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MISSING**

(Continued from Page 1196, Christmas number.)

The HORSE-LIFT Line

The new I D sulky and gang plows are an absolutely new creation in the plow line that will interest the **PROGRESSIVE, UP-TO-DATE** farmers and their sons (are you one of that kind, or have you got your "mind sot" on some old style, which you will buy without investigating this one) who keep a sharp lookout for machinery that **SAVES LABOR** for man and beast. These plows will do it because they have the **strongest frame**, braced so that it will never go down at the front-wheel corner. **END THRUST** of **REAR WHEEL CONNECTING ROD** is resisted by frame and not by the pole, hence no landsides are needed to keep front wheel from crowding out of land.

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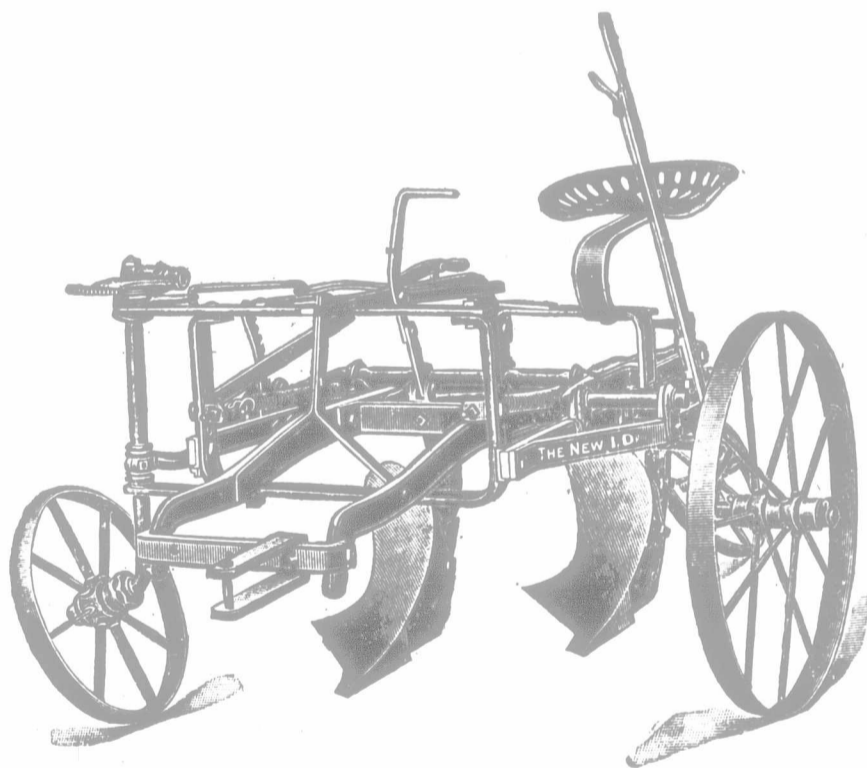
of new design that do the highest quality of work with **LIGHTEST** draft.

SHARES

one whole gauge thicker than used on other makes.

All of above

Saves the Beast.



Guaranteed

to clean when all others fail.

A Little Boy or an Old Man

can operate them because **THE HORSES DO THE LIFTING.**

This Saves the Man.

IF YOU LOOK AT THEM YOU WILL BUY SURE.

VERITY PLOW CO., LIMITED.

MASSEY-HARRIS CO'Y,

SOLE AGENTS.

LIMITED,

(To be Continued.)

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Thompson Sons & Co.

GRAIN COMMISSION MERCHANTS,

GRAIN EXCHANGE, WINNIPEG. BANKERS: Union Bank of Canada.

LAST	\$8.10
MOUNTAIN	PER ACRE.
VALLEY	
LANDS.	

Wm. Pearson & Co.,
383 MAIN ST., WINNIPEG.

E. O'REILLY

GRAIN DEALER WINNIPEG, MAN.

QUOTATIONS furnished ON ALL kinds of GRAIN in CAR LOTS. Prompt adjustments. Correspondence solicited.

REFERENCES: THE MERCHANTS' BANK OF CANADA.



20 H.-P. Total Weight 3,200 lbs.

Patented and Pending. Our Gasoline Threshing Engine. Write for prices, etc., to The McLachlan Gasoline Engine Co., Ltd., 201 Queen St. E., Toronto, or to W. C. WILCOX & CO., Winnipeg, agents for Manitoba and Northwest.

TREES! TREES!

TWO MILLION OF FOREST TREES GROWN ON SPRING PARK NURSERY, BRANDON, MANITOBA.

- For a Wind-break—Man. Maple, Cottonwoods, Green Ash, White Elm and White Spruce.
- For an Ornamental Hedge—Buckthorn, Caragana, Honeysuckle, Lilac, Buffalo Berry.
- For the Orchard—APPLES—Hibernal, Duchess, Transcendent Crabs; Currants, Raspberries, Gooseberries.

REMEMBER We guarantee all our forest trees to grow, or replace them at the company's expense

Trees shipped by express, charges prepaid. Our next delivery from 1st to 15th of May, 1904. Write for catalogue and all information to

The Manitoba Farmers' Hedge and Wire Fence Co., Ltd.
DUNCAN MCGREGOR, President. P. O. Box 81, BRANDON. B. D. WALLACE, Sec. and Man.

British Columbia Farms.

Mild climate, no winter to speak of, the best dairying country in North America. No blizzards, no cyclones, no droughts, no hot winds, no summer frosts, no cloudbursts. Fertile land and good water. The best prices for all kinds of farm produce.

THE CALIFORNIA OF CANADA, with land at one tenth the price. Write for Farm pamphlet to the SETTLERS' ASSOCIATION, Box 540, Vancouver, B. C.

The Lower Fraser Valley, B. C., is the district we particularly recommend. Have had neither frost nor snow there since early in November up to Jan. 9th.

Please refer to this page.

If You Intend Shipping or Selling Grain

you will find it to your advantage to do your business through a strictly commission firm—that's what we are. Send us your shipping bill and we will send liberal cash advance, get you the highest price, and make quick settlement. We are licensed and bonded, and guarantee prompt and careful service.

WRITE TO-DAY FOR FULL PARTICULARS.

GOSSIP.

Mr. S. P. Thompson has landed in Regina with four heavy draft stallions and a pacer. One of the stallions is the seal brown Shire, Raydon Ambassador, imported by Bawden & McDonell, of Exeter, Ont. He was sired by Nailstone Royal Prince, he by Prince Harold, a high-priced horse, dam Nancy, by Eveall Masterpiece, who weighed slightly over 21 cwt., and won first at London, Ont., last season. Bright Star, a Clyde, also imported by the same firm, and sired by Good Gift, dam Lightsome Lass, by Lightsome Lad, is a well-gotten-up, compact horse, of a ton weight. He stood at Paisley, Scotland, during the season of 1903 at a good figure. Colborne Champion, sire Prince of Twynholm (imp.), dam Colborne Lassie, by Studbook Chief, is a big, growthy two-year-old. The fourth is a three-year-old, well-put-up and active, by Gipsy King, dam by Brave Graham.

Mr. Nolan and Mr. Quigley had a quarrel, and Mr. Nolan's friends urged him to fight. "But he's more than me equal," said Mr. Nolan doubtfully. "And look at the size of him!" "Shure, you don't want folks to be sayin' that Terry Nolan is a coward?" demanded his friend reproachfully. "Well, I dunno, I dunno," said Mr. Nolan, mournfully. "I'd rather that than to have them saying day after tomorrow, 'How natural Terry looks!'"

A well-known clergyman, says the Golden Penny, tells a story of a drowsy parishioner, who, waking up suddenly in church, heard the clergyman say: "Let us pray," and exclaimed in a loud voice, "Certainly!" He also tells of a certain grave old gentleman, who suspected his pastor of imitating other preachers' prayers. "That's Sherlock!" he exclaimed, as the minister finished a sentence, and the preacher had not gone much further when the old man muttered, "That's Tilletson!" The minister paused indignantly, but went on again until the man beneath the pulpit broke out with "That's Blair!" Then he could stand the interruption no longer, and, leaning over the pulpit, he whispered to the man below, "If you do not hold your tongue, you shall be turned out." "That's his own!" came from below.

TRADE NOTES

MR. R. F. HAY, who has been in the employ of the Massey-Harris Company since 1891, recently severed his connection with that company to become manager of the Moose Mountain Lumber & Hardware Co. Before leaving, he was presented with a solid gold chain and diamond-set locket by his old associates in the company.

AN AUCTION SALE OF PURE-BRED ANIMALS, male and female, in lieu of the sale formerly held under the direction of the live-stock associations, will be held at Guelph, on 16th March, 1904, under the auspices of the Guelph Fat Stock Club. Entries will be received until 30th Jan., 1904. Full particulars later. Apply for further particulars to John McCorkindale, Secretary, Guelph P. O., Ont. Advt.

STRANGERS who are interested in the Edmonton district can get full information regarding this fast-growing country by writing and enclosing \$1 to C. M. Tait, of Edmonton, Alta., for his book, containing 175 pages and 150 views, 5 1/2 x 7 1/2. All the views were taken during the year 1903. The book is entitled Edmonton Illustrated, and includes an illustrated description of the surrounding country and the town itself, together with facts and figures pertaining to the town's development, and the future possibilities from a standpoint of agricultural and mineral resources.

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OF ALL DESCRIPTIONS

- Mica Crystal Grit
- Granulated Poultry Bone
- Meat and Bone Meal
- Blood Meal
- Crushed Oyster Shells
- Sprayers
- Markers
- Netting
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- Drinking Fountains

Etc., etc. In fact, everything for the poultry yard. Write your wants and get our prices.

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Branch Store of Canada's Winnipeg, Man. Greatest Seed House.

WANTED, AGENTS

Reliable men to sell for "Canada's Greatest Nurseries"; largest and best assortment of stock; liberal terms to workers; pay weekly; outfit free; exclusive territory.

STONE & WELLINGTON, Toronto.

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by the Crown Vaporizer. This is a very neat instrument, beautifully nickel plated and will last a lifetime. It can be carried in the pocket or purse. It will cure a cold in the head almost instantly; headaches stopped short with one application. The Crown cures CATARRH, Asthma, Sore Throat, Neuralgia, Hay Fever and Lung Trouble. If used a few times each day it prevents La Grippe and Pneumonia. This treatment soothes and heals the sore spots, nourishes and strengthens the diseased organs, and assists nature to restore them once more to their normal condition of health. It contains no poisons, but healing and penetrating oils; it can be used by a child. It tones up the whole system. Your money back if not satisfied. Complete, with six months' medicine, only \$1, sent postpaid to any address. Free literature and testimonials on application. Agents wanted. THE O. R. MEDICINE CO., LIMITED, (DEPT. C) 2 QUEEN ST. E., TORONTO.

RUPTURE.

Write for particulars as to how to cure it without a risky operation. Invaluable advice FREE

C. H. Dorenwend, R. S., Toronto, Ont. State your case when writing. 393 Yonge St. on

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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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VOL. XXXIX.

WINNIPEG, MAN., AND LONDON, ONT., JANUARY 27, 1904

No. 592

Editorial.

Lumbermen and the C. P. R.

The announcement made by Vice-President W. W. White, of the C.P.R., that unless the lumber manufacturers were prepared to supply their goods to the consumer at a more moderate price the C.P.R. company would establish large lumber-mills, has brought forth some scathing criticisms of the big railway concern by manufacturers on the Coast and elsewhere. The Vancouver Ledger, in taking up the subject, published an interview with one of the leading millmen in B. C., who said:

"I do not know anything about what profits the retail dealers have on their goods, and do not know that it is any particular business of mine, but I do know that the profits of saw-mills in B. C. have not been satisfactory up to the present time, and when Mr. Whyte, or any other official of the C.P.R., makes assertions such as he is alleged to have made in the interview, he is guilty of interference with our business which is entirely unwarranted, and the C. P. R. should be last of all to make such an attack.

"We have never presumed to interfere with the C.P.R. as to what they shall charge for freights, and have never found any fault with their recent sharp advances in west-bound freight rates, even although this will mean a good deal to us, but we do not think it fair that they should make us scapegoats and try to pull the wool over the eyes of the public in this manner. The C.P.R. are to-day getting more out of our business a great deal than we are," was the sharp reply. "As an instance, I might cite several recent shipments, one car containing about 16,000 feet, the net amount of the invoice is \$195.00, while the freight on this car is \$355.00; a second car containing over 11,000 feet nets us \$133.00, while their freight is \$250.00; so that it is apparent that while lumber seems high at the delivered end, the biggest portion of the price is the cost of freight."

Dealing with the same question, another manufacturer said:

"A shipment now being made brings up \$36.46 per thousand at point of delivery. Out of this the C. P. R.'s charges are precisely \$21.96 per thousand, leaving to us \$14.50 per thousand.

"Now for that \$14.50 per thousand, the lumber-mill has to maintain timber limits under heavy rentals and royalties. The timber has to be cut and put into the water, afterwards towed to the mills under risk of loss, which frequently occurs. The lumber has to be manufactured at the mills, and after orders are secured, the cars have to be loaded and shipped. Then the lumberman sits down and waits for his money till he gets it. All the C.P.R. does for its lion's share of the price, is to haul the car and deliver to the customer whom the mill has found, and the latter pays the freight charges and unloads the car himself. The whole transaction, so far as the C.P.R. is concerned, does not take over ten days."

While the controversy between these two gigantic corporations, the C. P. R. and the Lumber-dealers' Association, continues, and new light is being thrown on the trade, consumers are obliged to pay the same high price for lumber. A reasonable conclusion of the whole matter is that the freight rates are excessive, and the cost of manufacture and selling price in the Pacific Province are too high.

A Big Convention Expected.

Reports coming from all corners of the Province of Manitoba indicate that the Grain-growers' convention to be held in Brandon at 2 o'clock on Wednesday next will be one of the largest farmers' meetings on record. There are several questions of vital importance to be discussed, and the Provincial executive are desirous of having as large a representation as possible. Although only one year has elapsed since the movement assumed Provincial organization, it has already proven itself more than worthy of the support and commendation of every right-thinking farmer. In the Northwest Territories the need for such an association was at first, perhaps, more pronounced than in Manitoba, and to the enterprising farmers of Assiniboia must go the credit for first taking up the work, but the unanimity of opinion which has existed during the past year between the two central associations has been as much a matter of surprise to those who would not have it so, as it has been one of gratification to those who look forward to a future of unmistakable usefulness on the part of Grain-growers' Associations.

It will be remembered that at Brandon one year ago various questions were discussed upon which a decision had been reached at the annual Territorial meeting some weeks previously, and where the conclusion of the Manitoba meeting differed the executive of the older association showed a disposition to, and did, incline toward their decision. This was as it should have been. "Farmers could do anything if they would only hang together, but they won't," has long been a familiar epitome, but if the grain-growers of this country are prepared to continue shoulder to shoulder, and as an organization pursue in moderation a course of unqualified usefulness, such as has characterized their actions during the year 1903, the time has fortunately come when it may be said that they cannot only do—but they will.

At the Territorial convention recently held in Regina, the principal features of the grain trade were pretty thoroughly gone into, and the conclusions arrived at by the association are commended to the moderate and intelligent consideration of those who meet in Brandon on Feb. 3rd. The Grain Inspection Act is one of the topics that deserves a thorough shaking up, and especially that section of it which permits of systematic blending and mixing. It is as unreasonable in its permission as it is unjust to the grain producer, and it now becomes the duty of Western farmers to test the influence of those Eastern factors that play upon the Governmental strings at Ottawa for its continuance. Let there be no uncertain sound from Manitoba and the Territories on this question, and the story of mixing and grinding east of Port Arthur will be past.

Of the other questions bearing upon the grain trade there will come up for discussion the necessity of a change in our system of grading; whether grain-growers should be represented on the Grain Standards Board; and various others.

In addition to these there are the problems arising from the coal and lumber combine, upon which an emphatic pronouncement should be delivered, and an ultimatum prepared.

The "Farmer's Advocate" bespeaks for the convention an interesting, intelligent and enjoyable meeting, and trusts that the same unanimity of thought and co-operation in spirit as characterized the meeting one year ago may predominate on Wednesday and Thursday next.

Wheat Breeding in Canada.

At the organization meeting of the American Plant and Animal Breeders' Association, held in St. Louis, Mo., on Dec. 29th and 30th, Dr. Wm. Saunders, Ottawa, is credited with showing that Preston, Stanley and other wheats bred by him have been widely distributed throughout the entire Dominion. The report goes on to say that Preston wheat has been tested as to its milling and baking qualities by leading experts in Britain and in Minneapolis, and found practically as good as Red Fife. It is also said to be in the lead in yield per acre in several experiment stations in Canada.

Whether Dr. Saunders has been correctly reported in the abstract press report sent out by the American Breeders' Association we are not in a position to say, neither do we wish to detract from the value of any good work which he may be doing at Ottawa for this country. We believe that plant breeding is, to the farmers of the West, one of the most important lines into which scientific research is being extended to-day, and when an investigator can by selecting and crossing varieties produce a wheat that will yield even one bushel per acre more than, and be of equal quality to, Red Fife, he has added to the financial advancement of agriculture beyond estimate.

In looking over the reports of the experimental farms at Brandon and Indian Head, it does not appear that up to the present time anything has been done through the efforts of plant breeders to produce a wheat that can be recommended to take the place of the one now generally grown. At Indian Head the report from the field plots in 1902 shows Stanley four and Preston nine bushels behind Red Fife, and at Brandon during the past two years neither of these varieties are seen high on the report of trial plots. At both these farms the superintendents are doing careful experimenting, but they are not supposed to carry on plant breeding, nor have they time nor facilities for so doing. Manitoba and the Territories constitute the great wheat-producing area of Canada, and it is only reasonable to suggest that a properly qualified botanist be commissioned to take up active work in plant breeding in Western Canada. The work that is being carried on at Ottawa along this line may have produced as good results for the West as if it had been carried on at either Brandon or Indian Head, but it never can be accepted with the same degree of confidence.

If there are any farmers who have grown Stanley or Preston wheats in any quantity during the last year, we would be glad to have their opinion, giving a comparison with Red Fife.

Learning to Grade Wheat.

Since grading of wheat is so important, there ought to be some practical means whereby farmers who wish to improve their knowledge on this subject could get the desired information. Why should there not be practical demonstrations given occasionally by those who are regarded as authorities in the work? Samples of the different grades would be interesting if exhibited at a farmers' meeting, and the reasons shown, not merely told, how one grade differs from another. Corn is the great crop of the Middle States, and they have corn-judging schools down there. Wheat is the great crop of this country; why should our young farmers, and older ones as well, not have some means of studying this all-important subject? Who can answer?

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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

PUBLISHED WEEKLY BY THE WILLIAM WELD COMPANY (LIMITED).

OFFICES: IMPERIAL BANK BLOCK, CORNER BANNATYNE AVE. AND MAIN ST., WINNIPEG, MANITOBA.

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LONDON (ENGLAND) OFFICE:

W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street, London, W. C., England.

1. THE FARMER'S ADVOCATE is published every Wednesday (52 issues per year). It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical, reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Western Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, United States, England, Ireland and Scotland, \$1.50 per year, in advance; \$2.00 when not paid in advance. All other countries, 1.25.
3. ADVERTISING RATES.—Single insertion, 12 cents per line, agate. Contract rates furnished on application.
4. THE ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrearages must be made as required by law.
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10. CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P. O. address. A couple of weeks necessarily elapse before the change can be made, and before the first copy of The Farmer's Advocate will reach any new subscriber. All subscriptions commence with the date of the first copy received.
11. WE INVITE FARMERS to write us on any agricultural topics. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the Advocate, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
12. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or THE WILLIAM WELD COMPANY (LIMITED), WINNIPEG, MANITOBA

Pointers.

Come to the Grain-growers' convention at Brandon prepared to talk business. There is often a lot of time lost at conventions because speakers do not stick to the subject before the house.

Neepawa will have the honor of holding the first Winter Fair in Manitoba. February 16th and 17th is the date, and the name is Manitoba Winter Fair.

The annual Manitoba Provincial Poultry Show opened yesterday, the 26th, at Brandon, and will continue until the 29th. Before the fresh egg gets to the table it is worth money just now, and there ought to be life in the hen business.

Territorial Grain-growers, while in session at Regina, passed a strong resolution favoring Provincial autonomy. The Manitoba convention on Tuesday next would be showing a neighborly spirit, and a deep interest in the development of Greater Canada, by endorsing that resolution.

The Territorial Department of Agriculture are on the right track in regard to their Farmers' Institute policy. Live-stock judging began at Edmonton yesterday (26th); Lacombe, Macleod, Indian Head, Yorkton, and other points, will be visited by the men in charge. If you can reach any of these points without difficulty, get out and judge, resulting practical about animal form.

The annual meeting of the Manitoba Agricultural College students will be held at the University of Manitoba, Winnipeg, on the 27th and 28th inst. It is a very important meeting, and one which should not be overlooked. The students of the college are to be congratulated on their successful career, and it is hoped that they will continue to be successful in their studies, and in their practical work, and in their social life.

The Agricultural Situation in B. C.

The condition of live-stock association affairs in B. C. is not in the flourishing condition that makes for advancement, either commercially or educationally. Internecine strife rages between officialdom and the association, and, as a consequence, the ship of agricultural progress is yet anchored in the pool of stagnation.

The association claims the right to elect its own secretary, to which it is undoubtedly entitled, whether that person is persona grata with the officials of the Provincial and Federal Departments of Agriculture or not, and objects strenuously to being penalized for exercising their undoubted prerogative, by the withholding of all aid, in the way of official recognition, without which it is hard to get reduced rates or passes from the railroads for association purposes, and also the withholding of all financial aid by the Federal Department of Agriculture.

As the association is made up of men who have borne the heat and burden of days gone by, when it cost more to bring pure-bred stock to B. C. than it does now, these men are entitled to some consideration, and should not be subject to the whims and caprices of officialdom.

A Vancouver daily recently advised editorially the abolition of the Deputy Ministership of Agriculture, along with that of another department, a move which would be a distinct backward step. As the agricultural portfolio is held by the Finance Minister, an energetic, tactful, capable deputy is an essential to agricultural progress, and to the Minister. The Agricultural Department is manned on a large enough scale to get results. Besides a deputy minister, there are two veterinarians doing public health work, a freight-rates commissioner, a fruit inspector, a horticultural board of four or five members; about twenty-three farmers' institutes, and about the same number of local shows, also receive aid from the Government, so that it would be unfair to charge the Government with neglect of the profession of agriculture. What faults need remedying will be found to exist in the way that the resources furnished are applied. The Department could well afford to lop off the local shows, which are little more than a sort of charitable distribution of public funds, and of tolls levied on the local merchants.

The following improvements are suggested: First, the abolition of the strife existing between the live-stock association and officials, so that the progress of agriculture (which ranks above the dignity of officials or associations) will not be hindered. Secondly, the abolition of all the local shows, the efforts of the Provincial Department of Agriculture being concentrated on fewer shows, say four or five, one or two in the upper country, the New Westminster and Victoria shows (which two have already demonstrated their right to live and receive aid), in place of the numbers now existing. Courses in live-stock judging should be offered, as is now done in Ontario, Manitoba and the N.-W. T. We are pleased to note that the Royal Agricultural and Industrial Society of New Westminster has seen the need and will endeavor to meet the want next March (although refused aid by the Dominion Department of Agriculture). There is room and need for a week or more of such courses, to be given also in the upper country and on Vancouver Island. In addition, a first-class horticulturist should be secured by the Provincial Department, one with both scientific and practical training, to give lectures and demonstrations in the horticultural branches, such as planting, grafting (not the political meaning), the handling of fungous diseases by spraying, etc. Such a man can be secured from the Agricultural College at Guelph.

The Dominion Department of Agriculture could well afford to arrange for a fruit experiment station on a small scale in the Okanagan, the results of the tests at Agassiz being of comparatively little value to the upper country, owing to the difference in climatic and soil conditions; and, for an additional reason, the Okanagan is the best fruit section of B. C. The same principle should be observed in civil service circles. If men of ability are to be retained, they must be given the opportunity to do their work, and if they are to be retained, they must be given the opportunity to do their work, and if they are to be retained, they must be given the opportunity to do their work.

A Killing Leaflet.

No less important a body than the British Board of Agriculture recently issued a leaflet advising owners of cows how to prevent or treat milk fever. With regard to the former, the usual diet restrictions are suggested, with mild purgatives. When the disease unmistakably makes its appearance, the leaflet directs that a "good dose of Epsom salts" should be given, and the veterinary called. If the experience of thousands of cases in the past be a guide, this dosing with salts will probably fix the cow's doom, and the offices of the veterinary will be of a post-mortuary character, for paralysis prevents the cow from swallowing, and she is strangled to death. The leaflet then goes on to recommend the iodide-of-potassium udder-injection (Schmidt) treatment, which, properly administered, has certainly proved a great advance on older methods in saving the lives of valuable cows. However, had the author of the leaflet read the "Farmer's Advocate" as attentively as he should have done during the past year he would have learned a still more excellent way, viz., the pure-oxygen udder-injection treatment, with which a firm of leading Canadian veterinarians, during the past season, had forty-seven complete recoveries out of forty-eight cases, the one loss being from mechanical congestion of the lungs, the cow having been dosed by someone else before the oxygen treatment was administered. These practitioners particularly insist that there shall be no such accompanying treatment, as it is practically certain to be deadly in its effects. They have also noticed that milking out the cow's udder clean after calving has been an almost invariable preliminary of milk fever, as it seems, as not a few stockmen and others have observed, to hasten the milk-fever collapse. Leaving the calf with the cow to suckle, removing the colostrum in nature's gradual way, is a suggestion in the way of prevention that should be more generally taken advantage of. The above ideas are not new in Canada, but are repeated with the hope that they may in due time counteract, in some degree, the mischief which might be wrought if British dairymen or breeders were to follow the belated and mischievous teaching of the official leaflet sent out by the Board of Agriculture.

An American, now a settler in the Calgary district, reported recently to a representative of the "Advocate" that about 12 miles south of Calgary while on a hill, he counted 93 dwelling houses; stables and outbuildings in no case being included. The growing period of the West has begun.

100% Ahead of Any Previous Year.

THE THOUSANDS of letters that have poured into this office during the past two months prove that the farmers of this country want and appreciate a really first-class weekly agricultural paper. Never in the entire history of the FARMER'S ADVOCATE did new subscriptions and renewals come in half so readily, and never did so many subscribers take the trouble to write, speaking highly of the paper and congratulating us upon its publication weekly.

After receiving a couple of copies of the weekly, several others write in reference to the subscription price that they would consider it a remarkably cheap paper at \$2 per year. Evidently the West is not the field for "Cheap John" farm papers. The Western farmers want quality.

We take this opportunity of thanking our subscribers for sending us so many new names when forwarding their own renewals. The farmers of Manitoba and the N.-W. T. evidently appreciate a high-class agricultural and home journal. We hope all who have not already sent us one or more new subscribers will not fail to do so before the end of this month.

THE FARMER'S ADVOCATE, WINNIPEG, MAN.

Who Deserves the Credit.

To the Editor "Farmer's Advocate":

Dear Sir,—Allow me to congratulate you on the appearance—in a double sense—of the weekly issue of the "Farmer's Advocate." I am much pleased to see that the Dominion Exhibition is to be held this year, and hope it will be a great success. It is rather surprising, however, to find that the Manufacturers' Association is getting all the credit of its inception, when, so far as I am aware, the "Farmer's Advocate" was the first to suggest the holding of such an exhibition, and to urge its importance on the public. "Render unto Caesar, etc." L. S. LITTLE.
Winnipeg, Man.

The life of the farmer is a busy one at all seasons, and although in winter every hour has not to be caught in its season, the farmer who is progressing, and is destined to get ahead, is always busy. His, however, is not that busy worry which results in brain fag and all its accompanying evils. There is a variety in the farmer's life which precludes all monotony and its evil effects on health.

Horses.

The Care of Unshod Hoofs.

The United States Department of Agriculture has done a good work in issuing Farmers' Bulletin No. 179, which treats of horseshoeing, a question that is far too little understood, not only by the farmer but also by many of those who undertake the work of shoeing horses. In fact, there are some shoers who have done this work all their lives, and yet there are many things in regard to it which they have never sufficiently mastered.

In speaking of the care of unshod hoofs, the bulletin says: "The colt should have abundant exercise on dry ground. The hoofs will then wear gradually, and it will only be necessary from time to time to regulate an uneven wear with the rasp and to round off the sharp edges about the toe to prevent the breaking away of the wall."

"Colts in the stable cannot wear down their hoofs, so that every four to six weeks they should be rasped down and the lower edge of the wall well rounded to prevent chipping. The soles and clefts of the frogs should be picked out every few days, and the entire hoof washed clean. Plenty of clean straw should be provided. Hoofs that are becoming awry should have the wall strengthened in such a manner as to straighten the foot axis. This will ultimately produce a good hoof, and will improve the position of the limb."

Developing Action.

Every horse is naturally endowed with more or less capability to display himself, but whether he improve or mar his natural tendencies depends upon the education or training he receives. Many of the best show horses have acquired their proud carriage and high action through education; only a few being possessed of these qualities without the aid of teachers. The education of a young horse to methods of good behavior is not a very difficult or tedious task. It consists in developing a habit, and habits once acquired soon become second nature. Of the methods frequently used to improve action, one of the most common is to use weights in the shoe, on the hoof, or in the shape of ordinary fine bird shot confined in a leather tube, on the ends of which are a strap and buckle, the whole being covered with buckskin and strapped around the leg just above the coronet.

Another plan is to exercise the subject over a bed of straw, or other resilient or springy material. The yielding of the straw at every step will make him bend his knees and hocks and lift his feet high to clear the ever-present obstacle. The old practice of threshing peas on the barn floor, by treading with horses, was one of the best means of demonstrating this method. In some cases a ditch three or four feet wide is dug and filled with straw, tramped and filled again, until the straw is level with the ground. In this ditch the horse may be worked until the necessary amount of daily exercise has been given.

