costs \$1.25. Either book can be got at this office.

**WINNIPEG FORESTRY ASSOCIATION.**

It has been decided to hold the second annual meeting of the Winnipeg Forestry Association on March 29th. Addresses will be delivered on subjects pertaining to forestry by practical men. It is expected that Forestry Superintendent E. Stewart, A. P. Stevenson, Nelson, S. A. Bedford, Brandon, and others will take part. The directors appointed a committee to wait upon the Minister of Education to urge a more general and practical observation of Arbor Day, and the Hon. Mr. Campbell promised to bring the matter before the teachers and school inspectors of the Province. The attention of the Dominion Forestry Department was also directed to the desirability of reserving for forestry purposes such portions of the Sand Hill country as are unfit for settlement, special reference being made to the district along the main line of the C. P. R. from Sidney to Sewell.

A live-stock association car recently went through Winnipeg with the following stock consigned to the parties named: Two large Yorkshires to J. B. Findlay, Shoal Lake, Man.; from J. E. Brethour, Burford, Ont.; seven head of Herefords from Mossion, Boyd Co., Bobcaygeon, Ont.; to the Mossion Boyd Co., Prince Albert, Sask.; a Shorthorn bull and two heifers to Jos. Harbell, Salmon Arm, B. C.; from J. H. Patten, Paris, Ont.; a Shorthorn heifer to Jos. Duthie, Hartney, Man.; from Henry Arkell, Arkell, Ont.; two Leicester ewes to G. Rankin & Son, Hamiota, Man.; from Jas. Snell, Clinton, Ont.; and a Shorthorn cow and calf to Dr. A. G. Hopkins, Neepawa, Man. from Jno. Gardhouse, Highfield, Ont.

Thos. Speers, Lakeview Stock Farm, Oak Lake, writes us: "Stock coming through a very favorable winter in good shape. Bertha 2nd (Vol. 14) is nursing a good red bull calf by Clan McKay (imp.), Empress of India (imp.), Vol. 16, has a red-roan heifer calf by McKay 36019 (imp.), who is proving himself a grand, good stock-getter. Prince of India is growing to be a right good one, being on short legs, broad back, deep in the twist, and a hie loose enough to take another inside. The rich roan is out of Empress of India 34224 (imp.), and was got by Lord of Strathboga 32071 (imp.). Such a bull is fit to head a pure-bred herd. The dark red Lord Roberts has come along in great shape since the fairs, rounding into the best of form, having the short legs, broad loin and back, and the sly business of a show bull. Baron's Pride 2nd, 13 months, by Imp. Baron's Pride, resembles his sire very closely, and in good hands will be heard of at the fairs. Burenbank is another of the short-legged, thick type of show bulls that are to be found all over the West. He is red-roan, is color and shape satisfactory, and good company for the right sort of stock."



WHAT ARE YOU GOING TO SOW?

This important question is again to the front. Mixed farming is paying better than ever.

Good Seeds

AND PURE ARE WHAT YOU WANT.

BRANDON SEED HOUSE

IS THE PLACE TO GET THEM.

OUR SEEDS ARE GROWN FOR THIS COUNTRY. ONE TRIAL WILL CONVINCE YOU OF THEIR EXCELLENCE. OUR INTERESTS ARE YOURS. WRITE US FOR PRICES.

THE SEED HOUSE OF WESTERN CANADA.

A. E. McKenzie & Co., Brandon, Man.

GOSSIP.

R. S. Fulton Moose Jaw, has sold the Thoroughbred, Rumpus, to Wm. Dewar, Battleford, Sask. This horse is well known to visitors at the leading Western shows, his activity, style and virility auguring well for his ability as a sire.

John A. Turner, of Balgrogan Stud Farm, Calgary, has just returned from Ontario, after making an extensive purchase of Clydesdales—eight stallions and five females—which will be shipped west in April. In stallions, there may be mentioned No. 1—Royal Britton, a nice, dark-colored three-year-old horse, with white markings, a horse of quality, size and action, sired by Two-in-One, No. 2—Matchless 2846, two years old. In the show-ring he will be found all that his name denotes. He possesses the most perfect action—high, on, and with force. No. 3—Glen Morris 2845, two-year-old, sired by Montrave Chief, dam the good mare, Queen Mary, dam of the winning mare, Corraan. This is a large, thick, massive colt of the compact type and good at the ground. No. 4—Glencoe 2818, two-year-old, sire champion MacQueen, dam Polly MacNeillage, by MacNeillage. This is an improved MacGregor, both sire and dam's sire were got by that horse. He is the model of his sire, and we predict a great future for him. No. 5—Orca's Prince, two-year-old, a red, heavy-boned good colt, from the same dam as Diamond Prince, the stallion that Mr. Turner sold to Mr. Taylor, Saltcoats, last winter. No. 6—Ornament, two-year-old, a thick, smooth colt, full of quality, and very thick-set, with lots of action. No. 7—Glen Nevis, yearling, sire champion MacQueen, dam the great show mare, Cherry Sweet. Glen Nevis was placed first at Toronto last fall, as well as first with his dam and two of her progeny, the other being Cherry Starbuck. Individually, he is one of the best and his breeding is of the choicest. His dam, Cherry Sweet, has won prizes too numerous to mention, and as a breeder she has always produced winners. Amongst some of them are Cherry McEara, first at the World's Fair as a two-year-old, and pronounced by the Scottish judge to be superior to any filly of her age in Scotland. She was sold at Col. Holloway's sale for \$1,000. Cherry Starbuck, another filly from Cherry Sweet, won first and sweepstakes at Toronto, the Pan-American, and the great Chicago Horse Show last year, and the Graham Bros., Chesham, gave \$500 for her as a yearling at Col. Holloway's sale. Prince Fleasling, a full brother to Glen Nevis' dam, was exported to Scotland, and there carried off the championship at the Royal Show. No. 8—Royal MacQueen, yearling, is an exceptionally thick-set, promising colt, and bred in the best of lines, sired by MacQueen, dam by the Royal Standard, grandam Imp Nell, winner of many first prizes. Amongst the mares are the champion Sanson Lass, and her yearling filly. It would take up too much room to recount one by her winnings. Mr. O. Sorby, of Guelph, was offered \$300 for this yearling when five months old, by Mr. Lang, of Eburne, R. C., by letter. Mr. Lang never saw the foal but knew the family she was from in Scotland. Her dam was champion-cup mare at the Royal and her grandam the famous mare Sanson. No. 9—MacMargot, five-year-old, is also a show mare, and her dam is the well-known Sanson MacGregor, first at Glasgow, Ayr, Mary Hill and H. & A. S. Show. No. 10—Miss Charming, five-year-old, sired by Lord Charming. This filly's secret, sold by Mr. Turner to Messrs. Mitchell, London, have won in Winton two years in succession. No. 5. Another extra large, dark-eyed good three-year-old, half sister to Royal Britton. She will be heard of in the show ring yet. Mr. Turner desires to be well retributed, and has entered prize and guaranteed on his keen and very successful yearling and good individuals, which are bound to be a great benefit to the West. The price paid for each mare and colt, and the amount he is in the habit of paying, is always a choice, and he is always in the habit of buying the best of the breed, and the amount of money he pays for them.

Authorized Capital, \$500,000.00. Head Office, Wawanesa, Man.

THE WESTERN CANADIAN HAIL INSURANCE COMPANY

By proper construction of and care in working about farm buildings, danger of loss from fire is reduced to a minimum. Nevertheless, the most careful farmers carry fire insurance, considering it folly to take chances. That you never had a fire is no evidence that you will not be burned out to-night. But how about insurance against hail? Foresight and care do not influence hailstorms. That you never had hail is no guarantee that it will not come your way this year. Then why take chances? It is not evidence of good judgment to do so. The cost is trifling. There is a business side to farming. This is a business proposition. Think it over.

JOS. CORNELL, SECRETARY AND MANAGER.

Nat. Boyd, M. P., Carberry, has joined the Galloway breeders, having invested in a dozen head, derived from the herd of J. Simpson, Poular Point.

Geo. Allison, Burnbank, near Elkhorn, has made some good sales recently, notably three Shorthorn heifers to Jas. Hopps, and bulls to Robt. Turnbull and Jos. Johnson, Moosomin.

A. & J. Chadbourne, Ralphton, Man., have sold their Clydesdale stallion, The McKinnon, well known as a stock-petter, to S. Beach, Regina. The gentlemen have got several young Shorthorns for sale at the present time.

C. C. Castle has recently sold to Geo. Oliver, of Carberry, the yearling Shorthorn bull, Strathleven's Hero, by What-for-No, out of Moss Rose of Strathleven. He is a handsome roan, well bred, and should prove an impressive sire. Mr. Castle still has a few choice youngsters for sale, and would also part with his stock bull, What-for-No, by Village Hero, from the herd of Walter Lynch, of Westbourne.

Elsewhere in this issue will be found the advertisement of Andrew Graham, Pomeroy. He is offering for sale either of his herd bulls, Robbie O'Day or Veracity, and in this offer will be found a chance for anybody wanting a herd leader. Robbie O'Day is in the prime of his usefulness, being six years old. He is a rich red-roan, of the massive, massive type, and has proved himself a sire of prizewinners. His owner assures us that he is a sure and reliable stud bull. His breeding is of the very choicest, by the Duthie-bred Imp, Prime Minister, he by the celebrated Chesterfield, out of Princess Lovely, by Field Marshal. The dam of Robbie O'Day, Margaret, is a Rosabella, sired by the Wattle-bred Challenge, he by the famous Lindhurst 2nd. The other bull Veracity, a roan two-year-old, is by the celebrated Augusta bull, Imp, Knuckle Duster, out of Imp, Beauty 16th, by Challenger, of the Upperhill Raspberry family, with such famous top crosses as Duthie's Lord Ythan and Crinkshank's Allert and Grassland. What better breeding or quality can any man ask who is looking to the building-up of a Shorthorn herd? Among the young bulls offered are a choice selection, recently imported from Ontario, good, straight, useful youngsters of standing colors. Seven of the last were sired by the distinguished Eabella bull, Prince Arthur, by Prince Royal, out of the Kinharried, by Prince Princess, imp. Several others are by Grand Glaston, he by Imp, Stryker, and out of the Duthie-bred, Grand Duchess, imp. of the Crinkshank, Duchess of Glaston, tribe. Mr. Graham's Yorkshires are well and favorably known, his Plymouth Rocks are bred for size, construction and utility, and his maize and hay seeds can be relied upon for purity and freedom from poisonous weeds.

Alex. Galbraith, Janesville, Wisconsin,

OFFERS FOR SALE AT

The Beaubier Stables, Brandon, Man.,

An extra superior lot of Imported

Clydesdale Stallions.

Also a few choice

Hackneys, Yorkshire Coachers and Percherons.

Every horse in the lot, without exception, is a prize-winner, and all thoroughly guaranteed. If interested, call and examine this superb lot of horses, or write for particulars at once to—

JAMES SMITH, AGENT, BRANDON, MANITOBA.

PRAIRIE HOME STOCK FARM

CLYDESDALES, SHORTHORNS, SHROPSHIRE, BERKSHIRES and YORKSHIRES.

Shorthorn herd headed by Judge, imp. Jubilee, and Rib-bon's Choice, Avshires of the best quality; herd headed by Surprise of Burnside. Oak Lodge Mighty 7th and a large number of high-class sows represent the approved bacon type of Yorkshires. The Berkshire boar, Victor (Teasdale), sweepstakes at Brandon and Winnipeg, 1900, and 30 sows of faultless conformation and superior breeding, make up the Berkshire herd. Farm one mile from the station. Visitors welcome. Prices and quality right.

THOMAS GREENWAY, PROPRIETOR, Jas. Kyle, Manager. Crystal City, Man.

W. S. LISTER, MARCHMONT STOCK FARM, MIDDLECHURCH, MAN.

SCOTCH SHORTHORNS

Prince Alpine (imp.), of the celebrated Glenythan family, and Baronet (imp.), of the Stitton Secret family, at head of herd.

20 BULLS TO SELECT FROM.

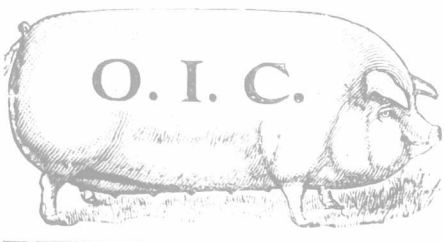
4 white bulls at half value.

Farm seven miles north of Winnipeg. Telephone connection.

Hill Grove.

I am now offering one splendid young August boar and sow by H. G. Conqueror, and out of Linden Queen. Sow open or bred by April 1st. Orders looked for March, April and May pigs, from such sows as H. G. Maid, H. G. Beauty, and Duchess of Hill Grove—the best sow I ever raised.

A. E. THOMPSON, HANNAH, N. D. Canadian shipping point, Snowflake, Man.



Please Mention the Farmer's Advocate.

**FOR SALE:**  
The Clydesdale stallion,  
**Patrick McGregor 8386.**  
Foaled Apr. 19th, 1895. Sire Prince Patrick, by Prince of Wales; dam Judy 3956, by McGregor.  
For particulars, apply to—  
**John Wanless, Belmont P. O., Manitoba.**

**FARM HORSES**  
For Sale.  
Clyde and Shire Bred.  
Prices reasonable per carload. Write:

**High River Horse Ranch,**  
HIGH RIVER, ALBERTA.

**For Sale: Clydesdales, Shorthorns.**  
Exceedingly well-bred mares, fillies, one (imp.) two-year-old stallion. Bulls, cows, heifers (all ages) from Calthness. Apply: **PURVES THOMPSON,** Pilot Mound, Man.

**Clydesdale Stallion for Sale.** Pride of the West 2046. A prizewinner and sure stock getter. By the noted Charming Charlie, a Provincial winner. Write for particulars. **SAM. McLEAN,** Franklin, Man.

**PERCHERON STALLIONS**  
FOR SALE.  
Two prizewinners, registered, pedigreed Percheron stallions, sired by that noted horse, Producture. A rare chance to procure a high-class horse. Address:  
**G. W. BUCHANAN,** PINCHER CREEK, ALTA.

**Home Bank Farm**  
OF LARGE ENGLISH BERKSHIRES  
Are still to the front. Some grand sows, bred for the spring trade. Have two fine litters ready to ship about March 15th. Now booking orders. Call or write for prices.  
**Jos. Laidler, Neepawa, Man.**

**LOCAL AGENTS WANTED TO REPRESENT**  
THE WESTERN FARMERS'

**Live Stock Insurance Co.**  
HEAD OFFICE: WINNIPEG.  
ROOM 251 GRAIN EXCHANGE.  
Chartered by the Manitoba Govt. and the N.-W.T.  
P. O. Box 1382.  
**D. PRITCHARD,** President.  
**H. S. PATERSON,** Secretary.

**HEREFORDS.**  
The range favorites. Good rustlers and feeders. Prizewinners either male or female, for sale.  
**JOHN WALLACE, CARTWRIGHT, MAN.**

**POPLAR GROVE**  
**HEREFORDS**



The Famous Prize-Winning Herd of the West.

COWS, HEIFERS AND BULLS FOR SALE.

**J. E. Marples, Deleau, Man.**

**GALLOWAYS:**  
Bulls and heifers for sale.

APPLY TO  
**T. M. CAMPBELL,**  
"HOPE FARM,"  
St. Jean Baptiste, Manitoba.

**Herefords.** The meat-makers. Range favorites and stock-getters. FOR SALE: bulls of the right age and type. Also Barred Rocks—eggs or chickens.  
**FRED WEST, DELEAU, MANITOBA.**

IN WRITING  
PLEASE MENTION FARMER'S ADVOCATE.

**Aberdeen - Angus Cattle.**



**LADY AMY.**  
Bulls and heifers of all ages for sale. 300 head to select from. Farm 3 miles from Deleau and 10 miles from Oak Lake. **JAMES D. MCGREGOR,** Brandon P. O., Man.

**RIVEREDGE FARM.**  
**Shorthorn Cattle and Standard-bred Horses**  
Herd headed by Sittytton Stamp (imported). Females bred from or tracing to Windsor (imported).  
**A. TITUS, NAPINKA, MAN.**

**FOR SALE: SPELTZ BRIGHT AND CLEAN**  
Price: 75 cents per bushel.  
Will be sent to any address.  
**H. C. SIMPSON, VIRDEN, MANITOBA.**

**OAK GROVE FARM.**  
Shorthorns and Yorkshires.  
Four choice young bulls by that grand-bred bull, Masterpiece, by Grand Sweep (imp.). A choice lot of heifers by Masterpiece, Knuckle Duster (imp.), Lord Lottie 2nd, and Pleasant King.  
Boars fit for service. Brood sows and suckers.  
**I am offering bargains to make room** Also a fine lot of birds: W. P. Rocks. Correspondence solicited.  
**JAMES BRAY, LONGBURN, MANITOBA.**

**Thorndale Shorthorns.**  
25 BULLS, and about  
100 FEMALES, of all ages, to choose from.  
**JOHN S. ROBSON, Manitou, Man.**

**D. FRASER & SONS,**  
EMERSON, MAN.  
Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale. 9-y-m

**SHORTHORNS**  
I am offering three red bulls, one aged, of the heavy-fleshed type, also well-bred females. LEICESTERS of both sexes for sale. **GEO. ALLISON,** R. R. STATION, ELKHORN, C. P. R. Burnbank, Man.

**SHORTHORNS FOR SALE**  
of Scotch breeding, seven bulls and forty cows and heifers, mostly all in calf or calf at foot. A few Clydesdales of both sexes.  
**Geo Rankin, Melrose Stock Farm, Hamiota, Man.**

**"What a Wise Old Chap!"**  
He has left his hide in good hands. Send for our circular in reference to custom tanning. We send samples of work with circular.  
**CARRUTHERS & CO.,** TANNERS, and dealers in hides, wool, sheepskins, furs, tallow, etc., 9th Street, Brandon, Man.



**CHOICE**  
**Shorthorn Bulls**  
FOR SALE.  
All nearly 2 years-old. Apply for pedigrees and particulars.  
**FOREMAN, Castle Farm, TEULON, MAN.**

**Shorthorns and Clydesdales.**  
Six Shorthorn bulls for sale, sired by Indian Warrior 2nd and Sittytton Hero 7th, sweepstakes bull at Winnipeg in 1900 and 1901. Females of the best Scotch families, headed by the best bulls (regardless of price), makes this herd second to none for breeding and quality. Correspondence solicited.  
**J. G. WASHINGTON,** Elysee Stock Farm, Ninga, Man.

**GOSSIP.**

D. Marlatt, Moose Jaw, Assa., purchased 18 pure-bred Shropshire rams from J. A. S. Macmillan, Brandon, Man., for his sheep ranch.