Some trainers prefer the plan of laying railway ties along the ground at regular intervals, according to the length of the stride of the horse. Over these ties the animal is trotted, being forced to pick his feet up high and clean to clear the obstructions. Deep, soft snow is also a good substance in which to exercise a horse to develop action. These are some of the common methods that can be used on any farm, but other practices more complicated may be necessary for advanced performers. In all cases where education is being given, care should be taken not to exercise the pupil to leg weariness. The habit of lifting the feet is only acquired when the muscles are strong and fresh.

Horseshoeing.

It is desirable that every horseman have a certain amount of knowledge of shoeing. The peculiarities of the gait of each individual horse should be studied in order to avoid accidents to the animal and expense to the owner. If the gait of every horse were true and clean, all that would be necessary in shoeing would be to put the shoes on carefully, so as to interfere as little as possible with his natural action, but the natural gait of many horses is faulty, hence we must endeavor to shoe to remedy different evils. Blacksmiths alone cannot be depended upon to do this, for the reason that they have not an opportunity of observing each horse's action, so that it behooves the driver to understand the situation and its remedies.

The most critical shoeing of a horse is his first shoeing. Many smiths can shoe an old tender-foot well, but fail when they come to a green colt. In this, they are not always alone to blame. In many cases the horseman furnishes old unsuitable shoes, and attaches too much importance to the first cost, little thinking that improper shoeing may blight the horse for life, or prevent his sale.

In this article I wish to direct a few remarks to both horsemen and blacksmiths on interfering, and certain fads and fancies, as spur heels, improper ground bearings, etc. Some smiths will say they have shod horses with weights on outside and inside for interfering, with practically

before nailing. The last sentence contains a rule that should govern all kinds of shoeing. The use of a file or rasp will soon bring the calks to their bearings, when all other parts are correct. Fig. 2 is a common shoe set in position, according to common sense, with equal weight on both sides, and equal ground bearings on both sides. With such a shoe the ordinary horse will go very well. For a very close going horse or colt, I would recommend the shoe illustrated in Fig. 4. This shoe, when properly set, will have a tendency to spread the horse's action. Of course, any horse may touch lightly once in a while; the weighting, with this peculiar set, will keep the colt or horse from doing any very serious damage to himself. This shoe is intended to be just as long on the inside as the outside, and the inside heel calk, having a larger ground bearing than the outside one, makes a good firm prop, as it were; now, by having a fine calk on the outside and tucked under the foot, we bring more weight to bear upon it, insuring the ankle against going in too far. The inside heel may be raised or lowered to suit circumstances, as no two horses are alike. It will be plainly seen that the ground bearings of Fig. 3 and Fig. 4 are very different. The latter will serve as a hind or front shoe. It is a good one on the knee banger, as well as the horse that interferes behind. Put a spur on this shoe and you counteract to a great extent the good that the side weight may do. Of course, spur heels belong to fancy shoeing used on some trotters in fast work; no good on gravel roads for everyday use.

SANDY COLTS.

Importations and Customs Valuation of Horses.

In the "Farmer's Advocate" of a recent issue, attention was called to the low customs valuation of horses imported into Western Canada, and the evil effects that result from the wholesale dumping of an inferior class of horses that is encouraged by such a policy. During the last couple of years this has become a live question with those who have at heart the interests of our horse breeding and ranching industries of the prairies. Last year the breeders' associations of Manitoba and the Territories framed, passed and forwarded to Ottawa resolutions urging the Government so to alter the regulations as to make impossible the practice of dumping in Canada, practically duty free, a host of worse than useless horses. These associations have wisely followed up their memorial with one in rather more tangible form, and have sent, in conjunction with other Canadian horse-breeders' Associations, a deputation to wait on the members of the Government.

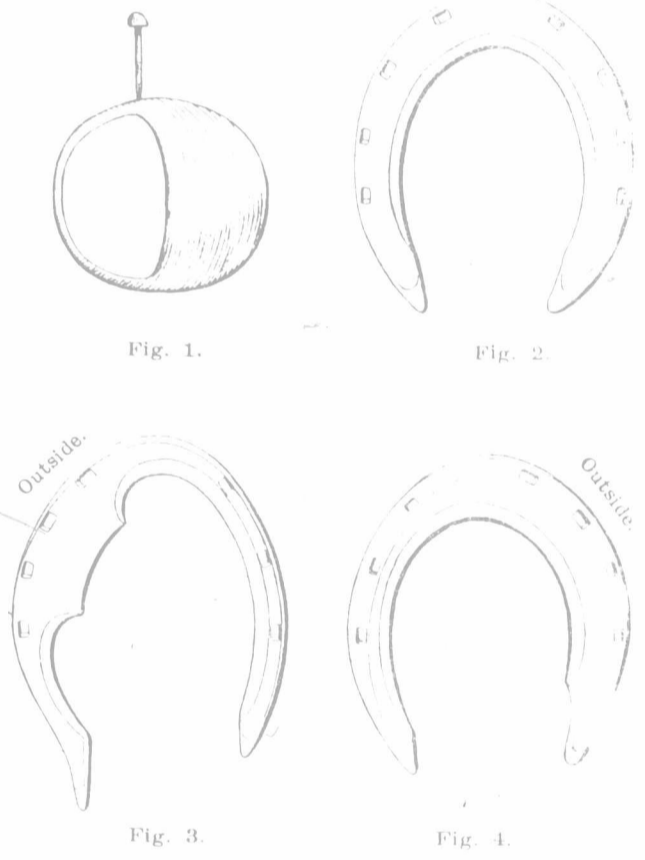
The deputation consisted of Messrs. Henry Wade, Toronto; Peter Christie, Manchester; John Bright, Myrtle; Henry Robinson, Toronto; Wm. Hendrie, Jr., Hamilton; Wm. R. Stewart, McLeod; Fred Richardson, Columbus; J. M. Gardhouse, Weston; Samuel McBride, Toronto, and Dr. Creamer, Qu'Appelle. Those of the Government present were Sir Wilfrid Laurier, Hon. Mr. Fisher, Hon. Mr. Fielding, Hon. Mr. Sifton.

The deputation urged that the importation of the poor class of horses be prohibited, or that they be valued sufficiently high to make it unprofitable to bring them in under the present duty. In 1903 there were about 21,000 horses imported into the West, over seventy per cent. of which were practically unfit for agricultural purposes. Such wholesale importation not only introduced a poor class of horses, and paved the way for poor horses for generations, but also so deluged the market that a fair price was not afforded the breeder of a good class of horses. Horses were needed, but not those that were such a decided detriment to the country. Reference was made to the abuse of the homestead regulation which provides that each man coming into the country may bring with him for his own use sixteen horses free of duty. Many are thus frequently brought in, and instead of being held for two years, as the regulation requires, are immediately sold to a dealer for any profit there may be in it.

Another condition that the delegation strongly deprecated, was the importation of inferior stallions. Many settlers when coming across the line brought with them grade stallions as working horses. This, they wisely considered, should not be allowed, as the effect when these were used in the stud could not help but be detrimental to the industry.

Several speakers also urged the establishment of a national register for all classes and breeds of live stock under national control. The record, it was said, would be a standard to regulate the importation of animals free of duty, by requiring all breeding animals to be first registered in it.

In replying to the delegation, Hon. Mr. Sifton said, regarding the general importation of scrub stock, that owing to a question of tariff being involved, an opinion could not be expressed on it. The abuse of the clause respecting settlers' effects called for consideration, and if it were shown



the same result, and, therefore, have no faith in weighting. Now, I have seen horses shod according to the horseman's orders, raised on the inside, but the raised heel was so near the center of the foot that both heels were raised, the outer calk not coming within one-half inch of the floor. This, I should say, was raised in the center, the foot being liable to tilt either way, and the shins banged to pieces. Any amount of side weight would not have saved him with such a setting. Spur heels have been considerably used by many smiths for weighting the outside of the foot, but on our roads, where the center becomes scooped out like a hog-trough, the spurs only tend to throw the legs against each other. Generally speaking, both horsemen and smiths labor under the impression that the particular portion of the hoof or shoe that strikes the opposite leg is the heel or back part, and in shoeing often set the inside of the shoe too far under the foot. In my experience the interfering part of the hoof is the toe, and hence shoeing as above only tends to intensify the trouble.

I give here a few illustrations, for instance take Fig. 1, representing an iron ring weighted on one side. Now, if you pick this ring up by the stem and swing it past your own shin a few times, draw it in far enough to tap you on the shin with light side, then turn the heavy side toward your shin and give one tap, swinging at same speed. This would give the shoer an idea about weighting—how, where, and why.

Fig. 2 is a front shoe, with no side weight, set squarely on the foot, with heel calks of even size, at equal distance from the cleft of frog, which is supposed to be the center of gravity; toe calk in center of toe. When finished, the ground bearings of this shoe—that is, the calks—should all sit firmly on a level anvil, as a test

that undesirable stock were brought in under it, there was no reason why prohibitory regulations should not be carried out in the most effective way.

The Minister of Agriculture, Hon. Mr. Fisher, thought that instructions could easily be issued to the customs officers, relative to what pedigrees they should recognize. While feeling that under the American regulations regarding the importation of stock, Canadians had a right to feel hurt, he did not think it advisable to proceed in the same spirit that had prompted them, but in such a way as to safeguard the interests of our stockmen from unreliable herd and stud books. He was confident that arrangements could be made with the Minister of Customs that would meet the requirements of the case without legislation. Referring to the nationalization of herd-books, he said that if the live-stock men of the country asked for it, the Government was prepared to carry it out. Closing, he mentioned the meeting of live-stock men to be held in Ottawa in March, when this question, among others of importance to the live-stock industry, would be discussed by representatives from the different organizations of the various Provinces.

Stock.

Care of Brood Sows.

On the treatment of breeding sows during the winter very largely depends success or failure in saving and raising her pigs when born. The sow that is kept confined in a pen, without exercise, and fed upon a diet of only one kind of food, whether of grain or of sloppy food, is liable to produce weak, flabby pigs, a large proportion of which perish within a few hours of their birth. Free exercise in a barnyard, where the sow may gratify her natural desire for variety, will certainly have a healthful influence upon her offspring. Pigs born in summer or fall, when the sows have liberty to run upon the ground and the grass, are generally stronger and more likely to live and go on well than are spring pigs, as a rule. This fact should teach the wisdom of giving the sow, in winter, conditions as near those of summer as is practicable, by allowing her to range as much as possible, to have access to the ground when it is bare of snow, scattering grain on the ground for them to pick up, and thus get exercise while eating slowly, by giving them roots, preferably mangolds or sugar beets, as part of their bill of fare, and, when the ground is covered with snow, carrying earth to them from the root-house. Cold, sloppy food cannot be good, either for the sow's digestion or for the well-being of the pigs she is carrying. It is better to feed the grain or mill feed dry, and give the drink in a separate trough, where the sow can take it as she needs it, instead of being forced to take a lot of unnecessary liquid in order to get her solid food. One of the most successful pig-breeders we know, and one who has been unusually fortunate in raising spring pigs, feeds his sows, in moderation, cut clover mixed with pulped roots, and a little meal or shorts. Clover has in its composition the elements of nutrition that are lacking in many other farm foods, and is the best substitute in winter for the grass of summer. If cut clover were steamed and fed as part of the ration of all pigs in winter, it would be found of great benefit in maintaining the health of the animals and promoting growth of flesh and strength of bone. Where only two or three sows are kept, and no cutting-box is used, the clover leaves found where the hay is thrown from the mow for the cattle may be utilized for the sows, as we have seen it done. Useful as are roots for sows, it is quite possible to overdo the feeding of these, as they contain an excess of water, and may have the ill effect as an excess of swill. A whole mangold thrown in the yard or pen, to be eaten piecemeal by the sow, will be more helpful than a heavy feed of sliced or pulped roots mixed with meal, tempting the sow to eat more than she really requires.

Watering Animals.

There should be a prescribed system for the regular watering of all animals on the farm. The belief is more common than it should be that water at long intervals is not only sufficient, but that it is the best way of treating cattle. Of course, this is a mistake, and one that ought to be apparent to all who give the matter any thought. In the first place, a thirsty state is an uncomfortable state for the animal to be in, and from a motive of sympathy it should be relieved. It is a condition that is opposed to good digestion. When that is allowed only when it has arrived at a stage of acute suffering, an overdose of water is taken, and that causes as much injury to the digestive organs as the thirsty condition which it cures. Cattle should, when on dry feed, get water.

Lord Polworth on Selection and Mating.

To the Editor "Farmer's Advocate":

Dear Sir,—I read with much interest the article on Mertoun stock in the issue of October 20th, and a more recent reference. I hope I appreciate fair criticism as much as praise. I think, however, it is only right to correct an impression which prevails, and is much exaggerated. I refer to in-and-in-breeding. It is true that in all my stock breeding I pursue a definite aim, and proceed on definite lines. I adhere more or less to the type or ideal which commends itself to my judgment. I endeavor to mould my stock accordingly, and to perpetuate the character by line breeding, but I rarely resort to close in-and-in-breeding. I recognize its value in certain cases, but not beyond a certain point. I have also observed that just as bad results may flow from interweaving the systems of two animals in which taint of delicacy or disease lurks, however remote in blood relationship, however distinct in type and character. So on the other hand, the careful mating of animals more or less related in blood, and mutually replete with ancestral good qualities, with robustness of constitution and vigor of system, will produce in the highest degree admirable results. Even here, however, a wise breeder will, more or less, differentiate so as to maintain the fertility and breeding qualities of his stock. To do this without destroying type is one of the difficult problems ever requiring solution. Probably in modern times the late Mr. A. Cruickshank has been the most striking illustration of this. He had many families in his herd, used a number of different bulls with more or less success until in the bull Champion of England he found what suited his taste and judgment. Then, as is so well described on pages 637 and 638 of Mr. Sanders' book (Shorthorn Cattle), he permeated his herd directly and indirectly with his blood. He could not have done this had he not had a variety of females, and when I knew his herd when that famous bull was at the head of it, his herd was decidedly of a uniform distinct type. That type was admirably adapted for the country and the purpose, and has been rightly appreciated in many directions. My reference to this, however, here, is to indicate that to breed on such a system requires a certain variety amongst the females. So far from Mertoun herd being all inbred, there are 25 different families, or sub-families, so that even when comparatively few bulls are in use there is little reason to breed excessively close. As a matter of fact, I am at present breeding from two bulls of a family I have hardly ever used in the herd, viz., the Townley Butterfly, and another from the family which produced the sire Rapid Rhone, the progenitor of my best show cows, about thirty years ago. This will, I think, correct the misapprehension as to very close inbreeding being pursued in my herd. At the same time, I have never known any stock prove really prepotent for good which was not bred on definite lines.

To turn to the flock, the previous remarks may equally apply, only the larger number of females renders differentiation easier. Reference is made to the repurchase of sires sold. No doubt I have thus got a certain distinctiveness now and then, but I lay more stress on the retention of such young sires as appear to me in flock or herd best adapted for the want of the time. No doubt this means keeping back some of the best, and thus reducing the top put into the market. However, even this year, I did not hesitate to retain four or five of the best shearlings for my flock.

In stock breeding, as in other things, one has to study fashion, no doubt, but to be led by it is apt in the end to prove disastrous. Moreover, while the production of sires is generally the main object of the breeder, it is essential to devote attention to the female side too, because more of such are wanted than males, and because the foundation of flock or herd is in the females. No doubt a good sire is half a herd, but the best sire will come from the best dam.

As it was years ago, certain strains take the lead in fashion, especially through the influence of shows, but if Amos Cruickshank had not followed the bent of his own good judgment alone, the valuable cattle he bred would not have existed. I may not have the same type as my ideal, but I neither despise his type nor any other. Happily, in stock breeding, there is not only room for variety, but great benefit to be derived from it.

The amalgamation of different strains when the types coalesce is often beneficial, but a wrong cross is just as disastrous. I have tried not a few in the herd, and discarded most, even when the sires were grand looking animals and prize-winners, such as Nonsuch, a champion at the Royal and Highland. The best out-cross I ever had was Sir Arthur Irwin, and, strange to say, the result of mating him with some grand cows was failure, whereas, when mated with one near of kin to him, the result was Truth, a champion cow.

I have, however, trespassed too far on your time, and only beg you will make such use of these notes as you see fit. Permit me, however,

to extend a cordial welcome to yourself, and any Canadian or American breeders who may care to have a look at my stock, and judge for themselves. I only wish a bull such as Royal Commander, brought over from Canada by Hugh Aylmer, might come to rejuvenate the old blood by the rigor of a new country and climate.

Yours faithfully,— POLWORTH.

[Note.—Mr. John Graham, Carberry, Man., while travelling in Great Britain last year, paid a visit to the estate of Lord Polworth, Mertoun, St. Boswell's, Scotland, and favored the "Advocate" readers with a description of the Mertoun herd, and other items of interest connected with this historic spot in the Old Land, in Oct. 20th issue. Lord Polworth, whom we are pleased to have as a constant reader of the "Farmer's Advocate," has written the foregoing letter as a fuller explanation of his methods of selection and breeding.—Editor.]

Pure-bred Live-stock Records.

Representatives of the Canadian Horse-breeders' Association recently waited upon the Dominion Government at Ottawa, for the purpose of urging upon the authorities, in the interest of pure-bred stock, the raising of the duty on horses coming into Canada from the United States, with a view to minimizing the entry of inferior animals. Some of the speakers also suggested the institution of "national records," not only for horses, but for all kinds of stock, in which breeding stock imported duty free would have to be recorded. In regard to the latter proposition, Hon. Mr. Fisher, Minister of Agriculture, said he had for a long time given it his attention, and he felt they must proceed very carefully, if they proceeded at all. He also mentioned that he had called a meeting of the live-stock interests, to take place in Ottawa in March, when he hoped that representative men from all the Provinces would be present. At this meeting he hoped the stockmen would discuss the matter and reach some conclusion.

In order that a clear understanding may be had of the position of Canadian records as at present conducted, a statement of what records we have and under what control may be helpful. In the first place it may be stated that all the recognized pure-bred live-stock records in Canada are now national in name and character, and are conducted under the auspices of national Breeders' Associations, representing the several breeds of stock. For horses, we have the Canadian Clydesdale, Shire and Hackney Studbooks. For cattle, the Dominion Shorthorn Herdbook, the Canadian Hereford Herdbook, the Canadian Ayrshire Herdbook, and the Holstein-Friesian Herdbook of Canada. For swine, we have the Dominion Swine-breeders' Record, which includes Berkshire, Yorkshires, Chester Whites, Tamworths, Poland-Chinas, Duroc-Jerseys, and Essex. For sheep, there are no Canadian records. An attempt was a few years ago made, not by the Breeders' Associations, but by what was termed a Record Association, to institute a Canadian registry for sheep, but it did not meet with the general support of Canadian sheep-breeders, and soon ceased to exist, the great majority of breeders in the country being satisfied with the terms on which registry of their sheep are accepted in the American records, Canadian breeders as members having equal privileges with those of the U. S., the presidency of several of the breed societies being at present held by Canadians. For Aberdeen-Angus, Galloway, Jersey and Guernsey cattle we have no records in Canada, the American records being, so far as we know, considered satisfactory.

There is a record in Quebec for French-Canadian cattle, of which Dr. J. A. Couture is secretary, but whether a society directs it we are not aware. Nearly all, if not all, the records of Great Britain and the United States are controlled by the breed societies, which elect their own officers and registrars, and fix entry standard.

The idea of national records, as we have shown, is not new, and its extension may be worth considering, and the breeders will doubtless see to it that their interests are amply safeguarded and none of their prerogatives interfered with, as they are the people most intimately interested, and who have the clearest understanding of the requirements in the case. Canadian records, as at present conducted, are of as high standard as those of any other country, and higher than many, as Mr. Fisher pointed out in comparing them with United States records, and more accurately kept.

The Canadian horse, cattle and swine records, with the exception of the Holstein Herdbook, which is compiled by Mr. G. W. Clemons, are edited by Mr. Henry Wade, who, as registrar, receives a fixed salary from the Ontario Government, and, in addition, a certain amount from the various breed associations for each pedigree recorded under the rules and regulations of said

associations, he paying his own office assistants. The fact of the registrar's office being in Toronto, and part of his salary paid by the Ontario Government, we presume accounts for the impression prevailing in some quarters that the records are provincial, while, as a matter of fact, the Provincial Government does not control nor regulate the records.

Our Scottish Letter.

Many problems await settlement in connection with the feeding of stock. These are being variously dealt with on both sides of the Atlantic. I see the subjects discussed at Guelph bore on this to some extent. Here we have had various tests, resulting in useful lessons. A test combining questions of manuring as well as feeding is being carried out at Cocker Park, the Northumberland Experiment Station. There an old pasture was manured with different forms of plant food. Their efficacy was tested, not merely by the appearance of the pasture, but also by the success attending the grazing of sheep on the various plots. These tests are popularly known as the Manure and Mutton experiments. They have suggested similar lines of inquiry to other experimenters, which are being eagerly followed up. Recently the relative values of superphosphate and basic slag have been tested in connection with a sheep-feeding experiment on turnips. The result is somewhat of a surprise. During the earlier stages of the test the roots grown with superphosphate yielded the best results. They were the heavier crop, and the sheep seemed to make more rapid progress on them. By and by the scene changed; the roots grown with basic slag were the better quality; they were of greater feeding value, and lasted longer, with the result, when the slaughter test came into force, that the mutton grown on the basic slag roots was superior, and the sheep fed on them better by 15 per cent. than those fed on the competing roots. This is the sort of experiment which educates. Farmers learn from it not only something about manuring, but also a good deal about feeding.

One of the sensations of the hour is the new variety of potato called Eldorado. It was brought out by that potato-growing expert, Mr. Arch. Findlay, Markinch, Fifeshire. At present there are not more than six tons of it in existence. Four pounds of these potatoes were sold at Smithfield show for £600, or about \$750 per pound. This is a fabulous figure, and puts out of court the time-honored theory about certain things being worth their weight in gold. It must now read, "Worth its weight in potatoes." The production of new varieties of seeds of all kinds is one of the recent agricultural developments. Mr. Findlay has made a special study of potatoes, and has produced some of the most successful varieties ever put upon the market. The average life of a new variety seems to be about ten years. Disease at first is unknown amongst the new kinds. By and by they seem to lose the power of resisting the ravages of the fungus, and ere a decade has passed the tubers are out of the race, and new sorts have come into being. Nearly all the great seed and root firms give attention to this business. Some succeed, and some fail. Mr. Findlay confines his attention to potatoes, and has had wonderful success with several varieties. At present Eldorado is in its infancy. The favorite, because more plentiful, is the Northern Star. It is another of Mr. Findlay's creations, and is going like wildfire. It has been before the public for a longer time than the Eldorado, and a greater quantity of the seed can be bought. It, too, was selling at an abnormal figure at Smithfield.

Mr. Chamberlain's crusade proceeds apace. There is no doubt that the vigorous M. P. is the man of the moment. It looks as if he would run the Empire. On the whole, I should be disposed to say that he has a very large body of opinion in this country at his back. Whether he has a majority of the electors will not be known until the general election comes round. The net result in the political world so far has been to disintegrate all existing parties. The sectional cleavage is amazing, and Mr. Chamberlain's own party, the Liberal Unionists, is worse hit than the rest. The main question with one is, "What would be the effect of Mr. Chamberlain's proposals on agriculture?" That Canada and other colonies would benefit hardly admits of question. But the betterment of the demand for Canadian produce here would only intensify the keenness of the competition with which the British farmer has to contend. How he is to benefit from the proposed fiscal changes is what I do not understand; but he seems to expect to do so, and is supporting Mr. Chamberlain all he knows.

Reports have come to hand regarding the great shows at Chicago and Guelph. I am glad to see that Canada has been doing well in the big contests at Chicago. Graham Bros. have got an exceedingly strong hand in the black horse, Cairn-hill. He was a good horse here, and is a good

one anywhere. The quality of the Clydesdale exports to Canada in 1903 has been worthy, and a good lot of horses left about a fortnight ago. The most extensive shippers were Messrs. Smith & Richardson, Columbus, Ont. Mr. Richardson was on the ground himself, and took an equal number of horses from Mr. Peter Crawford, Dargavel, Dumfries, and Messrs. A. & W. Montgomery, Kirkcudbright. He had some horses that will take a bit of beating. Two or three of them have made their mark on this side. They are big, well-built animals, with plenty quality and weight. I should say that Smith & Richardson with luck will show something worth while at the Toronto spring event. Other shippers by this late steamer were Messrs. Campbell, Alvinston; Graham, Carberry, and Irving, Winchester, Ont. These gentlemen had horses got by champion sires like Prince Robert, and his son, Hiawatha. Mr. Richardson had horses by the famous Baron's Pride, as well as Hiawatha; the grand horse Moncreiffe Marquis, sire of the champion gelding at Chicago, and the \$5,000 horse, Montrave Mac. Mr. Irving had a big horse by the celebrated champion horse, Holyrood 9546. Mr. Brydon, who is one of the most enthusiastic supporters of the Clydesdale breed in Great Britain, and President of the Clydesdale Horse Society, has presented a magnificent trophy, value \$500, for competition at the Glasgow Stallion Show. The horses competing must pass a veterinary examination, be approved stock-getters, be registered in the Clydesdale Studbook, and be up to 16.3 if a three-year-old, and 17 h. h. if a four-year-old or over, with corresponding weight and girth. Mr. Brydon has always been an advocate for a big horse—any other kind being practically unsalable in the north of England. The Clydesdale can hold his own with the best if he gets a chance, and Mr. Brydon's big trophy will bring out the big ones.

The Departmental Committee, which has been sitting on the question of fixing a standard for butter, has at length reported. Some time ago they fixed the maximum of moisture at 16 per cent. If more than this percentage of moisture be found in butter there is a presumption that it has been tampered with, and the merchant selling it is liable to be prosecuted. When the committee came to try and settle the question of the quality of butter, apart from moisture, they found themselves in a difficulty. Their report is not unanimous, and I should not be surprised to see Lord Onslow decline to proceed further in this matter. The committee unanimously recommends that all manufacturers of margarine should be compelled to employ a slight percentage of sesame oil in mixing their product. This would render impossible the substitution of margarine for butter.

"SCOTLAND YET."

Wheat for Hogs.

As most Canadian farmers know, corn is the principal hog feed in the Western and Middle States. At the Nebraska Experiment Station they have been conducting some experiments to show the comparative value of wheat and corn, and have found that ground wheat produced nine per cent. greater gains than the same weight of corn, each being fed as a single food. Some years ago South Dakota found 481 pounds wheat equal in pork-producing value to 458 pounds corn, and Ohio in continuing the research found 438 pounds wheat to produce one hundred pounds pork, while of corn 453 pounds were required. It will thus be seen that wheat is a very valuable pork-producing food. When soaked for one day it has been found to give almost as good returns as when ground.

Sheep Notes.

Sheep require a variety of food to form flesh and fat.

With sheep, rather more than with any other class of stock, care must be taken not to over-feed.

Overstocking is usually injurious to the sheep and ruinous to the farmer.

Dryness is one of the requirements in the production of the finest grades of wool.

No sheep should be allowed to die of old age, but all should be fattened and sent to market before their vitality has been impaired.

Sheep are naturally gregarious. When one is seen by itself, something is evidently wrong.

In commencing to fatten sheep, the feeding should not be crowded at first, but gradually increase the amount of the ration.

A small, fat sheep will always bring better prices than a large, poor one.

Sheep are almost essential in maintaining the fertility and cleanliness of the land.

Keep the quarters clean. Sheep do not need the accommodation of manure to keep them warm.

To have good-sized sheep, they must be grown rapidly while young, and it is important to give them a good start.

When sheep lose patches of wool from their heart or bellies, it indicates a feverish condition, and is usually the result of improper feeding.

Sheep thin in flesh have weak digestion, but even the strongest are easily injured by feeding grain too heavily.

It makes considerable difference in the quantity and strength of the wool whether or not the sheep have even, regular conditions.

When early lambs are expected, especial care must be taken to provide warm, dry quarters, in order to avoid losses. Keep the ewes in a good, thrifty condition.

Old sheep, or sheep that from any cause have bad teeth, should be fed ground feed. Such sheep are rarely profitable.—[Scottish Farmer.

Lord Polworth Enjoys the Farmer's Advocate.

Mertoun, St. Boswell's, Scotland.

Nov. 16th, '03.

To the Editor "Farmer's Advocate":

Dear Sir,—I wish to thank you for your very excellent paper, which I always read with much interest, and appreciate, especially the wholesome, beneficent tone which pervades it. It is admirably suited for the farmhouse fireside for young and old.

American Breeders' Association.

An association, to be known as the American Breeders' Association, was organized at St. Louis, Mo., at the beginning of this year. The purpose of this new association is stated by the constitution to be, "To study the laws of breeding, and to promote the improvement of plants and animals by the development of expert methods of breeding." It has as its President, Hon. Jas. Wilson, Secretary of Agriculture, Washington, D. C., and as Secretary, Prof. W. M. Hays, Minnesota School of Agriculture. The membership is, so far, composed mainly of the leading college men of the United States who are interested in the improvement of plants and animals.

With the men who have it in charge, a useful and influential work may be looked forward to.

Reports coming from different districts in the range country of Alberta and Assiniboia indicate that stock are wintering well. In some cases mange is said to be on the increase.



A Camp on the Cochrane Ranch.

Range near Belly River, Southern Alberta, where about 15,000 cattle are also kept.

Farm.

Concerning Soil Moisture.

The retention of moisture in the soil is dependent on climatic changes; yet it is a matter subject to natural laws, upon which intelligent action can be brought to bear to the advantage of the tiller of the soil.

Every farmer is aware of the use of cultivation in conserving soil moisture. The reasons why cultivation does so, however, are too often forgotten. Land that has been plowed in the fall is, after the effects of winter frost and fall and spring weathering, in a state highly susceptible to the effects of capillary attraction, and if left too long without being handled by some cultivating implement, all the moisture available for plant food would evaporate, and the farmer would be at the mercy of the spring rainfall, the amount of his crop being almost wholly dependent upon what amount of early rain such a field would get. Capillary attraction is the natural law under which fluids rise in a tube to a higher level than the fluid into which the lower end of such a tube is placed. To demonstrate the law of capillary attraction, tubes of different diameter may be placed vertically with a small part of their length submerged in water, when it will be found that the water will rise in each tube considerably above the level of the surface of water in which it is placed. It will also be found that the water rises higher in the tubes of smaller diameter, and that the height to which it rises is in uniform proportion to the diameter of the tubes. The soil and also the subsoil is a series of tubes upon which capillary attraction is always acting, and the smaller the particles of soil the smaller will be the tubes into which it will form. It is also the case that in soil so pulverized that these capillary cells are very small and close together moisture is more uniformly brought from the subsoil to the surface. Evaporation is the great dissipator of moisture, and its action can be best counteracted by the presence in the soil of a large proportion of humus. Humus is the product of decaying vegetation chemically acted upon by the organisms in the soil, and by weathering. It is the soil constituent most amenable to cultivation, and the one containing most soil moisture available for crop production.

No hard-and-fast rule for moisture-conserving can be laid down to cover any extended area. Local conditions have a great deal to do in the matter. In the northern reaches of Manitoba there is generally a superabundance of rainfall; that is also true of some parts of the Territories. Clay and peat soils are naturally better adapted to the conserving of moisture than loam or sandy soils. Soil in which sand largely predominates is so susceptible to the effects of capillary attraction and evaporation that it would seem an impracticable matter to materially diminish the condition. Loam, however, is more retentive of moisture and the higher the percentage of humus it contains the greater in proportion will its retentive powers be. Humus is the greatest known moisture-conserving agent, and where it constitutes a high percentage in the soil, moisture is conserved without much aid from the cultivator. The reason of this is that humus, because of its peculiar sponge-like character, is enabled to hold moisture in larger quantities than any of the ordinary clays, sands or loams, and when this retentive power is assisted by the formation of a mulch or dust blanket which interrupts the rise of moisture to the surface the water content of the soil is at a maximum.

Where humus is scarce, cultivation has a proportionately less influence, and in light sandy soil it is almost impossible to make a mulch on the surface; hence, it is that rarely do we find a heavy crop on soil which is constituted chiefly of sand. Although such soils may contain all necessary plant food in sufficient quantity, it is only in seasons when the rainfall is sufficient to keep the soil supplied with moisture that the crop receives the full benefit of the plant food, for all plants feed through very minute root hairs, and plant food to be available for these tiny feeders must be in a state of solution.

Clay soils will absorb a great deal more moisture than sand or loam, and such soils have also a far more retentive power in regard to moisture. All soils, however, can be improved by the addition of humus for several reasons. Farmyard manure is the most general way of enriching the soil by the addition of humus. Plowing down heavy stubble is also a plan to the same end. It may be, however, a plan which will defeat its object unless the stubble be turned down and completely covered over, and packed so as to leave no air spaces between the stubble and the soil, and so as to prevent the water from evaporating, and so as to prevent the soil from becoming too dry in wet weather, and so as to prevent the soil from becoming too dry in dry weather.

Plowing the soil is a necessary part of the farmer's work, but on the other hand it does a great deal of harm, and even more so when it is done in the fall and the soil is left to weather.

There are many reasons for the farmer's difficulty in conserving moisture, and one of the

cultivating with a light harrow after rolling. An arrangement attached to seeders, known as a press-wheel, is one that gives very good results in dry soils. Different soils require different treatment, and the treatment must also vary with the climate, so that the matter is one for the study of every farmer, each approaching the case from the conditions prevailing in his own particular location.

would be a strenuous and continuous rattle of the harvester from January 1st to December 31st, during every hour of the twenty-four of each day. This is not only novel, but, from many standpoints, important. For instance, with the present facilities for communicating with every harvest belt in the world, it would require but a few weeks at the farthest to load wheat right from the thresher any month of the year and get it to any possible famine center that might develop in any part of the world. So it is clearly apparent that with the proper impulse of charity there need never be a famine in any part of the world, of any great duration, at least. Incidentally, also, wheat-growers may learn from these facts the magnitude of the wheat belt.—Iowa Homestead.

Temperature of the Soil.

The variation in temperature in soils of different texture is very noticeable in most soils. It often happens in our prairie soil that for the first three inches during the first two weeks of seeding the soil is below that temperature at which plants can grow, and anything which can be done by the farmer during that period to increase the warmth of the soil has a distinct advantage in hastening plant growth during the early spring. The consensus of opinion of practical men in this country is that the early crops are the safest and bring the best results. The warmth of the soil bears a close relationship to seed germination and plant growth. The experiments which have been carefully conducted at experimental stations in the United States go to show that while wheat, rye and oats germinated most quickly at a temperature of 77 degrees to 87 degrees F., corn required about 98 degrees—of such is the difference in the amount of heat required by different plants. For most plants 41 degrees is the lowest temperature at which the development of tissue will proceed, and 80 degrees the most favorable. It will hence be seen that the earlier in spring that the soil can be stirred and the temperature raised the sooner will plant growth begin, and the earlier will harvest-time appear.

Dakota Grain Inspection.

Evidently all the difficulties connected with grain inspection are not confined to this country. The Grand Forks Herald, in dealing with the matter, says:

"A very large number of the farmers believe that inspection boards and their employees are influenced in many cases by a desire to curry favor with the elevator interests, and there have been some occasions on which this has been proven. Possibly the extent to which this unfairness exists is exaggerated. But the conditions seem to encourage rather than discourage it. Grain raised in North Dakota is shipped to another State, and is inspected under the laws of another State, by men over which the North Dakota farmer has absolutely no control, in whose appointment he is not consulted, and who are not responsible to him in any way. If fraud is committed he is obliged to call on the authorities of another State for redress. This is certainly not an ideal condition."

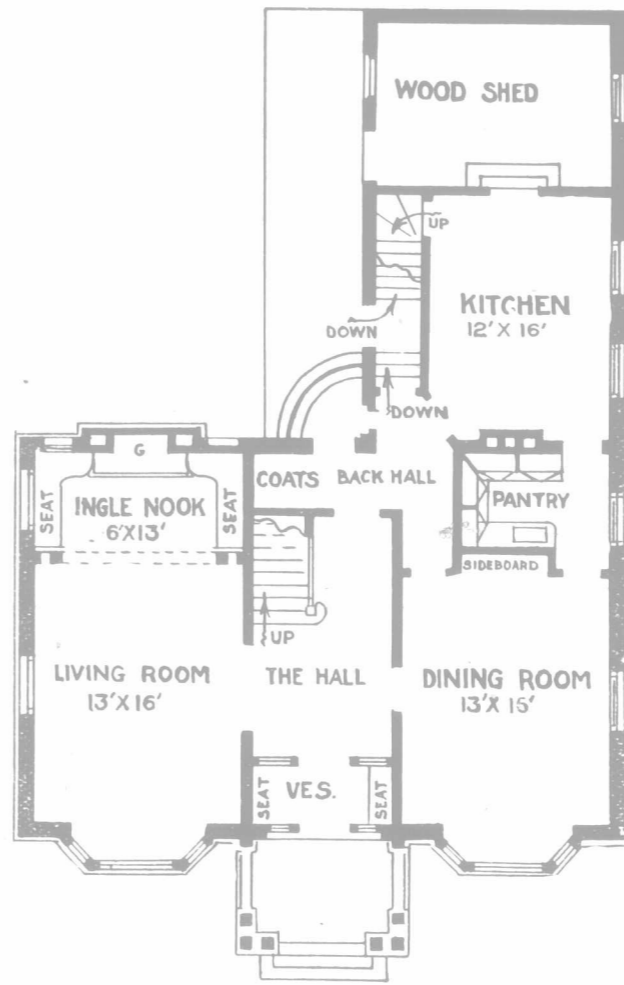
Distribution of Seeds.

Attention is called to the distribution of samples of seed grain to farmers who apply for them. Parcels will be sent out without charge to the applicant in lots of four pounds of oats and five pounds of wheat or barley. The grain will be in every case tested samples, most of which have been grown at the Experimental Farm, Indian Head, for the Northwest Territories, and at Brandon Experimental Farm for Manitoba. Application should be made early to the Director, Experimental Farms, Ottawa. Should a farmer desire to grow a certain variety of grain, he has the advantage of getting the best of seed, and has only to find out by practical test if it be suitable to his particular locality before sowing it extensively. Much risk may be avoided and much money saved by taking advantage of the provisions of this institution.

Mammoth Clover at Brandon.

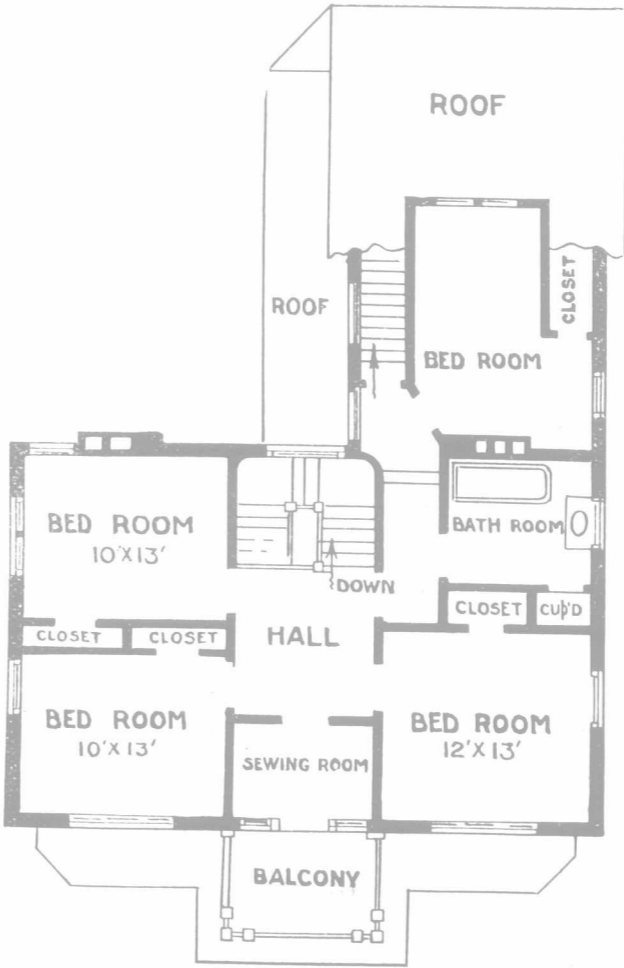
At the Brandon Fair last year, C. Langstaff made an interesting exhibit of Mammoth Red clover. In reply to an enquiry regarding his experience with this valuable legume, Mr. Langstaff writes the "Advocate" that it has been growing in an old berry patch on his farm for the last five years, its only protection being a fence on the east side. It comes up every spring and grows to the height of three feet. He has saved some seed and intends trying it on a larger scale next year. The "Farmer's Advocate" would be glad to hear from others who have had any experience with this or other varieties of clover, either in Manitoba or the Territories.

Prize House Plans.



GROUND FLOOR PLAN

The accompanying plans of a farmhouse were designed by W. B. Van Egmond, Toronto, and won first prize in the Massey-Harris competition, Toronto Exhibition, 1903.



FIRST FLOOR PLAN

Rattle of the Harvester.

Those who are curious enough to verify the statement of fact in this article can easily do so if they have access to a good compendium of the world's products, or a cyclopedia. By doing so they will learn that this old world of ours is engaged in one continuous wheat harvest. If one could sit in some central station, with telephone connecting with every section of the world, there

The Daughter's Portion.

Sir,—A writer in a Scottish paper recently called attention to a malady which, it seems, is as prevalent in the British Islands as in Canada, and which, like the hobgoblins of our childhood days, has the rather peculiar attribute of existing, for the most part, unnoticed, most of all, by the very persons upon whom it fastens itself most firmly. This malady is a somewhat difficult one to diagnose. Were it not that it exists among the most affectionate and "feeling" of people, one would be inclined to think that its chief symptom is insensibility; and were it not that it is to be found in those who have never yet even been obliged to wear "spectacles," one might think its presence due to an alarming degree of short-sightedness at least, if not partial blindness. In short, the malady to which we refer is the almost wicked neglect of which many of even the best people are guilty in failing to make any provision whatever for their daughters.

The daughters come into the world helplessly, utterly irresponsible, so far as their existence or choice of sex is concerned. They find themselves in it, and that is all there is to be said about it. While growing up they are, in all probability, used well, clothed, fed and petted, happy as birds in June, free as the winds that blow, with no thought of the struggle for food and clothing and shelter which engrosses the great mass of mankind, and should be a matter of disregard to none. There are brothers in the family, too, and all are happy and prosperous.

But to too many of these girls there is all too likely to come a day of rude awakening. Possibly the father dies, and the old home passes into the hands of the eldest brother. This brother soon finds someone more necessary to his happiness than the bevy of sisters, who now become to him, though he may be ashamed to own it, somewhat in the way. The "upshot" of it all is that, one day, he brings home his bride, and from that hour the sisters realize that, much as they have loved the old place, hard as they have worked in it and for it, for them it is now no longer "home." At last they know what it is to say, "I have no home." . . . This is no fanciful case. We have in mind one which, we have no hesitation in saying, is duplicated—no, multiplied—many times over each year in every township in the land. A "comfortable" Canadian farmer had a large family of boys and girls. All worked at home, the girls doing as much, in proportion to their strength, as the boys, and the family was an exceptionally happy one. Some of the girls married, but there were still three who did not. At last came a year in which both parents died. The entire property fell into the hands of the boys, five or six hundred dollars only being left to the girls. In a short time the boys all married, a neighboring girl coming on the old homestead. There was no disturbance. The sisters did not expect their brothers to remain "single" on their account. Nevertheless, at more than thirty years of age, they found themselves practically turned adrift on the world, without any experience in breadwinning, with neither training nor knowledge of any market value, and with a pride (albeit a false and foolish one) which made the idea of going out to domestic service as gall and wormwood to them. Bitterest of all was the thought of leaving the old home which their hands had helped to make beautiful, and which was invested with the sanctity with which "home" can only be enshrined to a woman.

Yet, girls left in such a predicament as this must live. They cannot remain where they are not wanted; hence, before them are two alternatives—they must either marry somebody at once, or turn out and earn their own living. Possibly there is a chance for a happy marriage. Then the problem is solved in the easiest way. On the contrary, an opportunity of any kind of a marriage may not present itself, or one may come which is repugnant to every inclination of the girl's nature. Rather than face the Charybdis of the future, filled with the horrible things with which her imagination, all untraced in the experiences of the world, is likely to people it, many a girl, more willing to put up with evils whose name she knows than to risk encountering unknown ills in knocking about the world alone, lets herself drift with the current, and marries the man she does not care for, simply for the sake of the home he can offer. Only when it is too late does she realize the mistake she has made.

It is true that, occasionally, the girl who "marries for a home" seems to come out all right. He may prove better than she thought, or she may be endowed with the stolid, easy-going sort of a nature that is easily satisfied, with food and clothes, and money to spend. But to the highly-strung, intellectual, finely-constituted girl the experience is a different one. She can-

not attune her sensibilities and longings for the highest and best of things to the lower level of one who is, in every way, perhaps, coarser and less noble than she. She feels that her promise to "love" has been a lie, and that she is living far below the standard of the ideal wife she has thought of. She feels that her whole life is a living lie, and little wonder is it if she becomes warped and soured—the very opposite of the woman she would be. Such a career as this is truly "death in life." . . . And yet, to how many parents the only thing seems to be to get their daughters married off to the first "respectable," well-to-do fellows who offer themselves. It is worth remembering that there are respectable people and respectable people, and that the matter of temperament is quite as important as that of respectability.

On the other hand, suppose the girl has enough strength of will to form the decision of making her own way in the world, unless endowed with special talent or ability, her path is not likely to be strewn with rose leaves. Perhaps she is willing to encounter a few thorns, but she has a right to a reasonable amount of happiness, and a rather continuous thorn is likely to be the trouble of finding a desirable situation. Constitutionally, she has not the strength to turn her hand to "any old thing," as a man can, and with neither training nor experience, she is likely to encounter a good many closed doors.

So the question arises, "How may the girls be provided for?" The Hindus of earlier times solved this question very easily by dumping the superfluous daughters into the Ganges, but, since our civilized government might interfere with such a proceeding as that, it would seem that something else must be done by the parents who profess to hold their daughters dear.

In answer, we shall quote from our Scottish writer, who, in seeking for a solution to the problem, seems to have hit upon more sense than nonsense. "There are some things," he says, "that the French manage better than we, and one is their systematic attempt to make a provision for their daughters. When a baby girl is born, the father—if he have any respectability or thrift—begins to lay past a yearly sum for her dowry. . . . Let the infant have a bank-book from her birth, and the father add to the account every year according to his means. When she reaches woman's estate, this sum may form her marriage portion, or it may put her through a business training involving more expense than the father's income could stand. It may stock a poultry farm, or start a market garden, or it may lie untouched, accumulating till the day when she will be left homeless. The surest provision of all is to put her in the way of earning her own livelihood. Farmers' daughters are so fortunately situated that many of them can stay at home and have a business of their own at the same time. Let one make a practical study of poultry, or cheese, or horticulture, grasping at all means open to her of perfecting herself in her own branch. Not only will she be worthy of a wage at home, but in case of need she will have a good chance of finding a situation elsewhere."

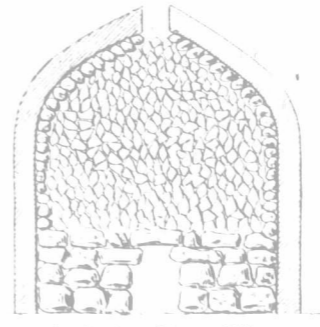
We believe in our Scottish writer's advice that it hurts no girl to have an independent means of earning her own living. Whether the choice be dairying, or gardening, or poultry-raising, or teaching, or sewing, or cooking, or journalism, or typewriting, or bookkeeping—whatever it may be—her training in it should be as thorough as possible. There is little room in the world to-day for unskilled workmen. Moreover, the work should be congenial. It is not enough to say: "Mary must sew," or "Mary must teach." Mary's taste and ability should be consulted. She will probably have hard work to do, no matter what line she enters upon, but that work may be a happiness or a misery to her, according as it is the thing she is adapted to, or the contrary. By all means, let Mary feel that she has strength within her right hand, and that the fear is forever removed from her. In one way or another, provide for the girls. One question in closing: Setting entirely aside what custom may prescribe in the Old Land, when the Canadian farmer makes his will (which every prudent man should do in good health), why should not the daughters receive a fair share of the property which her toil has helped to create?

THE TOLLER.

The Object of Tillage.

The first object of tillage should be to improve the texture of the soil. By texture is meant the size and arrangement of soil particles. An ideal texture is one in which the particles of earth are so arranged that water will pass readily in any direction and still be held in sufficient quantity for plant support. It must also be open enough that the tiny rootlets of plants can extend in search of food and sufficiently firm to hold the roots in place. The object of all well-directed effort must be to bring about this condition. But the methods of procedure must depend upon the physical nature of the soil and its mineral and vegetable content.

An Inexpensive Lime Kiln.



Arch for Lime Kiln.

For burning lime on the farm, choose a steep hillside, and dig out an excavation the desired size. Procure a quantity of large rocks, and make an arch, as shown above, having the arch projecting well out in front, to support the earth covering the face of the kiln. As the limestone is placed in the kiln, the outside next the earth

should be lined with hard rocks. The limestone should be built in a conical pile, and the front and top covered with earth, leaving an opening for a chimney.

A MORE SIMPLE WAY.

A more simple way of burning lime, if only a small quantity is required, is to build an arch of large rocks on level ground. Immediately over the arch place a layer of good, dry wood, then a layer of limestone, and so on alternately to the top of the pile. The whole is covered with earth, at least a foot or fourteen inches thick. Insert a length of stovepipe in the top to give more draft; keep a good fire burning beneath the arch, and regulate by a door in front of the arch. It will take four or five days to burn the lime sufficiently. Be sure that the lime is thoroughly cooled before it is disturbed.

WESTERN FARMER.

The Wheels of Wagons.

With the object of throwing some light on the question of the influence of the width of tire and height of wheels on the draft of farm wagons, the Missouri Experiment Station conducted some practical tests, a summary of which is here given. The series of trials was made on macadam, gravel and dirt roads in all conditions, and on meadows, pastures, cultivated fields, stubble land, etc. With a net load of 2,000 pounds in all cases, three sets of wheels were tested, as follows: "Standard—front wheels, 44 inches; rear wheels, 55 inches. Medium—front wheels, 36 inches; rear wheels, 40 inches. Low—front wheels, 24 inches; rear wheels, 28 inches." The results obtained and conclusions reached were, in brief, as follows:

For the same load, wagons with wheels of standard height drew lighter than those with lower wheels. The difference in favor of the standard wheels was greater on road surfaces in bad condition than on good road surfaces. Low wheels cut deeper ruts than those of standard height. The vibration of the tongue is greater in wagons with low wheels. For most purposes wagons with low wheels are more convenient than those of standard height.

Wagons with broad tires and wheels of standard height are cumbersome, and require much room in turning. Diminishing the height of wheel from 30 to 36 inches in front, and 40 to 44 inches in the rear, did not increase the draft in as great proportion as it increased the convenience of loading and unloading the ordinary farm freight. Diminishing the height of wheels below 30 inches front and 40 inches rear increased the draft in greater proportion than it gained in convenience. On good roads, increasing the length of rear axle, so that the front and rear wheels will run in different tracks to avoid cutting ruts, did not increase the draft.

On sod, cultivated ground, and bad roads, wagons with the rear axle longer than the front one drew heavier than one having both axles of the same length. Wagons with the rear axle longer than the front one require wider gateways and more careful drivers, and are, on the whole, very inconvenient and not to be recommended for farm use. The best form of farm wagon is one with axles of equal length, broad tires, and wheels 30 to 36 inches high in front, and 40 to 44 inches behind.

How Trees Breathe.

Besides giving out oxygen in assimilation, trees also take in oxygen from the air through their leaves, and through the minute openings in the bark, called lenticels, such as the oblong raised spots or marks on the young branches of birch and cherry—and many other trees, says a student of tree life. All plants, like animals, breathe; and plants, like animals, breathe in oxygen and breathe out carbonic acid gas. This process of respiration, or the breathing of the tree, goes on both day and night, but it is far less active than assimilation, which takes place only in the light. Consequently, more carbonic acid gas is taken into the tree than is given out, and the surplus carbon remains to be used in growing.—[Farmers' Review.

Dairying.

Breeding the Ayrshire Cow.

In recent years a good deal has been written about the Ayrshire cow, and various theories have been put forth as to her origin. About that we do not profess to know much. One thing we do know, we have now a distinct dairy breed, which every true breeder and fancier will endeavor to bring to the highest state of perfection, both as regards her appearance and also her rent-paying capacity. In Ayrshire, it is principally on the Ayrshire cow that a great many of the farmers have to depend for paying their rent, and it is of the greatest importance that they should have a stock of cows that will produce the greatest amount of rich milk on the smallest amount of feeding. To know thoroughly about breeding, you must serve your time to the trade, watch all the various habits of the cow, and study the different strains.

A great difference of opinion prevails as to what are the proper points of an ideal cow, but almost all thorough, practical breeders are pretty well agreed on that point. The greatest trouble is to produce what you would like to.

The following are what are considered the proper points of a good cow:

The cow should be of good size.

The head, a medium size, with the muzzle broad; wide between the eyes, and the eye clear, bright and standing out prominently. The forehead should be wide, and the horns should stand well up, but not too long nor too thick, with a good width between the tips.

The neck should not be over-long, but free from any thick fleshiness.

The shoulder should be firm, with the blades fitting well into the body. The fore shoulder should be well placed into the animal, and not sticking out prominently. The animal, when not milking, should carry a nice thickness of flesh behind the shoulder, and should be well thickened out and deep around the lungs and heart, so that she may have room to do her work properly.

The back should be straight, and the ribs well sprung out from the back.

The hook bones should be fairly wide and prominent, but not too wide and pointed, for that and a high cutting shoulder means extra food to keep the animal in decent condition.

The hind quarters should be long and square, and the tail should lie nicely into same. The thighs should be fairly thick, but not bulged out and beefy, and the hock should have a nice, natural curve. The cow should have fine, flat bones, show good substance, be deep at the flank, and the flank should run well into the thigh.

The skin should be fairly thin and loose, and covered with a nice, silky coat of hair.

The udder, when filled with milk, should be long, broad and level, running well onto the belly and up behind. The teats should set well apart, and hang perpendicularly; be of a good length and a little pointed; have a nice thin skin, and a silky feeling. The milk veins should stand out large and prominent along the belly in front of the udder, with a good-sized hole where they go through the rim of the belly. When the cow is milked the udder should go well away, and hang like a nice, loose skin, and not be bulky.

The animal should be able to move in a free and easy way, having a nice jaunty gait.

All these points are not necessary for a heavy milking cow. A great milker may be almost any shape. The greater the number of these points combined with a good milker, the greater will be the value of the animal. Cows of that description will command a good price anywhere, and at any time.

Having secured the ideal cow, the next point will be to secure a good bull to mate with her to produce something equal to and better than either, if possible. The selection of a good bull is of the greatest importance, and to that the breeder should pay great attention. The points for a good bull are much the same as those described for a good cow, only have him stronger in all his points, and having a good masculine appearance. In all breeds, and in wild animals and in the human being, it is natural for the male to be stronger and not so finely and evenly shaped as the female. Should you use a fine, slender bull, you are sure to get a fine, slender cow, and the same holds true of the other sex.

The next point to be considered is the matter of the bull's age. It is a common mistake to think that a young bull is the best to use. A young bull is full of vigor and energy, and will produce a fine, healthy calf, but he is not so experienced as an older bull, and he is not so sure of himself. A bull of three or four years of age is the best to use, as he is full of vigor and energy, and he is also experienced and sure of himself. A bull of five or six years of age is also good, as he is full of vigor and energy, and he is also experienced and sure of himself.

those two points, then get as many of the other points already described as possible.

Next we come to the pedigree of the animal. Many people run down pedigree and the herdbook. Should a proper view be taken of it, there would be less said against it. There is no such thing as an unpedigreed animal. Every animal has a pedigree of some sort. Some have their pedigree correctly recorded, others have no record of their pedigree kept. Since animals show a strong tendency to breed back to some of the various strains they are descended from, it is of the greatest importance to know all the strains. Should no record of their pedigree be kept, you cannot know the strains.

The fact that an animal is entered in the Ayrshire Herdbook makes that animal no better nor no worse. An animal should not be bought merely because it has a properly-recorded pedigree. Examine that pedigree, and if you there find two or three strains you know to have been good doers, count value on that pedigree. If, on the other hand, you find two or three strains you know to have been bad doers, have nothing to do with that animal. In that case, the animal is the worse of having her pedigree recorded. To anyone who has not been following up or studying the different strains, pedigrees can be of no use, further than showing that the animal is pure-bred as far back as the pedigree goes. It does not give any idea of what sort of an animal he is likely to get, further than that the prizes will be recorded, should she have won any. It is his own lookout to enquire into and learn what sort of blood he has there. In that case, in making a selection, some breeder or fancier should be employed who has been studying the different strains, or who, at least, will be in a position to find out whether it be good or bad blood. The greater the number of crosses of good blood you have in an animal, the greater tendency will that animal have to leave good offspring.

In showing in this country there are two classes, namely, those shown as one and two year olds (termed yield stock), and those shown as cows in milk. Seldom does an animal which can win as a yearling and two-year-old take a prize as a cow in milk.

In judging cows in milk in this country, far too little attention is paid to the size and general appearance of the animal, and the size of its teats. In very many cases a good big, useful dairy cow, with good-sized teats, a fair milk vessel and like giving a good quantity, is beaten by a small, plain cow, having a very neat, tight vessel, not very large teats, and not very milky looking. In that respect, the Canadians are ahead of us in judging cows. They seem to go in more for what we call the yield stock strain, and without doubt these are the more profitable animals in every respect.

Many people count a good deal on the color of the animal, but that is only a matter of taste. The most fashionable color now is white, with distinct dark-brown markings. They take the eye more readily, and look prettier when washed clean. For many foreign countries, brown and white of a distinct flock is the color wanted.

The feeding and management of the cow is also a very important part in successful breeding, but in this short article I have not space to take it up. ADAM W. MONTGOMIRIE, Ayrshire, Scotland.

Marketing Butter.

Those who possess the knack of making butter that has that fragrant flavor that distinguishes the product of many farm dairies, often make the mistake of keeping the butter on hand too long after it is made before marketing it. It will be found that however palatable it may be, and however good the flavor it possesses when first made, it will have escaped after too long keeping. Even when transported long distances it loses its distinctiveness while in transit. In fact, it seems that butter which possesses to a large degree this much-desired flavor deteriorates much quicker than that of an inferior kind. As a consequence of this, the farmer's wife who makes a superior article which has a local reputation for excellence should endeavor to dispose of the product to local trade, or, at least, sell it so near home that it will not be but a day or two between the churn and the consumer. This can be easily managed in almost any locality where there is a market for it by securing a list of private customers and furnish it to them direct as they need it. This class of patrons is much more profitable year in and year out than the city hotels or the commission houses or those consumers who buy in the general market.—[Drovers' Journal.]

At the annual meeting of Manitowish Creamery, it was expressed a to whether the creamery could be run next year. Lack of interest in dairy work appears to be the principal drawback.

The Outlook for Dairying in Canada.

By J. A. Ruddick, Chief of Dairy Division, Department of Agriculture, Ottawa.