Borthwick, the imported Clydesdale stallion, property of Mr. Alex. Galbraith, Janesville, Wisconsin, and illustrated on another page in this issue, was foaled in 1898, and is a black, with white strip in face and near fore and hind pasterns white. He was bred by Mr. David Cook, Whithorn, Wigtownshire, Scotland. His sire is Prince Cedric 10253, one of the best and weightiest sons of the celebrated Cedric, who was by the great Prince of Wales. His dam was by His Royal Highness, and he by the rival of Prince of Wales, Barnley. Borthwick won second prize at Illinois State Fair in 1900, and first at the Wisconsin State Fair, 1901. He is described as a colt of extraordinary action and style, legs like ivory and the best of feet and fetlocks. His body is smooth and deep, and there are few horses as good as he in the rank. Combined with the physical excellences that he has, Borthwick has a strain of breeding that is hard to beat.

A. E. Thompson, Hannah, N. D., writes: "The past year has been a very successful year to everyone, and especially to the hog-raiser, both for pork and breeding stock. This coming year promises to eclipse all others. More people are taking up hog-raising and paying more attention to the better class, and a great many buying and inquiring for pure-bred stock. We were sold out early in bred sows, earlier than we anticipated, and in spring boars we sold all we had. A few of our recent sales are: A pair to Wm. Casler, Alameda, Assa.; a bred sow to Jas. Templeton, Hannah, N. D.; Wm. Ross, Wales; Wm. Schafer, Daniels, N. D.; A boar each to J. I. Stokes, Grand Forks, N. D.; J. D. Barnes, Grand Forks, N. D.; Jas. Montgomery, Wales, N. D., and have several orders booked for spring pigs. We have added some new blood to our herd the past year, and with our past experience we are better equipped to serve our patrons the coming year than ever. Our herd boar, Hill Grove Conqueror, weighs at 18 months, 550 lbs. in breeding condition. This hog never was forced, and is going to make a big fellow. Another of our boars, Hill Grove Chief, is developing into a good pig, with extra length and good size. We have a few very good B. P. Rock cockerels left, that we will price until April 1st."

J. E. Smith, of the Smithfield and Beresford Farms, Brandon, reports the following important sales of thoroughbred stock: To Mr. Thomas Harper, of Boston, Man., the Clydesdale stallion, Shrook 2914 (10906) (imp.), a bay ratch on face, four feet black hind feet white, foaled 898; bred by David Collier, Parknook, Fifehire, Scotland; sire Flashknot (10549), dam Comely of Parknook (4498); by Dainty Davie (1632); 2nd dam Dainty, by Merry Tom (532). To Mr. Peter Stewart, of Manitou, the Shorthorn bull, Smithfield Golden Measure, sire Golden Measure (imp.), dam Princess of Beresford 2nd; sire Windsor (imp.), one of the stock bulls previously kept at Beresford Farm, and who was awarded first prize at the London Provincial Show; also first at the Toronto Industrial in 1889 and 1890. To Mr. Edward Kerslake, of Okotoks, Alta., the Shorthorn heifer, Princess May, sire Champion, dam Queen of Flora, by Pilkington Lad 24807. To Mr. Edward Henry, of Oak River, a grand young Shorthorn herd, one bull and four females, all under two years of age. The bull, Golden Earl, sire Prince Louis 32082 (77486), imported by W. D. Flatt; dam Golden Bell 23014, imported by John Isaac, sire Moonstone (63022), of the Mayflower family, and by the Cruickshank bull, Stockwell (66615). The females are Violet 2nd, dam Violet, by Lord Stanley H.; his dam was Roan Princess, first at the Highland Society's Show in Scotland, and she was the dam of three of the animals in the herd winning first prize at the Chicago World's Fair. Lady Abbotsburn 6th, dam Lady Abbotsburn 5th, by Lord Stanley H., and on the dam's side tracing to Young Abbotsburn, the champion show bull of America, possessing the highest quality and richest breeding. Golden Measure Lovely, dam Beresford, sire Lord Landsdowne (imp.); grandam Lovely 20th, one of the celebrated Cruickshank Lovely family. Lord Landsdowne was imported by Hon. John Hayden, and when under a year old was sold for \$175, at a time when Shorthorns were not commanding the present high prices. Golden Measure Lucy, dam Lucy of Beresford, by Windsor (imp.). Golden Measure, the sire of these four females, could scarcely be better bred. He belongs to the celebrated Marr Missie family, which has produced so many good ones, including the great English champion, Marango. He was got by the Brawth Bud bull, Golden Count (sold to go to Buenos Ayres at a high price), dam Mistletoe 5th, by Scottish Archer (sire of Marango), g. d. Missie (135th) by William of Orange. Scottish Archer was the sire of Brave Archer, imported by Mr. Kelly, of Ohio, for \$4,000. Gold n Measure was the sire of Lavender 42nd, sold at public auction to Senator Drummond, of Montreal, for \$1,050. Trout Creek Lady, sire Golden Measure, sold at Chicago for \$570. Mistletoe Flower, a daughter of Golden Measure, sold at Chicago for \$1,160. Fearless Archer, at the same sale, sold for \$1,650.

**FRIED ONIONS**

**Indirectly Caused the Death of the World's Greatest General.**

It is a matter of history that Napoleon was a gormand, an inordinate lover of the good things of the table, and history further records that his favorite dish was fried onions; his death from cancer of stomach, it is claimed also, was probably caused from his excessive indulgence of this fondness for the odorous vegetable.



The onion is undoubtedly a wholesome article of food; in fact, has many medicinal qualities of value, but it would be difficult to find a more indigestible article than fried onions, and to many people they are simply poison; but the onion does not stand alone in this respect. Any article of food that is not thoroughly digested becomes a source of disease and discomfort whether it be fried onions or beefsteak.

The reason why any wholesome food is not promptly digested is because the stomach lacks some important element of digestion. Some stomachs lack pepsin, others are deficient in gastric juice, still others lack hydrochloric acid. The one thing necessary to do in any case of poor digestion is to supply those elements of digestion which the stomach lacks, and nothing does this so thoroughly and safely as Stuart's Dyspepsia Tablets.

Dr. Richardson, in writing a thesis on treatment of dyspepsia and indigestion, closes his remarks by saying: "For those suffering from acid dyspepsia, shown by sour, watery risings, or for flatulent dyspepsia, shown by gas on stomach, causing heart trouble and difficult breathing, as well as for all other forms of stomach trouble, the safest treatment is to take one or two of Stuart's Dyspepsia Tablets after each meal. I advise them because they contain no harmful drugs, but are composed of valuable digestives, which act promptly upon the food eaten. I never knew a case of indigestion or even chronic dyspepsia which Stuart's Tablets would not reach."

Cheap cathartic medicines claiming to cure dyspepsia and indigestion can have no effect whatever in actively digesting the food, and to call any cathartic medicine a cure for indigestion is a misnomer.

Every druggist in the United States and Canada sells Stuart's Dyspepsia Tablets, and they are not only the safest and most successful, but the most scientific of any treatment for indigestion and stomach troubles.—Adv't. om

**NOTICES.**

**M. MAW, ST. JOHN'S POULTRY YARDS, WINNIPEG,** expects to have by the 20th of March his catalogue for 1902 issued. It will deal with poultry supplies of all kinds, including leg bands and bone cutters, and the various acclimatized birds this poultry yards offers for sale. Mr. Maw is also Winnipeg agent for Cyphers incubator, and will furnish, along with his own catalogue, a large catalogue dealing particularly with the operations of the Cyphers incubator. All parties furnishing their address will be supplied with both catalogues.

**THE MINNEAPOLIS THRESHING MACHINE CO.,** of Hopkins, P. O. Minn., have gotten out a neat catalogue for 1902, containing a description of the various supplies and machines they handle for the thrashingman. This catalogue is well illustrated, and gives the intending purchaser a good idea of the wares and their construction put on the market by this firm. Send for a catalogue if you are thinking of buying a threshing machine. Thos. Roney is the Winnipeg agent.

**CYPHERS, MEANS, A STANDARD** among poultrymen, and their 1902 catalogue is up to the mark. Beautifully illustrated with cuts of the Cyphers establishment and of the parts of the incubators, etc., the matter is backed up by testimonials galore and excellent illustrations of many large poultry plants. The local agent, M. Maw, Winnipeg, is handling a large number of these incubators, and reports the best of results. The headquarters of the Company are at Buffalo, N. Y. Send for one of their catalogues before you buy an incubator or brooder. The incubator, tests the hen.

BRITISH COLUMBIA FARMS

If you are thinking of going out to the Pacific Coast, try British Columbia. A delightful climate, no extremes of temperature; fertile land; ample rainfall; heavy crops; rapid growth and splendid market for everything you raise, at good prices. The celebrated valley of the Lower Fraser River is particularly adapted to dairying. Write for farm pamphlet telling you all about it, and containing a descriptive list of farms for sale.

Shorthorns, Tamworths and Yorkshires FOR SALE. 10 bull calves for sale, 8 to 11 mos. old. 3 Yorkshire boars, fit for service. 1 Tamworth boar, fit for service. White Wyandotte cockerels.

FOR SALE:

SPELTZ, FLAX, RYE, BROME GRASS, AS WELL AS OATS, BARLEY AND WHEAT. All of the best.

W. J. LINDSAY, Box 69, BRANDON, MAN.

ROBERT I. CRISP,

SOURIS, MAN. LIVE STOCK AUCTIONEER.

Sales conducted in any part of the Province. Apply early for terms and dates.

J. H. KINNEAR & SON, SOURIS, MAN., BREEDERS OF SHORTHORNS.

IMP. BARON'S PRIDE 28855 head of the herd. Three young bulls for sale, aged 14, 10 and 9 months.

Maple Grove Stock Farm

SHORTHORN BULL CALVES FOR SALE. From three months to eight months old. Sired by Lord Stanley 25th - 29247. Also have left a few

P. R. COCKERELS. WALTER JAMES, ROSSER, MAN.

15 mile west of Winnipeg, on main line C. P. R.

SHORTHORNS.

Will sell either of my stock bulls, Robbie O'Day - 22672 - or Veracity - 31449. Also a number of young bulls, some good enough for herd heads.

YORKSHIRES. A few young sows to farrow in May. Orders booked for spring pigs.

PLYMOUTH ROCKS. Some choice cockerels. RYE GRASS. Large quantity of clean, bright seed, also clean Flax Seed.

ANDREW GRAHAM,

FOREST HOME FARM, POMEROY, MAN. Carman and Roland shipping stations.

SHORTHORNS.

Have sold all our young bulls for this season. Have still some fine young heifers for sale. Call and see them, and compare prices and quality with what others are offering. Correspondence solicited.

PAULL BROS., Killarney, Man.



PIONEER HERD OF SHORTHORNS

Won the gold medal at the last Winnipeg Industrial Exhibition; also first for bull and two of his get, first for cow and two of her progeny, and numerous prizes for individuals. They were bred right here, and I can usually show a few generations of their ancestors, and am always pleased to show them.

WALTER LYNCH, Westbourne, Man. P. O., Railway and Telegraph.

SHORTHORNS

AND RYE GRASS SEED. 1 bulls from 14 to 23 months old, 5 bulls from 7 to 11 months old.

Strong, growthy fellows, mostly sired by Sir Victor 2162. 1st prize as yearling and as 2 year old, and 2nd as 3 year old at Winnipeg Industrial. Imported Royal Don sweetstakes yearling bull at Winnipeg.

A big supply of Western Rye Grass seed, \$6 per 100 lbs extra, 1, 0, 5, Vinton. Also Pioneer or Speltz and Flax seed.

KENNETH McIVOR, Forest Home Farm, Viriden, Man.



GOSSIP.

R. L. Lang, of Spruce Bank Farm, Oak Lake, has purchased from Andrew Graham, Pomeroy, Man., the Shorthorn yearling bull Red Rover, one of his recent importations. This bull, while thin in flesh, incident to a fatiguing railroad trip from Ontario, has the conformation, handling qualities and breeding that augurs well for his future progeny. He will be placed at the head of the Spruce Bank herd, where he is expected to do good service in siring bulls and heifers of the approved heavy-fleshing type of Shorthorns. Red Rover traces to Windsor (imp.) and to British Statesman.

Neepawa Shorthorn circles are to be congratulated on the accession to the breeding ranks of that district of the roan two-year-old, James Stamford Watt 31687. The district is indebted to Stephen Benson for his enterprise in bringing in such a fashionably-bred and well-put-up bull. A roan of considerable scale, with a loose mellow hide and the activity of a cat, he should be a breeder. Bred by the noted Watt Bros., of Salem, Ont., he belongs to the Stamford family and is got by Balmoral 29879, of the Mildred family, well known in the show- and sale-rings. Balmoral's sire was Royal Sailor 18959 (imp.), the sire of Judge, well-known as the Hon. Thos. Greenway's premier sire. J. S. Watt was brought West by Andrew Graham, Pomeroy, Man., from the herd of Goodfellow Bros., Macville, Ont. At 23 months old, this bull weighed 1,665 lbs., is well covered on top and should prove an acceptable sire.

Annual Meeting of Hail Insurance Company.

The eleventh annual meeting of the Provincial Mutual Hail Insurance Company of Manitoba was held in the offices of the Company, Strange Block, Winnipeg, on the 20th of February, Mr. John Renton, the president of the Company, in the chair. The annual report, which had been printed and circulated among the members, was adopted. The following farmers were elected directors for the year 1902: John Renton, Deloraine; Frank M. Beamish, Elva; W. H. Bewell, Rosser; C. J. Thomson, Viriden; W. E. Sirett, Gladie; James Riddell, Rosebank; T. L. Morton, Gladstone.

A statement of the past year's business is concisely put as follows: The number of policies issued was 886, insuring 80,710 acres of crop to the extent of six dollars per acre, or \$484,260 in all; and the premium notes received amounted to \$29,575.50. The number of claims for damage to crop was 37, and the amount of losses was adjusted at \$5,168.76.

The amount of losses as compared with our years was moderate and enabled our directors to announce the payment of indemnity at the full rate of six dollars per acre, while they assessed the premium notes at only seventy-five per cent. of their face value, thus returning 25 per cent. of his indebtedness to each member. This means that the business of the Company was this year done at a cost of a fraction over 18 cents per acre for an insurance of six dollars per acre, which is a rate very much lower than that of any other Hail Insurance Company in existence.

A statement of the assessments and losses paid since the organization of the Company in 1891 is also of interest:

Rate of Assessment on Notes.	Amount paid for Losses.	Amount paid per Acre.
75 per cent of 18 cents per acre	\$10,490.08	\$7.50
100 per cent of 25 cents	24,826.23	5.00
100 per cent of 25 cents	21,692.65	6.00
100 per cent of 25 cents	1,128.85	6.00
100 per cent of 25 cents	11,379.25	6.00
100 per cent of 25 cents	5,807.58	6.00
100 per cent of 25 cents	6,794.44	6.00
100 per cent of 25 cents	17,381.07	4.50
100 per cent of 25 cents	16,476.70	3.00
100 per cent of 25 cents	10,616.67	6.00
75 per cent of 18 cents	5,468.76	6.00

SHORTHORNS

Gold Medal herd of 1899-1900. Bulls in service are: Nobleman (imp.) and Topsman's Duke. Some good young bulls for sale.

J. G. BARRON, Carberry, Manitoba.

SHORTHORNS

Have sold all bulls of serviceable age, but have a few choice females to go yet. Prices right; pedigrees good; cattle typical.

Wm. McDonald, Pilot Mound.

YORKSHIRES!

Boars all sold. A few sows left. Order at once or you will be too late. Some choice White P. Rocks and Pekin ducks. Address:

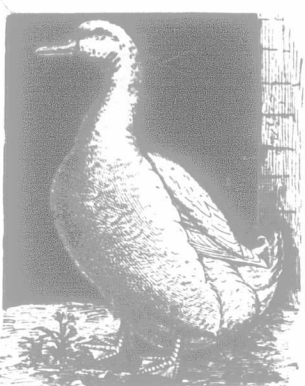
KING BROS., Wawanesa, Man.

Pedigreed Improved Yorkshire Pigs.

Sows and boars, four months old, for sale.

YORK SHAW, MIDNAPORE, ALTA.

Viriden Duck Yards.



Mammoth Pekin Ducks.

I have a large number of good young birds for sale, also eggs in season. Will book orders for delivery any time. Correspondence solicited.

J. F. C. MENLOVE, VIRIDEN, MAN.

Chambers' Barred Rocks are winners. The shows prove it. Read the record. Has also Bk. Minorcas, Hamburgs, S. C. B. Leghorns, and S. L. Wyandottes. Eggs, \$2 a setting. See my exhibit at the next Brandon show. Stock bred by me is fit to head any yard. Write for particulars. THOS. H. CHAMBERS, Brandon.

THE FARMER'S ACCOUNT BOOK

Simple, complete, practical. Every page ruled for a specific purpose. Printed headings. No previous education necessary. Don't guess; have figures to prove what you are doing. Price, \$1.25, postpaid. If you breed registered stock, cattle, hogs or sheep, you should have our Private Herd Register; price, 50 cents. Circulars free. Address:

THE FENIMORE FARM, Box 62, Miles, Iowa. We breed Shorthorn cattle and Poland-China hogs.

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Ten experienced teachers employed.

COURSES: BUSINESS, SHORTHAND AND TELEGRAPHY.

Write for full information to

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EAST AND WEST.

THROUGH CARS TO TORONTO, MONTREAL, VANCOUVER, SEATTLE.

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AROUND THE WORLD.

For full particulars apply to the nearest C. P. R. agent, or write

C. E. McPHERSON, General Passenger Agent, WINNIPEG, MAN.

THE ABERDEEN SHORTHORN BULL

SALE. At the annual sale of Shorthorn bulls at Aberdeen, Scotland, on February 13th, 152 bulls were catalogued, of which 131 were sold at an average of \$2275.51. The highest average of any contributor, \$3118., was made by the Myreton contingent of three entries. Moneybags was second with two entries and an average of \$327; Bruce Myreton third with \$3175. for three. Mr. Wm. Anderson's Sentinel, the first prize yearling bull, brought 47 guineas in the sale, the highest price of the day.

SEND YOUR NAME

FOR A CATALOGUE OF FLEMING'S

SEEDS

Selected upon the special recommendation of Mr. Bedford, of the Experimental Farm, as being the best for this climate.

IT WILL PAY YOU TO BUY THEM.

FLEMING & SONS, BRANDON.



Do Seeds Talk?



Yes! So do the people who use them. "Steele, Briggs' Seeds" talk by their bountiful product and the planters who use them talk of their satisfaction and profitable returns.

It is the uniform good results that have made Steele, Briggs' Garden, Flower and Field Seeds so popular and in general request by successful growers.