A few years ago most people thought that cheesemaking in Canada had almost reached its maximum in point of production, and there were many also who believed that we had raised the standard of quality to nearly as high a plane as it was possible to get it. Further, it was generally considered that comparatively lower prices would have to be accepted in the future. I need not say that the prophets have been agreeably disappointed, and all calculations completely upset by the records and experiences of the past two seasons, during which period our annual exports have increased twenty-five per cent., while prices have been maintained at an extraordinarily high level. Again, it is admitted on all hands that the quality of

OUR CHEESE

has satisfied the British demands better than ever before. The heavy production during 1902-03 may be accounted for as follows:

(1) There was a slight extension of the cheesemaking industry; (2) the conditions were favorable for the production of milk; and (3) the high prices encouraged patronage at the factories, and induced most of the combined ones to make cheese instead of butter. The most interesting point in this connection, and one which contains a valuable lesson to us, is that the high prices have undoubtedly been due to the fact that the cheese were of such a superior quality as to promote a steady, strong consumptive demand, which prevented the accumulation of stocks in sufficient quantity to glut the market. As a matter of fact it was the strong consumptive demand which kept the price up. It should be instructive, then, if we can determine the factor or factors which have been instrumental in bringing about this satisfactory result. I would say that the marked improvement which has characterized the quality of our cheese during the past two years is owing to the better methods employed in its production and the general improvement in buildings and equipment, and also to the fact that a large quantity of cheese was carried to Montreal in the iced cars arranged for by the Department of Agriculture, as well as by individual shippers, but there is no doubt that the remarkably cool weather which prevailed was the main factor in elevating the standard of our cheese during the past two years. It is estimated that the value of the output of Canadian cheese for the past two years has been increased to the enormous extent of at least \$5,000,000 as the result of these favorable conditions, and this estimate does not take into account the increased production, but is based simply on the increase over what might be considered an average value under ordinary circumstances. This sum, divided among 3,200 cheese factories in the country, means over \$1,500 for each one, which amount, if applied to the improvement of curing-rooms, etc., would go a long way towards securing a permanency of those conditions which have proved so beneficial. On the whole, the present situation is full of encouragement to cheese producers, because it points out very clearly how the cheese industry may be placed on a safer and more remunerative basis. No stronger argument is needed to show the great importance of maintaining lower temperatures in the curing and transportation of cheese. These somewhat abstract deductions are fully corroborated by the practical results of curing cheese at different temperatures under various auspices.

I venture to say that those engaged in any other line of industrial enterprise of equal magnitude would never neglect to avail themselves of such a sure means of increasing the revenue from their operations.

As regards butter, the situation is somewhat different. In the first place, the fact should not be overlooked that we meet very much keener competition in supplying Great Britain with butter than we do with our cheese. We have practically no competition in cheese. New Zealand sends a comparatively small quantity, which varies greatly from year to year, and, on the whole, is likely to decrease. The United States supply is also diminishing, and will undoubtedly reach the vanishing point before long as their home market grows. Some people are fond of dilating on the fact that we have captured the trade from the Americans, but that is hardly correct. The output of cheese has increased eighteen per cent. in the States during the past ten years, but the bulk of it now finds a better market at home, and only the surplus is exported. It must not be assumed that we can afford to be careless or indifferent because we have the trade practically in our own hands, for if we do not furnish the British consumer with the kind of cheese that he wants he will eat very much less of it, and the trade will be lost in that way.

OUR BUTTER.

Our competition in butter comes principally

the deputation followed "Jimmy" into his presence. When they met "Jimmy" he was smoking a black cigar, and had his hat cocked at the back of his head, and both were kept in the same places during "Jimmy's" introductory speech, which ran thus:

"Here, Mr. Premier, here's some hennen here, come to pull your leg. They know better'n I do what they want, so I'll leave 'em with you." And "Jimmy" left; later we left; and later still we found the Premier had left—the hennen—for they didn't get that grant.

Many discouragements and much uphill work has been surmounted, and now the Manitoba Association stands upon a pretty solid foundation. But it must grow, not merely in numbers within its present sphere, but by increasing the interest in other localities, forming associations in other towns, and sending the annual exhibition to those towns to stimulate and increase the poultry industry in and about those various localities.

A. B.

Ducks and Winter Laying.

Ducks, as a rule, do not lay well in winter, if we except the Indian Runner breed, and yet eggs at this time are very much wanted by those who hatch and rear early ducklings for market. The eggs of the Runner can be had without much difficulty, but this breed is of little value for the purpose referred to. A breed which grows quickly and puts on plenty of flesh of fine quality is what is wanted. Good condition, without being overfat, is what is demanded in the stock birds, and, in addition, they must be provided with comfortable quarters, and supplied with good and stimulating food. Animal food must form a liberal share of their diet. Ducks can stand a lot of this, and during the winter they lay all the better for it. Cooked vegetables, such as cabbage and turnips, are also very necessary, and should always accompany a diet rich in nitrogenous elements. Mere fat-producing food is of little value, though a certain amount is necessary to supply the carbon demanded by the low temperature of winter. In this respect, corn meal is useful, but should be combined with one-third its bulk of bran.

A cross between Pekins and Aylesburys often produces ducks which have a tendency to lay earlier in the winter than the pure-bred parents, and it often suits to cross these birds another year with pure Aylesbury drakes. When Indian Runner ducks are crossed with Aylesbury drakes plenty of early eggs are secured, and the young ducklings are fairly satisfactory growers, but if this cross is again mated with an Aylesbury male the results are generally very satisfactory. Eggs can usually be got at the time they are wanted, and the ducklings grow fast, and put on a lot of meat. If the top prices are usually secured by pure-bred Aylesburys, the latter cross, at any rate, ranges high up, and, everything considered, is very satisfactory.—Ex.

Manitoba Poultry Show.

The prize-list of the annual Provincial Poultry Exhibition being held at Brandon, Jan. 26th to 29th, is a well-prepared volume. It shows liberal prizes for all the breeds of poultry represented in this country, and a few specials of more than ordinary value. There will be an auction sale on the last day of the show, when farmers desiring to buy pure-bred specimens of the feathered tribe will have an opportunity of doing so.

Apiary.

Getting Started with Bees.

By J. J. Gunn, Gonor.

Among those who have begun the new year with resolutions to be better and to do better during the next twelve months, there are some, it would appear, who have decided to make their homes more cheerful and more interesting for the young folks growing up there, and, incidentally, provide an additional way to put money in their purse, by placing a few hives of bees in their dooryards. That this is the case, some enquiries already received go to show. These enquiries also go to show that not all who have made this commendable resolve have a knowledge of bee-keeping, or even know how to begin. They are timely, however, and besides replying privately it seems to me that some discussion of the points raised, through the columns of the "Advocate," could not fail to be of benefit to many others.

HOW TO START, AND WHERE TO LOCATE.

"Start small" is good advice to anyone who begins to be advised and starting in that way...

for the room and the care required. In this way one gets a knowledge of the subject, such as can only be gained by experience, without subjecting himself to the risk of a heavy loss in case of failure. He also gets a knowledge of the capabilities of his neighborhood for honey production, and can confine his stock to one colony or increase it to a hundred, as experience warrants. Of course, there are stretches of prairie so bleak and bare that bees cannot be expected to be commercially profitable there; but even in such places, if the homes are being improved as to appearance and comfort by the planting of shelter belts and shade trees, as they should be, there is no reason why those homes should lack the cheerful and companionable hum of bees about the door, or their wholesome and delicious product on the table.

Shelter from north and west winds can easily be provided for a few hives by trees and shrubs, or even a close board fence, and also some shade from the meridian sun. These are necessary, and if provided the little workers are sure to give a good account of themselves; though it is not to be expected that even then such results can be obtained as in localities where bush is plentiful. Here the honey-bearing flora is more abundant, and, apparently, more rich in nectar, owing, no doubt, to the better conservation of moisture in the soil of such localities. Such situations, too, afford the bees great advantages in windy weather. There are many days when bees cannot work on the open prairie on account of high winds, but yet can forage quite successfully in the bush.

Now, to return to the point of starting: One should at once procure such a book as the "A B C of Bee-culture," and read it up during the winter evenings. This will assist one greatly in consulting it when the occasion arises—as it certainly shall pretty often.

If the start is made with one colony, this might easily be increased to five or six, or even to ten, during the first season, if so desired, but it would be a risky thing for a beginner to undertake, and one very apt to result in loss. On the other hand, by providing lots of room it might be kept from swarming altogether, and a yield of honey procured which would pay not only for the bees but go a good way towards paying for the small outfit necessary for such a start. The best way of all, and perhaps the most convenient, would be to allow it to swarm once. This would increase the beginner's range of experience and his stock as well, without to any great extent lessening his honey harvest.

WHAT IS NECESSARY FOR A START.

Starting with one colony, at least two spare hives, complete with frames and comb foundation, should be provided. If extracted honey only is to be the object, a complete hive will mean a hive of two equal-sized bodies, with movable bottoms, so that one may be set on top of the other and both accommodate the same size of frames. If comb honey is to be sought, half-stories, or "supers," with their necessary complement of sections, section holders and separators should be provided. In this case a complete hive will mean one full-sized body or brood chamber, and at least two supers. For extracting, of course an extractor is needed, and a knife for cutting the cappings off the combs. A veil, gloves, and a good smoker are also things that beginners ought to have, though with experience these are liable to fall into disuse.

Events of the World.

Russia vs. Japan.

Reference to the map will, perhaps, help to make references to the Far East question more intelligible. To the north is Siberia, Russia's great territory in northern Asia, traversed by the Trans-Siberian Railway, which, running from St. Petersburg in Europe to Vladivostock, is about 6,585 miles long. Lake Baikal, over which trains must be transported by ferry, greatly impeded by ice in winter, is its greatest drawback. Manchuria is nominally a Chinese Province, rich in undeveloped resources, with a territory about six times as great as England and Wales. Manchuria has, however, been drawn almost completely under the Russian control. The branch railway running from Kharbin to Port Arthur was built by Russian capital, in order that Russia might have a port (Port Arthur) which would be free from ice in winter. Korea is an "independent" country, at whose head is an emperor. Both Japan and Russia have coveted the possession of Korea, and Japan's anxiety as to the continued occupation of Manchuria by the Russians is due to the certainty that, with possession of that Province, Russia's next move would be to obtain Korea, a consummation which would be full of menace to Japan herself, and prevent her ambitions of expansion.

Rich gold fields are reported from the vicinity of White Horse, Yukon. Access to this place is easy, and a rush of miners is predicted for the spring.

Within the last two weeks, \$5,000,000 from Japan has entered the United States to pay for wheat, flour and munitions of war. Russia is also buying heavily from the U. S.

The Lapps are in danger of starvation. Their entire wealth consists of their reindeer, which, owing to the inclemency of the weather during this winter and last spring, and the scarcity of reindeer-moss, have been dying out, leaving the Lapps in a deplorable state of want.

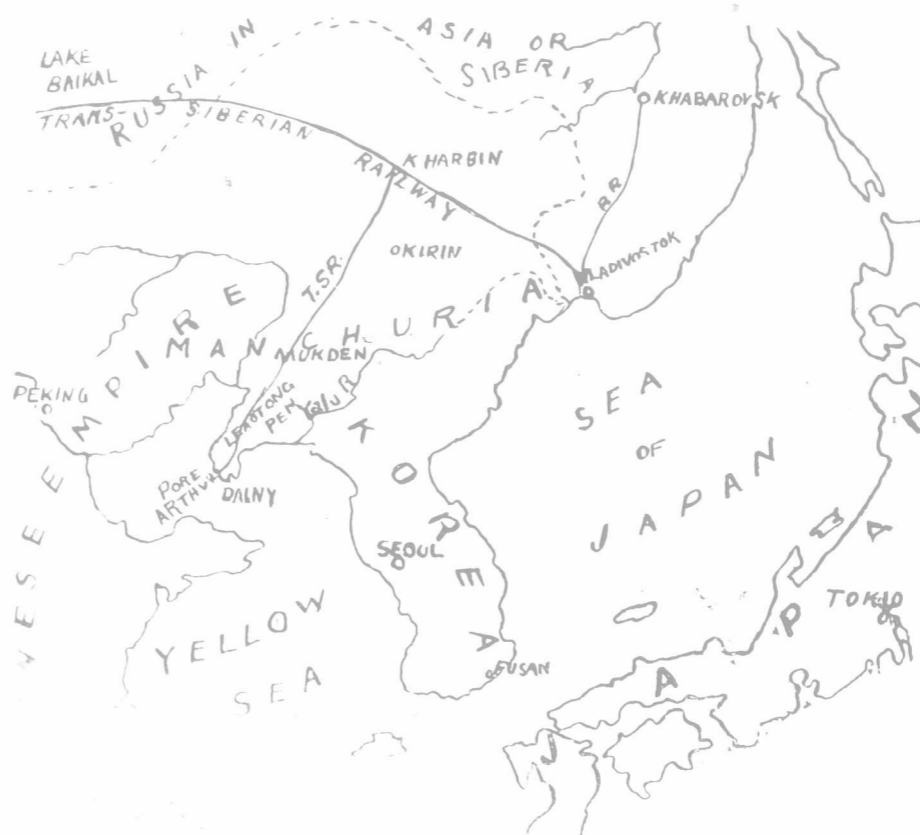
Arrangements for establishing a Boer colony in Montana are almost completed. The selection of Montana has been made by General Joubert, on the recommendation, it is said, of Jas. J. Hill, President of the Great Northern Railway.

Colombian troops are reported to be on the march toward Panama. The troops of the Isthmus are ready for them, and, to the number of 12,000 fighting men, have enrolled to defend the three passes by which only access can be had to Panama. The Isthmians say that at these passes a few soldiers can keep at bay a great army.

A wonderful new motor has been invented by Peter Thornley, an engineer at Burton-on-Trent, England. It is said by experts that its development may result in railway engines running twice the present speed at one-half the cost, and that by its use steamers may possibly be enabled to cross the Atlantic in three days. It can be worked either by compressed air or by steam.

The latest news from the Balkans is to the effect that the situation in Macedonia is becoming every day more critical. The military forces sent by the Turks to keep the peace have ejected the people from their huts, and have taken possession of them themselves. The villagers have lost hope, and are fast becoming ripe for the fresh insurrection

which the Bulgarian Revolution Committee hopes to bring about in the spring. In anticipation of an early movement, the Turkish troops have begun to concentrate at Kumanova, on the road leading to the Bulgarian frontier. A cursory explanation of the situation, which is extremely complicated, is as follows: The Macedonians (under which term are included the Greeks, Serbs and Bulgars who live in Macedonia) have long realized that under the sway of the Sultan of Turkey they can make no advance in civilization or prosperity. Moreover, they have been distressed by heavy taxes, robbery and the insecurity of their lives in a country of Mohammedan rulers, to whom Christians' lives are of less account than those of the vermin of the earth. Again and again they have broken out in revolt, and have called upon the powers of Europe to intervene in their behalf, but without avail. In October last, the insurgent troops had several brushes with the Turks, in which now one side, now



Scene of the Asian Crisis.

another was victorious, and in which the loss of life amounted up in the hundreds. Throughout their struggle, the Macedonians have had the sympathy and aid of the Bulgarians, who have thus embroiled themselves in the affair. Their demands have chiefly been for autonomy, or self-government. Nevertheless, it is generally held that the rebels must realize that they cannot form a separate government of any stability, and that, since their main desire is to escape from Turkish misrule, and, at the same time, to avoid the possibility of Russian rule, which they dread, they would not object to partition of their territory between Bulgaria, Servia and Greece. Coveted by Russia and Austria on the north, by Italy on the west, and harassed by persecution within, the Balkan Provinces are indeed in a precarious situation.

Word has been received that Moosha G. Daniel, a Persian who attended Knox College, Toronto, some years ago, and who lectured in various parts of the Dominion, returning subsequently to Persia as a missionary, has been murdered by Mohammedans. Mr. Daniel is also known as the author of "Modern Persia," and other works. As he took out naturalization papers as a British subject while in Canada, it is likely that the British authorities will demand an explanation as to his untimely death.

The advice given in the first bull issued by Pope Pius, which was recently given to the public, is worthy of consideration by Protestants as well as by the Catholics, who will, no doubt, be influenced by its pacific teaching. It has been principally directed, in the interests of peace and the welfare of the social fabric, against the actions of lawless strikers. "Laborers," he says, "must not damage the property or injure the person of their employers, and must abstain from all violence." On the other hand, he demands that capitalists pay fair wages, and that they do not impose on their employees tasks beyond their strength.

British and Continental Jews have formed a Jewish Emigrants' Information Society, whose purpose is to supply to the oppressed Jews of Europe, information as to the most suitable countries for the establishment of Jewish colonies, also to aid emigrants in obtaining transportation, and in getting settled in new lands. Leopold de Rothschild and many other prominent Jews are named among the directors of the Society.

Letters received recently in India from Colonels Youngusband and MacDonald state that the British are encountering many difficulties in proceeding through the unknown, mountainous regions of Thibet. They have been met at various points by bodies of armed natives, who, however, have, as yet, permitted them to go on without further molestation. Much concern is evinced in Russia as to the object of the advance, but the report of the dispatching of Russian forces has not been confirmed.

Field Notes.

The Winnipeg Poultry Show will be held during Bonspiel Week.

"Life is not so short but that there is always time enough for courtesy."—Emerson.

"We live through our days of happiness without noticing them. It is only when evil comes upon us that we wish them back."—Schopenhauer.

Mr. Sam Wilson, of Stanwood, Iowa, thinks he has the largest calf in America. When twelve months old it weighed 1,290 pounds.

C. B. Halpin, proprietor of the Olds Oracle, which was recently destroyed by fire, has arranged for the installation of a new printing plant at Olds.

A man in Seattle, Wash., sold \$400 worth of winter rhubarb from a house 20 x 100 feet. It is said that rhubarb may be successfully forced even in a cellar.

"Small things swell the farmer's balance at the bank. Poultry, intelligently kept, never lose money."—[Farmer and Stockbreeder.

Edson M. Crossman, N. Y., has succeeded in producing an apple that is green in color, with pink flesh, resembling that of a watermelon. Its flavor is said to be excellent.

Mr. J. D. Farrell, "Jim" Hill's confidential representative, says that the discovery of anthracite in the Dunsuir Comor coal fields is full of the greatest significance and will work wonders for Vancouver.

Mr. E. H. Garner, Mo., claims that one-third of the farm horses in the U. S. bear blemishes from barbed-wire fences. "Barbed-wire fences," he says, "are cruel, needless, and expensive."

A dispatch from Liverpool says that at the exhibition of colonial products, which has just opened in that city, the Canadian exhibit is by far the largest. Of course it is. No need of a dispatch to tell us that.

A new steamer, to be called the "Canada Cape," will shortly be launched on the Clyde for service between Canada and South Africa. This will make the fourth on this service.

"The finest class of animals of any breed will deteriorate if poorly fed and cared for. This is the real cause of many a man's failure to get out of highly-bred animals as much as he expected."—[Farmer's Review.

Those heralds of spring, the seed catalogues, are now appearing. It might be a good idea to order one's seed early, so as to have time to test it. Some flat dishes and some cotton-batting kept moist and warm are all that are necessary for this operation.

An "Association for the Suppression of Bad Language" has been formed in England recently, with Lord Wolseley as the President. This should be noted by those young men who think it is "manly" to swear.

Congress has appropriated \$500,000 for the extermination of the boll-weevil in Texas. This should be interesting to us, as the depredations of the little insect, if not checked, will have the effect of making our cotton dearer.

Newfoundland is the greatest fishing country in the world. About two-thirds of its population are engaged in fishing. If Newfoundland concludes to come into Canada as one of the Provinces, our coat-of-arms will need another fish or two.

Mr. R. H. Grant, of Carleton Co., Ont., has made a success of poultry. He keeps from 80 to 100 hens, and is now shipping over twelve dozen eggs each week to Montreal, receiving a high price for them. Last fall he sold 300 fat chickens. He says it pays to use hens well.

Miss L. Goodell, Canastota, N. Y., started, twelve years ago, with a borrowed hen and a setting of Dorking eggs. To-day she owns extensive poultry-houses, and clears, annually, from \$300 to \$1,000. This shows what a woman can do if she goes about it the right way.

Moose Jaw, N.-W. T., Jan. 2nd, 1904. Farmer's Advocate, Winnipeg: Gents,—Your Xmas number is the best of the kind I ever saw. The cuts are all clear, and the descriptive matter ably written and to the point. It is an issue that you can well feel proud of, and I am sure your subscribers and the public generally will appreciate the effort you have made to impress the world at large of the great future of our Western country. Wishing you every prosperity for 1904, I am, Yours truly, O. B. FYSH.

A farmer in Indiana last summer tried to get a divorce from his wife on the grounds that she sold all the eggs the hens laid when they were ten cents a dozen. Perhaps, after all, when one considers the food value that is in eggs, one might feel tempted to feel some sympathy for the poor fellow.

The emigration to Canada from England last year amounted to over twenty-five per cent. of the total emigration from British shores. That is, out of 250,000, 60,000 have found homes in Canada. Two years ago 10,000 represented the extent of English emigration to Canada. This year, the emigration promises to be greater than ever.

The "Advocate," in extending its sympathy to the many losers in the serious fire which lately visited the thriving town of Olds, trusts that the renewed efforts which are being, and will be, put forth, will bring increased prosperity to the district at large, and also prove, individually, beneficial to the investors and promoters.

A disastrous fire, on the night of January 15th, swept away the Norman Block at Calgary. The block contained six stores, with suites of offices above them, also the Normandie Theatre. The chief loss is Senator Loughheed, to whom the block belonged. The loss aggregates about \$200,000, and the insurance is said to be over \$100,000.

It is not so long since that a party of Siberians, thinking that cream separators were devil-machines, "drowned" a number of them in a river. Now, separators are quite common in that country. Siberian cream methods, however, are not noted for their cleanliness. One report says: "In summer, the presence of a dairy is heralded, at a considerable distance, by the terrible smell. To diminish the foul odor, the owners, in some cases, have recourse to sprinkling a mixture of carbolic acid on the floor and walls." No wonder the dainty little Japs want to make war on the Russians!

A Maine farmer has turned a 20-acre woodlot into a fox farm. He has fenced the lot with wire netting, and has a fence four feet high, and sinking it three feet into the ground. He has found a steady demand for foxes, and is receiving for the pelts from \$5 to \$10. He keeps about 150 foxes in the enclosure.

At an eastern Farmers' Institute meeting, it was stated by Mr. G. H. Hutton that investigations carried on have shown that Canadian seedsmen have got into the way of sending the best seed to Europe, where it commands high prices, leaving the poorer class for the Canadian farmers. It is high time that farmers should see to it sharply that their seed is up to a certain standard.

Mr. S. Wiederhold writes us: "Having read in the 'Farmer's Advocate,' a treatment for ringworm, I thought I would give you a more simple remedy, as there are a great many stables infected. The diseased part should not be touched with the hand, as it is contagious and very painful. Put plenty of salt in lukewarm water, and apply to the parts affected. I have never known this remedy to fail by simply applying twice."

Jas. J. Hill, President of the Great Northern Railway, speaking at Minneapolis lately, dwelt upon the probability that Chamberlain's policy, if adopted, will injure American trade to such an extent that there will be a surplus of from 20,000,000 to 30,000,000 bushels of wheat, unless new markets are opened. He spoke hopefully of these markets being found in the Orient, where, it is interesting to note, the people are just learning to eat bread made from wheat flour. It baffles the mind even now to imagine the quantities of wheat which will be required when China's 400,000,000, along with the hordes of the Russian steppes, the Persians, Afghans, Hindoos and all the rest of them, get to eating up-to-date Western bread and muffins.

An Irishman was filling barrels with water from a small river to supply a village which was not provided with waterworks. As he halted to give his horse a rest, a gentleman rode up and asked:

"How long have you been hauling water, my good man?"

"Tin years or more, sor."

"Ah! And how many loads do you make in a day?"

"From tin to fifteen, accordin' to the weather, sor."

"Well, Pat," said the gentleman, laughing, "how much water have you hauled all together?"

The Irishman jerked his thumb in the direction of the river, at the same time giving his horse the hint to start, and replied: "All the wather yez don't see there now, sor."

Again the outlook regarding the situation in the Far East has changed somewhat. At the time of going to press, all Europe is looking for a peaceful settlement, this hopeful view of the case being induced by the fact that the Czar, under friendly pressure of the European powers, so it is said, has intimated to the Japanese Minister that he is willing to make certain concessions to the Japanese demands. Some excitement has been caused by the recent dispatching of 40,000 Russian troops northward from Port Arthur, destined, so it is reported, for the Yalu River; but the authorities have declared that this is no indication of an immediate outbreak, and, on these grounds, have refused the applications of numerous war correspondents who wished to accompany the troops. In Tokio, however, the war spirit is still strong. The Japanese believe that no concessions the Russians may make will be satisfactory, and that war is the only possible outcome.

Edmonton Jottings.

Mr. Fisher, representing the Dominion Fish Co., of Canada, is in Edmonton buying whitefish for shipment to Buffalo, New York. Mr. Fisher is of opinion that the fish trade from the north will increase rapidly, and supplies will be brought from Great Slave Lake for shipment to Eastern markets in the near future. The present supply is chiefly from Pidgeon, St. Ann and White Whale Lakes.

The Edmonton hay market is pretty busy these days and prices good. During the past few months an average of about thirty to thirty-five tons of hay per day is being marketed here, some of it from 20 to 25¢ per ton.

Great possibilities are being seen in the grain and cattle are, with our present transportation facilities, recognized as possible products to be taken from the surrounding hay-crate fields in the east, and coal is becoming a very profitable resource. Two thousand tons per week is the average output from the surrounding mines for home consumption and export. This should open the eyes of enterprising business men, as there are other lines of industry quite as capable of growth here as those already opened up.

Down in the valley on the bank of the Saskatchewan River, about one mile out of the town of Edmonton, may be seen the packing house of the Gallagher Hull Meat Company, where cattle, sheep and hogs are killed, dressed and cured for home consumption and export purposes. There is accommodation for the killing of about three hundred hogs and about twenty-five cattle per week, and, in connection, there is a curing-room of 3,000 pounds and a smoke-box of 50,000 pounds capacity. The ice-box holds about 800 hogs, and is one of the latest designed ice refrigerators.

With B. C. Lumbermen.

A leading mill operator is reported in the Vancouver News-Advertiser as saying:

"Just now things are quiet both in lumber and shingles, especially the latter, but a good season is anticipated.

"Very few logs are being put in the water these days, and labor in the camps is freely offering. Wages all last year were pretty high in and around Vancouver, but they are now about on a par with those paid on the American side of the line. There has been a further reduction this month of 25 to 50 cents per day.

"The Government will not receive so much revenue from special timber licenses this year," he continued. "The increase in the cost of licenses from \$100 to \$140 will make a difference. Then, too, last year, many who are not accustomed to cruising timber, took out licenses in the hope of being able to dispose of their limits. In many instances, these were not of much account, and the speculators lost money. The present conditions, while bringing disaster to some, will put things on a better basis in the lumber industry."

Farmers for Canada.

A party of nine hundred farmers will leave Yorkshire for Canada in the spring of the year. They are the pick of the people. They can boast a purer pedigree than any save a few families in the nobility and gentry. They have stuck to the soil generation after generation, and now they are going from us, to be followed by others of their kith and kin, and more of the agricultural community from other parts of the United Kingdom. They leave the mother country, but they stay within the Empire. They are not altogether lost to us. On the broad, fertile prairies of the West we wish them golden fortunes. Making due allowance for the bright colors of a sanguine optimism, there is no doubt that their prospects are far brighter across the Atlantic than they have been here for thirty years past.—[London Express.

Territorial Stock-judging Schools.

The Territorial Department of Agriculture are fully alive to the importance of affording stockmen, both young and old, a means of improving their knowledge of animal form. Lectures in judging and handling live stock will be given at:

Edmonton	Jan. 26 and 27
Lacombe	Jan. 28 and 29
Macleod	Feb. 2 and 3
Medicine Hat	Feb. 4 and 5
Oxbow	Feb. 8 and 9
Indian Head	Feb. 11 and 12
Yorkton	Feb. 12 and 13

Animals will be brought into the class-room at the morning and afternoon sessions, so that all can see and handle them, and the score-card will be explained and used. At the evening meetings, general topics will be discussed and lantern slides will be used for illustrating. Dr. Hopkins, Winnipeg, and Dr. McGilvray, Binscarth, will take charge of the live-stock work, and Geo. Harcourt, Supt. of Institutes and Agricultural Societies, is expected to be present to conduct the work in general.

C. P. R.'s Irrigation Project.

Since October 1st, a staff of men have been engaged below the C. & E. bridge, Calgary, in river-protection work preliminary to the commencement of active operations on the C. P. R. irrigation system. Advertisements calling for tenders are being published in the leading Canadian and American centers. Superintendent Dennis, who has charge of the work, states that already \$20,000 has been spent in Calgary for tents, provisions, etc. The first section of the system will be the digging of a twenty-mile canal, wide and deep enough to float a barge. Mr. Dennis states that probably there is no firm in Canada who can undertake it, yet it is the policy of the Company to give Canadian contractors the preference.

The construction of this enormous canal and its numerous branches will add greatly to the growth and prosperity of Calgary and surrounding district, and also, upon completion, open up for settlement an immense tract of country, rich in soil fertility.

Telephones and Rural Mail.

Free rural mail delivery has extended marvellously throughout the United States during the last two years. Now the Postal Department at Washington is asking for an appropriation to investigate the feasibility of using the telephone in communicating special-delivery letters to those who live along rural routes. In New York City, the sacks of mail are sent whirling through pneumatic pipes direct from the post office to the car, and returned in the same manner. The free-delivery department is said to be expanding more rapidly than any department of the service.

Sudden Death of Mr. W. R. Stewart.

Mr. W. R. Stewart, the well-known horse-rancher, and President of the British Horse Breeders' Assn., died suddenly on the 13th inst. at his home in the C. P. R. town. He was 50 years of age, and had been in the city for some time. He was a member of the C. P. R. and had been very active in its affairs. He was a very successful horse-breeder and had many fine horses. He was also a very successful businessman and had many other interests. He was a very popular man and his death is a great loss to the community.

Dominion Shorthorn Breeders' Annual Meeting.

The eighteenth annual meeting of the above Association was held at Toronto on January 19th. Messrs. J. G. Barron, Carberry, and J. G. Washington, Ninga, representing Western breeders, were successful in securing a grant of \$1,200 towards the prize list of the Dominion Exhibition at Winnipeg this year. The following grants were made to other Western fairs: Brandon, \$250; Calgary, \$100; New Westminster, \$100; Victoria, B. C., \$100. The assets of the Association are \$15,794, after all liabilities are paid. The membership of the Association, divided into provinces, is as follows: Ontario, 1354; Manitoba, 323; Assiniboia, 79; Alberta, 79; Saskatchewan, 18; British Columbia, 16; New Brunswick, 5; Quebec, 26; P. E. I., 9; Nova Scotia, 17; United States, 10.

The officers-elect for 1904 are: President, Wm. Linton, Aurora; Vice-president, W. G. Pettit, Freeman; Vice-presidents for the Provinces: Ont., W. D. Flatt; Que., Wm. H. Gibson; N. S., C. A. Archibald; N. B., Bliss Fawcett; P. E. I., F. G. Boyer; Manitoba, James Bray; Assiniboia, W. A. Heubach; Alberta, John A. Turner; British Columbia, W. H. Ladner. Secretary, Henry Wade, Toronto; Assistant Secretary, H. Gerald Wade.

Shorthorn breeders, in Manitoba and the Territories especially, are advised to be particularly careful to have the pedigrees of animals purchased in the United States recorded in the Dominion Herdbook before they come into this country, as many of the pedigrees in the American Herdbook are not eligible for record in our Herdbook, as they do not trace in all their crosses to imported cows. Special attention is called to this matter, as a number of cattle have been brought across the line during the last two years whose pedigrees had to be rejected for above reason.

Implement Men Meet.

At the annual meeting of the Winnipeg Wholesale Implement and Carriage Association, held in the Board of Trade Rooms, Winnipeg, January 9th, there was a good attendance, and the meeting was lively and enthusiastic. The report for the past year showed the adoption of a few rules and the accomplishment of a few undertakings which will be beneficial to the Society and to the implement trade generally. It was reported that while the trade in implements had grown during the year in conjunction with the immigration, the number of people engaged in the trade had increased out of proportion to the expansion of the trade itself. In 1902, the membership of the Association was twenty-six, which has increased to thirty-six in 1903. This membership includes a representative from every house doing business in agricultural implements in Winnipeg. The officers elected for 1904 were: H. W. Hutchinson, President; Jos. Maw, 1st Vice-President; A. E. Mott, 2nd Vice-President; A. G. Watson, Secretary-Treasurer.

There is every indication of a busy year ahead of the Association, as there are a number of important subjects which will have to be passed upon. With the unity prevailing amongst the members, however, the duties will be as light as possible.

A banquet was held on the evening previous to the meeting, at which there was a good attendance, and a most enjoyable social evening was spent. The chief objects of the Association are: To foster a social interest between the members, to get better freight rates and improved facilities for machinery freights, and to forward the interests of the agricultural implement men generally.

Minneapolis Flour for Japan.

An American exchange reports receipt of orders for the shipment to Japan within eight days of 100,000 barrels of flour by Minneapolis millers. The preparations for hostilities on the part of Japan was, doubtless, the explanation of such an exceptionally high aggregate of orders, though the Japanese Government have done no direct ordering. The orders may be regarded as more or less partaking of what is done in an emergency, but war or no war, the flour was bought and will be used in Japan, and if it can be used there it follows that it is required there, and a trade with that country in wheat from our Northwest is a matter which only requires a little organization and development. With our fast increasing area of wheat it is well to lose sight of no opening where a market may be established.

Hudson's Bay Railway.

As the northern districts of Manitoba and the Territories are becoming more thickly settled, the possibilities of trade for a northern railway system terminating on the shores of the Hudson's Bay become more and more apparent. The Yorkton Enterprise, writing on the subject, says: "Our farmers need only look at the map to find the great superiority of this route for our imports and exports to any other Canadian outlet." A Hudson's Bay Railway is a project that has long been talked of, and as the need for increased export and import facilities grows, with the great things accomplished in Canada in the past, such schemes as the Hudson's Bay Railway appear more and more practicable and nearer accomplishment.

Rounthwaite Grain Growers Organize.

An enthusiastic meeting of farmers of this district was held in the Rounthwaite schoolhouse, on January 8th, for the purpose of forming a branch of the Manitoba Grain-growers' Association. After listening to an able and practical address given by Mr. R. McKenzie, Secretary of the Central Association, in which he clearly showed the benefits which had accrued to the farming community since the formation of the Association, a branch was formed, with the following officers: President, Geo. Pringle; Vice-President, Wm. Bertram; Directors—W. Hall, Peter Elder, T. Sedgwick, G. J. Griffiths, Robt. Wheeler and W. H. Maher; Secretary-Treasurer, L. E. Marmont. L. E. M.

Calgary Business College.

The Calgary Business College will shortly occupy a portion of the new brick building almost opposite the post office. The front portion of the first floor will be used by the college. The rooms are lofty and well lighted; also, provided with up-to-date conveniences.

Blackfalds Farmers Organize.

An agricultural society is being organized in the enterprising district of which Blackfalds is the center. A number of prominent farmers in the district are taking an active part in establishing the society, and with the support promised by the farmers of the surrounding country there is every prospect of success.

Manitoba Committee on Agriculture.

The Committee on Agriculture and Immigration at the last session of the Manitoba Legislature were as follows: Hon. Messrs. Roblin, Greenway, and Messrs. Steel, Argue, Lawrence, Jackson, Winkler, Thompson, J. Prefontaine (Assiniboia), Lyons, Riley, Corbett, Legonohere, Boig, Ruddell, Prefontaine (Carillon), and Gordon.

Calgary Exhibition By-law Carried.

The by-law asking for a \$15,000 grant for additional exhibition buildings at Victoria Park, Calgary, was carried by a large majority. Those voting for numbered 222; against, 41.



The Late Wm. R. Stewart.

Alberta Jottings.

Twenty-eight telephones were placed in Red Deer town in one week lately.

A drier is being built by the Red Deer Brick Company at Red Deer.

Trimble's Creamery, Red Deer, turned out 65,250 lbs. of butter last year. Its patrons have about doubled since 1902.

Preparations are under way for building stock-yards at Nanton.

At a meeting of the directors of the Innisfail Agricultural Society, the board placed itself on record as being in favor of establishing an experimental farm in Alberta, between Olds and Strathcona.

The live-stock exhibition in Innisfail is to be held during the third week in July, and the directors have asked the Department of Agriculture at Regina to appoint a judge for the occasion.

Canada's Flour in Scotland.

Rufus Fleming, American Consul at Edinburgh, says there is great danger that the States may lose its wheat and flour trade with Eastern Scotland, owing to the increased competition of Canada. Up to this time, four-fifths of the flour, two-thirds of the wheat and one-half of the corn consumed in that quarter has come from the United States. Canada is making an active bid for this trade, and is being helped by British capital, which of late has invested heavily in Canadian mills and elevators.

The Cowboy was a Woman.

Near Rockville, Oregon, a woman lived and recently died, who had been engaged in cattle ranching. While that country she was known as a cowboy, and not until death came, at fifty-three years of age, did her sex become known. She was an expert shot with the bow and arrow, and had served on juries and voted at elections.

Dr. James Mills for the Railway Commission.

Despatches from Ottawa state that Premier Laurier has offered Dr. James Mills, President of the Ontario Agricultural College, Guelph, a position on the Canadian Railway Commission. The appointment of Hon. A. G. Blair as chairman, a position which he has accepted, was announced in our last issue. The other commissioner appointed is Hon. M. E. Bernier, late Minister of Inland Revenue, M.P. for St. Hyacinthe, P.Q., who will probably be succeeded in that portfolio by Hon. L. P. Brodeur, present Speaker of the House of Commons. Hon. H. R. Emmerson, M.P. for Westmoreland, N.B., has been sworn in as Minister of Railways and Canals, as successor to Hon. A. G. Blair. The Chairmanship of the Railway Commission carries a salary of \$10,000 per year, and the two other commissioners \$8,000 per year each, for a term of ten years. Commissioners are not eligible after reaching the age of 75 years. Dr. Mills is at present 63 years old, and is one of the best-known men identified with agricultural advancement in Canada to-day. The Secretary of the Commission, whose name is not yet announced, is to receive a salary of not exceeding \$4,000 per year. We understand that Dr. Mills has accepted the position.

Brandon Winter Fair Proposition.

For some time a proposition to hold a winter stock show at Brandon has been under consideration. On the evening of the 15th, a meeting of the members of the Board of Trade and City Council was called, to which a number of prominent live-stock breeders throughout the Province were invited. After thorough discussion, it was decided to hold a show, provided sufficient money could be secured for the erection of a suitable building. It was suggested that the City Council vote \$15,000 for the purpose. The matter is now in the hands of a committee, and it is probable that the matter will be settled once for all very soon. Brandon City would undoubtedly derive great benefit in the future from an annual winter fair, and it is to be hoped that her citizens will be able to grasp the full meaning of the proposal.

Brandon Stock-judging School.

The lectures on live-stock judging at Brandon, February 18th, 19th and 20th, will be given in the warehouses of Messrs. Smith, English & Nelson, on Ninth street. The programme is as follows:

- THURSDAY, FEBRUARY 18TH.
- 10.00 a. m.—Light Horses, by W. S. Spark.
- 1.30 p. m.—The Bacon Hog, A. P. Ketchen, B. S. A.
- 4.30 p. m.—Seed Grain judging, G. H. Clark, B. S. A.
- FRIDAY, 19TH.
- 10.00 a. m.—Judging Dairy Cattle (Practical).
- 1.30 p. m.—Judging Dairy Cattle (Practical).
- Evening Meeting—Requirements of a Cattle Stable, A. P. Ketchen; The Story of a Grain of Wheat, G. H. Clark; The Draft Horse (illustrated), W. S. Spark.
- SATURDAY, 20TH.
- 10.00 a. m.—Sheep and Dairy Hogs—Dressed Carcasses, A. P. Ketchen.
- 1.30 p. m.—Draft Horses, W. S. Spark.

The Hamilton Sale.

The combination sale of Shorthorn cattle announced to be held at Hamilton, Ontario, on January 20th, came off very successfully, the attendance being the

largest in the series of sales held there. Buyers were from Minnesota, Wisconsin, Iowa, Missouri, Illinois, Ohio, Manitoba and Alberta, but the bulk of the animals fell to the bids of Ontario farmers and breeders. Among those present from Manitoba were J. G. Barron, Carberry; J. G. Washington, Ninga, and H. Nichol, Brandon, Mr. Barron being the only buyer, while several head were purchased by Mr. Eckford, of High River, Alta. The bidding was spirited, and the cattle of an excellent class. The thirty-six head sold for an average of \$332. The highest price for a bull was \$955, for Imp. Victor of Dalmeny, purchased by E. G. Stevenson, of Michigan, and the highest for a female, \$925, paid by E. S. Kelly, of Ohio, for Rosebud 86th (imp.).

Soap-works for Calgary.

The Alberta Manufacturing Co., Limited, has been incorporated under the Territories Joint-stock Company Ordinance, to carry on the business of tanning, soap-making, etc., at Calgary. An expert Toronto soap-maker has been engaged, and is now on the ground superintending the work. The old soap works has been purchased, and is being enlarged, renovated and provided with new machinery.

Calgary Exhibition Dates Fixed.

At a directors' meeting of the Inter-Western Pacific Exhibition, recently held in the Board of Trade Office, Calgary, it was decided that July 5th, 6th, 7th and 8th would be the most suitable dates for the 1904 agricultural fair. Various advertising schemes were discussed and decided upon, as well as other details in connection with the success of the exhibition.

Markets.

Winnipeg Markets.

Wheat.—Prices have continued firm during the week for the higher grades. There has been a sharp decline in feed wheat, owing to the oversupply. Winnipeg prices have slightly risen and declined, according as the American markets have advanced and declined. The quotations now range about 82½c. for No. 2 northern; No. 3 northern, 75½c.; No. 4 northern, 68½c. May delivery prices are: No. 1 northern, 87c.; No. 2 northern, 84c.; No. 3 northern, 80c.; No. 1 feed grades, 51c.; No. 2 feed grades, 41c.

Oats.—There is no great supply of oats or barley. Oats have advanced slightly, and the highest grade on the market, No. 2 white, is now quoted at 31c. to 31½c. Lower grades are ½c. to 3c. lower, according to quality.

Barley.—Prices for barley remain the same as quoted last week: No. 3, 37c.; feed barley, 36c.

Flax.—The supply is getting smaller every week as the season advances, and the price has declined slightly. The prices are 90c. to 91c. for No. 1; No. 2, 88c.

Vegetables.—Prices continue the same as last week for vegetables, with a good demand and a regular supply.

Potatoes.—Potatoes are selling at 60c. per bushel; cabbage, 2c. per pound; carrots, \$1.00 to \$1.20; turnips, 25c. per bushel; celery, 40c. to \$1.00 per dozen, according to size.

FLOUR AND FEED.

Flour.—Flour continues firm at last week's prices. The demand is steady, and mills are kept working to their limit. Prices are: No. 1, \$4.20 per barrel containing two sacks of 98 pounds each; No. 2, \$4.60; No. 3, \$4.00.

Bran and Shorts.—Prices are the same as last week: bran, \$17.00 per ton; shorts, \$19.00 per ton. Chop Feed.—Oat chop, \$25.00 per ton; barley chop,

\$20.00 per ton; mixed, barley and oats, \$22.00 per ton; oil cake, \$27.00 per ton.

Hay.—Hay is continuing to come in freely, keeping well up to the demand. The price varies from \$9.50 per ton to \$10.50, with a still higher figure for hay containing a high percentage of red top. The former price is for stack bottoms and inferior grades.

Poultry and Eggs.—Prices continue at our last week's quotations: Manitoba turkeys, 18c.; geese, 11c.; chickens, 11c.; fowl, 9c.

Eggs.—Fresh-laid eggs are worth 40c.; good case eggs are selling at from 25c. to 28c. per dozen.

Dairy Produce.—Creamery butter is selling at 25c. to 26c. per pound; dairy prints, 22½c.; tuns, 17c. to 20c. Manitoba cheese is selling at 14c. per pound.

LIVE STOCK.

Hogs.—Prices have not changed during the week, and prospects are they will remain firm at last week's quotations. Choice pork is bringing 5c., with 2c. less for extra heavy and light weights.

Cattle.—Butchers are well stocked, and the demand is slow. Choice steers are selling at 3c. to 3½c. Inferior quality is from ½c. to 1c. less.

Sheep.—Mutton is selling at 3½c. to 4c. per pound, and lamb at 5c. per pound, with a steady supply and demand for good quality.

Grain Stored in Montreal.

The stock of grain in store in Montreal on the dates mentioned were as follows:

	Jan. 16, 1904.	Jan. 9, 1904.	Jan. 17, 1903.
Wheat, bush	42,633	125,666	53,357
Corn, bush	156,989	159,073	20,758
Oats, bush	75,676	81,334	56,270
Barley, bush	64,109	61,028	54,863
Flour, barrels		17,193	14,884

Wheat in Sight.

	Jan. 18, 1904.	Jan. 11, 1904.	Jan. 19, 1903.
Visible wheat supply, U. S. and Canada...	40,375,000	40,199,000	49,727,000
On passage to U. K.	15,920,000	14,640,000	17,440,000
On passage to con.	5,760,000	7,120,000	7,200,000
Total	62,055,000	61,959,000	74,367,000

Montreal Markets.

Prime beeves sell at 4½c. to 4¾c. per lb.; large fat cows, 4½c. per lb.; ordinary medium cattle, 3½c. to 4c.; common stock at 2½c. to 3½c. per lb.

Sheep 3½c. per lb., and lambs at 4½c. to 5c.

Good fat hogs 5½c. to 5¾c. per lb.

Chicago Markets.

Cattle.—Good to prime steers, \$5.15 to \$5.70, poor to medium, \$3.70 to \$4.85; stockers and feeders, \$2.25 to \$4.15.

Hogs.—Mixed and butcher, \$4.70 to \$4.90; good to choice, heavy, \$4.85 to \$4.95; light, \$4.75 to \$4.95; bulk of sale, \$4.75 to \$4.90.

Sheep.—Sheep and lambs, dull; good to choice wethers, \$3.90 to \$4.40; fair to choice, mixed, \$3 to \$3.60; native lambs, \$4.50 to \$5.90.

British Markets.

London.—American cattle, 11c. to 12c. per lb (dressed weight); refrigerator beef is 8c. per lb. Sheep, weak, at 12c. to 12½c. per lb.; lambs, 14c. to 14½c. per lb.

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Travelling Notes.

Christmas, and New Year's, too, will both have come and gone before my notes can reach our readers, but in imagination we shall have "foregathered" without the aid of Atlantic cable or Marconi's wireless telegraphy, for we shall in spirit have wafted our good wishes across the waters, and we shall have received in return, yours for us, just as certainly as if we had heard the words with our mortal ears.

I think I have already described somewhat in detail visits I paid some eighteen months ago to some of the places upon our present list; therefore, to these I must make but brief allusion now. Should a little repetition occur here and there it will be caused by my not having with me my old notes, and on that plea I hope to be excused. Our plan on leaving home was to see what we could of Antwerp, Brussels, Cologne, the Rhine, Heidelberg, Munich, Vienna, Venice, Milan, Florence, Rome, Nice, Geneva, Berne, Lucerne, and Paris, "and then," said one of us, "probably the poor-house for the rest of our lives."

We are now, on 21st December, at Heidelberg, on the point of starting for Munich, where we hope to spend Christmas. We had a delightful stay of a week at Brussels, a most lovely place, and well worthy of more visits than one, for not only are second impressions often more lasting than the first, but one cannot always take in at one view all there is to see anywhere. Brussels abounds in places of interest, and in treasures of immense artistic value. It has thousands of pictures in its art galleries, and many fine buildings, amongst the most striking of which was the Hotel de Ville, or Town Hall, where, for the small fee of 50 centimes, or 10c., one is shown over every department. In one of these, by the law of the land, every one, without exception, has to be married, whether or no they have gone, or intend to go, through a religious ceremony besides. We three spinsters were a good deal amused at witnessing one of these functions, at which, in short order, for it did not last longer than five minutes, ten couples were married at one stroke, the magistrate dismissing them with what seemed to us a jabbered injunction, "to sort themselves," an

easy and pleasant task enough for them, but one for which he evidently did not hold himself responsible. The couples walked away, arm in arm, to their several carriages. Some were rich, some were poor, but let us hope that they all may be happy ever afterwards. We were greatly interested in the lace factory, from whence comes the beautiful Brussels lace so dear (in more senses than one) to the heart of woman. We were shown the pattern of the wedding veil made for the Princess Beatrice, which took 200 women, working constantly for seven months, to bring to perfection. On asking the scale of wages paid to lace-makers, we were told that they were very small, ranging from 15c. to 30c. per day. Think of this, ye women workers in happy Canada, and thank God for casting your lot where honest toil meets its fair reward. It seems an anomaly, that with this pittance paid to the toilers, lace can be purchased for far less in old London. My cousins were amused at some of the "curious ways" of the people amongst whom we found ourselves, many of them not without their advantages; for instance, the hanging of mirrors at the outside of their windows, at such an angle that they can see what is passing in the street without rising from their chairs, and also become aware of the identity of the ringers at the door-bell before giving admittance. They were struck, as I had been, with the general use of dogs in drawing the small milk and vegetable carts, and even of cows, being put between the shafts of a vehicle large enough to carry a whole family at one time. I would not imply that there was any cruelty shown. No, indeed, on the contrary, the good moolie in cold weather had usually a warm blanket strapped across her back. Perhaps we were more unpleasantly impressed by seeing the very hard and unwomanly work which women have to do in Germany, and the exposure to which it subjects them. We saw them in the fields plowing, spreading top-dressing, and grubbing up the roots from the cold, hard ground, work which must be a great strain upon their strength, or so it seemed to us, but which appeared to be undertaken uncomplainingly enough.

Two days was all we could give to Cologne, some hours of which we

naturally devoted to its wonderful cathedral. On our way thence to Heidelberg, our train skirted the Rhine, entrancing us with its romantic scenery; each of its numberless castles having its story to tell, but none with greater romance surrounding it than that of stately Heidelberg, which is the crowning glory of this garden of Germany.

We three tramps are getting on grandly. Nell, more and more charmed with each new place, never wants to move on, and only once have I heard her say that she was "going straight back to Australia," and this was because she was cold. In England she was always returning by the next ship, notwithstanding she has a round-the-world ticket. Eleanor is an indefatigable sight-seer, poking her nose into everything, until I am beginning to be alarmed lest she may find her way into the lockup, for infringing one or more of the many rules which in Germany are very strictly enforced.

One day we had about six officials chasing us, because we had crossed a railway track and got upon the wrong platform. It was very droll, for we did not know one word they were saying, and vice versa. However, when once they had got us fairly "rounded up" and into the right place, they laughed, and we laughed, and so the episode ended, not only peaceably, but hilariously. I expect to date my next notes from Munich. MOLLIE.

The Doctor.

This beautiful and touching picture, by the celebrated artist, Luke Fildes, is well known, and has been widely copied, and no wonder, for it tells a story which goes straight to the heart. There can be but few who do not feel a thrill of deepest sympathy with those grieving ones who, in wordless agony of suspense, await the verdict, "To live" or "to die"? The unconscious child lies hovering on the brink, and seems as though already gone over to that great and mysterious beyond, so inert is the attitude of utter weakness. But this is not death, for there sits one who, with rare skill, helped by God's mercy, is straining every nerve to bring back to strength this frail flower. The whole figure and expression of "The Doctor" is

forced by the artist to be that of a young man, the light thrown upon it from the side, and the poor child, lying dead on her arms, the doctor's hand upon her forehead, the doctor's face seems as though it were a mask, and that quiet, unobtrusive, kind and noble face, with its strength and self-control, still seen at his post unflinchingly, and make no sign until he is sore, and we hope that fair child will be saved for those who love her!

There is so much artistic merit in this picture, that one might linger long over its discussion. The wonderfully natural position of the child's hands is a study in itself, but somehow it seems almost sacrilege to analyze thus. The picture is simply a grand study in human nature, and its masterly drawing stands second to its exquisite conception.

The Twins at Culleston Manor in 1685.

It was not for a few years after their first visit to Culleston that Dolly and Betty were told the whole story, with its mingling of pathos and wasted heroism, of those other twins of the picture, Dorothea and Bettina Culleston, whom they henceforth always called "the brave little great-grandmothers." Nurse had related to them enough to arouse in their minds a very keen interest, as well as a sense of pride, in belonging to a family which had taken part in historic events of nearly a century and a half ago, and this interest was accentuated when their great-aunt, Rebecca Lemorne, sent them as pupils to the time-honored old school on Castle Green, which, in spite of many changes, had educated generation after generation of the daughters of the county families of Somersetshire, and to be educated at which conferred a kind of hall-mark of distinction upon every pupil.

As they passed through the curiously winding corridors, stepped up and down stairs placed in unexpected corners, exchanged schoolgirl confidences in the deep embrasures of small-paned windows, or sat upon the backless benches (for what girl at that time could possibly require any support but her own backbone?) of the room allotted for their hours of study, the whole place was peopled for them by the twelve little maids of Taunton, which formed the contingent contributed by their school to the long procession of girls who dressed in white, with bow-knots of blue—the Monmouth colors—bearing each a flag and following the banner their hands had wrought, with its fatal insignias of a royalty to which he had no claim, marched to welcome the rebel Duke to Taunton in 1685. Monmouth had but lately landed in England, to bring, as it was claimed for him, religious freedom and every other kind of freedom to the people. His army of about 5,000 men, many of whom were young and brave, had been defeated at the battle of Sedgemoor, and the Duke had fled to the coast, leaving to the king's army the task of hunting him down. The Duke's army had been defeated at the battle of Sedgemoor, and the Duke had fled to the coast, leaving to the king's army the task of hunting him down. The Duke's army had been defeated at the battle of Sedgemoor, and the Duke had fled to the coast, leaving to the king's army the task of hunting him down.

This is the summing up of history: "1685.—Insurrection of Monmouth and Argyle; both executed. Judge Jeffreys' Bloody Assize. In the Bloody Assize the King's revenge was wreaked for Monmouth's uprising. Jeffreys boasted that he had hanged more traitors than all his predecessors since the Conquest. Of this



The Doctor.



Dear Friends,—

To-day I have the privilege of giving you an article which has been sent in by "A Farmer's Wife," to whom the subject was suggested by our recent competition topic. It gives us the question, "How to Enjoy the Winter," considered from a mother's standpoint. We think the observation that the species of amusement must be suited to the disposition of the individual, is well taken. There is little use of forcing on one what one has positive dislike for. At the same time, as "Farmer's Wife" has said, it is possible, to a great extent, to lead children to like advisable forms of recreation, one of which, most certainly, is the habit of reading, and of choosing good literature. On the other hand, it must not be forgotten that it is just as necessary to train the bookish child to like taking physical exercise regularly. The parent, in every case, must study the child.

How to Enjoy the Winter.

By a Farmer's Wife.
 "Enjoyments and recreations must be as varied as the character of the individuals for whom they are planned. What to one person would be a positive delight, to another would be an irksome task. One boy will delight in games, another must have skates, while a third can only be content when training his favorite steed. While endeavoring, to a certain extent, to cater to their fancies, and allow them to indulge in their favorite pastime, it should be our aim to cultivate in our children a taste for more enduring pleasures.

Reading, for example, is not dependent on any season, age, habits or conditions of life, but may be enjoyed by young and old, rich and poor alike. For, while the tastes which require physical strength decline with age, that for reading steadily grows. It is also a pleasure which enhances many others; it adds to the pleasures of society, of travel, of art, and leads us to take a greater interest in what is going on in the world around us.

"I would suggest as one of the first requisites to a pleasant, profitable and interesting winter, a definite plan of work, something to accomplish which we have never done before. If school boys or girls, we can aim at reaching a certain standard in our studies; or, it may be, we can take the initiative steps in learning some trade or profession. If older, we can plan, arrange, and perhaps accomplish some improvement in our buildings or home surroundings; but let us do 'something'."

"In the country, for the young people, and young-old people, a literary society could be formed or organized. Meetings could be held, essays written, debates given, and subjects appointed for discussion. Impromptu speeches are very helpful in training us to express ourselves readily and fluently, but a definite subject should be taken, that time be not wasted in talking at random. We might choose for discussion subjects such as the following: 'Education: What it is and does'; 'Benefits of Classic Education'; 'The Novel: Its Origin and Use'; 'Canadian Poets and Poetry'; 'Canadian Statesmen of the Nineteenth Century, or any Century,' and many others would arise from these. Do not attempt too much in one evening. Have your discussions interspersed with music, vocal and instrumental. A wise leader will endeavor to draw out the talents of each member. A very small fee from each individual, either monthly or as admission, would defray expenses of lighting and heating a room, or it

might develop hospitality to meet from house to house.

"The evenings spent in preparation; the pleasant walks or drives to and from the gatherings; the consciousness that you are improving yourself, and, it may be, contributing a little to the happiness of others, must be a source of unalloyed pleasure. I have described only one form of amusement for winter evenings; many others might be suggested, but time will not permit us to dwell on this very attractive theme."

We have also, to-day, a letter from an enthusiastic lover of Dickens. I have enjoyed this letter very much, and must congratulate Miss McTavish on her faculty of being able to form pretty solid judgment on that which she reads, as well as her faculty in telling her opinions in few and crisp words. Perhaps Miss McTavish would like to hear what a

A Plea for Dickens.

By Florence M. McTavish.

"Here is one practical reason for reading Dickens. He is one of the most creative writers. Next to Shakespeare, he supplies most of the current quotations. Not to know and understand them is to be perpetually missing the point in conversation and reading.

"Dickens' personages are all alive, and, I believe, immortal. Not to enjoy their acquaintance is to be exceedingly unfortunate. One who is still so happy as to have all of Dickens unread before him, had probably better begin with David Copperfield. If he does not enjoy this delightful book, it is likely he had better abandon his researches into Dickens. For humor and tenderness, this book is among his masterpieces; though the pathos as to Dora and her Dying Dog, may be forced, though the tale is too long, and though Little Em'ly is, or has come to seem, conventional. The heroine has not many admirers, for, as a rule, we do not love Dickens' women, but his men and boys are simply delightful, and Mr. Micawber is a proverb.

"After Copperfield, Pickwick ought to be read. Dickens never again wrote such a book—nobody has ever written such another book.

"Dickens is often referred to as the laughing philosopher. Quite the most

Stir thoroughly. Add four cups of boiled-mashed potatoes, stir again. Add gradually warm water, until the crock is three parts full. When lukewarm, add one Royal yeast cake, previously dissolved in warm water. Cover the crock, and keep in a moderately warm place over night. In the morning, remove to cellar and keep from freezing. This will keep a month or until used. Take three cups of this yeast, add a little more salt and three quarts of warm water (this will make a large batch). In cold weather make the water quite warm, or warm the flour. Stiffen this ready to mold; cover closely, and wrap warmly. This will be ready for molding early in the morning. Knead in the pan, then turn on a warm board; knead again, as much of the success depends on this. The better way is to cut off a piece the size of a loaf; after molding, lay on one side of board until all has been gone over in this way; then commence at the first and shape into loaves for the pan. Set in a warm place to rise! This method is simple and easy, and any farmer's wife who finds breadmaking a task should give it a trial, and report for the encouragement of others."