Reliable Merchants who consider the growers' best interest, sell them. When selecting your season's supply ask for Steele, Briggs' Seeds. Should your dealer not carry them, go to the merchant who can supply them, or send your order direct. It pays to use good seeds.

Catalogue free to buyers. Send name. Mention this paper.

The Steele, Briggs Seed Co., Limited, Toronto  
"Canada's Greatest Seed House."

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45,000

RUSSIAN POPLARS AND WILLOWS.

20,000 Petrofsky Poplars, 10,000 Wobstli Riga Poplars, 5,000 Russian Golden Willows, 5,000 Russian Laurel Willows, 5,000 French Laurel Willows.

We are offering the above quantity of beautiful, healthy, well rooted, young Russian trees, about two feet high, for next spring's planting, besides a good stock of small fruits, flowering shrubs, Virginia creepers, etc. For pretty trees, very hardy and fast growers, there is nothing that compares with this Russian stock. Send for descriptive price list.

CALDWELL & CO.

"Virden Nurseries," VIRDEN, MAN.

WANTED

A Practical Shepherd.  
W. H. GIBSON,  
POINT CLAIRE P. O., P. C.  
Huntlywood Farm, Ont.

PLEASE MENTION FARMER'S ADVOCATE. PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

THE GOVERNMENT SALE AT GUELPH.

The combination stock sale held at Guelph, Ont., on February 26th, was favored with exceptionally fine weather and a good attendance. The only stock entered were Shorthorn cattle, with the exception of three Polled Angus bulls and one Galloway bull. The latter was withdrawn, the bidding not being satisfactory to the owner. One of the Angus bulls, Bobs of Rockdale, was sold for \$75 to H. Dinsmore, Granton, the other two being withdrawn. There were 77 Shorthorn bulls and 37 females entered, of which 71 bulls were sold at an average of \$96, and 32 females at an average of \$104, the average on the whole number sold figuring at \$98 as officially announced. The highest price for a bull was \$315 for King Edward, a good red bull, born in April, 1901, contributed by Mr. Chas. Rankin, Wyebridge, Ont., and purchased by Prof. G. E. Day for the Ontario Agricultural College farm. The second highest price for a bull was \$235 for Lord Chesterfield 10619, a handsome roan, calved in February, 1901, bred and contributed by Mr. T. Redmond, Millbrook, Ont., and bought by Mr. Daniel Talbot, Eramosa. The highest price for a female was \$250 for Wedding Gift 14th 41896, a good roan heifer, born in July, 1900, bred and contributed by Mr. Wm. Smith, Columbus, Ont., and bought by Mr. Geo. Johnston, Balsam. Mr. Smith had also the second highest priced female in the handsome red 2-year-old Wedding Gift 14th, purchased by Mr. D. Milne, Ethel, Ont., at \$205. The quality and condition of the cattle, on the whole, was better than last year, but there were some that were quite inferior and no credit to the breed. The buyers were mainly Ontario farmers. One United States breeder bought two animals. About 10 head were taken by two Nova Scotia buyers, and Mr. S. Rennie, Toronto, bought four or five, presumably for a Canadian Northwest ranching company. Following is the list of sales:

BULLS.

Rosedale Victor—H. J. Kerr, Ravensara	\$105
Archduke—Fred Hannaford, Parry Sound	75
Royal Gem—T. Wilson, Everton	65
The General—F. W. Thompson, Pt. Lawrence, N. S.	80
Gen. French—Geo. Tucker, Drayton	100
Conqueror—Simpson Rennie, Toronto	75
Corporal John—H. Ironside, Puslinch	95
Royal Prince—F. W. Thompson	185
Buccleugh—W. H. Gillespie, Orangeville	50
Red Cloud—Wm. Shafer, Berlin	105
Lord of the Valley—Jacob Zeller, Breslau	125
Chris—Peter Torrance, Lucknow	110
Oustie Rover—John Grant Waterloo	75
Royal Wellington—E. V. Thompson, Guelph	130
Lord Roberts—Hugh Thompson, Magnetawan	105
Duncan Stanley—V. Switzer, Teeswater	115
Guelph Boy—S. Rennie	95
Sir John A.—Ed. Dowdy, Eramosa	100
Village Hero 2nd—J. C. Mills, Preston, Minn.	100
Roan Sailor—Hugh Gibson, Newcastle	100
Maple Bank Sentinel—A. R. Roberts, Eden Mills	100
Inspector—W. P. Clark, Parry Sound	95
Maple Bank Judge—John Hughson, Chatham	165
Wylie—Isaac Andrew, Lucknow	85
Crimson Cruickshank—Wm. Scarf & Son, Durham	155
Royal Duke—H. J. Kerr, Ravensara	95
Roberts—O. Groves, Chatham	60
Don Donita—Richmond & Hackney, Moore	130
Don Levan—Albert Partridge, Crown Hill	120
Rule Britannia—Jos. Martin, Paris	30
Newcastle George—H. J. Kerr	95
Mosstrooper—S. Rennie	75
The Doctor—Geo. T. Lackner, Hawkesville	85
Royal Warrior—John Shewan, Palmerston	100
Prince Cruickshank 2nd—H. J. Kerr	100
Roosevelt—T. Wilson, Everton	75
Hugh John—J. Gibbons, Marden	105
Lord Minto 2nd—J. M. McKenzie, Galt	95
Robbie Bruce—H. J. Kerr	85
Duke of Camden—R. A. Fraser, Mt. Forest	95
Sir John A.—J. S. Hunter, Shelburne	65
Fergus Stanley—Jacob Horman	90
King Edward 7th—Jas. Stocker, Waterloo	105
Lord of Aberfoyle—H. Gibson, Dunchurch	130
Lord Chesterfield—Daniel Talbot, Everton	235
Fergus Stanley 2nd—S. Rennie	75
Miniature—Wm. Thompson, St. Mary's	115
Bright Boy—A. Secord, Burford	110
Roan Prince—Jas. Forest, Lebanon	75
White Chief—John Milroy, Galt	65
Sir John—E. W. Dick, Beachville	75
Sir Roderick—D. J. Rose, Embro	65
Stanley's Pride—John Socket, Rockwood	120
Sir Luke—Arch. McFee, Mt. Forest	85
Prince Albert—A. Graham, Westwood	70
Stanley—J. Nichols, Beachville	75
Duke of Marigold 2nd—D. Stewart, Hampstead	180
Maplehurst Ambassador—G. B. Everett, Mt. Vernon	85
Crusader—W. A. Meadows, Newtonville	70
Lord Minto—H. B. Bosburg, Beamsville	130
Indian Fame 9th—Adam Manns, Tavistock	75
King Edward—G. E. Dav, Guelph	315
Bold Briton—Richard Lattrell, Oustie	45
Robert Bruce—Walter Adams, Macdon	70
Whitehead—Geo. McIntosh, Guelph	70
Logan Tom—Wm. Hendrie, Hamilton	60

Bannockburn—Jas. Chisholm, Dunlop	70
Patsy—Aug. Weiker, Tavistock	70
Innisfail Boy—T. W. Thompson	80
Red Duke—Hastings Bros., Crosshill	100
Prince George—A. J. C. Shaw, Thamesville	100
Chief—Henry Russell, Millbrook	80
Justice—D. Anderson, Dunganon	90

FEMALES.

Pansy—J. W. Henry, Thornton	85
Lady Lorne—H. J. Kerr	130
Miss Hildrop—K. L. Wilkes, Blair	110
Vivandiere and b. c.—E. Batty, Gore Bay	150
Maud Colwill—H. J. Kerr	100
Wedding Gift 14th—Geo. Johnston, Balsam	250
Lady Beaverbank 5th—B. Harris, Canning, N. S.	110
Lady Beaverbank 6th—B. Harris	130
Wedding Gift 15th—D. Milne, Ethel	205
Maid of Sylvan 26th—K. L. Wilkes	100
Rose of Eden—Albert Smith, Chatham	105
Clementina of Sylvan—G. Parker & Son, Wallacburg	160
Minnie Rosebud—B. Harris	170
Fanny—J. H. Gibson, Dunchurch	80
Miss Lizzie—Wm. Hendrie	50
Guinevere—David Barr, Jr., Renfrew	80
Lady Stanley—O. Rhodes, Chatham	110
Rose—B. Harris	125
Pepeepa—Joseph Martin, Paris	55
Minnie May 3rd—Jas. Rammage, St. Helen's	75
Verbena 22nd—J. C. Mills	65
Countess of Kirklevington 10th—Jos. Martin	55
Minnie May 4th—B. Harris	95
Lady Rosina—F. W. Thompson	100
Fancy Maid—F. J. Slade, Centreton	110
Morning Glory—Robt. Harvey, Guelph	130
Rose Elvina 3rd—John Tuck, Mossboro	45
Fashion Maid 11th—J. R. Hux, Rodney	175
Grace W.—Wm. Hendrie	90
Fashion Maid 12th—F. J. Slade	95
Sutton Belle 3rd—O. Rhodes	65
Mina—Albert Smith, Chatham	80

Sheep shearing is made easy and economical by the use of the clipping machines furnished by the Chicago Flexible Shaft Co., whose advertisement runs in the "Farmer's Advocate." We have seen these at work, run by hand power, and can testify to the excellence of the work done, the fleece being removed without any danger of cutting the skin of the sheep, getting the whole of the wool without loss and leaving the sheep in the best possible condition to prosper, unhampered by an unreasonable burden and thriving in condition. The same or a similar attachment answers admirably for clipping horses, which is a great convenience and serves an excellent purpose. See the advertisement of this Company, and send for their circular.

WESTERN FAIR DATES.

The Western Fair (London, Ont.) will be held this year from Sept. 12th to 20th.

AN IMPROVED PLOW, advertised in this issue, is the "Wonder Plow," which it is claimed solves the problem of "plowing made easy." It is an attachment of wheels for regulating the depth of furrow, and will run without holding. It is easily attached to the beam of any plow, and will wear a lifetime. Write the Wonder Plow Co., Room 10, Hiscox Building, London, Ont., for information, price, etc.

BOOK REVIEW.

Any book reviewed in this department may be ordered through this office, at the price stated.

HORSES ON SHIPBOARD.—Capt. M. H. Hayes, of England, who contributed the interesting and instructive article on South African horses in the Christmas "Farmer's Advocate," has just published a timely volume entitled, "Horses on Shipboard—A Guide to Their Management," which all interested in the remount question will appreciate. It is handsomely printed and illustrated with 24 photo-engravings of horse-transportation scenes, appliances for handling horses on board the boats, etc. Among the points which the Captain emphasizes for the welfare of the horses are security of fastenings, absence of overcrowding, ample ventilation, good foothold, suitable food and unlimited drinking water, facilities for exercise and facilities for lying down. In a table of shipments of remounts to South Africa, from November, 1899, to July, 1901, out of 116,501, there were 6,859 deaths. Excellent suggestions are given as to the care and treatment for ailments during the voyage. That the book is thoroughly practical will be seen from the fact that Capt. Hayes went to South Africa in charge of several shipments. A thorough veterinarian and a clever writer, he has given us a book at once readable, concise and valuable. It is published by Hurst & Blackett, of London, Eng.

EIGHTH ANNUAL Canadian Horse Show

UNDER THE JOINT AUSPICES OF

The Canadian Horse Breeders' Association and The Toronto Hunt, Limited,

WILL BE HELD AT

The Armouries, Toronto, Can.,

ON

THURSDAY, FRIDAY and SATURDAY, April 10, 11, 12, 1902

Entries close on Saturday, March 29, 1902, and should be addressed to HENRY WADE, Parliament Buildings, Toronto.

Manitoba Commission Co'y,

LIMITED,

LICENSED AND BONDED.

Consign your grain and save middleman's profit. Perfectly reliable.

251 GRAIN EXCHANGE, WINNIPEG.

H. S. PATERSON, MANAGER.

IN WRITING

PLEASE MENTION FARMER'S ADVOCATE.

## CONSUMPTION Prevented and Cured.

Four marvelous free remedies for all sufferers reading this paper. New cure for Tuberculosis, Consumption, Weak Lungs, Catarrh, and a rundown system.

### FREE.

- Do you cough?
- Do your lungs pain you?
- Is your throat sore and inflamed?
- Do you spit up phlegm?
- Does your head ache?
- Is your appetite bad?
- Are your lungs delicate?
- Are you losing flesh?
- Are you pale and thin?
- Do you lack stamina?

These symptoms are proof that you have in your body the seeds of the most dangerous malady that has ever devastated the earth—consumption.

Consumption, the bane of those who have been brought up in the old-fashioned beliefs that this disease was hereditary, that it was fatal, that none could recover who were once firmly clasped in its relentless grip.

But now known to be curable, made so by the discoveries of that man whose name has been given to this new system of treatment.

Now known to be preventable and curable by following and practising his teachings.

The new system of treatment will cure you of consumption and of all diseases which can be traced back to weak lungs as a foundation.

**It is not a drug system, but a system of germ destruction and body building.**

Not guesswork, but science. Not a step backward, but a stride out of the old ruts. The Slocum System consists of Four Preparations which act simultaneously and supplement each other's curative action.

You are invited to test what this system will do for you, if you are sick, by writing for a

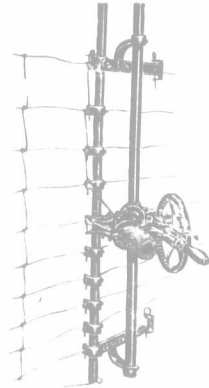
**FREE TRIAL TREATMENT** and the Four Free Preparations will be forwarded you at once, with complete directions for use.

The Slocum System is a positive cure for Consumption, that most insidious disease, and for all Lung Troubles and Disorders, complicated by Loss of Flesh, Coughs, Catarrh, Asthma, Bronchitis and Heart Troubles.

Simply write to the T. A. Slocum Chemical Company, Limited, 179 King Street West, Toronto, giving post office and express address, and the free medicine (the Slocum Cure) will be promptly sent.

Persons in Canada seeing Slocum's free offer in American papers will please send for samples to Toronto. Mention this paper.

## The London Fence Machine



Is an entirely modern and practical machine, and builds the most popular, efficient and durable Coiled Spring woven wire fence in the world at just half what the same weight of factory fence would cost.

Farmers cannot afford to fence their farms otherwise. The London will save \$300.00 or more in fencing a farm, and London fences are 25% more valuable by reason of being built on the ground.

Our new spring catalogue contains valuable information on fencing, and thoroughly illustrates our high-class machines, which are models of practical completeness and efficiency. Write for our prices on fencing goods and wire. We want a reliable, enterprising agent in each locality to represent us.

London Fence Machine Co'y, Ltd.,  
LONDON, CANADA.

## E. J. C. SMITH,

Agent for Canadian Kodak Co.  
Supplies of all Kinds.

Printing and Finishing for amateurs.  
276 SMITH ST., WINNIPEG.  
Send for Catalogue. Established 1892.

## 2,500 LBS. OF RYE GRASS SEED

(*Lycopodium clavatum*)  
RED FIFE WHEAT 500 bushels from carefully selected seed. FARM HORSES (Clydesdales and drivers, home bred. SHORTHORN BULL, roan, 18 months old.

HENRY NICHOL,  
FAIRVIEW FARM, BRANDON, MAN.

IN WRITING  
PLEASE MENTION FARMER'S ADVOCATE.

## SUNLIGHT SOAP

# SUNLIGHT SOAP

If your Grocer cannot supply, write to LEVER BROTHERS LIMITED, Toronto, sending the name and address of your grocer, and a trial sample of Sunlight Soap will be sent you free of cost.

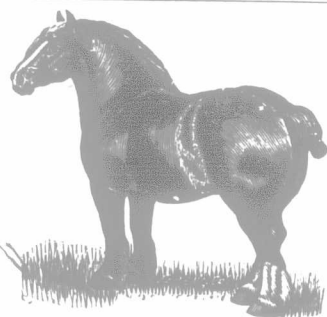
REDUCES  
EXPENSE

One Ounce is worth more than  
Two Ounces of impure soap.  
Ask for Octagon Bar.

JOHN BRIGHT,  
MYRTLE, ONTARIO.

BREKEDER OF  
Clydesdale Horses

AND  
SHORTHORN  
CATTLE.....



### SHORTHORNS.

For Sale: 16 head of bulls and bull calves; also a large and choice lot of cows and heifers of all ages.

### CLYDESDALES.

11 registered mares, 6 of which are in foal to such notables as Royal Cairnton, Prince Patrick and Lord Lyndock; also 2 young stallions.

Myrtle P. O. and R. R. Stn.,  
G. T. R. and C. P. R.

THE WEST CHEMICAL FLUID CO., Toronto, which advertises in this paper this disinfecting fluid and lice and tick destroyer, send us a very flattering testimonial as to its practical virtues, which they recently received from Mr. W. F. Stephen, Trout River, Que., a well-known breeder of pure-bred stock and advertiser in the "Farmer's Advocate," in which he says: "I got two gallons from you two years ago, when I had several cases of abortion in my herd, and I found it effectual in checking it and very useful as a disinfectant. I find it splendid for killing lice on hogs and cattle, also, with two parts tanner's oil and four parts coal oil to one of West's Fluid, for a spray for horn-fly. Please send me five gallons to Carr's Crossing, by Canadian Express."

CYPHERS INCUBATOR CATALOGUE FOR 1902.—This new and complete catalogue consists of 196 pages and cover, is 8 x 11 inches in size and weighs over one pound. It contains a complete description of the Cyphers patent diaphragm, non-moisture, self-ventilating incubators, with fine color-plate reproductions of all sizes of the Cyphers incubators. It contains also an illustrated description of the Cyphers apartment brooders, and the full line of poultry appliances manufactured by this company. In it will be found beautiful half-tone pictures of over 200 of the largest and best-known poultry plants of America, Canada and Europe where the Cyphers Incubator Company is now completely installed in its great factory at Buffalo, N. Y. The company also has offices and salesrooms in Chicago, Boston, and New York City, and is in a position, therefore, to serve customers to advantage in all parts of the country at a saving of time and money in shipping by freight. All who are interested in the latest developments in incubator and brooder manufacture should secure a copy of the Cyphers Incubator Company's complete catalogue for 1902. See advertisement elsewhere in this paper.

THE "KITCHEN GARDEN.—Every farmer and villager who has a plot of ground at all suitable should have a kitchen garden, and just right for supplying fresh vegetables for the table. Thousands appreciate the efficiency of the poultry-yard as an adjunct to the home table, as well as a money-earner. The garden plot should go hand in hand with the poultry-yard. There is no better garden fertilizer than that coming from the henhouse, but the garden itself, how may it be best attended? Put in the seed with a drill and every row will be straight and just right for easy after-cultivation with a wheel hoe. You should not be without these most useful tools, even if you cultivate but one-eighth of an acre. With it you can do as much work in a given time as twelve men can do in the same time by older methods. We are advertising in our columns the Matthews New Universal Hand Seeder and Cultivator, made by the Ames Plow Co., of Boston, Mass. This implement, with its various attachments, combines in one the seeder, wheel hoe, cultivator, rake, plow, and marker. It is a wonderful labor-saver, and will pay bigger dividends on its cost than almost anything one could think of. These people also make separate implements for all gardening work on large acreage of onions, beets, spinach, etc. Send at once for their 1902 catalogue, describing some twenty-five styles of these implements. Address, Ames Plow Co., No. 93 Market St., Boston, Mass.