MRS. MARY E. BYCRAFT.

We are very grateful to Mrs. Bycraft for her ready response to our request, and dare to hope she will come again with many other practical suggestions. DAME DURDEN, "Farmer's Advocate," office, Winnipeg.

Domestic Economy.

A day or two's abstinence from solid food aids the system to throw off a cold.

Cloths (flannel) wrung from hot water often relieve neuralgia and other severe pains.

If hiccoughs do not yield to the usual remedy of drinking water very slowly, take a small piece of sugar and dissolve it gradually on the tongue.

Heartburn can be immediately got rid of by taking cream of tartar, about half a teaspoonful in half a glass of water. It makes a pleasant effervescent drink, cooling to the blood.

The best treatment for a bruise is an immediate application of hot fomentations; after that, witch hazel, vinegar and hot water or alcohol and water, put on with a bandage and often moistened.

Sprains require prompt treatment. Immediately on receiving the injury bathe the part in water as hot as can be borne, and then swathe in compresses of witch hazel, changing as each becomes dry.

There is nothing so good as turpentine for a bruise or cut. It will smart for a moment, but takes out every particle of soreness in an incredibly short time. Wet a cloth and bind on and keep it wet. Witch hazel is good also, but the turpentine is best.

Bacon is much better flavored and more digestible when cooked in the oven. Lay the thin slices with rind removed, on a broiling rack, and place the rack over a deep tin dripping pan. Set in a hot oven for from three to five minutes, according to the thickness of the slices. When brown and crisp, slide onto a platter, pour off the grease and use for frying bacon, or make a thickened milk gravy in the pan.

Sirs,—I like the "Farmer's Advocate" very much, not only for the help it gives relating to farming, but its moral tone is uplifting, and the Home Magazine department and Quiet Hour is edifying. I join in wishing the editor, and all the staff, a Happy New Year.

W. E. H. GARDINER, Middlesex Co.

The Advocate in the Home.

That the Farmer's Advocate is fast becoming the women's paper as well as the men's, is very clear to us from the numbers of letters filled with praise of it which the women send in to our offices. One woman wrote recently: "We have to drop some of our papers, but the Advocate will not be one. We find it to be the greatest help to us." And this is only a sample of many that we receive. We are glad to know of this appreciation, and assure our readers that we are trying in every way to deserve it. We are sparing no expense to make the Farmer's Advocate the most attractive and useful paper that enters the farmer's home. Indeed, few people, perhaps, have any idea of the amount that it costs to run a thoroughly high-class paper such as ours. But we are determined that the Farmer's Advocate shall maintain its position at the very top. We ask the readers of the Home Department to tell their friends of our paper and get them to subscribe for it. Push the Advocate. You will be helping both your friends and adding to the welfare of the country by doing so.

prominent critic, Mr. Walter Trewen-Lord, recently said in regard to Dickens:

"We may say of his work, as a whole, what Tourguenoff said of Le Nabab—that it may be described as being in some parts very great, while much of it is backwork. If there is something in Dickens that we would prefer to forget, there is at least as much that we cannot forget if we would. He is often a caricaturist, but at least as often he is far above all caricaturists. His place is not with the greatest artists. He does not live with the Veroneses and the Titians, but he is far apart from the Caraccioli. He is hardly Rembrandt, but we cannot leave him with the Jan Steens and the Ostades. He is not academic, he remained to the last untrained, un-drilled, recognizing no models, consciously or unconsciously—one would even say that he despised them. As a result, he often erred, and he often drove well. He cheers us beyond any other writer that ever lived, and he hones us more than the daily newspaper. He stands alone—Charles Dickens."

comic of his later works is Great Expectations, where the terrible and the humorous are deftly blended. Here, too, the pathos is moral, not that of the deathbed or suffering childhood.

"In this age of change, Dickens must become old-fashioned, and only intelligible with more or less of an effort. A great many of the social abuses which he satirized are modified, if not abolished. His pathos is often forced, and we resent the continual struggle to make us cry; but let us forget his faults in his merits.

"The writer of this sketch will be much pleased if the effort brings new readers to Dickens, and sends old readers back to him, in whose words we always find something new and fresh, causing our gratitude and admiration."

Another Ingle Nook Friend.

"Dear friends of the Ingle Nook,—Noticing, in the issue of the seventh, a request for the simpler and easier method of breadmaking than that sent to New Ontario Boy, I send the following 'tried' recipe: Into a three-gallon crock, put four cups of flour, one cup of salt and one cup of sugar, pour boiling water over this, about three quarts

HEALTH IN THE HOME.

By a Trained Nurse

The Foot-bath.

A foot-bath can be given in bed. Put a blanket over the lower sheet and pillow; let the patient lie on it upon his back, covered by another blanket, with the upper sheet and remainder of bedclothes over that, and take off all clothing, slipping it over the head. The patient is now lying between two blankets. Tuck them in around the neck, and then arrange the rest of the bedclothes, tucking them in also, in such a way that the sheet comes around the face. The upper sheet may be taken off altogether. To do this, hold the blankets at the top with one hand, and pull down the sheet from under them with the other; then fold a towel over the blankets around the face. Now spread a large towel under the knees, and, standing at the side of the bed, place the tub upon it, the patient putting his feet in at the same time.

THE KNEES MUST BE WELL BENT

or the patient will not be able to get his feet in comfortably, and the tub will very likely upset. Another person may hold the ends of the bedclothes up a little to prevent them from getting wet, or one corner may be folded back from the feet to the knees while putting in the tub, and all can be done without uncovering or chilling the patient. Let the water be as warm as he can stand it. After a few minutes take out a little with a small pitcher, and put back the same amount of hotter water, keeping it well above the ankles. Tuck in the clothes all about the patient and the tub. A few flatirons will help, not placed next to the body, but on the outside of the blanket covering the patient, and well wrapped in paper.

A COLD, WET TOWEL

should be placed under the chin outside the bedclothes, to prevent the feeling of suffocation sometimes experienced just before perspiration begins, and a cloth wrung out in very cold water must be laid on the forehead. This is very important, and must never be omitted. In fifteen or twenty minutes remove the tub, let the patient put his feet down on the towel already placed there, wrap it around them and allow him to rub his knees. Leave him in the blankets for a few minutes. He should then be washed off under the blankets with warm water, to which a handful of common salt may be added, and dried with a clean towel. Wash the back last, and when that is done, and the patient is still lying on his side, take the end of the blanket underneath him and roll it lengthwise towards the middle of the bed, finally pushing it under him as far as it will go easily, then let him turn upon his back and there will be no trouble in pulling the remainder of it out on the other side. Put on the night garment next. The arms go in first, then the head is raised, and the garment taken over it and the shoulders, after which it can be gently pulled down around under the back. The blind is raised, the patient is then ready to get up, and, if strong enough, may be helped to sit up. If unable to do so, the patient may be supported by pillows, and the head raised. The feet should be kept warm, and the patient should be kept comfortable.

in the ordinary way, replace the blankets, tuck the whole in, and then draw the sheet up over the patient underneath the blankets. Leave a hot iron or bag at the foot of the bed, not necessarily touching the feet.

TO PLACE A BLANKET UNDER A PATIENT ALREADY IN BED.

Loosen the bedclothes everywhere; turn the patient upon his side, and fold the clothes after him, so that half the bed is uncovered. Next, standing at the side of the bed with his back towards you, take a blanket lengthwise in your hands, gathering it up in them until less than half remains hanging. Lay this on the uncovered part of the bed, spread it evenly, and push the gathered part in a bunch gently under the patient's back. Then turn him over carefully upon the blanket already prepared for him, and pull the gathered part which is thus left free over that portion of the bed just vacated, and make it straight and smooth all over, especially under the back. If for any reason

NO FOOT-TUB IS FORTHCOMING

and there is nothing that can be made to answer the purpose, a good result may be obtained by placing hot irons, or bricks, or bags, all round the patient, the programme in other respects being exactly the same as when the tub is used. Great care must be taken not to burn the patient. Under unusual circumstances, when it might be inconvenient or impossible to wash the patient off with water, which is the best thing after free perspiration, the next best thing is to wipe him with absolutely clean towels, and put on an absolutely clean night garment. Always bathe the face with cold or cool water.

Lastly, the more the patient perspires the better it is for him. It will not weaken him, but relieve his system of waste matter and impurities, and he should drink cold water freely while taking the bath. This is accomplished by the nurse raising his head with one hand, which she places under his pillow, and holding the glass for him with the other. The patient should be instructed not to thrust his chin into the air, but to depress it, when it will be found quite easy for him to drink without spilling the water. A. G. OWEN.

What Lemons are Good for.

1. Give hot lemonade at bedtime to cure a cold.
2. Bake a lemon, take out the inside and mix with sugar to make a thick syrup. Keep it warm, and take a teaspoonful frequently to drive away a cough.
3. Lemon juice is good to rub on the hands and face at bedtime to remove tan and clear the complexion, but dilute it with water, else it will darken the skin.
4. Lemon juice will quickly remove stains from the hands.
5. A glass of lemonade taken every morning will sometimes prevent bilious attacks.
6. Lemon juice is more wholesome than vinegar when used in salads, sauces, etc.
7. A slice of lemon bound on a corn at night will remove the sore-ness.
8. Don't waste the lemon rind. A little of it grated when fresh, and added to apple-pie or apple-sauce is an improvement. The rind of a fresh lemon grated and added to a stewing will make a different flavor.

Why He was Not Promoted.

- He watched the clock.
- He was always grumbling.
- He was always behindhand.
- He had no iron in his blood.
- He was willing but unfitted.
- He did not believe in himself.
- He asked too many questions.
- He was stung by a bad book.
- His stock excuse was "I forgot."
- He wasn't ready for the next step.
- He did not put his heart in his work.
- He learned nothing from his blunders.
- He felt that he was above his position.
- He chose his friends among his inferiors.
- He was content to be a second-rate man.

- He ruined his ability by not doing things.
- He never dared to act on his own judgment.
- He did not think it worth while to learn how.
- He tried to make "bluff" take the place of ability.
- He thought he must take amusement every evening.
- Familiarity with slipshod methods paralyzed his ideal.
- He thought it was clever to use coarse and profane language.
- He was ashamed of his parents because they were old-fashioned.
- He imitated the habits of men who could stand more than he could.
- He did not learn that the best part of his salary was not in his pay-envelope.—["Success."

With the Flowers.

Insect Pests.

Sometimes, during the winter, house plants become infested with insect life to a degree which changes them from things of beauty into objects loathsome alike to sight and touch. You feel tempted to carry them all out and tumble them into the snow somewhere, where Jack Frost may have a chance of cleaning them. There is, however, no necessity of sacrificing ones plants like this, for, with just a little trouble, they may be made quite clean and healthy again. But it will not do to waste any time about it. In the hot, dry atmosphere of the house, these lice, or aphides, as they are called, multiply with great rapidity. Moreover, while here, they are immune from the host of larger enemies which prey upon them in the summer, and so have every possible chance for working what destruction they please.

The species of insects which are most frequently found upon plants in the house are: the green louse (sometimes called the green fly, because, in one stage of its existence, it has wings), the mealy bug, red spider, and scale insect. Of these, the green fly, mealy bug and scale insect all belong to the order Hemiptera, of which there are over 20,000 species. They are all provided with mouths fitted for piercing and sucking, rather than for biting, and they exude from their bodies a sweetish, sticky fluid, called honeydew, which sometimes drips from the stems and leaves of the plants on which the lice are. This substance, as may be imagined, attracts ants, if any be in the vicinity, and, for this reason, plant lice have been termed the "milk cows of the ants." It has been observed by the naturalists that ants, with their customary sagacity (one can scarcely call it instinct), care for the plant lice, and drive away their enemies, and even carry them, at times, to better feeding grounds. However, all these interesting things do not help us to like the little pests any better, if they appear on our house plants.

It is an old saying that "prevention is better than cure," and nowhere is this adage more true than in caring for house plants. If proper care be taken to have plenty of good, pure air about them, to keep the atmosphere moist (the "steamy" atmosphere of the kitchen is a good place), and to give them frequent washings, or spraying, with tepid water, there will be little danger of lice appearing. If, however, they do appear, try giving the

plants a good bath in water heated to 136 degrees—higher than that will injure the leaves—or, if you spray it on, heat the water to 140 degrees. If this proves ineffectual, for the green louse, spray or wash the plants well with a solution of sulpho-tobacco soap, which may be procured from any seedsman or dealer in florists' supplies. If you cannot get this conveniently, use castile soap instead.

If your plants look sickly, and the leaves are dropping off rapidly, examine the under side of the latter. If they look dusty, or have small, rustlike spots on them, you may take it for granted that the tiny red spider is working his depredations there. In order to rout him, spray forcibly with warm water, directing the spray chiefly on the under side of the leaves, or spray with sulpho-tobacco soap solution, or weak tobacco water.

For mealy bugs, which look like tiny tufts of cotton-batting stuck along the stems, syringe with whale-oil-soap solution, or simply wash frequently with warm water.

The scale insect is merely a species of plant louse, whose presence makes itself known by the appearance of hard brown scales, which cling to the stems of hard-wooded plants. They also come, occasionally, on ferns. If you detach some of the larger scales carefully you will find the lice underneath. In order to remove this pest, brush the scales off with an old tooth-brush, and spray with a weak kerosene emulsion mixture.

If plants are being injured by earth worms in the soil, immerse the pot in linewater, so that the soil is soaked with it, and, according as the worms come to the top, remove them.

FLORA FERNLEAF.
"Farmer's Advocate" office, Winnipeg.

Answer to E. J. M.:
Bulbs may be planted at any time during the winter, but, after planting, it will be necessary to set the pot away for four or five weeks at the very least, in a cool, dark cellar, where the root growth may take place before the top sprouts are forced on. If you plant the bulb and set it immediately in a warm atmosphere, exposed to the light, the leaves will shoot up very rapidly, but the flowers will be likely to "choke" and not mature properly, if, indeed, they come at all. We judge that this is what you have done with your hyacinth. All you can do now is to diminish the light somewhat, and put the bulb in a cooler place for a while, until the root-growth has had a chance to take place. Remember that you must not hurry bulbs at the start, if you would have success with them.



Having a Good Time.

Annette had always lived in the city, but last summer she was sent to visit her cousins who live on a Canadian farm. Although the children were all born in this country, the father and mother came from Switzerland, and they still have great faith in goat's milk. Annette was very pale and thin when she first arrived, but after living out of doors for two months, running barefoot and drinking plenty of goat's milk, her cheeks grew as round and rosy as yours, my dear little country cousins. Do you see how kind Herman is? He is very fond of his little cousin, and old Nanny looks pleased, too, and seems to understand that she is doing a great deal of good to at least one small person. How sorry Annette was when she had to go back to the city, and how she chattered to her school chums about the lovely time she had. Bed-time always came too soon for her taste, and she was quite willing to agree with the child who said:

The clocks don't know their A B C's,
And so they cannot spell;
But yet they count much more than I,
And seem to count quite well,

But what good so much counting does,
I'd really like to know?—
Just sending people off to bed
Before they want to go.

But it is not only in the summer that people have a good time. I am sure you would be sorry if the summer lasted all the year round, and if our dear Canada never provided ice and snow for you children to enjoy. People who live in Florida or California may think a Canadian winter almost unbearable, but we don't feel afraid of a little cold weather, do we? Did you ever hear of "Mrs. Wiggs of the Cabbage Patch?" She was not very warm, certainly, and her bare elbows were sticking out through the holes in a boy's old coat which she wore, but nothing could freeze her cheerfulness. This is the way she talked one cold day, when she had to pin the bed-clothes round the children, as they sat close to the stove, and paste brown paper over a hole in the window: "My, but it's nice an' cold this mornin'! The thermometer's done fell up to zero!"

Mrs. Wiggs always tried to have a good time, and she generally succeeded, although sometimes she had to make-believe a great deal. She was very poor, but when unexpected visitors arrived just at dinner time, it never worried her in the least. "Tain't no trouble at all," she remarked, pleasantly. "All I've got to do is to put a little more water in the soup, and me and Jim won't take but one piece of bread."

When the house was burned down, she still found something to enjoy, and said, "Thank God it was the pig instid of the baby that was burned!"

I know two little Manitoba children who were in a railway accident a few weeks ago. The car was lying on its side all day, and the mercury outside was about forty below zero, but they managed to have a good time. And it is something to talk about now the danger is over. Though you may not have any such exciting experiences, still you can have a good time by pretending that you are having adventures, acting things that you have read. You may, as Stevenson says, visit the land of story books. This is his idea of having a good time:

At evening, when the lamp is lit,
Around the fire my parents sit;
They sit at home and talk and sing,
And do not play at anything.

Now, with my little gun I crawl,
All in the dark along the wall,
And follow 'round the forest track,
Away behind the sofa back.

There, in the night, none can spy,
All in my hunter's camp I lie,
And play at books that I have read
Till it is time to go to bed.

These are the hills, these are the woods,
These are the starry solitudes;
And there the river by whose brink
The roaring lions come to drink.

I see the others far away,
As if in fire-lit camp they lay,
And I, like to an Indian scout,
Around their party prowled about.

So, when my nurse comes in for me,
Home I return across the sea,
And go to bed with backward looks
At my dear land of story books.



Having a Good Time.

But you have found out long ago that the best times always come when you are trying to make other people enjoy themselves. It isn't my business to preach, but I must remind you of this way of having a good time, so that you may go right off and try it. It doesn't matter whether you live in a big, roomy farmhouse or in a little shack on the prairie. Happiness is a flower that can grow in every kind of climate, and it thrives just as well in a little shabby home as in a grand palace—often a great deal better. It is like a geranium which will flower splendidly in an old tin can. Water your plant of happiness with love and good temper, and don't forget that rudeness and unkindness will make it wither. If you don't want to kill it altogether, try to keep from worrying. There may be a blizzard coming on Saturday, so that you can't go skating, but worrying about it on Friday won't do anything to make the weather fine outdoors, and it only

makes things unpleasant indoors. As our friend, Mrs. Wiggs, says: "You mark my words, it ain't never no use puttin' up yer umbrell' till it rains." I don't want you to copy her grammar, but if you want to have as many good times as she had, you must try her plan of looking out for pleasant things. You can always find plenty if you keep your eyes wide open. COUSIN DOROTHY.

The School Lunch.

If the children cannot come home to a hot dinner, their lunch-baskets should be made as dainty and appetizing as possible. Children should never carry a lunch put up in such a manner that they are ashamed of it. Neat little sandwiches filled with jelly, egg, cheese, minced meat, sardines or nuts are delicious. A generous piece of good, though not too rich, cake, some kind of fruit and pickle, and as a surprise, occasionally, a tiny pie or a tart. In the winter time a small glass provided with a cover and filled with stewed or canned fruit will be found especially good. Here, too, the mother must guard against a sameness. There are so many little things which will be relished in the lunch-basket that there is no excuse for monotony. The hot dinner, whether at noon or at six o'clock, is the main meal of the day. There should always be meat, and that a different kind every day, if possible, potatoes and

cut into fanciful shapes and baked or made into tiny loaves, have been tried with success. It is not for the tiny child; but there are many ways in which only the mother will think.

Humorous.

Deeds, not words: Father (sternly).
"Didn't I tell you if any of the other boys said anything to make you angry, you should count twenty before you said anything?" Tommy—"Yes, sir; but I didn't need to say anything. Before I'd counted twelve the other boy yelled 'Enough!'"

Father—So you took dinner at Willie Stout's house to-day. I hope when it came to extra helpings you had manners enough to say "No." Tommy—Oh, yes, sir, I said "No" several times. Father—You did, eh? Tommy—Yes, sir; Mrs. Stout kept askin' me if I had enough.

First Scot—What sort o' meenister hae ye gotten, Geordie? Second Scot—We seldom got a glint o' him; six days o' th' week he's eveyes'ble, and on the seventh he's incomprehens'ble.

The gentleman who likes to ask questions was visiting kindergarten. Finally, he turned his attention to "Johnny."

"My boy," he said, "do you know how to make a Maltese cross?"

"Yes, sir," "Johnny" answered, promptly.

"Good!" exclaimed the visitor, delighted to learn that in "Johnny's" case, at least, the work of hand and brain were going forward together.

"How would you go about it?"

"Why, jes' pull her tail," said "Johnny"; "that's all."

CURZON WAS NOT CRUSHED.

Lord Curzon has been long noted for his cutting and cold remarks. Some years ago, says the railway official who tell the story, Lord Curzon came down from London by what was then the London, Chatham and Dover Railway, to address a political meeting at one of the Kent coast resorts. Lord Curzon was in a hurry. The train made its twenty miles an hour all right, but the future Viceroy thought it the slowest train on earth. He said so to the guard. That dignitary, as usual, took the remark as a personal insult.

"If you don't like the speed of this train, mister," he said, "you can get out and walk!"

Lord Curzon was not crushed. Tart as vinegar came the reply:

"I would, only they don't expect me till this train gets in!"

Knitting as a Nerve Cure.

It is told of Robert Louis Stevenson that one of the many things he learned to do to keep him amused when he was restless or ill was to knit. There are many men of a generation much older than ours who improve odd moments by working with yarn and needles. But women, to be women, simply must knit after their hair is gray, and it is good for them.

"My prescription, madam, is that you knit two hours daily," said the physician.

"Knit!" exclaimed the nervous patient. "Why on earth should I knit?"

The doctor replied: "Because nothing is more soothing to the nerves; because nothing conduces to such a calm and cheerful frame of mind. I could prescribe valerian for you, but knitting will be better. It will do you much more good. I believe that a month of it will cure you."

He went on to explain that his attention had been called to an article in a medical journal on the beneficial effects of knitting and he had prescribed the treatment, with excellent success, to a dozen women.

"The shining needles," he said, "playing swiftly among soft-colored silks or wools, engage the eyes pleasantly, and fill the mind with cheery and sane thoughts. At the same time they may produce admirable things—golf waistcoats, golf stockings of wool, delicate evening stockings of silk, shawls, a hundred articles."

The woman smiled, and said she did not know how to knit, but that she would begin to learn at once.

Humorous.

A philanthropic old lady in Exeter, England, very keen on the drink question, got hold of a very bibulous old sailor, whom everybody had given up as a bad job. He had lost a leg and one eye, and used to do odd jobs about the market-place. He told the lady that if he could once get a fair start on his own account he would try to reform; many of the jobs he now did being paid for in drink. The old lady after much thought, purchased for him a tray to hang round his neck with a broad strap, and a supply of nice gingerbread, and she taught him the following sentence to repeat at intervals: "Will any good, kind Christian buy some fine spicy gingerbread from a poor, afflicted old man?" When he had sold a shilling's worth he congratulated himself on his strength of abstinence, and thought he would treat resolution to just one-half pint of beer. This, needless to say, led to one or two more, and when he resumed his station on the pavement, his cry became a little mixed, and in a loud voice he appealed to passers-by with: "Will any poor, afflicted Christian buy some good, kind gingerbread from a fine, spicy old man?" Trade became very good, and he again treated the resolution with the result that his cry became: "Will any fine, spicy Christian buy some poor, afflicted gingerbread from a good, kind old man?"

Lost Himself.

An absent-minded professor was much annoyed by the troubles he experienced every morning in hunting for his clothes, for he never could remember where he had put them the night before when he undressed. So he devised the plan of writing down on a piece of paper where each article of clothing was placed as he took it off, and this is what he wrote: "Coat on third peg, left-hand corner of room, waistcoat and trousers on chair by bed, collar on door-handle, tie through key of door, vest on floor by window, cuffs on knobs of bedstead, shirt on portmanteau, socks on gas bracket, boots outside door, professor in bed." Next morning this plan seemed to work admirably; he collected his garments rapidly, but when he came to the last item on the list he went over to the bed, and, to his great disgust, found it empty. "Ah!" he cried, in bewilderment, "now the professor is lost; this plan is no good. What shall I do now!"

Color and Temperament.

Few people seem to realize the really strong effect that their color surroundings have on their temperament. It is a great mistake to live in rooms papered with dark wall papers. They may be economical from the point of view of not showing the dirt, but they are really most disastrous to the spirits. A warm yellow or a good rose pink looks cheerful, and reminds one of sunny days, while a pretty green, not too vivid in tint, suggests the delicate lines of spring. A paper covered with a large pattern in dark colorings somehow seems to lend a gloomy effect to even the largest room, while there are certain schemes of coloring that hurt the eyes and tire one to look at. It may interest readers to know that green papers have the reputation of fading sooner than others, while blue becomes a dirty yellow when exposed to the sun, and yellow becomes a sort of brownish grey when they are very much exposed to the sun.

Recipes.

LEMON CHEESE CAKE.

Two cups of sugar, one-half cup of butter, three-quarters of a cup of sweet milk, whites of six eggs, three cups of flour, and three teaspoons baking powder.

1-2-3-4 CAKE.

One cup butter, two cups sugar, three cups flour, four eggs, one cup milk, one-half teaspoonful cream tartar, and one-half teaspoonful soda. Very good.

COCOANUT LAYER CAKE.

Excellent. Two cups sugar, one-half cup of butter, three eggs, one cup of milk, three cups flour, and two teaspoonfuls baking powder. Bake as for jelly cake, in six round tins. Filling—One cup good cocoanut, shredded; whites of three eggs, beaten to a froth, and one cup of powdered sugar. Spread this between the layers of cake. Then to one-fourth cup of cocoanut add four table-spoonfuls of powdered sugar and spread thickly over top of cake.

COLD SLAW.

Sprinkle a quart of finely-chopped cabbage with salt; let it stand an hour or more. Drain off the liquor into a granite saucepan. Then pour into it half pint of strong vinegar, a piece of butter (size of a hickory nut), a teaspoon of mixed mustard, half teaspoon black pepper, and a dash of red pepper. Let this come to a boil. Then stir in two well-beaten eggs and three table-spoonfuls of sweet cream. Pour not over the cabbage, and serve cold. A most delicious relish with all kinds of meat.

TAPIOCA FRUIT PUDDING.

One-half cup of tapioca, soaked over night in cold water enough to make a quart. In the morning cover the bottom of a pudding pan with any kind of fruit (peaches or quinces are very nice), and sprinkle with one-half cup of sugar. Pour the tapioca over the fruit, and bake one hour. Serve cold with sugar and cream.

SIMPLE PUDDING.

Put a pint of milk in a saucepan, and, as soon as it begins to boil, stir in three table-spoonfuls of flour, stirring briskly. Let it cool a little, and put in three pieces of candied orange peel cut in shreds, a little grated nutmeg, and a teacup of treacle, with one whole egg. Mix well, and turn into a pie dish lined with a nice, short crust. Bake in a hot oven for half an hour.—(Mass. Ploughman.)

HINTS TO HOUSEKEEPERS.

Those who have trouble with custards are recommended to scald the milk to be used, set it aside until cool, and make the custard as usual. It will not curdle.

To make cream sauce for venison, put in a saucepan, with half a pint of cream, one cooked onion, well chopped, and a piece of butter rolled and worked in flour. Stir the whole over the fire till it boils. Then move the pan to one side, and mix in the beaten yolks of two eggs and a spoonful of any flavoring preferred. Stir over the fire until it thickens, but do not let it boil again. Serve in a sauce dish with the game.

Restore creased ribbons by laying them evenly on a board or table, and dampen them with a clean sponge and a little clear water. Then roll them tightly and smoothly around a good-sized bottle.

Tart apples and crisp celery cut up in equal quantities and mixed with hickory-nut meats make an excellent salad. Serve on lettuce hearts with a mayonnaise dressing.

For fig jelly filling take a pound of figs, chopped fine, a cupful of sugar, and half a cupful of boiling water. Boil to a jelly, stirring constantly.

For caramel filling for cakes, boil a pound of brown sugar in a half cupful of water until it threads. Beat the whites of six eggs until stiff, and add to it the sugar and water. Beat the beat-

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THERE IS AN ADVERTISEMENT in another column, in which is listed a big selection of organs. These instruments have been taken by that reliable old firm of Gourlay, Winter & Leeming in exchange for pianos, and will be sold on the easiest of terms and the lowest possible prices. Read their offer, and conform to their terms, if an instrument is wanted.

THE CANADIAN BANK OF COMMERCE has opened a new branch of their bank at Moose Jaw, Assa. Mr. R. A. Rumsey has been moved from Innisfail, Alta., to take charge, and Mr. H. M. Stewart has been appointed manager of the branch at Innisfail, in place of Mr. Rumsey. This new branch of the bank increases the number of its branches in Canada to 191, and in Canada and the United States to 196.

QUESTIONS AND ANSWERS. VETERINARY.

CHRONIC LAMINITIS.
Horse is sore in front after getting up. The stiffness disappears on exercise. He stumbles frequently, and lies a great deal.

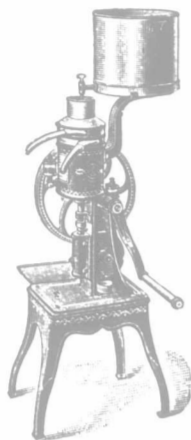
Ans.—He has chronic laminitis (inflammation of the feet), and it is doubtful if he will ever be all right again. Take the shoes off. Give him a nice box stall. Clip the hair off for about two inches high all around the hoof, and blister with two drachms each of biniodide of mercury and cantharides, mixed with two ounces vasoline. Rub the blister well in. Tie him so that he cannot bite the parts. In twenty-four hours, rub well again with the blister, and in twenty-four hours longer, wash off and apply sweet oil. Let him loose in the stall now, and apply sweet oil every day until the scab comes off; then tie up and blister again. Follow up by blistering once every month as long as you can rest him. Keep his feet pared to the normal shape, and when you want to work him again, get him shod with bar shoes, giving good frog pressure. Keep bars on him all the time, except when there is snow.