## FENCING and GATES

Buy your fencing and gates direct from the manufacturer. The Oshawa Wire Fence Co., Limited, are the largest manufacturers of different styles of fencing and gates in Canada. Send for catalogue and prices.

OSHAWA WIRE FENCE CO., Ltd.,  
OSHAWA, ONT.

U S U S

THE  
U. S. SEPARATOR  
DOES  
PERFECT WORK

MISS. AGRICULTURAL AND  
MECH. COLLEGE.  
AGRICULTURAL COLL. MISS  
Dec. 31, 1901

The Separator (U. S.) has done  
perfect work.

J. S. MOORE,  
Acting Instructor

REMEMBER  
IT RECEIVED

HIGHEST AWARD

At Pan-American  
Exposition, 1901

Buy the U. S. and have  
the Best

"The Kind That Gets  
All the Cream"

VT. FARM MACHINE CO., BELLOWS FALLS, VT.

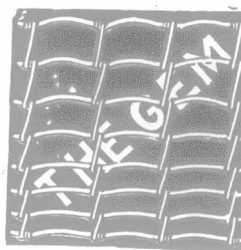
### NOTICES.

BALKING AND KICKING HORSES.—The attention of farmers and horsemen will be attracted by the advertisement in this issue of the Barclay Manufacturing Co., of Brougham, Ont., who are offering an attachment for the control and cure of balking and kicking horses, which is said to be giving splendid satisfaction.

WIRE FENCING.—The day of the wooden fence is rapidly passing away. It belonged to the 19th century. Wire is the fencing material of the 20th century, and the Oshawa Wire Fence Co. have a 20th century factory fully equipped with up-to-date machinery, first-class shipping facilities, skilled labor and ample capital. They have just issued their first annual catalogue and price list, showing different styles of fences, gates, etc. It is a very complete and useful catalogue, and persons who have fencing to do during the coming season should obtain a copy at once from the Company, Oshawa, Ont.

## TORONTO ENGRAVING CO.

92 BAY ST  
CUTS BY ALL PROCESSES  
LIVE STOCK A SPECIALTY.



Latest and best devices for wire-fence building, including

### GEM and MCGLOSKEY

weaving machines, also Coiled Spring and other fence wire at lowest prices. Write on McGregor, Banwell & Co., Box 23, Windsor, Ont.

### COMPRESSED

## Boiled Blood

A SPLENDID, CHEAP, FOOD FOR

Cattle, horses, hogs, poultry, dogs.

WRITE FOR INFORMATION.

## The Canadian Packing Co.

LONDON, ONT.

## Cheese and Butter

Makers of these articles, in many instances, do not pay the necessary attention to the quality of the Salt they use. Some people think that "Salt is Salt," and it does not matter where it comes from or who makes it. This is a great mistake, for it is essential that to produce the best Butter or Cheese nothing but the purest Salt should be used.

## RICE'S DAIRY and TABLE SALT

STAND UNRIVALLED.

FOR PRICES, ETC., ADDRESS:

R. & J. Ransford, Clinton, Ont.

ESTABLISHED 1868.

## Windsor Salt Makes Fine Butter!

Creameries that have gained a reputation for making the finest high-grade butter are the largest users of Windsor Salt. Can you have better proof of its purity, dryness, evenness, than this?

BEST GROCERS SELL IT.

### Catalogue Printing Our Specialty.

Many of the best Catalogues in Canada are produced by us. Latest type faces, designs, ornaments, and modern machinery.—Best in America. Up-to-date covers designed by special artists without extra charge.

London Printing & Litho. Company, Ltd.,  
LONDON, ONTARIO.

PLEASE MENTION FARMER'S ADVOCATE.

Good Calves Are Raised Where

**BIBBY'S  
"CREAM  
EQUIVALENT"  
IS USED.**

FOR supplementing the supply of whole milk or for enriching separated or skimmed milk, or if necessary for raising the calves without any milk whatever after a few weeks old. It is the most popular calf food on the market.

Price: 50-lb. bag, \$2.25; 100-lb. bag, \$4.00; f. o. b. Brandon.

FOR SALE AT ALL CREAMERIES.

**A. E. McKENZIE & CO.,  
BRANDON, MAN.**

**MAPLEWOOD HACKNEYS.**  
PROPERTY OF **FREDERICK C. STEVENS,**  
ATTICA, N. Y.,

Have won more challenge cups, more championships, more first prizes, and more value in prizes during the past seven years than all the other Hackneys of America combined.

**THIS IS THE PLACE TO BUY FOUNDATION STOCK.**

Stallions of all ages, mares in foal, young mares and fillies. The best three carriage horse sires in America at the head of this stud: Langton Performer, Clifton 2nd, and Fandango.

SEND FOR CATALOGUE TO **E. T. GAY, MANAGER, ATTICA, N. Y.**



LATELY IMPORTED A FRESH LOT OF

**Clydesdale  
Stallions,**

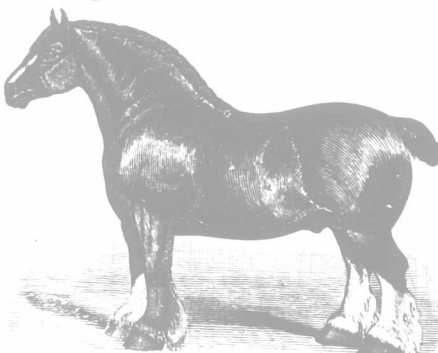
Comprising sons and grandsons of many of the most noted Scotch showyard winners and sires, all in the pink of condition without surplus flesh, and personally selected to meet the best Canadian markets, having, without exception, the best of bone, hair, feet, and action, coupled with true Clyde character. I will make further importations as the times demand. Inspection invited.

Prices consistent with quality.

**ROBERT GRAHAM,  
Ringwood P. O., Ont.**

Stouffville Station, G. T. R., and telegraph office.

**Imported Stallions for Sale.**



FOURTH consignment, per steamship from Glasgow, due to arrive end of February, 1902.

**DALGETY BROS., DUNDEE, SCOTLAND,** the largest importers and exporters of horses in Canada, have on hand just now a choice selection of above, including several prizewinners. Our fourth consignment this season. Largest and best lot from Glasgow show. They combine size, quality and action, and all good colors; age, from two years upwards; and will be for sale at

**BLACK HORSE HOTEL,  
FRONT STREET, TORONTO, ONT.,** on Wednesday, March 5th, for one week; after that at our own stables, London, Ont. Any one in need of a good stallion should not miss seeing our stock before buying. Prices right. Apply:

**JAMES DALGETY, 229 HYMAN STREET, LONDON, ONTARIO.**

PLEASE MENTION FARMER'S ADVOCATE.

**DR. PAGE'S ENGLISH SPAVIN CURE**



For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Ho-k, 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. FREDERICK 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.**

**- Grand's -  
Repository**



53 to 59 Adelaide Street, West, Toronto. Auction Sales: Horses, Harness, Carriages, etc., every Tuesday and Friday at 11 o'clock.

**GREAT  
Annual Spring Sale**

MARCH 11, 12, 13 AND 14.

**100 HORSES**

Tuesday, March 11th.—Heavy Draft and General Purpose Stallions, mares and geldings.

Wednesday, March 12th.—Standard-bred, Carriage-bred and half-bred mares, geldings and stallions.

Thursday, March 13th.—All classes.

Friday, March 14th.—100 Carriages and Buggies.

Entries for this great sale must be made by March 1st to be in time for catalogue. For full particulars apply to:

**Walter Harland Smith,  
GRAND'S REPOSITORY.**

**Shires, Shorthorns, and Leicesters.**

Young stock of both sexes for sale. Imported Prince Louis = 32082 = heads the herd. Write for prices or come and see them.

**John Gardhouse, Highfield P. O.,  
Weston, G. T. R. and C. P. R.**

**FOR SALE:  
CLYDESDALES AND SHORTHORNS.**

Stallions from sucking foals up. Brood mares and fillies of superior quality and breeding. A few grand young Shorthorn heifers, bred in the purple. Special mention, the great four-year-old stallion "Prince Lyon."

**THOS. GOOD,**

**Richmond P. O., Ont.**

**R. R. Station, Stittsville, C. P. R.**

**IMPORTED CLYDESDALES**

For Sale—4 Imported Stallions and 1 Filly.

**Ratepayer**, bay, rising 6 years, the largest horse in Canada, sire Prince of Carruchan. **Coyton**, black, rising 4, will make a horse 2,200 pounds, sire Ethiopia. **Balteval Fashion**, roan, rising 3, will make a horse 2,000 pounds or over, sire Prince of Fashion. **Choice Gift**, brown, rising 3, hind pasterns only white, will be a very large horse, sire Good Gift. **Jessamine**, brown, rising 3, a very fine mare, sire Gold Mine. Prices right, and must be sold. Apply to

**NEIL SMITH, BRAMPTON, ONT.**

**CLYDE & SHIRE HORSES, SHORTHORN CATTLE AND LEICESTER SHEEP.**

One Clyde stallion, rising 3 years old, sired by Lewie Gordon; one stallion colt (Clyde), sired by the unbeaten King of the Clydes, g. dam an imp. prize-winning mare; also four choice Shorthorn bulls, reds and roan, from 10 to 15 months old. Write for prices or come and see us. My motto: "The best is none too good." **J. M. GARDHOUSE,** "Rosedale Stock Farm," Highfield P. O., Rosedale Farm, G. T. R.; Weston, C. P. R. Rosedale Farm is thirteen miles west of Toronto.

**FOR SALE: A Pure-bred Clydesdale Stallion**

Bred from imported stock; five years old; brown in color.

**GEORGE MARTIN, CROMARTY P. O.**

**Wm. Brash, Ashburn, Ont.,**

BREEDER OF

CLYDESDALE HORSES and SHORTHORN CATTLE.

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**OAKLAWN FARM**

THE GREATEST IMPORTING and BREEDING ESTABLISHMENT IN THE WORLD.

**PERCHERONS,  
FRENCH COACHERS.**

On hand upward of **500 HEAD.**

Our late importations included the Principal Prize Winners at the Great Shows of France.

At the recent **INTERNATIONAL LIVE-STOCK EXPOSITION** at Chicago, the Oaklawn Percherons won every Championship, First Prize, and Gold Medal and every Second Prize in classes.

Notwithstanding the superior quality of our horses and the amply fair and certain terms of our breeding guaranty, backed by our well-known responsibility, it is a fact that our prices are lower than can be obtained elsewhere in America. Catalogue sent on application.

**DUNHAM, FLETCHER & COLEMAN,  
WAYNE, DU PAGE CO., ILLINOIS.**

**CLYDESDALES**

Shires and Hackneys.

OUR new importation of Clyde, Shire and Hackney stallions, comprising winners at leading shows in England and Scotland, arrived at our stables January 22nd. We have now over 20 imported stallions, all of which we are offering at living prices, including the champion Shire stallion, Belsbazsar.

**Bawden & McDonell, Exeter, Ont.**

**Clydesdale Stallions**

FOR SALE.  
One seven-year-old.  
One three-year-old.  
Three two-year-olds.

Also a few mares and fillies of good size and good quality. **J. Devitt & Sons, Freeman P. O., Ont.** Burlington Junction Station 1/2 mile from farm.

**WM. SMITH, COLUMBUS, ONT.,**

IMPORTER AND BREEDER OF

Clydesdale Horses & Shorthorn Cattle

**Smith & Richardson**

COLUMBUS, ONT., IMPORTERS OF

**CLYDESDALE STALLIONS.**

Our latest importation of 4 stallions is the best we ever made, weighing from 2,000 to 2,200 lbs., and of the well-known Darnley and Prince of Wales breeding. We have a number of pure-bred mares; also some young Canadian-bred stallions and fillies. Write for prices.

Railway Stations: **Oshawa, G. T. R.; Myrtle, C. P. R.**

Long-distance telephone at Columbus.

**IMP. CLYDESDALES AND AYRSHIRE.**

The three in p. stallions, Copyright, Baron Frederick and Baron Laing, and the Canadian-bred stallion, Laurentin. Ayshires all ages; and poultry, utility breeds. Eggs for sale.

**ROBT. NESS & SONS, Howick, Que., P. O. & Sta.**

**4 Imp. Clydesdale Stallions**

31 Imported Shorthorn Cows and Heifers.

7 Canadian-bred Cows and Heifers.

3 Imported Shorthorn Bulls.

5 Canadian-bred Bulls.

**GEO. ISAAC & BROS., BOMANTON, ONT.**

COBBOURG STATION, G. T. R.

**Clydesdales**

Two stallions for sale, rising two and three years old. Correspondence solicited.

**Josiah Hallman & Sons, Washington, Ont.**

**INGLESIDE HEREFORDS.**

A few choice heifers and young bulls by **Mark Hanna**, sweepstakes bull at Pan-American.

**Shropshire Sheep and Tamworth Swine.**

**H. D. SMITH,**

Compton, Quebec, Ont.



# DR. HESS' STOCK FOOD

IS A GUARANTEED MILK PRODUCER.

W. T. S. Bear, manager of the Oregon Dairy Farm, Franklin, Pa., has the following to say:

DR. HESS & CLARK, ASHLAND, O.  
Dear Sirs,—Ten days ago we began feeding Dr. Hess' Stock Food to a dairy herd of 35 cows, part grade Jerseys and part Red Polls. All were suffering from indigestion, owing to heavy feeding of grain through the entire summer; all were falling away in milk; soon we were so bad as to bloat, and refused to eat for several days. Tried all manner of feeds and combinations, but only partially succeeded in checking the decrease in milk. Two days after we began feeding Dr. Hess' Stock Food they began to mend and increase in milk, until they are now gaining an average of two pounds of milk per head per day, without any increase of feed or change of feed or any other conditions. I think the improvement wonderful, especially when we consider that it was done while the temperature was between 10 and 20 degrees above zero, and the first cold snap at that, which is always the worst. Yours truly, W. T. S. Bear, Manager Oregon Dairy Farm.

Feed Dr. Hess' Stock Food to your cows; if it don't pay, your money will be refunded. 7-lb. sack, 65c.; 12-lb. sack, \$1.00; 25-lb. sack, \$2.00; 50-lb. sack, \$3.75; 100-lb. sack, \$7.00.

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FREE.—Dr. Hess' scientific veterinary work, giving the symptoms and latest treatment on stock diseases, will be mailed you for the asking. Address:

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## DON'T

BUY A SEPARATOR UNTIL YOU HAVE SEEN THE

# National.

### EXAMINE

The simplicity of the design. All wheels and bearings protected, being perfectly safe in the hands of a child. It has anti-friction ball bearings. Few parts to wash—only two pieces inside the bowl.

The National is made by the Raymond Mfg. Co. of Guelph, whose success with the celebrated Raymond Sewing Machine is sufficient guarantee of the high finish and workmanship.

In 1901 five machines a day were manufactured. For 1902 the capacity is increased to 25 machines per day, showing the satisfaction given by the National in the past two years.

The 1902 National contains all the strong points found in other separators, and is placed on the market with the guarantee of being the best and most up-to-date machine in every particular offered to the Western farmers to-day.

The National will well repay investigation by intending purchasers.

National No. 1, capacity 330 to 350 lbs. per hour.

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AGENTS WANTED IN UNREPRESENTED DISTRICTS.

JOSEPH A. MERRICK, P. O. BOX 518, WINNIPEG,

GENERAL AGENT FOR MANITOBA AND N.-W. T.

THE RAYMOND MFG. CO. OF GUELPH, Ltd., GUELPH, ONT.

WE ALSO MAKE GOOD SEWING MACHINES.



## The Specialist

is the man who succeeds above all others in this age. It should be so. When a man devotes all his time and energy to one single thing, he usually does succeed. We are specialists in making spramotors.

We have never made cheap machines, knowing that to be synonymous with poor machines. These things being true, is it surprising that the spramotor is the very best spraying machine in the country? That is the testimony of all who have used the spramotor. It was awarded First Place in competition with ten other machines in the Canadian Government Spraying Contest.

It is unequalled for painting barns and other buildings, inside and outside, with whitewash, oil and water paints.

We will mail you free an 8-page copyrighted Treatise on the diseases affecting fruit trees, and their remedies, entitled, "A Gold Mine on Your Farm." Ask your dealer for the spramotor, or write us direct.

SPRAMOTOR CO., London, Ont., and Buffalo, N. Y.



## High-class Herefords

We have for sale the following choice young stock, which have been bred from imported and American sires. Intending buyers will do well to inspect the following: 18 young bulls, 2 aged bulls, 20 young heifers. Correspondence invited.

A. S. HUNTER, DURHAM, ONT.

IN WRITING

PLEASE MENTION FARMER'S ADVOCATE.

## The Sunnyside Herefords.

Imp. Sunny Slope Tom 1st at head. The blood of Lord Wilton, Garfield, Grove 3rd, Beau Real and Diplomat represented. Special offering: 3 bulls, 8 to 14 mos.; 6 young cows and heifers. Inspection and correspondence solicited. 2 choice registered Berkshire boars, price \$10.00 each.

O'NEIL BROS., Southgate, Ont. Main station, G. T. R. Iderton station, L. H. & B.

### GOSSIP.

Fandango (4256) 143, the splendid Hackney stallion illustrated in the Horse department of this issue, is owned by Mr. F. C. Stevens, Attica, N. Y. He is a chestnut, with two white hind feet, stands 15 hands 2 1/2 inches high, was bred by Seth Lofthouse, Tadcaster, Yorkshire, England; foaled in 1890, imported in 1893; won six first and two second prizes before importation; first at National Horse Show, New York, for Hackney stallion 15.2 or over, in 1899 and 1900, and three years in succession for stallion and get; first at the Pan-American for stallion and get—he having sired more National Horse Show winners than any other stallion in the world. The American Horse Society's Challenge Cup was won two years in succession by Fandango at the National Horse Show (1899 and 1900).

Within the limits of the corporation of the village of Markham, Ont., lies the stock farm of Mr. E. D. Robinson, whose herd of imported and home-bred Shorthorn cattle, representing such fashionable families as the Miss Ramsdens, Isabellas, Urys, Broadhooks, Orange Blossoms, Lady Dorothys, and Bessies, are quartered in his magnificent stables. This herd was established four years ago, on some Miss Ramsden bred females out of Mr. John Isaac's imported cows. Since then annually additions have been made to the herd, principally from the herds of the Messrs. Isaac, the major part of which were imported, till at present there are some 30 head of animals, of both sexes and all ages, in the herd, a number of the younger ones being sired by such noted bulls as Imp. Golden Measure 72615, Imp. Baron Skeene 28856, and Imp. Baronet 36007. The present stock bull is Imp. Rustic Chief, Vol. 47, bred by Alex. Watson, Auchronie, Ikene, Scotland, sired by the great Clan Alpine 60495, dam Ruffly, by Queen's Guard 57433. He is a rich roan of more than ordinary quality and symmetry, and will certainly be a winner. His second in service is Golden Drop King 31174, sired by Gold Digger 23360, dam Ury Garnet 28587, by Village Boy 5th 16352. He is a red, and individually is a splendid type of the present-day Shorthorn, and has proven himself a sire of the first rank. This bull is now for sale. A glance at the breeding of a few of the cows will show that nothing has been overlooked in the establishment of this herd to at once place them among the best: Imp. Jessie, by Merlin 2nd 69119, dam Royal Bessie, by Royal Sceptre; Imp. Roan Rose, by Abbotsford 2nd 69838, dam Groom Duchess, by Bannockburn; Imp. Dorothy Princess, by Proud Star 73337, dam Lady Dorothy 38th, by Goldspur; Imp. Pride 3rd, Vol. 4E, by Fortunatus 76708, dam Caroline, by Gravesend; Imp. Blossom 2nd, by Sington Style 69616, dam Blossom, by Star of Morning. These cows, with the others in the herd, were purchased for their individual merit, and are good ones. There are a number of heifers out of these cows and by the stock bulls mentioned (some in calf, some not), that are for sale, and among them are prizewinners sure. Among the bulls that are for sale is a roan four-months-old calf, imported in dam, sired by Golden Fame and out of the cow, Jessie. This youngster will likely be heard from in the future in the prize-ring, as he is a perfect model and already shows the form and pose of character that gets to the top. Any animal in this herd, with the exception of the stock bull, Imp. Golden Measure, is for sale. In poultry, Mr. Robinson keeps nothing but pure-bred War Horse Games, and is showing something nice in that breed.

For over forty years Mr. Arthur Johnston, of Greenwood, Ont., has been known as one of the most extensive importers and breeders of Shorthorn cattle on the continent. To his indomitable pluck and energy is due, to a very great extent at least, the credit of the high and honorable position held by Canadian Shorthorn cattle over America to-day. The many excellent animals he has imported and bred have been a very potent factor in bringing our Canadian cattle to their present high state of perfection. His present herd, of about 100 head, is made up of a very choice lot of animals of both sexes and all ages, imported and home-bred, headed by that grand stock bull, Merryman (Imp.), the superior of which Mr. Johnston never owned as a sire of typical Shorthorn models. There are a number of younger bulls, some imported, notably among which is the rare good one, Caesar Augustus (Imp.), eleven months old, bred by Lady Gordon Cathcart, Clune Castle, Aberdeenshire. This young bull is probably the richest-bred Bruce Augustus living. Another that deserves special mention is a ten-months-old bull sired by Imp. Merryman and out of Imp. Sunrise. Another, by Prince of Archers, out of Imp. Fortune, is a grand model; but thus we might go on to any length, for there are dozens that could scarcely be overdrawn, and that can be bought worth the money.

### HORSEMEN!—THE ONLY GENUINE IS

# GOMBAULT'S CAUSTIC BALSAM.

THE GENUINE WITHOUT THE SIGNATURE OF THE LAWRENCE-WILLIAMS CO. Sole Agents and Proprietors for the U.S. & CANADA, CLEVELAND, O.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle, SUPERSEDES ALL CAUTERY or FIRING. Impossible to produce scar or blemish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circulars. THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

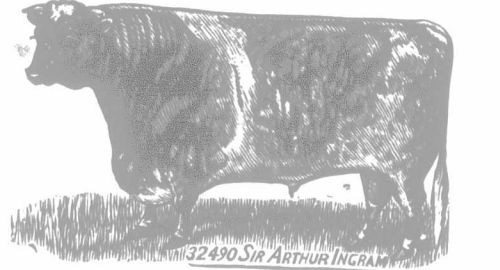
### HIGH PARK STOCK FARM.

GALLOWAYS of the choicest breeding and most fashionable strains. Inspection or correspondence invited. A. M. & ROBERT SHAW, P. O. Box 294, Brantford, Ont.

### 6-POLLED ANGUS BULLS—6

Six young bulls, from 6 to 16 months old; prize-winners among them. All for sale. Alex. McKinnon, Hillsburg P. O. and Station.

### 1833 Wm. Linton, 1902 AURORA, ONT.



Has for sale three imported Shorthorn bulls and a few heifers, various ages; also a few home-bred bulls fit for service. This is one of the herds that the late Amos Cruikshank used to resort to for stock bulls. Aurora is 24 miles north of Toronto, by Metropolitan R. R. Can leave Toronto any time during the day, and be back in Toronto in two hours and a half.

FOR SALE: Nine Shorthorn bulls, from 8 to 15 months old. Also pure-bred Clydesdale stallion, bred from imported stock, rising 2 yrs.; brown in color. McDONALD BROS., WOODSTOCK, ONT.

### JOHN DRYDEN, BROOKLIN, ONTARIO.

BREEDER OF CRUIKSHANK SHORTHORNS AND CHOICE SHROPSHIRE SHEEP. Choice Young Bulls and Ram Lambs for sale. Write for prices.

A QUICK, SHARP CUT hurts much less than a bruise, crush or tear. Done with the DEHORNING KEYSTONE KNIFE. The safest, quick, sharp cut. Cuts from four sides at once. Cannot crush bruise or tear. Most humane method of dehorning known. Look highest award World's Fair. Write for free circulars before buying. Owned and Manufactured by R. H. McKenna, V. S., Picton, Ont.

COCKERELS FOR SALE. Banded Rock, W. Black Orpington, and Houdan; also Pekin drakes. Prices, \$1.00 to \$2.00. Eggs, \$1.25 per setting. C. W. BEAVEN, PRESCOTT, ONT.

### FOR SALE: TWO EXTRA GOOD SHORTHORN BULLS

Twenty months old; red; also younger ones, as well as a number of heifers or young cows in calf or calf at foot.

### YORKSHIRE SWINE—BOARS AND SOWS.

RICH. GIBSON, DELAWARE, ONT.

### 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.

### Mercer's Shorthorns for Sale

BULLS and heifers from such families as Matchless, Clarets, Missies, Stanfords, Fashions, Buttercup, Isabellas, Princesses, Beatrices and other choice families. Herd headed by Village Squire = 21883 = (he by Abbotford), assisted by a son of old Royal Sailor (Imp.). Cows and heifers in calf. Four nice young bulls. Our herd stands at the head of the show-ring in this northern country. Over 40 head now in the herd. Intending visitors drop a card and they will be met at the C. P. R. station, Markdale, one mile from farm. Write for prices. No business, no harm. Our motto: "The best is none too good." THOS. MERCER, MARKDALE, ONT.

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**J. & W. B. WATT,**  
SALEM, ONTARIO  
(POST AND TELEGRAPH OFFICE),

BREEDERS OF—  
Shorthorn Cattle, Clydesdale Horses,  
Leicester and Oxford Sheep, and  
Berkshire Pigs.

Our herd contains such families as Matchless, English Ladies, Mildreds, Village Buds, Missies, Stamford, Claret, and Marthas. Royal Wonder = 34682 =, junior champion of 1901, now heads the herd. A choice lot of young bulls and a few females for sale. We offer our whole flock of Leicesters for sale—thirty-five ewes and ewe lambs and fifteen rams.

Farms 2 miles from Elora Stn., G.T.R. and C.P.R., 12 miles north of Guelph. om

WE HAVE FOR SALE

**10 SHORTHORN BULLS**

From 6 to 18 months old. Nearly all from imp. dams, and sired by the imp. Golden Drop bull, Royal Prince. Catalogue upon application. om

John Miller & Sons, Brougham P.O.  
CLAREMONT STATION, C. P. R. ONT.

**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. Also Bronze turkeys. om

**A. W. SMITH,**  
Ailsa Craig Station, Maple Lodge P. O.,  
G.T.R., 3 1/2 miles. ONT.

**MILKING SHORTHORNS.**

2 young bulls of good milking strains and A1 quality for sale. Come and see them. Stn. 3 1/2 miles from farm. **H. C. GRAHAM, AILSA CRAIG, ONT.** om

**GREEN GROVE HERD OF SHORTHORNS.**

This herd is headed by the famous show bull, Spicy Robin = 28239 = (bred by J. & W. B. Watt), grandson of Imp. Royal Sailor, and of the noted English family, and contains such noted tribes as Nonpareils, Crimson Fuchsias, Mysies, Butterflys, and Languishes. Shorthorns of both sexes. Also a choice litter of Yorkshires, about 4 mos. old, for sale. Address: om **George D. Fletcher, Binkham P. O., Ont.** Erin Shipping Station, C.P.R.

**SHORTHORNS.**

Fashionably bred, of both sexes and all ages. om Nothing reserved.

**H. PARKER, Durham P. O. and Station.**

**SHORTHORNS (IMPORTED).**

Five choice young bulls, from 6 to 10 months old, by Imp. Capt. Mayfly, out of Indian Chief dams.

**JAMES A. CRERAR, om**  
Shakespeare P. O. and Station, G. T. R.

**SHORTHORNS FOR SALE:**

Seven choice young bulls, from 9 to 12 months old. Also a few choice heifers, in calf to the grandly bred Marr bull, Spicy Marquis (imp.). om

**JAS. GIBB, Brookdale, Ont.**

**Bonnie Burn Stock Farm.**

40 rods north of Stouffville Station, Ont., offers Shorthorn bulls and heifers with calf. Shropshire ewes with lamb, and Berkshire pigs. All at farmers' prices. Inspection invited. om

**D. H. RUSSELL, Stouffville, Ontario.**

**"ORCHARD HILL" SHORTHORNS.**

Herd comprises representatives of best Scotch-bred families, with Lord Lavender at head. Young animals of both sexes for sale.

om **ARTHUR JOHNSTON, Vandeleur, Ont.**

**LAKE VIEW STOCK FARM.**

SCOTCH SHORTHORNS, both sexes, all ages. As good as the best.

Meaford Station, G.T.R. North, om **JAMES BOWES, Strathairn P. O.**

**Shorthorns, Yorkshires and Berkshires**

For immediate sale. 2 bulls 10 months old, 1 bull 18 months old; bred right and built right. Also pigs of both breeds, both sexes and different ages. om

**C. & J. CARRUTHERS, Cobourg P.O. & Stn.**



**PLOWING MADE EASY**

The Wonder Plow Attachment can be attached to beam of any plow; regulates depth and width of furrow; saves one-third draft on horses; relieves all labor of man, as you need not hold plow handles to do perfect plowing. 10-year-old boy can plow in hardest soil. Agents Wanted. Fast seller everywhere. Good money for enterprising agents. Address at once: om

**WONDER PLOW CO.,**  
Room 10, Hiscox Building, London, Ontario.

PLEASE MENTION FARMER'S ADVOCATE.

**GOSSIP.**

Mr. G. A. Brodie, Bethesda, Ont., writes: Since last April I have made the following sales in Shorthorns: One bull to Wm. Maritt, Keswick, Ont.; two bulls to A. G. Harriman, Ulverton, Que.; one bull to Mr. Mills, Mich., U. S.; one heifer to John Meritt, Belhaven, Ont.; one heifer to L. A. Armstrong, Falmouth, N. S.; eleven heifers and young cows to F. W. Brown, Portage la Prairie, Man.; one cow to Wm. Leathers, Bethesda, Ont.; four cows and heifers to Bruce Bros., Gornley, Ont.; five heifers to Mr. Mills, Mich., U. S.; two cows and calf to W. H. Ford, Dutton, Ont.; cow and heifer to W. J. Barber, Belleville, Ont.; cow and heifer to Wm. Caruthers, Cashel, Ont.; three cows to J. Bowens, Woodville, Ont.

**MR. McCURE'S SALE OF HOLSTEINS.**

We again call the attention of breeders of Holstein cattle and dairymen generally to the dispersion sale, advertised in our last issue, page 146, of the fine herd of 26 registered Holsteins owned by Mr. Wm. McCure, of Norval, Ont., to be sold on March 6th, at his farm, two miles from Norval Station, G. T. R., and five miles from Brampton, G. T. R. and C. P. R. The Holsteins have been forcibly asserting their claim in the last few years to first place as the farmer's and dairyman's cow by the convincing logic of confirmed official and public tests, in which they have made a splendid record both in milk and butter production, coming out decidedly victorious in almost every contest.

In the six-months test in the model dairy at the Pan-American Exhibition, Mr. McCure's beautiful cow, Beauty of Norval, in competition with 50 selected cows of ten different breeds, topped the whole list in milk production and was only second to the great Guernsey cow, Mary Marshall, in the production of butter, yielding 8,140 lbs. milk and 328 lbs. butter in half a year in a public contest, exposed to the confusion and excitement of a constant stream of visitors, and to extreme heat and the attacks of myriads of furious flies. Beauty of Norval is a handsome cow and of the most approved dairy form, and is capable of doing much better work under favorable conditions. She is included in the sale, together with her dam, five sisters, a daughter, and a son fit for service. Most of the other females are bred deeply in the blood of the noted Aaggie family, and bulls of the highest-testing strains have been continuously used in the herd. The sire in use at present is the richly-bred yearling, Sir Pietertje Posch, son of Alta Posch, who holds the record for a three-year-old cow, having yielded, in an official test, in 7 days, 586 lbs. milk, an average of over 83 lbs. per day, containing 21.661 lbs. fat, equal to 27 lbs. 1 oz. butter. Her dam, the granddam of Sir Pietertje Posch, holds the record in a two-days public test, yielding 114 lbs. milk, testing 4.28 per cent. butter-fat. Such high-class dairy cattle are rarely offered for sale, and the opportunity should not be missed to secure some of them. They will be sold without reserve, as the owner has leased his farms.

**HAWTHORN HERD**

of deep-milking Shorthorns for sale. Six young bulls of first-class quality and breeding and from A1 dairy cows. om **WM. GRAINGER & SON, Londesboro, Ont.**

**SHORTHORNS (imported)**

One bull, 2 years old, and 1 imported cow, and 7 home-bred heifers. om **THOS. RUSSELL, EXETER, ONT.**

**ROSEVALE SHORTHORNS**

Are of the up-to-date sort. We have for sale a number of young bulls and heifers of all ages. Marengo Heydon Duke (imp.) heads the herd. om **W. J. SHEAN & CO. Owen Sound, Ont.**

**Shorthorn Bulls.**

Scotch-bred, good color, lots of size and style—rare good ones. Also females all ages. Write for particulars, or, better, come and see them. om

**DAVID MILNE & SON, ETHEL P. O.,**  
Huron Co., Ont.

Ethel Station, G.T.R., half mile from farm.



T. DOUGLAS & SONS, STRATHROY, ONT.,

**Scotch Shorthorns.**

100 HEAD TO SELECT FROM.

Herd headed by Imp. Diamond Jubilee = 28861 = and Double Gold = 37852 =. March offering: 10 grand young bulls and cows and heifers of all ages. Farm 1 mile north of town. om

**DISPERSION SALE OF IMPORTED AND HOME-BRED SCOTCH AND SCOTCH-TOPPED**

**SHORTHORNS**

The subscriber will sell at auction, at his farm at Britannia, Ont., 4 miles from Streetsville Junction, C. P. R.; 6 from Brampton, G. T. R. and C. P. R.; 7 from Port Credit, G. T. R., on

**THURSDAY, MARCH 20, 1902,**

His entire herd of 35 head of high-class registered Shorthorns—28 FEMALES AND 7 BULLS, including the stock bull, Imp. Scotland's Fame = 29063 =, by Golden Ray, a son of Scottish Archer, dam Killeen Beauty 3rd. 18 breeding cows, besides heifers in calf or with calf at foot, including two imported Scotch-bred cows. A grand lot of young bulls fit for service. Catalogues sent on application.

**JOHN SMITH, M. P. P., AUCTIONEER, F. A. GARDNER, Britannia, Ont.**  
om BRAMPTON, ONT.

**LESS LABOR AND MORE MONEY ON THE FARM.**

BUY A LOW-DOWN, THICK-FLESHED

**Hillhurst Shorthorn Bull,**

Scotch-topped, from Cumberland, Gloucestershire, or Canadian dairy strain, and raise **DEEP-MILKING, BIG-FRAMED COWS AND BABY BEEF** in nature's way. Many cows that do not pay board at the pail will give a handsome return in growing beef. Four handsome young bulls, seven to nine months old, reds and roans, by the celebrated imported sires, "Joy of Morning" and "Scottish Hero," for sale at moderate prices. Low freights.

**M. H. COCHRANE, COMPTON CO., P. Q.,**  
G.T.R., 117 MILES EAST OF MONTREAL. om HILLHURST STATION.

**Scotch Shorthorns**

BREEDING FEMALES ALL IMPORTED.

Imp. Golden Drop Victor our present stock bull. Eleven young bulls and some young cows for sale at reasonable prices.

**H. CARGILL & SON,**

Cargill Station, G. T. R. CATALOGUE FREE. om Cargill, Ontario.

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BREEDER OF POST OFFICE AND TELEGRAPH OFFICE. IMPORTER OF

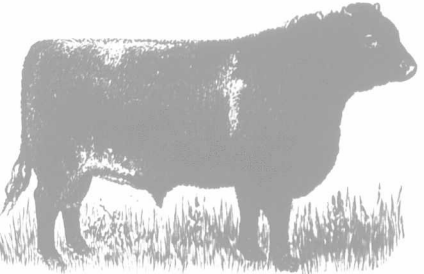
**SHORTHORNS ONLY.**

FOR SALE: 9 imported bulls and bull calves. 11 home-bred bulls and bull calves, from imported cows and by imported bulls. 17 home-bred bull calves. A large and excellent lot of young cows and heifers of various ages. om

**RAILWAY STATIONS: PICKERING, G. T. R., 22 MILES EAST OF TORONTO. CLAREMONT, C. P. R., 28 MILES EAST OF TORONTO.**

**Spring Grove Stock Farm.**

Shorthorn Cattle  
AND  
Lincoln Sheep.