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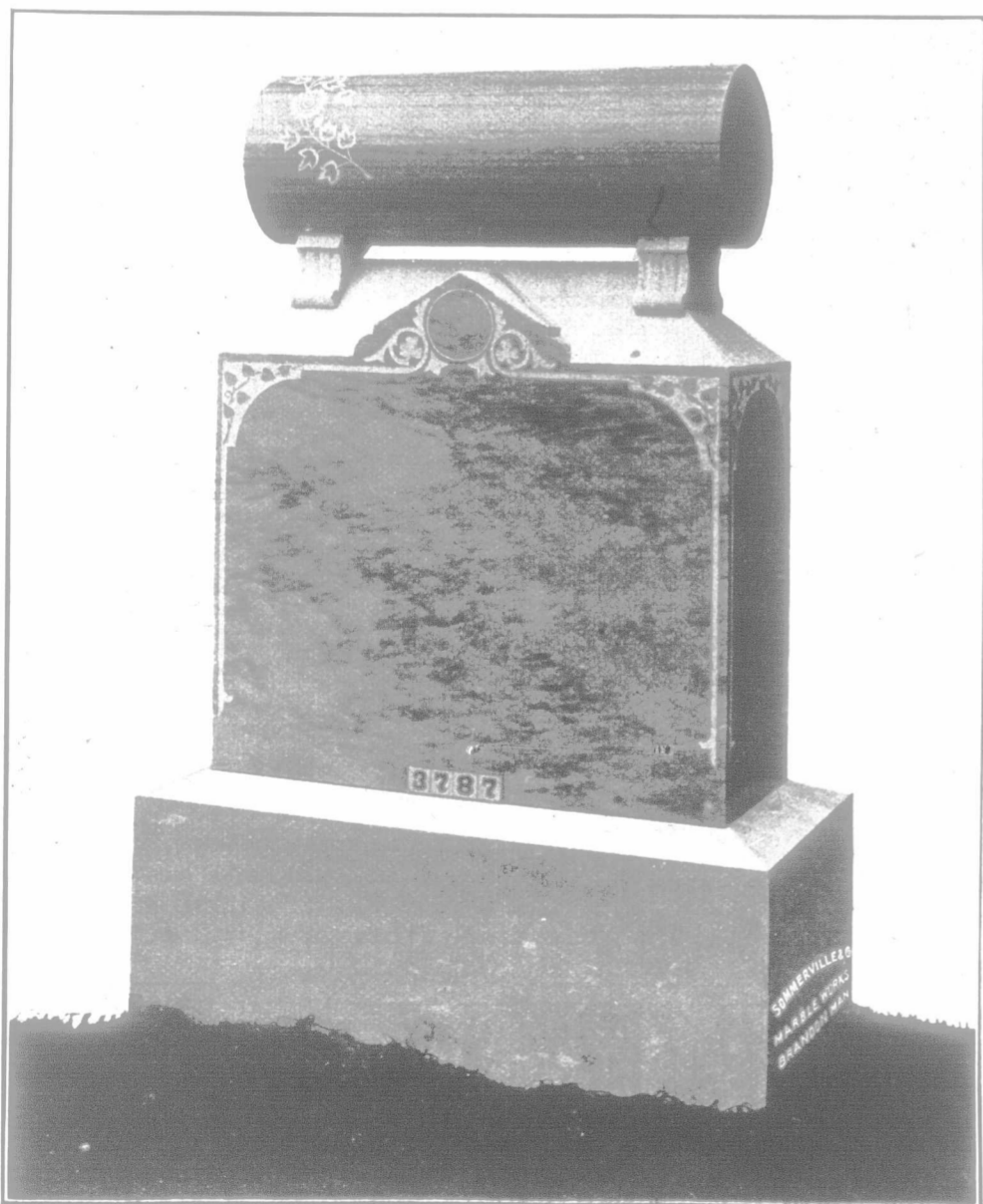


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QUESTIONS AND ANSWERS VETERINARY.

DISLOCATION OF THE PATELLA.

Colt became stilled in the stall. The patella snapped into position on moving him forward. Since then he has been all right, but stifle seems weak at times.

H. W.

Ans.—The anterior and internal ligaments of the joint are weak. Blister the front and inside of the joint, and repeat every month for three times, and it is probable he will give no further trouble, and will be as strong as if the accident had never occurred.

MARE REQUIRES EXERCISE.

Mare, due to foal in May, is standing in the stable. Her legs swelled, then her mamma, and now the swelling has extended along her belly.

W. A. H.

Ans.—The swelling is due to want of exercise. Some mares when pregnant are particularly predisposed to this condition. Give her regular exercise and allow her a nice roomy box stall while in the stable. Feed her bran and a few carrots, and give her a dessert-spoonful of nitrate of potash every night for three doses. Regular exercise and easily-digested laxative food is really all that is required. The less medicine given to a pregnant mare, when not absolutely necessary, the better.

HEIFER WITH LUMP ON LEG, ETC.

1. Heifer has three lumps about the size of hen eggs near hind fetlock joint. Two are hard, and the other soft and sore, and she is a little lame.

W. M.

2. Her left front teat is hard to milk. The stream is very small.

Ans.—1. It is probable the soft lump is an abscess, and should be lanced, and then injected twice daily with a five-percent solution of carbolic acid in water until healed. Explore the others, too, and if they contain matter treat in the same way; if not, leave alone.

2. An operation by a veterinarian with an instrument made especially for the purpose would make her milk easily, but a bungling operation will set up serious inflammation. Either get an expert to operate, or leave it alone.

H. S. P.

Ans.—Some heavy drafters, especially those with beefy legs, are predisposed to conditions of this kind. If she is not in foal, give her a purgative of 9 drachms aloes, 2 drachms ginger. But if she be in foal do not purge. In either case, give 1½ ounces Fowler's solution of arsenic night and morning for a week, then stop for a week, and repeat, etc.

Wash her legs thoroughly with a solution of corrosive sublimate, 1 drachm to a gallon of water, every second day, and rub with cloths until thoroughly dry. Give her regular exercise of 6 to 8 miles daily, and feed little grain. Give bran and a few carrots.

WASHY MARE AND COLT WITH PUFFY HOCKS.

1. When either working or driving a ny mare passes feces so soft that they do not form balls. Have given her lime water without results. Change of food makes no difference. I do not see that it does her any harm.

J. P. P.

2. Colt has puff on front of hock, too high for bog spavin. It appears and disappears.

Ans.—1. This is what is called a washy mare, one that is congenitally predisposed to a semi-diarthrosis. It is not wise to give drugs, as their administration would have to be kept up continuously. It is possible she may outgrow the predisposition. Be careful to not feed her raw roots or other laxative foods. Endeavor to not drive soon after eating. The administration of 1 dr. powdered opium, night and morning, will check the predisposition, but unless she become worse would not advise drugs. It would be wise to have her teeth dressed, as they may be responsible for the trouble.

2. A puffiness in this location is usually called a bog spavin. It is due to a distension of the synovial bursa, and repeated blistering will have a tendency to cause contraction of it and prevent the appearance of the puff.

IRREGULAR STRANGLES.

1. Last July, I bought a bunch of Western horses, mostly from Montana. In a short time after arrival on the Canadian side, a very bad form of distemper broke out among them. In some cases large lumps would appear on the body, and finally fester and break. In other cases, especially the yearlings, the legs were affected. They would swell and often break out in horrible sores—many died. Those taken in and cared for in the stable seemed to die quicker than those which were let run. About September, the distemper had died out, but it left those which survived very thin. By freezing-up time, they had gained up in flesh; but some of them, when they would lie down, were not able to get up again without help. Several valuable animals died from this cause. I had a veterinarian examine these several times, but further than to say it was kidney trouble, he did not help them. Now, at this date, the disease seems to be still among them, and the legs of some are swelling. I have some of the very thin ones in the stable, and though they are getting the very best care and feed, they do not fatten. Kindly tell me what the disease is, and how to treat it in its various stages, and how to deal with the weak, thin ones?

2. Please, also tell me how to cure a horse of cribbing? W. L. H. Coalfields, Assa.

Ans.—1. When the characteristic swellings and abscesses of distemper break out on the body, legs, etc., the disease is then known among horsemen as bastard or irregular strangles, and the mortality is then very high, especially in poorly-nourished animals exposed to the inclemency of the weather. As a sequel, many, as in your case, are left weak and emaciated, as a result of the poisons (toxines) not having been eradicated from their system. As you say, they are receiving the very best of care, etc., in the stable; it is not likely they will improve much until they get on to the grass next summer. For treatment, procure some tincture of iron, give affected animals from one to two tablespoonfuls twice a day, according to age and size (must be given well diluted), also give one tablespoonful of the following twice a day in feed (boiled barley and flaxseed preferable): Powdered nux vomica, two ounces; powdered gentian, six ounces; soda bicarbonate, six ounces. Mix thoroughly together.

2. The best plan of curing a cribbing horse is to remove all objects away from him upon which he is likely to fasten his teeth, or else cover with tin or sheet-iron; could also try a strap buckled tight around the throat.

ABORTION IN COWS

Two heifers aborted in November, nine days apart. The fetuses were decayed. Two cows aborted at seven months in December. The calves were alive, but died.

R. H. T.

Ans.—The decayed fetuses indicate the accident to be the result of injury received by fighting, slipping, jumping, etc., rather than infectious abortion. Like causes probably operated with the cows. It would be wise to isolate all that have aborted until all discharge ceases from the vulva, and give the stable a thorough cleaning, and then apply hot lime wash with five-percent carbolic acid. Do not breed any of them for at least six months after abortion. If your cows continue to abort, we will conclude that you have infectious abortion, and in such a case, it would be wise to put the case into the hands of a veterinarian. If you are not sure of a case of one, write the "Advocate" the name and we will give details of treatment, as we have done on several occasions in these columns.

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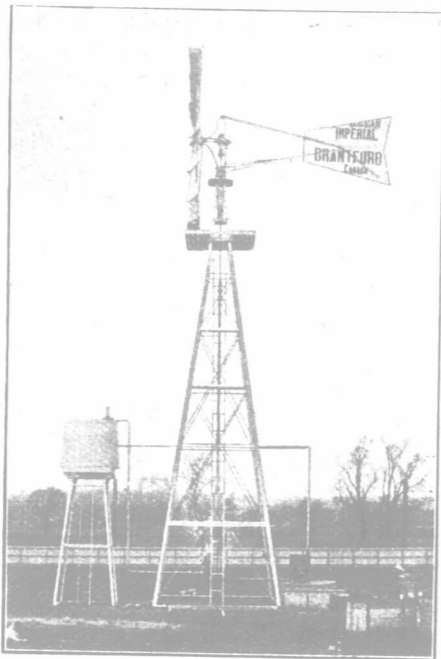
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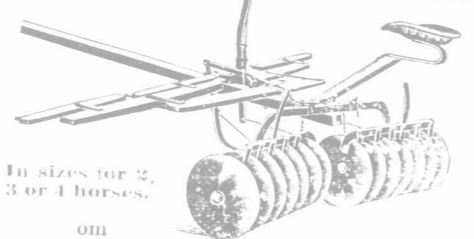


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QUESTIONS AND ANSWERS. VETERINARY.

CAPPED KNEE.

I have a horse with a swelling on his knee cap as large as a ten-cent piece. It seems quite movable, and is composed of a hard and bony substance, when handled with finger points. **JIM.**
Wolsley, Assa.

Ans.—Repeated blistering might reduce it. Take and clip the hair off closely over the knee, and apply the following blister composed of biniodide of mercury and cantharides of each one-half drachm; lard, one ounce. Mix and rub well into the knee for about ten minutes. Tie its head up so as to prevent it biting parts blistered. Wash off blister in twenty-four hours, and apply a little lard. The blister may be repeated again in two or three weeks, if necessary.

THROMBOSIS.

What is wrong with my mare. She is ten years old. She will not walk more than half a mile, when she commences to shake all over. She appears to be in great pain, hunches her back, and seems all drawn together. If taken a short distance and rested, she is not affected so quickly. I am feeding about a half gallon oats three times a day, with oat straw and boiled feed occasionally. I am not sure whether she is with foal or not. She is only taken out for exercise. Would kidney disease affect her this way? **ENQUIRER.**
Frys, Assa.

Ans.—This condition is usually due to a plugging of the blood vessels supplying the posterior parts of the body, technically called thrombosis. The disease evinces itself a short time after the animal is exercised, by excruciating pain, lameness and loss of power, and is usually incurable, although a few cases have recovered. Animals so affected should never be taken away from home. Give her one drachm of potassium iodide in her feed once a day for several weeks.

SEQUEL TO DISTEMPER.

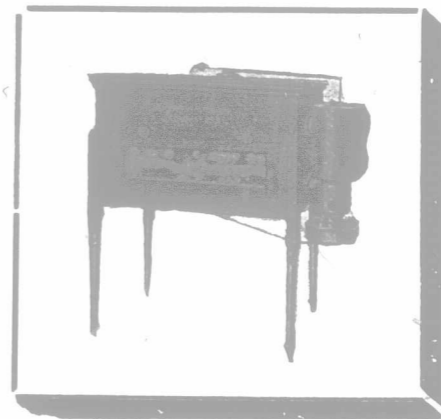
About a year ago, my pure-bred Percheron stallion, three years old, had distemper, swelling under jaw. It never broke, and it has left him thick in hind legs around hocks. I would like to get clear of the swelling. What treatment do you advise? Exercise apparently has no effect. Would a blister be beneficial? **HORSEMAN.**
Maple Creek, Assa.

Ans.—Chronic thickening around the hocks in stallions are frequently hard to get rid of. Would advise you to prepare him for a physic by feeding him on bran mash for a few days, after which give him one ounce Barbadoes aloes and one-half ounce of ground ginger, either in the form of a ball or as a drench shaken up in a pint of tepid water. After the above has operated, procure the following: Powdered digitalis leaves, six drachms; potassium iodide, six drachms, and potassium nitrate, one ounce. Mix and divide into twelve powders. Give one each morning and evening in feed. Give him regular exercise. A mild blister might be beneficial, but do not blister too severely, especially in front of the hocks.

SHOULDER TUMOR.

I bought an ox last fall. A lump has grown just in front of the point of the shoulder. It is very loose in the skin, and is about the size of a large goose egg. The lump is very hard, and seems to be caused by the ox collar. I am using a yoke, the bow of which comes against the lump. When drawing hard, it seems to hurt him. Would you kindly advise me what is best to do with it? **PIONEER.**
Dauphin, Man.

Ans.—These lumps are always troublesome, and the proper means of getting rid of them is by removing them with the knife, which had probably better be done by your veterinarian. Although the operation is very simple and consists in clipping the hair closely over the enlargement, then with a clean, sharp knife make an incision over the lump, and separate it from the overlying skin, and draw it carefully out, after which rinse out the wound with creolin solution, two-per-cent iodine, dust on a dressing-powder composed of adding one part of five parts of creolin and iodine. Repeat, clipping the hair closely once a day until healed. It is probably best advisable to use a well-fitting collar instead of the yoke.



HERE IT IS

The most successful Incubator ever manufactured. Ask your neighbor about

"THE CYPHERS"

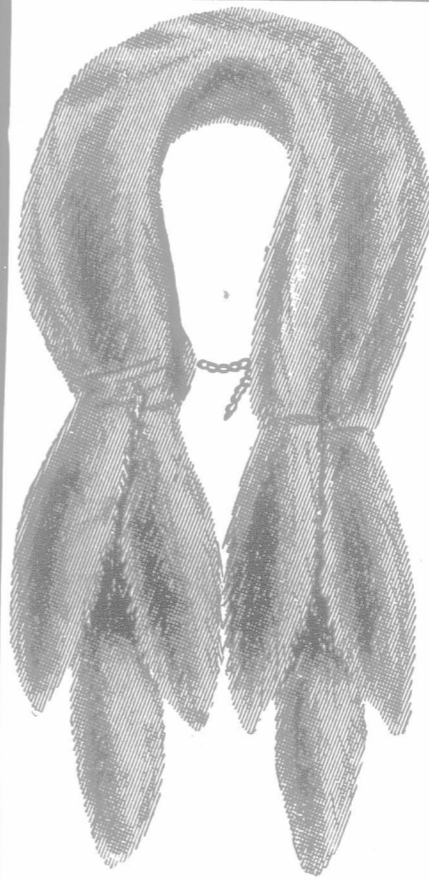
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ASHDOWN'S, Winnipeg.

HELP WANTED! RELIABLE MEN IN EVERY LOCALITY IN CANADA and UNITED STATES

Salary or commission, \$840 a year and expenses, payable weekly, to introduce new discovery and represent us in their district, distributing large and small advertising matter. No experience, only honesty required. Write at once for instructions. **om**

SALUS MEDICINAL CO., LONDON, ONT.



FREE!

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Handsome Fur Scarf

In a Few Minutes

SEND your name and address, and we will mail you post paid 8 large beautifully-colored Pictures 16 x 20 inches, named "The Angel's Whisper," "The Family Record," and "Simply to Thy Cross I Cling," to sell at 25c. each. We also give a 50c. certificate free to each purchaser. These pictures are handsomely finished in 12 colors, and could not be bought in any store for less than 50c. each. Every one you offer them to will buy one or more. When sold send us the money, and we will send you this

HANDSOME FUR SCARF

Over 40 inches long, 5 inches wide, made from selected full-furred skins with six fine full black tails, the very latest style. We know you will be more than pleased with it. Miss J. Bookers, Rossberg, Can., said: "I write to thank you for the handsome fur scarf. It is just beautiful. I could not buy one like it in our store for \$3.00." The regular price in all fur stores is \$3.00, and they fully equal in appearance any \$20.00 Fur Scarf. We could not think of giving them for so little, were it not that we had a great number made specially for us during the summer when the furriers were not busy. Ladies and girls, take advantage of this chance and write for the pictures to-day. We guarantee to treat you right, and will allow you to keep out money to pay your postage, so that your Fur Scarf will not cost you one cent. Address: **THE COLONIAL ART CO., Dep. 3318 Toronto.**



Varicocele Cured to Stay
Hydrocele Cured in 5 Days
 No Cutting or Pain.
 Guaranteed Cure.
 Money Refunded.

VARICOCELE Under my treatment this insidious disease rapidly disappears. Pain ceases almost instantly. The stagnant blood is driven from the dilated veins and all soreness vanishes and swelling subsides. Every indication of Varicocele vanishes and in its stead comes the pleasure of perfect health.

I cure to stay cured, Contagious Blood Poison, Kidney and Bladder Troubles, Nervous Debility, and allied troubles. My methods of treatment and cure are original with me and cannot be obtained elsewhere. I make no experiments. All cases I take I cure. **Certainty of Cure** Guarantee to cure you or refund your money. **What I have done for others I can do for you.** My charge for a permanent cure will be reasonable and no more than you will be willing to pay for benefits conferred. **I CAN CURE YOU at Home.**
Correspondence Confidential Write me your condition fully and you will receive in plain envelope a scientific and honest opinion of your case, **FREE of Charge.** My home treatment is successful. My books and lectures mailed **FREE** upon application
H. J. TILLOTSON, M. D., 255 Tillotson Building, 84 Dearborn Street, CHICAGO.

Black Leg Vaccine
PASTEUR VACCINE CO. CHICAGO SAN FRANCISCO

In placing an advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Gourlay, Winter & Leeming

188 YONGE STREET, TORONTO.

An Exceptional Offering of USED ORGANS

As the distributing factors for so many pianos of highest reputation, we offer organ buyers many opportunities to save money by the purchase of a fine organ that has been but slightly used and then exchange for a piano.

This is, however, "an exceptional offering." The volume of our December piano business was so large, and the number of organs taken in exchange so many, that we cannot spare the space to properly display them. To sell them, therefore, we have cut the prices so low that an immediate reply is advisable, for our experience tells us it will not be many days till we can announce them all sold.

Send also your second and third choices in case the first should be sold before your order is received. Preference will not be given any order, but each one filled as received.

TERMS OF SALE.

Organs under \$50, \$5 cash and \$3 per month, without interest. Organs over \$50, \$10 cash and \$1 per month, without interest.

If monthly payments are not convenient, please state what method you prefer—quarterly, half-yearly, or at certain fixed dates. We wish to know what terms will suit you.

A discount of 10 per cent. off these prices for cash. A stool accompanies each organ. Every instrument safely packed without extra charge. We guarantee every instrument and agree to pay return freight if not satisfactory.

- WOODS.** 5 octave walnut organ by Geo. Woods Co., in neatly decorated case, has 6 stops, 2 complete sets of reeds, knee swell, height when open 3 feet 6 inches. Originally \$100, reduced to... **\$29**
- CANADA.** 5 octave walnut organ by the Canada Organ Co., in neatly carved case, has 9 stops, 4 sets of reeds in treble and 3 sets in bass, knee swell. Height when open, 4 feet 2 inches. Originally \$100, reduced to... **\$37**
- STERLING.** 5 octave parlor organ by The Sterling Co., Derby, Conn., in solid walnut case with small extended top, has 9 stops, 2 complete sets of reeds, 2 knee swells, height 5 feet 3 inches. Originally \$100, reduced to... **\$39**
- DOMINION.** 5 octave organ by the Dominion Organ Co., in neat walnut case with small rail top, has 9 stops, 2 sets of reeds in treble and 1 set in bass, 2 knee swells, mouseproof pedals, height 4 feet 5 inches. Originally \$100, reduced to... **\$41**
- KILGOUR.** 5 octave parlor organ by Kilgour, Hamilton, in neatly decorated solid walnut case, has 9 stops, 2 complete sets reeds, 2 knee swells, height 6 feet 1 inch. Originally \$125, reduced to... **\$43**
- KARN.** 5 octave parlor organ by D. W. Karn Co., in handsome solid walnut case with high top, has 9 stops, 2 complete sets of reeds, 2 knee swells, height 6 feet 5 inches. Originally \$125, reduced to... **\$44**
- DOMINION.** 5 octave parlor organ by The Dominion Organ Co., in handsome solid walnut case with high top. Has 10 stops, 2 complete sets of reeds, 2 knee swells, height 6 feet 6 inches. Originally \$125, reduced to... **\$47**
- KARN.** 5 octave parlor organ by D. W. Karn Co., in neatly decorated solid walnut case with high top. Has 10 stops, including couplers, 2 complete sets of reeds, knee swells, mouseproof pedals, etc., height 6 feet 8 inches. Originally \$135, reduced to... **\$49**
- BELL.** 5 octave parlor organ by W. Bell & Co., Guelph, in handsomely decorated solid walnut case with high top, has 12 stops, including couplers, vox humana, etc., 2 knee swells, 2 sets of reeds, revolving fall board, etc., height 6 feet 6 inches. Originally \$140, reduced to... **\$54**
- KARN.** 5 octave chapel organ by D. W. Karn Co., in handsome solid walnut case with decorated ends and finished back, has 13 stops, 3 sets of reeds in treble and 2 sets with an extra sub-bass set in the bass, couplers, knee swells, etc., a splendid organ for a church. Originally \$150, reduced to... **\$63**
- PUTNAM.** 6 octave organ by W. W. Putnam & Co., in exceptionally handsome walnut case of Colonial design, beautifully carved and ornamented with plate mirror in top. Has 11 stops, 2 sets of reeds throughout, couplers, 2 knee swells, etc., height 6 feet 6 inches. Used less than eight months. Catalogue price \$200, now... **\$67**
- GODERICH.** 6 octave piano case organ by the Goderich Organ Co., in handsome rose-wood case, has 11 stops, including couplers, vox humana, etc., 2 complete sets of reeds, 2 knee swells, mouseproof pedals, height 5 feet. Originally \$150, reduced to... **\$69**
- BELL.** 6 octave piano case organ by W. Bell & Co., in rich dark mahogany case with handsome mirror rail top. Has 12 stops, including couplers and vox humana, 2 complete sets of reeds, 2 knee swells, height 5 feet 3 inches. Originally \$175, reduced to... **\$74**
- BELL.** 6 octave piano case organ by W. Bell & Co., solid walnut case with handsome mirror, rail top, has 11 stops, couplers and vox humana, a complete set of reeds, 2 knee swells, height 5 feet 3 inches. Originally \$175, reduced to... **\$78**
- THOMAS.** 6 octave piano case organ by The Thomas Organ Co., handsome walnut case with full length music desk, rich marquetry and carved panels, lamp stands and mirror, rail top. Has 11 stops, 2 complete sets of reeds, couplers, 2 knee swells, etc., height 5 feet 11 inches. Used less than 6 months. Catalogue price, \$250, reduced to... **\$87**

Gourlay, Winter & Leeming

188 YONGE STREET, TORONTO.

MANITOBA COMMISSION CO., LTD., GRAIN DEALERS.

DO NOT sell your wheat, oats, barley or flax-seed before seeing our quotations. Grain Exchange, **WINNIPEG.**

QUESTIONS AND ANSWERS. VETERINARY.

LAMPAS.

I have a mare which has swollen gums on upper jaw. Please tell me how to treat her? **SUBSCRIBER.**
Ohlen.

Ans.—Your mare is suffering from lampas, which is a swollen condition of the palate. The swelling extends over the roof of the mouth, and causes the gums to project below the level of the upper front teeth. It is a disease often met with in young animals as a consequence of the large supply of blood which is present for the growth of the teeth. It may be caused in horses of any age by cold, or indigestion. As lampas, except when it occurs from teething, is merely a symptom of derangement of health, the part should not be interfered with in any way; a couple of bran mash, with half ounce of nitre in each of them, or four ounces of Epsom salts daily for a few days, being all that is generally necessary. If, from congestion of the gums during teething, the mare "quids" her food, and it is not convenient to put her to work for a few days, the part may be lightly scored with a penknife—care being taken not to wound the artery which lies underneath—and then rubbed with common salt. Bathing the part with a strong solution of alum and water will generally be sufficient without lancing it.

MISCELLANEOUS.

HOG QUERIES.

I have a registered Berkshire sow, twenty months old, which I value very highly, at least I did so until recently. When about two months old, she took some disease in her head, and seemed to go deaf. When fed, she would take no notice, though the others would run to the trough, but would lie quite still until shaken, when she would jump up and eat as well as any. She carried her head with a twist, and the right ear drooped over the eye. This lasted for several weeks, after which she gradually recovered, except that she never carried her head perfectly straight, or held the right ear as high as the other. She fed well and grew well, and at about fourteen months produced a farrow of eight fine pigs. Three weeks ago, I bred her again; and three days later, turned her into the strawstack. A couple of days later, she turned up, minus, apparently, scent, hearing, or sight. There was nothing in her appearance to show that anything was wrong, except that her eyes were pitted and almost closed, and the right ear more hanging than usual. I at once put her into feed. She is feeding nicely, and is about fit to kill. She seems to be recovering her senses again.

1. What would you say is the matter?
 2. Would her flesh be unfit for food, if killed now?
 3. Would you consider it risky to keep her till after farrowing?
- Gonor, Man. **HOG RAISER.**

Ans.—1. The apparent loss of the senses was most likely due to some nervous derangement, which might be the result of pregnancy, or from indigestion.
2. Can see no reason why her flesh should not be fit for food, provided she is killed before gestation is too far advanced.
3. No, not if she is recovering.

WHO OWNS THE COAL? DUTY ON MANUSCRIPT.

1. If coal be found on land open to settlement, or on railroad land, how can it be acquired from the Government?
 2. In sending manuscript across the international boundary, has duty to be paid?
- Alta.

Ans.—1. Any coal that is discovered on land belonging to a homesteader does not belong to the homesteader, but belongs to the Government, and can be disposed of. Coal on lands which have been disposed of to railway companies, in most cases still belongs to the Government; but in connection with the land grants to a few railway companies, that were granted prior to the 31st October, 1887, the coal goes with the surface rights.
2. No.



Baby's Own Soap
Pure, Fragrant, Cleansing
Albert Toilet Soap Co., Mfrs.
MONTREAL.
No other Soap is just as good. 311

You Know

That old mill of yours is slow and out-of-date, hard to turn, and does bad work. Why not save money by getting the "Hero" Fanning Mill. It is guaranteed to be the most thorough, easiest operated and fastest mill on the market. If not, we don't want you to buy. (Cleans any kind of grain. Fitted with zinc sieves, which don't rust out. DON'T FORGET trying THE HERO before buying. We don't want you to purchase one if we can't prove our guarantee. Manufactured by The Western Implement Mfg. Co., Ltd. BOX 787. m WINNIPEG, MAN.

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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

FOR SALE: A strictly First-class Shire Stallion
Four years old, guaranteed a sure ton-getter.

YORKSHIRE SOWS
A few choice sows for sale, all bred.

WEIGHTMAN & REID, Westhall, Man., near Brandon.

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REMOVES
Puffs, Tumors, Thorough Pin, Capped Hock, Swellings, etc., without lancing the horse up or removing the hair, strengthens strained and weak tendons, restores the circulation, allays all inflammation, Cures tumors, hernia, sweeping sinews, etc., on human family. Price, 25¢ per bottle. Circulars with testimonials free.

Manufactured by
W. F. YOUNG, F. D. F., Springfield, Mass.
LYMAN SONS & CO., MONTPEL, Vt.
AGENTS FOR CANADA.

FARMERS RE RAILWAY RIGHTS.

Kindly advise through your columns if I can remove C. N. R. surveyor stakes on my farm for the purpose of plowing? This survey is supposed to be final. Vegreville, Alta., N. W. T. SURVEY.
Ans.—You cannot remove the surveyor's stakes placed on the line of the C. N. R. for the purpose of plowing; but, until the ground is expropriated, there is no reason why you should not cultivate and crop the land.

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

For Singers and Speakers.

The New Remedy for Catarrh is Very Valuable.

A Grand Rapids gentleman who represents a prominent manufacturing concern and travels through central and southern Michigan, relates the following regarding the new catarrh cure. He says: "After suffering from catarrh of the head, throat and stomach for several years, I heard of Stuart's Catarrh Tablets quite accidentally, and, like everything else, I immediately bought a package, and was decidedly surprised at the immediate relief it afforded me, and still more to find a complete cure after several weeks' use.