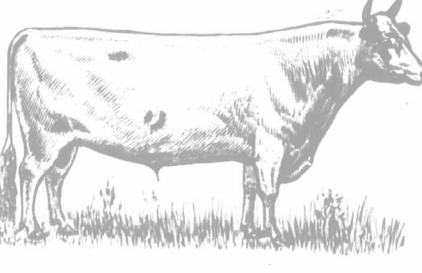


get of the great sire, Wanderer, of the Cruickshank Brawith Bud tribe. High class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply om

**T. E. Robson,**  
ILDERTON, ONT.

**Rapids Farm Ayrshires.**

REINFORCED BY RECENT IMPORTATIONS of 2 bulls and 20 cows, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows last year. Imported Douglasdale of Dam of Aber, champion at the Pan-American, heads the herd. Representatives of this herd won the first herd prize at the exhibitions at— om



Toronto, London and Ottawa in 1900, and at the Pan-American in 1901.

Come and see or write for prices.

Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

**Robert Hunter, Manager**

for W. Watson Ogilvie, Lachine Rapids, Quebec.

**SHORTHORNS, SHROPSHIRE, COTSWOLDS.**

We are now offering a number of heifers and heifer calves; a few bull calves; a number of cows; all bred in the purple and as good as the best. Also Shropshire and Cotswold sheep. om **JOSEPH BELL ESTATE, Bradford P.O. & Sta.**

**FOR SALE:**

**SHORTHORNS:** 7 young bulls, from 8 to 10 mos. old, sired by Leta's Lad and out of deep-milking cows. **H. E. HIND, Hagersville P. O. and Station, G. T. R. and M. C. R.** om



LAWNRIIDGE STOCK FARM.

JERSEYS FOR SALE: Yearling bull, 5 bull calves, also some very fine registered cows, heifers and heifer calves - fresh calved and springers. One hundred head to select from. Cows a specialty.

J. L. CLARK, om

Norval station: G. T. R. Norval P. O.

Wm. Willis, Newmarket, Ont.

Breeder of A. J. C. C. Jerseys and registered Cotswold sheep. Have yet two fine young bulls from Count, fit for service; also Yorkshire swine.

"Here's Your Calf. Get Your Tag On." No need to slit the ear of your animals to mark them. Mark all your stock with the Aluminaum "Stay There" Ear Marker. Contains your name, address, and consecutive numbers on each tag. No rusting or wearing off, inexpensive, and perfectly easy and simple to attach. We send free sample and prices upon application. WILCOX & HARVEY MFG. CO., 194 Lake St., Chicago, Ill.

To Rid Stock of Lice AND ALL SKIN DISEASES. Also to Keep Poultry Healthy

WEST'S FLUID

Which is also a SURE CURE OF CONTAGIOUS ABORTION. STANDARD SHEEP DIP IS CHEAP AND GOOD. Pedigree forms free to customers. Manufacturers:

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FOR SALE:

Three grandly-bred Ayrshire bull calves, 12 to 15 mos. old. Also young calves, by Napoleon of Auchenbrain (imp.), whose dam has a record of 72 lbs. of milk per day. A few choice young Berkshire and Yorkshire sows could be served before shipping. Collie pups, from Perfection Queen. Address - T. D. McCALLUM, Danville, Que.

AYRSHIRES AND YORKSHIRES.

We always have on hand choice individuals, male or female, of above breeds. Write us. om- ALEX. HUME & CO., Meile, Ontario.

Maple Cliff Dairy and Stock Farm.

AYRSHIRE CATTLE, IMPROVED BERKSHIRE AND TAMWORTH PIGS. FOR SALE: 5 bull calves, a few heifers; young pigs, pairs not skin; 2 boars, 4 months old; young pigs. Farm adjoins Central Experimental Farm, Ottawa. R. REID & CO., Hintonburg, Ont.

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Have you cheap power? Do you know that a CANADIAN AIRMOTOR will yield greater returns for your money than any other farm implement. Has a cast-iron constitution, and is a terror to work. We have other things that save money. Write us.

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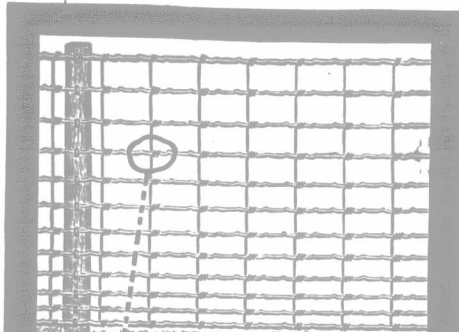
Manitoba Agents: BALFOUR IMPLEMENT COMPANY, Winnipeg, Man.

Ayrshire Bulls from 1 1/2 years to 6 months, from special milking stock, sired by the sweepstakes bull, Cork of the North - 9597 - also females all ages. Shropshire sheep, Berkshire pigs, either sex, and B. P. Rocks. For particulars write om-

J. YULL & SONS, Carleton Place, Ontario.

AYRSHIRES.

I offer four choice August (1901) bull calves, two yearling heifers due to calve next August to imported bull, and a pair of March and April heifer calves. All bred from imported stock of choice milking strains. W. W. BALLANTYNE, Stratford, Ontario. "Neidpath Farm" adjoins city, main line G.T.R.



THE SECRET OF FENCE STRENGTH

You can stretch an American Field and Hog Fence "til it snaps" and it will outwear half a dozen slack wire fences. Heat won't loosen it, cold can't snap it because the tension curve keeps it always taut - takes up the tension. Made of large wires, of the best material and woven perfectly so as to secure the full strength of the wires in the fabric. This ready-built, woven steel wire fence is wonderful low in price. For a small farm or a great ranch or plantation the

AMERICAN Field and Hog FENCE keeps stock in place and protects crops perfectly, and it lasts a life time. Built of high grade steel, heavily galvanized before weaving. Every rod is guaranteed. Sold everywhere. If your dealer hasn't it, write to Canadian Steel & Wire Co (Ltd.), Hamilton, Ont.

FIRE Safety is best secured by using "Safe Lock" Shingles on all your buildings. Prevents many fires and makes one a easier controlled. The Safe Lock Metal Shingles are lightning proof too and keep out the snow and rain. Small Shingle showing construction mailed free. The Metal Shingle & Siding Co., Limited PRESTON, ONT.

SHREDDED WHEAT BISCUIT.

Doctors Prescribe It.

"As a digestive and in cases of chronic constipation and dyspepsia, it acts as one of the best remedies I have ever prescribed." - B. P. ANDERSON, M. D., Augusta, Me.

Send postal for our book of Food Facts and Food Values, containing 262 recipes for preparing and serving Shredded Wheat dishes. Address - J. C. HEWITT, P. O. Box 511, TORONTO.

LIVE STOCK EAR LABELS REDUCED.

Send for a circular and order early, before the rush. Large and small lots and odd numbers supplied. om B. W. JAMES, Rowanville, Ont.

Tredinnock Ayrshires.

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchenbrain, 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, G.T.R. & C.P.R., 20 miles west of Montreal. om

PLEASE MENTION FARMER'S ADVOCATE

GOSSIP. Monkey Brand cleans and brightens everything, but won't wash clothes.

Dr. E. T. Hagyard, V. S., formerly of Campbell's Cross, Peel County, Ontario, died at his residence at Lexington, Ky., Feb. 15th, 1902, aged 82 years. Dr. Hagyard, who was a native of England and a graduate of the Royal Veterinary College, was, on the recommendation of Canadian stock-breeders, called from his home in Peel County, where he had a good practice, when the Bates boom in Shorthorns was at its height in the seventies, to treat a very high-priced bull belonging to a noted Kentucky breeder, and so impressed were a number of that State with his veterinary knowledge and skill, that a liberal offer was made him to remove there for the practice of his profession, which he did, establishing a lucrative practice, which succeeded to his two sons, graduates of the Toronto Veterinary College, who have also had a very successful career. Dr. Hagyard was a man of fine character and a kind and genial disposition, and had many warm friends in Canada as well as in Kentucky.

ECONOMIC RECORDS OF HOLSTEIN-FRIESIAN COWS.

The records given below are for three months closing February 1st, 1902. These records are made in connection with official testing by experiment stations. Reports are made of four weeks' feeding, but to economize space we give only that of the last week - the week of the official test. During this week the cow is fed not less than during any previous day of the week. The food and products are for seven consecutive days. (We give highest records of cows of various ages. - Ed. F. A.)

Mercedes Julip's Pietertje 39480, age 6 years 22 days: Food - 360 lbs. beet pulp, 32 lbs. soaked oats, 25.5 lbs. brewer's grains, 28 lbs. bran, 17 lbs. corn, 8 lbs. oil meal and 37.5 lbs. timothy hay. Products - Milk, 540.8 lbs., containing 21.051 lbs. fat. Lilit Pauline DeKol 43434, age 5 years 2 months 18 days: Food - 109.45 lbs. ensilage, 88.75 lbs. clover hay, 290 lbs. turnips, 34.12 lbs. oil meal, 41.09 lbs. hominy chop, 1.5 lbs. cotton-seed meal, 51.74 lbs. wheat bran and 38.8 lbs. gluten meal. Products - Milk, 613.5 lbs., containing 20.770 lbs. fat. Johanna Rue 3rd 42167, age 5 years 6 months 21 days: Food - 311.8 lbs. ensilage, 48.8 lbs. hay, 42.2 lbs. bran, 42.2 lbs. ground oats, 42.2 lbs. gluten feed and 1 lb. oil meal. Products - Milk, 491.2 lbs., containing 19.392 lbs. fat.

Johanna DeKol 2nd 42168, age 4 years 10 months 11 days: Food - 332.2 lbs. ensilage, 61.3 lbs. hay, 42.33 lbs. bran, 42.33 lbs. ground oats, 42.33 lbs. gluten feed and 10.5 lbs. oil meal. Products - Milk, 523.7 lbs., containing 19.229 lbs. fat. May Hartog Pauline DeKol 45124, age 3 years 11 months 21 days: Food - 78.25 lbs. ensilage, 265 lbs. turnips, 76.75 lbs. clover hay, 46.44 lbs. hominy chop, 13 lbs. cotton-seed meal, 48.94 lbs. gluten meal, 51.75 lbs. wheat bran, 7.56 lbs. O. P. oil meal and 7.56 lbs. N. P. oil meal. Products - Milk, 524.9 lbs., containing 18.890 lbs. fat. Canary's Mercedes Brightest 49131, age 2 years 11 months 18 days: Food - 62 lbs. cornstalks, 18 lbs. brewer's grains, 369 lbs. beet pulp, 5.5 lbs. oil meal, 56 lbs. bran, 35 lbs. oats and 19 lbs. corn meal. Products - Milk, 390 lbs., containing 16.957 lbs. fat.

Bessie DeKol Rue 49766, age 3 years 1 month 26 days: Food - 86.4 lbs. cornstalks, 77 lbs. hay, 46.69 lbs. wheat bran, 46.69 lbs. ground oats, 31.57 lbs. gluten feed, 19.74 lbs. corn meal and 7.91 lbs. oil meal. Products - Milk, 426.1 lbs., containing 15.208 lbs. fat. Jessie DeKol Burke 44122, age 3 years 9 months 21 days: Food - 318.8 lbs. ensilage, 61.8 lbs. hay, 38.6 lbs. bran, 38.6 lbs. ground oats, 38.6 lbs. gluten feed and 3.5 lbs. oil meal. Products - Milk, 450.7 lbs., containing 15.177 lbs. fat.

Aulinda Netherland 50127, age 2 years 4 months 24 days: Food - 332 lbs. beet pulp, 32 lbs. soaked oats, 24 lbs. brewer's grains, 25 lbs. bran, 15 lbs. corn, 7 lbs. oil meal and 38 lbs. hay. Products - Milk, 331.7 lbs., containing 13.148 lbs. fat.

Beechwood Clothilde 57533, age 2 years 5 months 7 days: Food - 62 lbs. cornstalks, 77 lbs. hay, 46.69 lbs. wheat bran, 46.69 lbs. ground oats, 31.57 lbs. gluten feed, 19.74 lbs. corn meal and 7.91 lbs. oil meal. Products - Milk, 426.1 lbs., containing 15.208 lbs. fat. Netherland Johanna DeKol 53131, age 2 years, 2 months 5 days: Food - 67.5 lbs. hay, 43.078 lbs. bran, 43.078 lbs. ground oats, 28.714 lbs. gluten feed, 17.948 lbs. corn meal, 7.182 lbs. oil meal and 51.3 lbs. cornstalks. Products - Milk, 326.4 lbs., containing 10.923 lbs. fat. Supt. of Advanced Registry.

WHEN THE HEALTH AND FOOD JOURNALS of the country make special reference to the vast superiority over all others of "Salada" Ceylon tea, don't you think you should give it a trial? "Salada" green tea is for Japan tea drinkers.

STEWART'S SHEEP SHEARING MACHINE Highest and Only Award at Pan-American Exposition. 1902 Model, \$1850 price including grinder, only. Will be fitted with the wonderful Stewart Shear same as supplied with the \$65.00 Power Machine. No owner of 10 Sheep or more can afford to shear by hand even though the work be done for nothing. Don't butcher your sheep. Shear with this machine, and get ONE POUND WOOL EXTRA PER HEAD. Will more than cover the whole cost of shearing. Send today for valuable book on shearing. It is free and will save you money. CHICAGO FLEXIBLE SHAFT CO., 150 La Salle Ave., Chicago, Ill.

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

SEED OATS

NEW IMPROVED WHITE LIGOWO OATS. The Improved Ligowo Oat is a large, white, plump variety, with a branching head and stiff straw; a vigorous grower; very prolific and early and free from smut. Price, 75 cents per bushel, bags, 20 cents each. om GEO. MILLER, MARKHAM, ONTARIO.

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.

EUROPEAN ADVERTISEMENTS.

English Shorthorns. Booth and Bates Shorthorns, topped with Cruick-shank bulls. Young cows, bulls and heifers always in hand for sale. Eligible for the American herdbook. Royal and Highland prizewinners included for the last two years. Close on £400 won in prizes last year and this. om WM. BELL, Ratcheugh Farm, Alnwick, Northumberland, Eng.

Ayrshire HERD OF 150 cows and heifers, bred from deep milkers, with large teats, of a commercial stamp. Established over half a century. J. & A. Wilson, Boghall Farm, Houston, Renfrewshire, Scotland. om

PEDIGREE AYRSHIRES. Cows and heifers, all bred from prizewinning stock at the leading shows. om Robert Wilson, Mansrae, Bridge of Weir, Renfrewshire, Scotland.

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: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cables - Sheeppcote, London. om

WALTON HERD OF PEDIGREE PIGS,

The property of Sir Gilbert Greenall, Bart., Walton Hall, Warrington, England. This herd is unrivalled for its true type, large size and strong constitutional vigor. It is the premier herd in England at the present day. Its show-yard career is unique, the champion prize for the best Large White pig at the R. A. S. E. having been won by pigs bred in the herd in 1896, '97, '99 and 1901, besides leading prizes too numerous to mention at all the principal agricultural shows in England. A choice selection of boars and sows for sale. Inspection invited. All purchases carefully shipped. For particulars, apply to the Manager, MR. J. HALLAS, Higher Walton, Warrington, England. Railway stations: - Warrington (Bank Quay) per L. & N. W. Rv.; (Central) per Midland, G. N. or G. C. Rys. Telegrams, "HALLAS Higher-Walton." om

NOTICE. "FARMER BRIGHTON" Fairfield, Iowa, advertises in our columns his famous "Swine V. Stock Marker and Calf Dehorner," which, it is claimed, prevents swine rooting, marks effectually cattle and sheep as well as hogs, and is unsurpassed as a calf dehorner. For particulars, write to address above



SHOEMAKER'S BOOK ON POULTRY

And Family Almanac for 1902. 160 pages 120 engravings; the finest work of its kind ever published. Gives recipes for making condition powders, remedies for all diseases of fowls, plans and diagrams for building poultry houses, tells you how to raise chickens profitably; gives description with illustrations of 48 leading varieties of pure bred fowls, also incubators and brooders and poultry supplies at lowest prices. It is an encyclopedia of chicken information, worth many times its cost to anyone interested in poultry. You positively cannot afford to be without it. Sent postpaid, on receipt of price, 15 cents. Address, G. C. Shoemaker, Box 82, Freeport, Ill.

Satisfied People. That's the kind that run the MARILLA Incubators and Brooders. If they are not satisfied we refund their money. Larger hatches, perfect system of regulating temperature, moisture and ventilation. All these points explained in our catalog. Sent for two 2c stamps. MARILLA INCUBATOR COMPANY, BOX 102, ROSE HILL, N. Y. Machines may be seen at the store of our agent, C. J. DANIELS, 196 River St., Toronto, Canada.

NO HUMBBUG! PERFECT instruments in one. Humane Swine V. Stock Marker and Calf Dehornor. Stops swine of all ages from rooting. Makes 48 different ear marks, large or small, with same blade. Extracts horns. Testimonials free. Price, \$1.50; or send \$1, get it on trial, if it suits send balance. Patented April 23, 1901, U. S. FARMER BRIGHTON, Fairfield, Iowa.

IT'S THE MAN WITH Canadian Incubators

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INCUBATORS AND BROODERS. Guaranteed to give satisfaction. Built to last a lifetime. Absolutely self-regulating, self-ventilating, and perfectly reliable in every way.

For circular giving prices, etc., write the manufacturer: J. E. MEYER, Kossuth, Ont. Shipping station: Guelph.

GRAMMING MACHINES, FATTENING COOPS, Incubators and Brooders POULTRY SUPPLIES. A. J. MORGAN MFR., LONDON. Catalogue free. -om-

R. G. Rose GLANWORTH, ONT., offers for sale a choice lot of M. B. turkeys from his 40-pound imported yearling tom. Also Black Minorcas, W. Wyandottes, Barred, Buff and White Rocks. Pairs and tricos mated not akin.

BETTER HATCHES WITH HENS by new method of experienced poultener; egg-breaking or quarrelling among hens impossible; gives better results than incubators; no night worry; simplifies work with sitters; saves your temper; can set many hens at same time. Plain directions, 20 cents. Using my method you make many times that much on one sitting alone. -om- VALLEY POULTRY FARM, Helena, Montana.

THE Excelsior Life INSURANCE CO. Head Office: Toronto, Ont. Absolute Protection. Profitable Investment. Agents wanted. -om-

Soft Harness EUREKA Harness Oil You can make your harness as soft as a glove and as tough as wire by using EUREKA Harness Oil. You can lengthen its life—make it last twice as long as it ordinarily would. makes a poor looking harness like new. Made of pure, heavy bodied oil, especially prepared to withstand the weather. Sold everywhere in cans—all sizes. Made by IMPERIAL OIL COMPANY.

GOSSIP.

The National (U. S.) Buff Turkey Club was recently organized at Louisville, Kentucky, with W. H. Booker, Eminence, Ky., as president, and H. F. Work, New Washington, Ind., secretary. A standard of excellence was adopted.

Mr. H. E. Hind, of Spruce Grange Stock Farm, Hagersville, Ont., has purchased from Mr. Joseph McMillan, of Shakespeare, Ont., to head his herd of Shorthorns, the bull, Sir James 40271, got by Captain Mayfly 28858 (imp.), dam Empress 5th 28648.

Three of Mr. T. F. B. Sotham's noted Hereford bulls, Improver, Thickflesh, and Checkmate, and the cow, Golden Lassie, have died of Texas fever, contracted at the Charleston Exposition, and we regret to learn that the owner himself is also in ill health. A number of the prizewinning Shorthorns at Charleston have also, we are informed, died since the show from the same disease, contracted there.

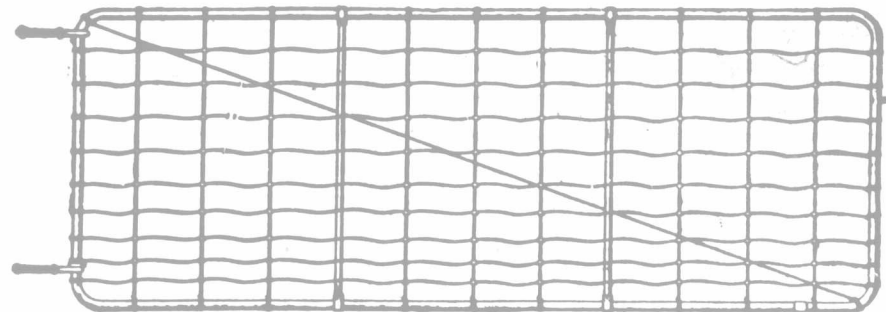
The semi-annual sale of Berkshire swine at Biltmore Farms, Biltmore, N. C., on February 4th, was quite successful, the 48 head sold averaging \$79.79 each. The highest price, \$210, was paid for the sow, Highlander Popper's Lady, by S. B. Wright, Santa Rosa, Cal. Seven other sows brought from \$100 to \$175 each. Five boars sold for \$50 each, which was the highest price for males.

Many readers of the "Farmer's Advocate" will regret to learn of the death of Mr. Thomas A. Browne, postmaster of the City of London, Ontario, and who was for nearly 20 years secretary and manager of the Western Fair, to whose energy and business ability its success is largely due. Mr. Browne died suddenly of heart failure, on Feb. 20th, while playing at curling in one of the London rinks.

The third annual International Conference of Sheep Breeders will be held on July 5th, 1902, in the Town Hall, Carlisle, at 5 p. m., on the opening day of the show of the Royal Agricultural Society of England. The Council would be very pleased to receive by an early mail any suggestions re subject or subjects for discussion. The address of the secretary, Mr. W. W. Chapman, will be 32 Fitzalan House, Arundel St., Strand, London, Eng., till July 4th next, and from that date to the 10th of July next it will be "Great Central Hotel, Carlisle."

Mr. John Gardhouse, Highfield, Ont., reports the following sales of Shorthorns from his herd: To Dr. F. C. Sibbald, "The Briars," Sutton West, the pure Scotch heifer, Clarissa's Gem, by the Duthie-bred bull, Imp. Prime Minister 15280, out of the imported cow, Clarissa's Fancy, of the well-known Kinellar Claret family. To Dr. A. G. Hopkins, Neepawa, Man., Roan Lily, by a son of the Marr Missie bull, Scottish Pride, with her beautiful red heifer calf by the Lancaster bull, Prince Louis 32082 (imp.). To Mr. Walter James, Maple Grove Farm, Rosser, Man., the yearling heifer, Minister's Favorite, by the Duthie-bred bull, Prime Minister; dam Highfield Favorite, by the imported Nonpareil bull, Albert 2668. To Wm. G. Moffat, Teeswater, Ont., the young bull, Prince of Fashion, by Prince Louis (imp.), whose sire was sold for \$2,000 to go to South America; dam Miss Lily, by the Cruickshank Village bull, Premier Earl 1281 (imp.). To Mr. David Harsell, Austin, Texas, the young bull, Fancy's Minister, by Imp. Prime Minister; dam Fancy's Gem, by Guardsman (imp.), sire of the great show bull, St. Valentine; also the heifer, Pride of Highfield, by Prime Minister (imp.). To Mr. Geo. Kerr, Franklin, Man., the young bull, Prince Arthur 39689, by Imp. Prince Louis; dam Lilian, by the Brawith Bud bull, Guardsman (imp.); the cow, Lily's Favorite 32081, by Guardsman (imp.); dam Miss Lily by Premier Earl (imp.); also eight very nice heifers—Sybil, Lady Constance 66th, Lorne 12th, Lady Collingwood 16th, Constance Butterfly 22nd, Lorne 10th, Lady Collingwood 15th, Lily's Fancy. To G. W. Stipe, West Unity, Ohio, Highfield Rose, by the Brawith-Bud bull, Guardsman (imp.) and half-sister to the great St. Valentine; dam Blooming Rose, by the Cruickshank Village bull, Premier Earl (imp.). I have yet for sale a few choice young bulls and heifers, sired by Imp. Prince Louis 32082 (77486) and Imp. Prime Minister 15280 (63104).

An Easy Way to Make Money. I have made \$560.00 in 80 days selling Dishwashers. I did my housework at the same time. I don't canvas. People come or send for the Dishwashers. I handle the Mound City Dishwasher. It is the best on the market. It is lovely to sell. It washes and dries the dishes perfectly in two minutes. Every lady who sees it wants one. I will devote all my future time to the business, and expect to clear \$4,000.00 this year. Any intelligent person can do as well as I have done. Write for particulars to the Mound City Dishwasher Co., St. Louis, Mo. MRS. W. B. -om-



THE FROST STEEL GATE is the strongest and lightest known. Good agents can handle a large number of them yearly. If we are not represented in your district, write us about the agency. One agent in each locality. Write for Catalog. THE FROST WIRE FENCE CO. LTD., WELLAND, ONT.

Conversion to its daily use is the direct and immediate outcome of a 'Tea Pot' test

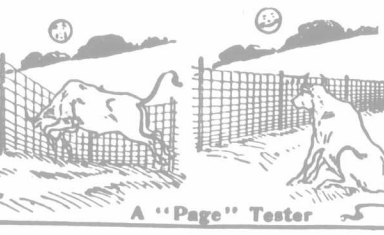
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Ceylon Teas, Black or Uncolored Green. Guaranteed to be All Pure Ceylon Tea. SEALED LEAD PACKETS ONLY. 25c. and 40c. per lb. -om-



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We will send our "Attachment," charges paid one way, to any part of Canada C. O. D., and subject to examination and approval of method. When satisfied it will do all we claim for it, pay the express agent our price, \$5.00. If not, the return freight will cost only a few cents. Our article will control any vice known to a horse, and is giving splendid satisfaction wherever used. Full instructions and directions are enclosed. A boy can adjust it, and it can be used with any harness, vehicle or implement. If you have a troublesome horse, or a colt you wish to break in, write at once to THE BARCLAY MFG. CO., BROUGHAM, ONTARIO.



Page Woven Wire Fence is the only reliable fence for holding stock owing to the continuous coil or spiral spring. No. 7 "Page" wire will withstand a strain of 3,000 pounds; ordinary No. 7 wire will only stand a strain of 1,700 pounds. Common wire when coiled or bent will straighten out with the first strain and remain so. Page fences are now very cheap, and you know they have always been the best. Page fences are used by all Canadian railways. The Page Wire Fence Co., Limited, Walkerville, Ont., 4

THE CYPHERS INCUBATOR ON SALE BY RESPONSIBLE CANADIAN AGENTS. Used with uniform success on twenty-six Government Experiment Stations in the U. S., Canada, Australia and New Zealand; also by America's leading poultrymen and many thousands of persons in every walk of life. Guaranteed to give satisfaction or price refunded. The original and only genuine non-moisture incubator, fully covered by patent. WRITE FOR NAME OF CANADIAN AGENT NEAREST YOU. Agents carry incubators in stock, duty paid, and can save you money. Complete 180-page catalogue for 1902, finely illustrated, free if you mention this paper. Ask for Book No. 110. Address: Cyphers Incubator Co., Buffalo, N. Y., Chicago, Ill., Boston, Mass., New York, N. Y.

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Warranted to last ten years without repairs; to require no supplied moisture; to be self-ventilating and self-regulating; to be fireproof; simple and easy to operate; and to produce larger and stronger chicks than any other make of incubator on the market. It is specially adapted to our climate.

I CARRY A FULL STOCK IN WINNIPEG AND TEST EVERY MACHINE BEFORE SHIPPING.

Endorsed by twenty experimental farms in Canada and U. S. Write for catalogue to

MAW'S POULTRY FARM, WINNIPEG.

I keep acclimatized utility breeds of turkeys, ducks, geese and chickens, and sell eggs and stock. 30 prizes and medals at Manitoba Poultry Show and Winnipeg Industrial. Also in stock a supply of extra strong wire netting for poultry fences, bone mills, crushers, caponizing instruments, leg bands, poultry punches, lice exterminator, and all poultry supplies.

**EVERGREENS**  
 Hardy sorts, Nursery grown, for wind breaks, ornament and hedges. Prepaid, \$1 to \$10 per 100-50 Great Bargains to select from. Write at once for free Catalogue and Bargain Sheet. Local Agents wanted.  
 D. Hill, Evergreen Specialist, Dundee, Ill.

**Trees! Trees!  
 Trees!**

We have a full line of Fruit and Ornamental Trees for spring, 1902, at lowest possible prices. Headquarters for packing dealers' orders. Farmers wishing to buy first-class stock absolutely first hand and without paying commission to agents, should write to us at once for a catalogue and price list. Don't wait until the last minute, as you will be disappointed. Place order early and secure the varieties you want. Correspondence solicited.

**Winona Nursery Co., WINONA, ONT.**

**FERRY'S SEEDS**

For The Farmer and The Gardener and The Housewife  
 They cost a little more. They are worth a great deal more than the ordinary kind. Sold everywhere. 1902 annual free.  
**D. M. FERRY & CO.**  
 Windsor, Ont.

**ALMA**  
 Leading Canadian College

**FOR YOUNG LADIES**  
 ST. THOMAS, ONT.  
 Proprietary and Collegiate studies through Senior University Matriculation, Music with University examination, Fine Art, Commercial, Domestic and Domestic Science.  
 Home-like appointments, good board, cheerful atmosphere, excellent oversight in health, manners and daily life. For catalogue, address:  
**Rev. Robert I. Warrac, M.A. Principal**

**OUR MAIL COURSES**  
 In Bookkeeping, Business Practice, Penmanship, Shorthand and Typewriting will suit your wants if you cannot arrange to attend our splendid school.  
**CENTRAL BUSINESS COLLEGE, TORONTO**  
 A strong school; 12 regular teachers; thorough work. Write for circulars.  
**W. H. SHAW, PRINCIPAL.**

**DO YOU KNOW**  
 THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER?  
 NOW IF YOU HAVE A PIECE OF LAND THAT WONT GROW ANYTHING BUT WEEDS, TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER  
 WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY  
 CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP  
**THE W.A. FREEMAN CO. LIMITED, HAMILTON ONTARIO**

PLEASE MENTION THE **FARMER'S ADVOCATE**

**LARGEST FOUR YEAR OLD HORSE IN THE WORLD**  
 WEIGHT 2500 Lbs., Age 4 Years, PERCHERON. Owned by International Food Co., Minneapolis, Minn. We feed "INTERNATIONAL STOCK FOOD" every day to our four Stallions, Brood Mares, Colts, etc. "INTERNATIONAL STOCK FOOD" causes Horses, Cattle, Hogs and Sheep to grow very rapidly and makes them Big, Fat and Healthy. It is used and strongly endorsed by over 500,000 Farmers. It is sold on a Spot Cash Guarantee to Refund Your Money in any case of failure by over 30,000 Dealers. It will make you extra money in Growing, Fattening or Milking. Owing to its blood purifying and stimulating tonic effects it Cures or Prevents Disease. It is a safe vegetable medicinal preparation to be fed in small sized feeds in connection with the regular grain. It Pattens Stock in 30 to 60 Days less time, because it aids Digestion and Assimilation. In this way it saves a large amount of Grain. The use of "INTERNATIONAL STOCK FOOD" only costs 3 FEEDS FOR ONE CENT. Ask your dealer for it and refuse any of the many substitutes or imitations. It always pays to feed the best. "INTERNATIONAL STOCK FOOD" is endorsed by over 100 leading Farm Papers.

**A \$3000.00 STOCK BOOK FREE**  
 MAILED TO EVERY READER OF THIS PAPER.  
 This Book Contains 183 Large Colored Engravings of Horses, Cattle, Sheep, Hogs, Poultry, etc., and of this Horse. It cost us \$3000 to have our Artists and Engravers make them. It contains a finely illustrated Veterinary Department that will save you Hundreds of Dollars. Given description and history of the Breeds of Horses, Cattle, Sheep, Hogs and Poultry.

**THIS BOOK FREE, Postage Prepaid, if You Write Us a Postal Card and Answer 3 Questions:**  
 1st—Name this Paper. 2nd—How much stock have you? 3rd—Did you ever use "INTERNATIONAL STOCK FOOD" for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs or Pigs. The Editor of this Paper will tell you that you ought to have a copy of our finely illustrated Book for reference. The information is practical and the book is Absolutely Free. Write Us At Once for Book. We Won the Highest Medal at Paris in 1900.

**INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN., U.S.A.**  
 3 FEEDS FOR ONE CENT

**Largest Stock Food Factory in the World. Capital Paid in \$1,000,000.00**

DEALERS SELL THESE ON A "SPOT CASH" GUARANTEE  
 INTERNATIONAL STOCK FOOD, INTERNATIONAL POULTRY FOOD, INTERNATIONAL LOUSE KILLER, INTERNATIONAL WORM POWDER, INTERNATIONAL COLIC CURE, INTERNATIONAL HARNES SOAP, INTERNATIONAL GALL CURE, INTERNATIONAL HEAVE CURE, SILVER FINE HEALING OIL, ETC.

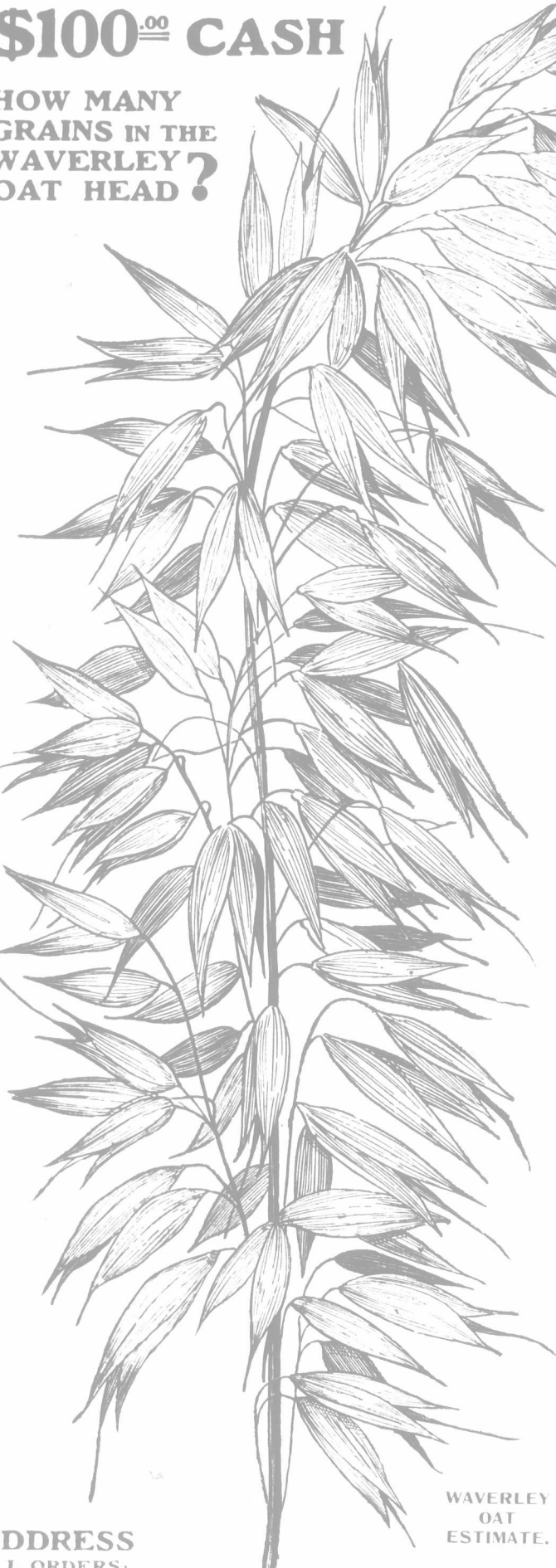
**NEW WAVERLEY OATS**

**\$100.00 CASH**

**HOW MANY GRAINS IN THE WAVERLEY OAT HEAD?**

**FAMOUS WAVERLEY WHITE OATS**

**FROM EUROPE. GIVES ASTONISHING RETURNS GROWN IN CANADA.**



We believe more new varieties of Oats have been placed before the public than any other kind of seed grain. Many heavy croppers have been introduced of late, but on first trial they are rejected on account of thick, coarse hulls or poor, weak straw, if for nothing else. When, therefore, we state that in addition to the Waverley yielding immense crops, it is also thin in the hull and has a clear, bright amber colored straw, which stands upright in almost all kinds of weather, we are sure we have said enough to enlist the attention of farmers everywhere. Our crops have satisfied us that it is wonderfully adapted to both the soil and climate of this country. Waverley is ready to harvest about the same time as other sorts, and is the heaviest weight oat we have ever seen, while the hull is quite fine and light. The kernels are so unusually sweet, large and meaty as to appear like mammoth rye grains. The most distinctive feature of the NEW WAVERLEY is its producing three grains in a spikelet, whereas most all other varieties produce but two. Of immense storing qualities, WAVERLEY gives great promise of becoming the leading oat for Canada, and we predict an enormous sale as soon as its merits become known.

PRICES FOR 1902: Pound 30c.; 3 pounds 75c., by mail post-paid; peck 60c.; half-bushel \$1; bushel \$1.60; 5 bushels \$7.50. PRICES by peck, half-bushel and bushel, do not include express or freight charges nor bags. BAGS—Cotton, each 18c.; Linen, each 10c.

**\$100.00 In Cash Prizes.**  
 A Unique Competition.

**How Many Grains IN THE Waverley Oat Head?**

The accompanying illustration is an exact engraving from photograph of a head of the new Waverley Oats grown by us the past season, and we offer below special inducements to purchasers.

**SPECIAL—TO CUSTOMERS OR PURCHASERS OF ONE POUND OR MORE WAVERLEY OATS**

who estimate (count or calculate) as per conditions below, the nearest number of grains in the head as illustrated, we offer the following Cash Prizes, which are given as an inducement to aid and assist in the production and cultivation of a better and more superior variety of oats than has heretofore been known in this country.

**1st Prize, \$15.00; 2nd Prize, 10.00; 3rd Prize, \$5.00. Next Ten—Each, \$2.00; Next Fifty—Each, \$1.00.**

- The Cash Prizes are given subject to the following conditions:
- A—Every purchaser or customer who purchases one pound or more can send in an estimate (count or calculation).
  - B—No customer is compelled to estimate.
  - C—The nearest estimate to the exact number of grains in the head to receive First Prize.
  - D—Should two or more persons estimate the same number the two or more prizes will be equally divided.
  - E—No estimates will be received after May 31st, 1902.
  - F—All estimates to accompany orders for Oats and to be sent by mail.
  - G—No employee nor person who has any connection with our establishment can estimate.
  - H—Only one estimate will be received from each customer or purchaser.
  - I—Positively no questions will be answered.
  - K—No estimate will be recognized unless on separate sheet from order.
  - L—A full list of the PRIZE WINNERS will be published June 1st, 1902.

**CUT THIS OUT**

Name.....  
 Post Office.....  
 Province.....  
 Estimate..... Grains.

**WM. RENNIE, Adelaide and Jarvis Streets, TORONTO**  
 REMIT CASH WITH ORDER.

# CANADIAN PORTLAND CEMENT



BRANDS :

(RATHBURN'S) STAR, BEAVER, ENSIGN.

MANUFACTURED BY

**The Canadian Portland Cement Co.**  
LIMITED.

Excels all other cements for durability and economy in building concrete silos, barn foundations, floors, hogpens, cisterns, etc.

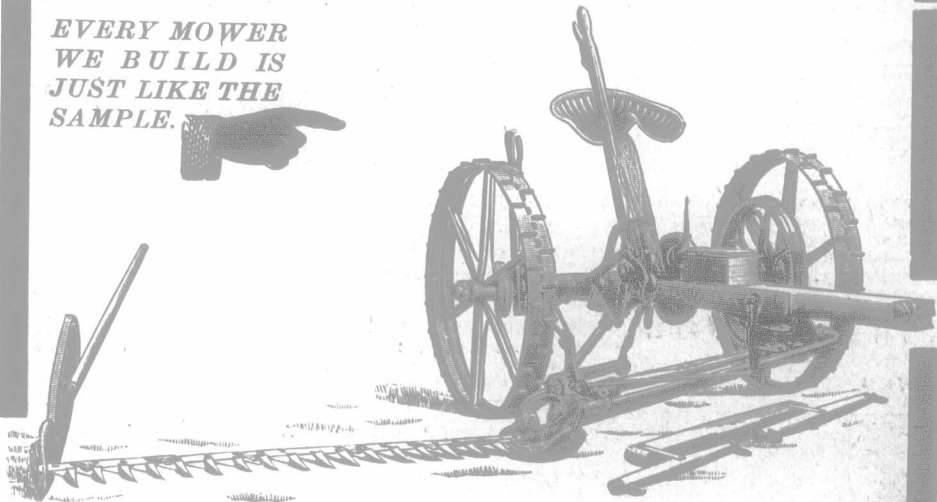
Watch our advertisement in each issue. Write for prices and other information to our sales agents.

**THE RATHBURN COMPANY,**  
310-312 Front St. W., TORONTO, ONT.

## WE CLAIM THAT THE **Frost & Wood New No. 8** IS THE BEST MOWER.

There may be a better Mower, but we have never seen one. Perfection in anything has never yet been reached, but you naturally want the best you can get. That is why we are offering you our **New No. 8 Wide Frame Mower**. Examine it carefully, and you will be convinced that it is the best. You do not want a Mower that will wear out in three or four years, and do poor work while it lasts. If you do, don't buy the **New No. 8**. It is built to last a lifetime, and to cut all the grass all the time. Cuts 4 1/2 ft., 5 ft. and 6 ft. Call on our agent and inspect sample machine.

EVERY MOWER WE BUILD IS JUST LIKE THE SAMPLE.



When you call to see our Mower, it will be worth your while to look at our **No. 3 Open Rear Binder, Horse Rakes, Cultivators and Seeders.**

Head Office and Works :

Smith's Falls, Ontario.

*THE Frost & Wood Company*  
LIMITED

Branch Offices and Warehouses:

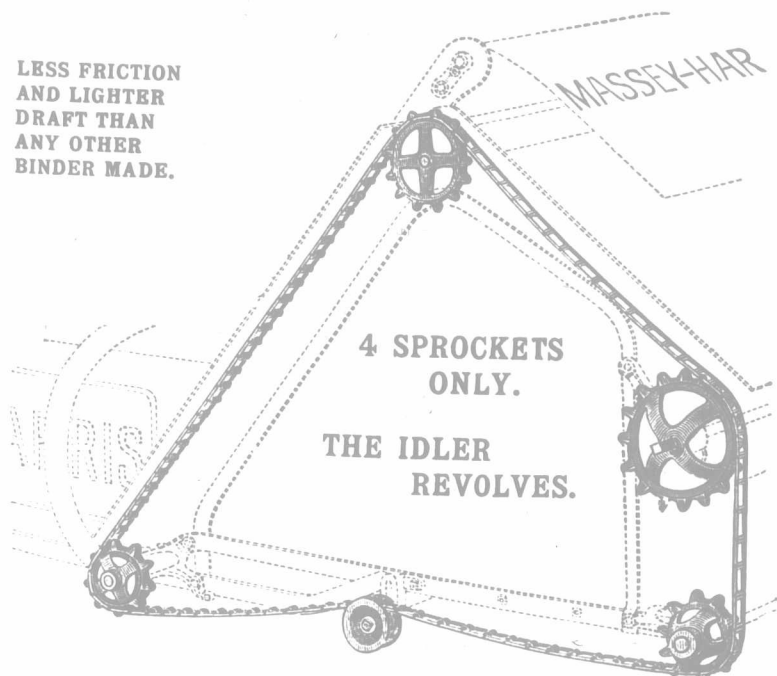
Toronto, Ont.  
London, Ont.  
Winnipeg, Man.  
Montreal, Que.  
Quebec, Que.  
St. John, N. B.  
Truro, N. S.

# MASSEY-HARRIS Light-Running No. 4 BINDER.

CHAIN DRIVE.—The Massey-Harris Chain does not wind in and out among the Sprockets.

The Sprockets all revolve in the same direction.

LESS FRICTION AND LIGHTER DRAFT THAN ANY OTHER BINDER MADE.



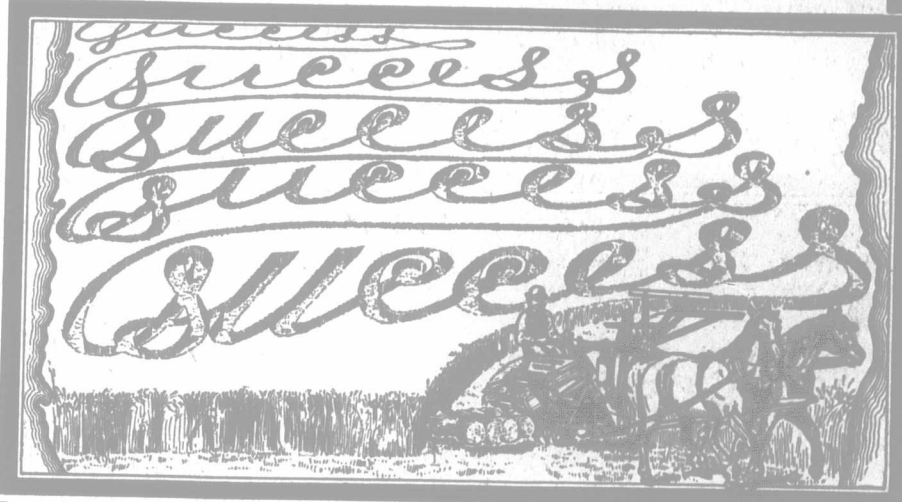
4 SPROCKETS ONLY.

THE IDLER REVOLVES.

Your own interest in Canada's future should influence you to

**Buy Canadian - Made Implements.**

## HARVESTING "SUCCESS" FROM OCEAN TO OCEAN WITH DEERING HARVESTERS.



### THE DEERING LINE OF LIGHT-DRAFT IDEALS

Is recognized as the embodiment of the best and most advanced ideas in harvester construction. It is an invariable rule that where a Deering machine is once used it is permanently installed with the regular farm equipment. Generation after generation have used Deering Harvesters without departure from their allegiance to the products of the big Deering works, the largest harvester plant in the world. It requires genuine merit to win such recognition.

The Deering Harvester Company controls the entire output of the Mann Manufacturing Co., Limited, of Brockville, Ont., and are prepared to supply the trade with the famous Mann line of Seeding and Tillage machines.

**DEERING HARVESTER CO.,**  
CHICAGO, U. S. A.

CANADIAN BRANCHES: TORONTO, LONDON, MONTREAL, WINNIPEG.

WORLD'S GREATEST MANUFACTURERS OF

Binders, Headers, Mowers, Reapers, Corn Binders, Corn Shockers, Huskers and Shredders, Rakes, Twine and Oil.

## Sale of Men's Suits

\$7.65 FOR SUITS THAT WERE \$9.50, \$10.50, AND \$12.50.

All the most stylish and up-to-date cut. The very newest weaves in Canadian, Scotch and English Tweeds; many of those **FAMOUS LEADER SUITS** being among the lot. Spring or winter weights.

\$9.65 FOR SUITS THAT WERE \$12.50, \$13.50, AND \$15.

Made of Scotch and Irish Tweeds and English Worsteds. This special sale was inaugurated for the special purpose of making room for spring stocks soon to arrive. Goods exchanged if not satisfactory.

THE HUDSON'S BAY CO., 178 to 184 MAIN ST., WINNIPEG.

## THIS CUT ILLUSTRATES THE ONLY "Hinge" Stay Fence

It will not sag, and is cheap, strong and durable. Write for circular and prices. Good Agents Wanted in every locality, to whom we guarantee good returns.

The Strathy Wire Fence Co. (LIMITED), OWEN SOUND, ONT.

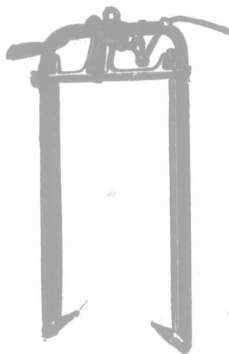
SHOWING HINGE MOVEMENT OF STAYS UNDER PRESSURE STAYS CANNOT BEND & WILL SPRING BACK TO PLACE WHEN PRESSURE IS REMOVED.



No. 13

## PROVAN'S PATENT REVERSIBLE Carriers, Fork and Slings

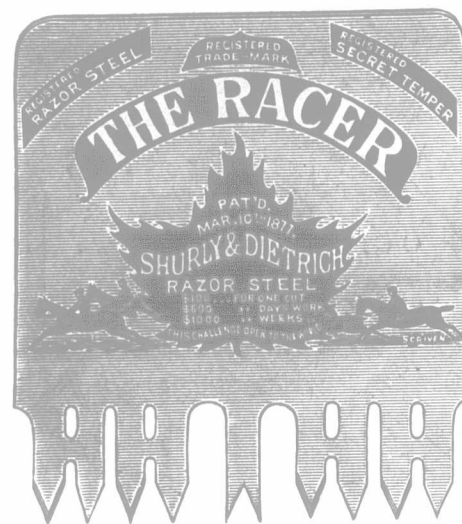
FOR ROUND IRON, WOOD, OR ANGLE STEEL TRACKS.



Have now become a standard of excellence with the farmers of Canada and the United States. At the World's Fair, Chicago, 1893, the only medal and diploma given on hay carriers, forks and slings was awarded to us on these implements. Following is a copy of the judges' award: AWARD.—"For open trip hook to receive the sling; automatic clutch, adjustable for size of load desired; ingenious design of stop-block, which enables perfect control of carriage; no springs required for locking car, which has motion in all directions; compact form of fork, which can be tripped in any position; the car is reversible and of double action; for novelty, ingenuity and usefulness, excellence of material and construction." Correspondence solicited. Manufactured by

JAMES W. PROVAN, Special discount for cash. -om OSHAWA, ONT., CAN.

## The Razor Steel, Secret Temper, Cross-cut Saw.



WE take pleasure in offering to the public a saw manufactured of the finest quality of steel, and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A saw to cut fast "must hold a keen cutting edge."

This secret process of temper is known and used only by ourselves. These saws are elliptic ground thin back, requiring less set than saws now made perfect taper from tooth to back.

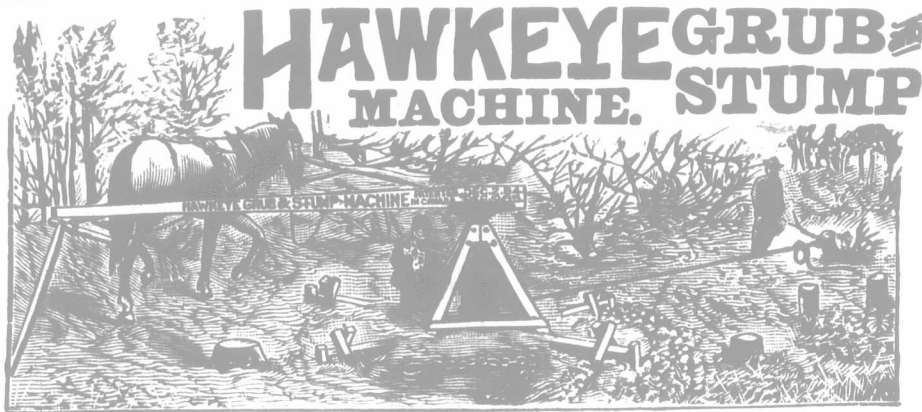
Now, we ask you, when you go to buy a Saw, to ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other Saw is as good, ask your merchant to let you take them both home, and try them, and keep the one you like best.

Silver steel is no longer a guarantee of quality, as some of the poorest steel made is now branded silver steel. We have the sole right for the "Razor Steel" brand.

It does not pay to buy a saw for one dollar less, and lose 25 cents per day in labor. Your saw must hold a keen edge to do a large day's work.

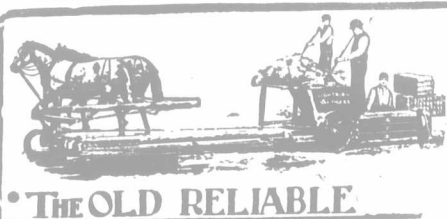
Thousands of these saws are shipped to the United States and sold at a higher price than the best American saws.

MANUFACTURED ONLY BY SHURLY & DIETRICH, Galt, Ontario.



## HAWKEYE GRUB MACHINE. STUMP

Works on either standing timber or stumps. Will pull an ordinary grub in 15 minutes. Makes a clean sweep of two acres at a sitting. A man, a boy and a horse can operate it. No heavy chains or rods to handle. The crop on a few acres the first year will pay for the machine. Send postal card for illustrated Catalogue, giving price, terms and testimonials. Address Milne Bros. for Shetland Pony Catalog. MILNE MFG. CO., 886 8th St., Monmouth, Ill.



**LIGHTNING HAY PRESSES** HORSE AND STEAM POWER CATALOGS FREE KANSAS CITY HAY PRESS CO 439 MILL ST. KANSAS CITY MO

\*THE OLD RELIABLE

Please Mention Farmer's Advocate.

# BELL PIANOS AND ORGANS

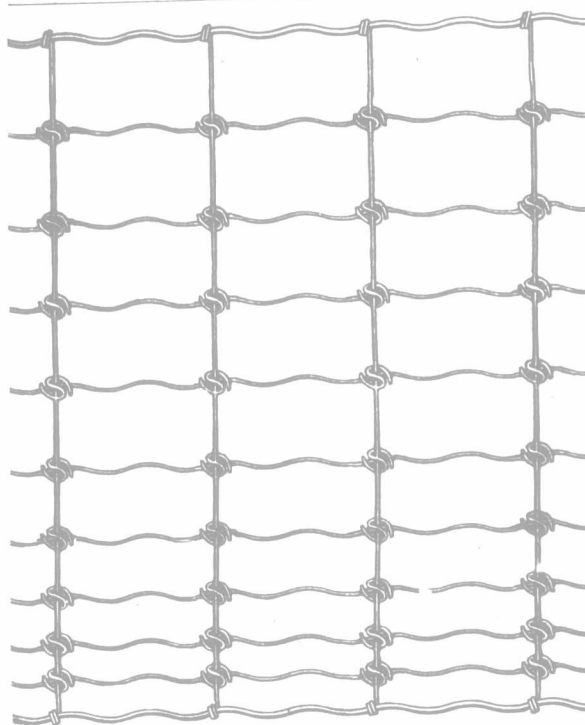
BUILT TO LAST A LIFETIME BY THE LARGEST MAKERS OF PIANOS & ORGANS IN CANADA.

The Bell Organ & Piano Co., Ltd., Guelph, Ont.

(CATALOGUE NO. 40 FREE ON REQUEST.)

J. J. H. McLEAN & CO.,

530 MAIN STREET, WINNIPEG, WHOLESALE AND RETAIL AGENTS FOR MANITOBA



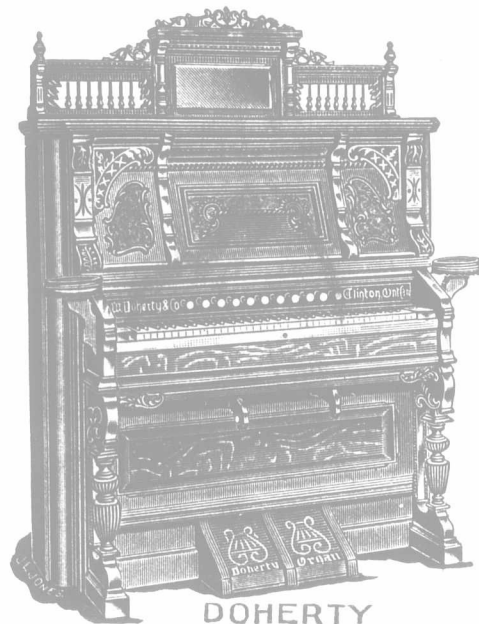
## Woven Wire Fencing

A heavy stay in one piece. A perfect lock to hold. Complete in the roll. Made from hard spring wire throughout. Will stand up and do business when other styles fail.

WRITE:

McGregor, Banwell & Co'y. Windsor, ONT.

# DOHERTY Organs



STYLE 170

A PEERLESS PIANO ORGAN

MADE IN THE

LARGEST REED ORGAN FACTORY

UNDER THE

BRITISH FLAG.

DOHERTY

CORRESPONDENCE SOLICITED.

## W. DOHERTY & CO.,

CLINTON, ONT., CAN.