"I have a little son who sings in a boys' choir in one of our prominent churches, and he is greatly troubled with hoarseness and throat weakness, and on my return home from a trip, I gave him a few of the tablets one Sunday morning when he had complained of hoarseness. He was delighted with their effect, removing all huskiness in a few minutes and making the voice clear and strong.

"As the tablets are very pleasant to the taste, I had no difficulty in persuading him to use them regularly.

"Our family physician told us they were an antiseptic preparation of undoubted merit, and that he himself had no hesitation in using and recommending Stuart's Catarrh Tablets for any form of catarrh.

"I have since met many public speakers and professional singers who use them constantly. A prominent Detroit lawyer told me that Stuart's Catarrh Tablets kept his throat in fine shape during the most trying weather, and that he had long since discarded the use of cheap lozenges and troches on the advice of his physician that they contained so much toxin, potash and opium as to render their use a danger to health."

Stuart's Catarrh Tablets are large, pleasant-tasting lozenges, composed of catarrhal antiseptics, like Red Gum, Blood Root, etc., and sold by druggists everywhere at 50 cents for full treatment.

They act upon the blood and mucous membrane, and their composition and remarkable success has won the approval of physicians, as well as thousands of sufferers from nasal catarrh, throat troubles and catarrh of stomach.

A little book on treatment of catarrh mailed free by addressing F. A. Stuart Co., Marshall, Mich.

Clydesdale and Shire Stallions

CLYDESDALE MARES AND FILLIES AND WELSH PONIES

For sale - second crop - in heat - first-class - pure - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 31 - 32 - 33 - 34 - 35 - 36 - 37 - 38 - 39 - 40 - 41 - 42 - 43 - 44 - 45 - 46 - 47 - 48 - 49 - 50 - 51 - 52 - 53 - 54 - 55 - 56 - 57 - 58 - 59 - 60 - 61 - 62 - 63 - 64 - 65 - 66 - 67 - 68 - 69 - 70 - 71 - 72 - 73 - 74 - 75 - 76 - 77 - 78 - 79 - 80 - 81 - 82 - 83 - 84 - 85 - 86 - 87 - 88 - 89 - 90 - 91 - 92 - 93 - 94 - 95 - 96 - 97 - 98 - 99 - 100

J. M. MACFARLANE, MOOSE JAW, ASSA.

QUESTIONS AND ANSWERS. VETERINARY.

OPACITY OF THE CORNEA.

Mare has a scum growing over her right eye. It has been growing for two months.

Ans.—The milky appearance is not due to a scum as it appears to be, but to a deposit of lymph between the layers of the external coat of the eye. It is due to inflammatory action, and is hard to remove after it becomes chronic. Put a few drops of the following lotion into the eye twice daily: Nitrate of silver, ten grains; distilled water, two ounces. Keep the eye shaded from the sun and wind, and have patience.

EDEMA.

I have a mare, fifteen years old, in foal. She was in good health till about a week ago, when she started to swell on belly, just in front of the hind legs. It is spreading, till it is nearly up to the front legs. What is the cause, and can it be cured?

Ans.—This is most likely what is known as edema of pregnancy, which is often met with in mares of a phlegmatic character, especially if highly fed and not getting sufficient exercise. There is nothing dangerous in this condition, as it always disappears after parturition. Feed the mare on a laxative diet, such as bran mash with boiled flaxseed, to which may be added a tablespoonful of Epsom salts twice a day. Give plenty of exercise during the day, and provide a loose box stall, if possible, for her at night. Hand rub the swellings.

INDIGESTION—MALNUTRITION.

I have a mare, three years old. Last spring she had a rash break out over her body and legs, leaving a little scab, which would come off with hair, but seemed to get all right and full of life during the summer, until about September. Then she commenced to fail and got very stiff in the hind quarters and would walk slow, and look dull. She often twitches as though she had a sharp pain, and she has got so thin and weak it is difficult for her to get up after she has lain down for a while. She has a small lump between her under jaws about root of tongue, about the size of an egg. I have been rubbing it with turpentine. Last summer she used to spend much time trying to scratch her tail. I examined her for lice, but could find none. She is not broken in yet, and runs in the pasture during summer; and she has been in stable nights and cold days all winter. I have been feeding her barley and oat straw and a half-gallon of oats night and morning, with a gallon of boiled barley at noon, and about a gallon of skim milk twice a day. She does not seem to have a very good appetite.

What caused the rash to break out on her?

What caused the stiffness in her hind quarters?

What caused her to scratch her tail so much?

What is the cause of the lump between her jaws?

Is barley straw good for horses?

Ans.—1. Skin eruptions or rashes in horses, usually arise from derangement of the digestive organs, or from the presence of parasites in the skin.

2. Weakness as result of malnutrition.

3. Horses very frequently rub and scratch the root of the tail from a local eczema of the same, also from the presence of pinworms in the rectum. When just the result of local irritation, the application of tincture of iodine daily will relieve it. If pinworms are present, as evinced by yellow incrustation around the anus, then give injection of salt and water, also one pint of linseed oil and an ounce of turpentine as a drench.

4. This is an enlargement of one of the lymph glands, often met with in chronic diseases, especially blood disorders. It is also a common symptom of distemper.

5. Barley straw is not considered a good fodder for horses, on account of the frequent presence of smut, and also the awns, which irritate the mouth.

As regards treatment, procure the following: Powdered nux vomica, sulphate of iron, of each one ounce; soda bicarbonate, six ounces. Mix together, and divide into twelve equal doses.

1. Give one tablespoonful in soft food every day. 2. Fast well, and avoid rough riding.

MISCELLANEOUS.

HOLSTEIN REGISTERS.

Kindly let me know, through your paper, the difference between the American and Canadian Herdbook of Holsteins. Is the Canadian book considered as good as the American?

Ans.—So far as we can judge from the rules and regulations of the two books relating to registration, there is no difference in the standard, as to be eligible to registry in either animals must be imported or trace to known imported and registered ancestors.

QUANTITY OF BUTTER FROM MILK.

How many pounds of butter can be made from 4,386 pounds of milk, testing 3.8 per cent. fat?

Ans.—Four thousand three hundred and eighty-six pounds of milk, testing 3.8, would yield 166.66 pounds of fat, but butter-fat comprises only 84 per cent. of butter, therefore 198.41 pounds of butter could be made from the 166.66 pounds of fat.

LICENSING OF STEAM ENGINEER, N.-W. T.

Please give me the name of the license inspector of steam engineers in the N.-W. T.

Ans.—The licensing of steam engineers in the Northwest Territories is under the charge of the Public Works Department, Regina. Communicate with the Deputy Commissioner of Public Works, Regina, stating definitely the information required.

ELECTRIC-LIGHT BEETLE.

Would you kindly tell me the name of this large beetle, which I enclose. I found one alive some years ago. This one I found on the prairie last spring, it got scorched with a prairie fire.

Ans.—The beetle enclosed is commonly known as the electric-light beetle. In the month of June, large numbers of them will be seen on certain nights hovering around the electric street lights in our Western cities. They are not considered as being among the injurious class.

RABBITS NOT FIT FOR USE.

I shot some rabbits, and on preparing them for cooking, I found boils, which, on being opened, discharged yellow matter. Are such rabbits fit for eating?

Ans.—The rabbits were probably suffering from some minor contagious disease, and it would be injudicious to use them for food, even on the part of those who have stomachs robust enough to do so, with a knowledge of the circumstances.

RAILWAY CO'S RIGHTS RE LAND TAXES.

Several of us in this district recently paid our usual instalment for our C. & E. land, but we find our receipts show us credited with the instalment less our school taxes. These taxes we have already paid into the district treasurer; I hold his receipt therefor. The railway company, wonderful to relate, paid their taxes this year for land in the district not yet taken up. They were never assessed for the land we hold, and we should like to know the meaning of this new move. Are they adopting this plan to reimburse themselves for those taxes they paid this summer? If so, surely they have no right to deduct taxes from men who have already paid them on land never entered to them as assessable? We have written the company, but can get no satisfaction.

Ans.—The railway company will be obliged to return to you the amount retained for taxes which you had already paid on the lands bought by you. They would be entitled to pay the taxes, and charge them to you under their agreement, if they were not aware that you had already paid them. If you would send in receipts from the proper parties that you paid the taxes, they would refund you the money retained or credit it on any payments due. You state that you have written to the company, but get no satisfaction. If you do not get the money refunded on proof of payment by yourselves of the taxes, place the matter in the hands of your solicitor, who will see that you get justice.

Imported Clydes & Shires, Shorthorns & Yorkshires

Five Clydesdale Stallions; one Shire Stallion eleven Clyde Fillies; three Shorthorn Bull Calves, imp. in dam, a few imported Heifers; and imported Yorkshire Hogs. Clydes by such sires as Prince of Carruchan, Prince Stephen, Prince Thomas and Royal Champion. Write for prices, or come and see.

GEO. ISAAC, Cobourg Station, G. T. R. BOMANTON, ONT.

BAWDEN & McDONELL

Exeter, Ont. IMPORTERS OF

Clydesdale, Shire and Hackney Horses



Our new importation has arrived, and we have now about 20 stallions for sale, ages from 2 to 7 years; the best that could be purchased in Scotland and England.

CLYDESDALE MARES

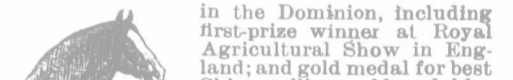
Registered mares, from three years old and upwards, for sale.

NELSON WAGG. Claremont station, C. P. R., 2 miles. Stouffville station, G. T. R., 4 miles.

RED RIBBON STUD

Largest Importers and Breeders of

Shire Horses



in the Dominion, including first-prize winner at Royal Agricultural Show in England; and gold medal for best Shire stallion, gold medal for best Shire mare, donated by the Shire Horse Association, England; three silver medals for sweepstakes, eight 1st prizes, four 2nd prizes and one 3rd prize at Industrial Exhibition, Toronto, 1903. Stallions and mares all ages, home-bred and imported, always for sale. Over 50 to choose from.

MORRIS & WELLINGTON, Fonthill P. O., Welland County, Ont.

ROSEDALE STOCK FARM

J. M. Gardhouse, Prop. CLYDE AND SHIRE HORSES, SHORTHORN CATTLE, LEICESTER SHEEP. Choice imported and home-bred stallions and mares, also young stock. Two extra good young bull calves, and a few imported and Canadian-bred Scotch cows and heifers, bred to the imp. Marr bull, Chief Ruler. Telephone, Post Office and Telephone (at residence), Weston, Ont. G. T. R., C. P. R. Stns.

JOHN GARDHOUSE & SONS

Highfield P. O., Ont., Breeders of Scotch and Scotch-topped Shorthorns, Shire Horses, Lincoln and Leicester Sheep. A good selection of young stock of both sexes always on hand for sale. Scottish Prince (imp.), Vol. 49, at head of herd. Rbyal Albert (imp.) 20367, at head of stud. Farms 3 1/2 miles from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

14K GOLD WATCH FREE

Advertisement for a 14K gold watch. Includes an illustration of the watch and text describing its features and the offer of the watch free for a certain purchase.

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

QUESTIONS AND ANSWERS. MISCELLANEOUS.

WEIGHT OF HOGS.

Is there a rule for ascertaining the dressed weight of a hog by measurement? SUBSCRIBER.

Ans.—No reliable rule, but when dressed the weight of the carcass of a well-fed hog will be about 74 per cent. of its live weight, and of a fat hog, about 84 per cent.

COWS FAILING TO BREED.

We have two registered Shorthorn heifers, four and five years old, that fail to breed. They come in heat regularly, seem to be all right in every way, and are in the pink of condition. The younger heifer dropped a calf at two years old, and has failed to breed since. Can anything be done to induce them to breed? C. C. H.

Ans.—The only suggestions we can offer are to try a change of bulls, or an examination by a veterinarian to ascertain if the neck of the womb is closed, which examination should be made when the cow is in season; service being allowed after opening, which is done by a rotatory motion with the finger. The application of belladonna ointment to the part is laid to facilitate the relaxation of the closure.

TANNING DOG'S SKIN.

Could you please give me a good recipe for tanning a dog's hide so as to have the hair left on and the hide pliable? W. A. H.

Ans.—The best possible way to secure a good job on a skin of any kind would be to send it to a tannery, where there is every facility for doing the work. The cost would probably not exceed one dollar. If it is decided to do the tanning at home soak well in soft water for about two or three days to make it perfectly soft; then scrape off all flesh and fat. When thoroughly cleaned, put the skin into a tan composed of equal parts alum and salt dissolved in hot water, seven pounds of alum and salt to twelve pounds water, or in these proportions. The skin can be left in the brine for two days, after which it should be hung up and well scraped or shaved to soften it up. After shaving well, put the hide back into the brine for a day or two. Then hang up until quite dry, and shave or scrape again. After this apply a coat of oil, roll up in damp sawdust and lay away until dry. Apply a good coat of soft soap, and lay away again in sawdust. As scraping is the main operation in softening the skin, it should be well worked again when dry. Two men drawing the skin back and forth over a round pole will impart a pliability to it.

STABLE FLOOR.

I have a frame stable, 15 x 20, in which I propose to house a team, one cow and some hogs (partitioned off on one side) for the purpose of economy. I wish to floor the stable with concrete, and thus save all the liquids from the animals for fertilizing. The hogs are to have a run outside. The manure tank had better be outside, no doubt, and the rain water from the roof might also be conducted to it, and so dilute the contents. Given these particulars, what size should this tank be? What will be the best and cheapest arrangement of drains to catch and conduct the liquids? Will a groove in the concrete be a sufficient and sanitary arrangement to conduct the liquid out of doors; or should drains be laid just under the floor? In laying plank for horses and cow to stand upon, what distance from manger to gutter, respectively, should be allowed, so that manure will not fall on planks? Team is a small one, about 1,000 lbs. to the horse. J. W. F.

Yale and Cariboo, B. C. Ans.—The manure tank would prove troublesome (particularly in emptying), unsanitary and needless expense. Straw (properly cut) or other litter such as mill shavings or sawdust used as bedding will absorb the liquids, and should be removed, mixed with the solids daily. After cleaning, sprinkle on floors, land plaster, dried manure, road dust, or even sand. Give stall floors a slight fall from front to back, and make the gutter bottom level from end to end. From back of manger to edge of drop, about 7 1/2 feet will do for the horses, and about 5 feet 9 inches for an average-sized cow, but it is hardly possible to compel the manure to fall always behind the drop, as cows differ in length and habits.

PAGE METAL GATES

3 feet wide, 4 feet high, including hinges and latch.....\$2.75
10 feet wide, 4 feet high, including hinges and latch 5.75
Other sizes in proportion.

Supplied by us or 203 local dealer.

THE PAGE WIRE FENCE CO. Limited, - Walkerville, Montreal, Winnipeg, St. John

OAKLAWN FARM

The Greatest Importing and Breeding Establishment in the World.



Percherons, Belgians, French Coachers.

GREATEST COLLECTION EVER GOT TOGETHER NOW ON HAND.

Our 1903 importations include 20 first-prize winners from the leading European shows. At the International, Chicago, 1903, our horses won 40 prizes, 21 of which were firsts, including in Percherons, champion stallion, champion mare, champion American-bred stallion, best group of five stallions, best stallion and four mares. Although our horses are better, our prices are lower than can be obtained elsewhere in America. Catalogue on application.

DUNHAM, FLETCHER & COLEMAN, Wayne, Du Page Co., Illinois.

DON'T MAKE A MISTAKE!

You surely will if you purchase a registered



Shire, Clyde or Percheron

Stallion or mare without first seeing my stock or corresponding with me. I have a superior lot on hand—all young, sound, vigorous and well bred. My terms are liberal to responsible parties. I do not take risky paper and a large per cent. to my prices to cover bad losses. I only charge you for the horse you buy. I want a few reliable agents at various points.

GEO. E. BROWN, BRANDON, MANITOBA.

20-CLYDESDALES-20

We now offer for sale 20 head of Clydesdales, including fillies and mares, from one to five years old, and among them a number of prizewinners. Also a few young Clyde stallions and Shorthorn cattle. People wanting to buy should come and see them before purchasing. Inspection invited.

HODGKINSON & TISDALE, Beaverton, Ont. Long-distance phone in connection with farm, 70 miles n. of Toronto on Midland Div. G. T. R.

Clydesdales and Shorthorns

FOR SALE

PRINCE STANLEY [2443], 5 years old;

Also

STANLEY CAMERON [3274], rising three; and a few Stud and Filly Colts. Also a grand young Bull Calf.

A. & G. MUTCH, Craigie Mains, Lumsden, Assa.

IMPORTED FROM SCOTLAND.

4 CLYDESDALE 2 SHORTHORN
STALLIONS BULLS....

ALL FOR SALE.

The horses, with one exception, were bred by Matthew Marshall, Stranraer, Scotland; two of them were sired by the celebrated show and breeding horse, Prince Robert, which is the sire of the unbeaten champion, Hiawatha. A dark brown (Al Model) is sired by Moncrief Marquis, 1st-prize winner at the Highland Show, the most typical draft horse in Scotland, and got by the celebrated Prince of Wales. All warranted sound, and good breeders. Have all done service in Scotland; are in moderate flesh; selected especially to suit the needs of the country, being horses of good weight, clean bone, and not too much hair. Will sell at moderate prices, from \$1,100 to \$1,500.

SHORTHORN BULLS.

ALISTER—Red, two years old; bred by Alex. Gilbert, Knockburn, Dalbattie, Scotland.
GOLDEN CUP—One year old; red, with white markings; bred by Duthie, Collynie, Scotland, and sired by the celebrated Lovat Champion.



JOHN GRAHAM, Carberry, Man.

GOSSIP.

Uncle Eph'm had put on a clean collar and his best coat, and was walking majestically up and down the street.

"Aren't you working to-day, uncle?" asked one of his Caucasian acquaintances.

"No, suh. I'se celebratin' my golden weddin', suh."

"You were married fifty years ago to-day?"

"Yes, suh."

"Well, why isn't your wife helping you to celebrate it?"

"My present wife, suh," replied Uncle Eph'm, with dignity, "ain't got nothin' to do with it. She's de 'leventh'."

"Gentlemen, ye dinna use your faculties of obsairvation," said the old Scotch professor, addressing his class.

Here he pushed forward a gallipot containing a chemical compound of exceedingly offensive smell. "When I was a student," he continued, "I used my sense of taste, sae!" and with that he dipped his finger into the gallipot and put his finger into his mouth.

"Taste it, gentlemen, taste it," said the professor, "and exercise your perceptive faculties." The gallipot was pushed toward the reluctant class. One by one the students resolutely dipped a finger into the abominable concoction, and, with many a wry face, sucked the abomination from their fingers.

"Gentlemen, gentlemen," said the professor. "I must repeat that ye dinna use your faculties of obsairvation, for if ye had looked mair closely at what I was daein' the noo, ye would hae obsairved that the finger which I put into me mooth was nae the finger that I dipped into the gallipot!"

TRADE NOTES.

THE GREAT WEST IMPLEMENT COMPANY, Limited, of Edmonton, are at present the only wholesale implement company in Alberta. They buy direct from manufacturers. Capital \$100,000. A large shipment of implements was sold recently to Mr. Lawrence, of Ft. Vermilion, to go at once to the Peace River District, 400 miles north of Edmonton.

THE ELGIN FACTORY is the largest in the world. The daily output is 2,000 watches, and 102 different kinds are manufactured. The watches go to every part of the world, and are sold even in Geneva, Switzerland. The different parts of a watch are manufactured in different departments by different people, who have devoted their lives to that particular kind of work, and have been trained to a delicacy and exactness which is more important in watchmaking than in any other mechanical industry. These parts are then assembled as they are needed in another department, where they are put together by experts, who handle them as easily and almost as unconsciously as a great pianist will strike the keys of his piano. The completed watch is tested and timed, and then, strange to say, is put into a refrigerator with the temperature below freezing point and kept there for a number of days to cool off. After it has been frozen, the watch is taken to a furnace, where it is allowed to lie for several days more in a temperature of 95 degrees. This particular discipline is intended to teach the watch that it must not mind changes of weather, and that the steel and other metals of which it is made must not allow themselves to contract or expand by cold or heat. You can learn a good deal in a watch factory.—William F. Curtis, in Chicago Record-Herald.

STOP!

FARMERS, THINK.

ARRIVED:

The pick of the Clydesdale Stallions shown at the International Live Stock Show, just held in Chicago.

Winners! Winners! Winners!

We have the **Champion Stallion of America and Canada, '03,** and many other noted prizewinners.

This lot comprises twelve head, an aggregation I defy to be duplicated in this Country.

PRIVATE PARTIES AND SYNDICATES would do well to inspect this shipment before purchasing.

PRICES RIGHT TERMS TO SUIT
OUR MOTTO, "NOTHING BUT THE BEST."

Choice Mares and Fillies always for sale.



Apply to **J. A. S. MACMILLAN,**
BOX 483, - - BRANDON,

Or to **ALEX. COLQUHOUN,**
DOUGLAS, - - MAN.

ALEX. GALBRAITH & SON

BRANDON, MAN.,

have on hand a magnificent collection of

CLYDESDALES

SUFFOLKS and PERCHERONS, with a few choice HACKNEYS and GERMAN COACHERS

Prizewinners at the Royal Show, the Highland Show, and the International. The best horses in North America at present for sale at reasonable prices, on easy terms, and every stallion guaranteed. A safe motto: "Buy stallions only from those who have a well-earned and established reputation." Catalogue for 1904 now ready. Address

JAMES SMITH, Manager, Brandon, Man.

IMPORTED CLYDESDALES

I have just returned from Scotland with a fine lot of Clydesdale stallions of great breeding and individuality. They are indeed a fine lot, and just the kind the country needs. Write for prices and description, or, better still, come and see and be convinced of what I say.

WM. COLQUHOUN, -om MITCHELL P. O. AND STATION (G. T. R.), ONT.

W. B. WATT'S SONS,
BREEDERS OF
Shorthorns and Clydesdales
Flora Station, G. T. R. and C. P. R.
Salem, P. O. Tel. No. 42a.

FOR SALE: A number of choice young bulls fit to head any herd. Several good young cows and heifers, daughters and granddaughters of great Royal Sailor (imp.), and in calf to Scottish Beau (imp.), by Silver Plate.

Let us know what you want and we will try to supply you at a moderate price. om

For Sale: **FIVE REGISTERED SHORTHORN BULLS**
Ranging in age from eight to thirteen months. Prices right. In writing for particulars mention the Farmer's Advocate. m
WALTER JAMES & SONS, ROSSIE, MAN.

GOSSIP.

Mr. John Graham, Carberry, Man., landed at his home in good condition, a short time ago, a shipment of choice Shorthorns and four Clydesdale stallions. They were imported from Scotland. Mr. Graham met them in the East. Further particulars later.

One evening the recent cold snap was under discussion, when one old gentleman predicted a January thaw. A bystander suggested that there might not be a thaw this year, an idea the old gentleman scouted vehemently.

"I've never known it to fail," he said. "Every year since I can remember I have remarked the January thaw," and growing emphatic he concluded, "I've seen thousands of them."

Mr. E. T. Griffith, of Moose Jaw, Assa., owns three fine Clydesdale mares. Two of them, Moss Rose [4673] and Lady Bell, are full sisters, sired by Earl of Fife, dam Highland Mary, by Allan of C. Lochkeil (imp.). They are a strong, well-gotten-up pair. Lady Baroness 4th, a three-year-old, sired by Prince Patrick (imp.), World's Fair winner, is of splendid size and good quality, and is out of Lady Baroness, by Macmaster (imp.).

In Shorthorns, Silver King =47765=, got by Risly Jack, and bred by Robt. Miller, of Stouffville, Ont., is a sappy-looking, white yearling of good quality. Daisy of Risby, dam of Silver King, was sired by Bridesman, one of J. & W. B. Watt's breeding, dam Maid of Hopshell, by Barmpton Hero, who was out of Mimulus (imp.), bred by A. Cruickshank, and got by Champion of England. Lena and Beauty of Moose Jaw, two very nice heifers, were got by Rustic. Lily Dale, a large, breedy-looking cow, on her dam's side, Effie, by Macduff, traces to Royal Barmpton and Comet. Princess Helena, by 4th Duke of Fairmount, is also a thick, well-made cow. Mr. Griffiths has made a worthy start, and we wish him success.

Thorncliffe Clydesdales

THORNCLIFFE STOCK FARM has for sale a carload of Clydesdale stallions and mares, including prizewinners. Some of the mares are in foal to the justly-celebrated stallion, "Lyon MacGregor." For prices, etc., etc., apply to

ROBERT DAVIES
36 Toronto Street, TORONTO.

CLYDESDALES

AYRSHIRES and POULTRY.

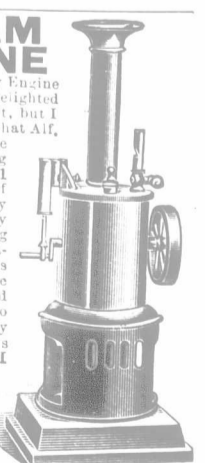


R. Ness & Sons, Howick, Que.

Importers of Clyde, Percheron and Hackney stallions, Ayrshire cattle, and poultry, have for sale 5 Clyde stallions, sired by Baron's Pride, Sir Everitt, and Royal Carrick, 1 Percheron, and 1 Hackney, winners. Ayrshires of both sexes, and poultry.

FREE STEAM ENGINE

Wouldn't you like to have one? "My Engine can run 6 to 8 spools and I am delighted with it. All the boys want to buy it, but I wouldn't sell it for \$1.00." That is what Alf, Dural, Bracebridge, Ont., said, and we have dozens of other letters praising this big, powerful Engine. It stands 11 inches high and is strongly made of steel with polished brass boiler safety valve, whistle, steam dome, stationary cylinder, piston cross head, connecting rod and crank shaft with fly wheel attached, so that you can run all kinds of Toy Machinery. Just the machine to delight every boy's heart, and all you have to do to get it is to sell only 5 of our large, beautifully colored pictures named "The Angel's Whisper," "Sit down to the Cross I Cling," and the "Family Record." These pictures are all beautifully finished in 12 colors and can't be bought in any store for less than 25c. You sell them for only 25c, and every child purchases a 50c certificate free, returns the money and we will immediately forward the Engine. Remember it's all free. We allow you to keep our money to pay your school. Write us for pictures today. Address **THE COLONIAL ART CO., DEPT. 3334 Toronto**



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

Day's Aromatic Stock Food

Saves feed by assisting stock to digest their food. A small dose in the usual food twice each day. It contains no drugs; purely aromatic.

3 LBS. 30c. 36 LBS. \$3.10. Ask your dealer or write us.

The Day's Stock Food Co., STATION C, TORONTO.



THE VALUE OF CHARCOAL.

Few People Know How Useful it is in Preserving Health and Beauty.

Nearly everybody knows that charcoal is the safest and most efficient disinfectant and purifier in nature, but few realize its value when taken into the human system for the same cleansing purpose.

Charcoal is a remedy that the more you take of it the better; it is not a drug at all, but simply absorbs the gases and impurities always present in the stomach and intestines and carries them out of the system.

Charcoal sweetens the breath after smoking, drinking or after eating onions and other odorous vegetables.

Charcoal effectually clears and improves the complexion, it whitens the teeth and further acts as a natural and eminently safe cathartic.

It absorbs the injurious gases which collect in the stomach and bowels; it disinfects the mouth and throat from the poison of catarrh.

All druggists sell charcoal in one form or another, but probably the best charcoal and the most for the money is in Stuart's Absorbent Lozenges; they are composed of the finest powdered Willow charcoal, and other harmless antiseptics in tablet form, or, rather, in the form of large, pleasant-tasting lozenges, the charcoal being mixed with honey.

The daily use of these lozenges will soon tell in a much-improved condition of the general health, better complexions, sweeter breath and purer blood, and the beauty of it is, that no possible harm can result from their continued use, but on the contrary, great benefit.

A Buffalo physician, in speaking of the benefits of charcoal, says: "I advise Stuart's Absorbent Lozenges to all patients suffering from gas in stomach and bowels, and to clear the complexion and purify the breath, mouth and throat; I also believe the liver is greatly benefited by the daily use of them; they cost but twenty-five cents a box at drug stores, and although in some sense a patent preparation, yet I believe I get more and better charcoal in Stuart's Absorbent Lozenges than in any of the ordinary charcoal tablets."

GOSSIP.

A good sale of Aberdeen-Angus cattle was that from the herd of C. H. Gardner, at Dexter Park, Chicago, January 14th, when 16 bulls and 40 females brought \$15,605, or an average of \$278. The bulls averaged \$337. The two-year-old, Barbara's Rosegay, sold for \$2,000 to L. Van Winkle, of Michigan, and Imp. John of Morlich, a three-year-old, for \$1,200. Imp. Envy 2nd of Drumin and calf brought \$950, the highest price for a female. Two other cows brought \$800 each.

The splendid farm owned by Mr. Stephen Benson, of Neepawa, Man., is composed of rolling land of great fertility. As a wheat-yielding farm, it still possesses the maximum powers of production, for Mr. Benson applies the scientific principles of good husbandry to the working of his farm, and what he puts in crop is always well prepared. There are, hence, no crop failures with him. The farm buildings are situated on the slope of a hill, about one mile from the town of Neepawa, and close by the beautiful lake, which supplies the electric power to the town.

Mr. Benson has been highly fortunate in locating where he now lives, for we know of no spot more eminently suited to mixed farming in Manitoba. Such favorable conditions could hardly do otherwise than bring success, and this has been the proprietor's fortune, both as a farmer and as a breeder of pure-bred stock. With the splendid buildings, fitted as they are with every modern convenience, in which Mr. Benson keeps his stock, he is provided with every facility for maintaining his animals in the best of condition, and in that state they almost are invariably found. The "Advocate" field man, on a recent tour over the district, had the pleasure of visiting Mr. Benson's herd of Shorthorns, when every animal was found to be in good breeding condition. The herd is led by the bull, James Stamford Watt. He was bred by J. & W. B. Watt, got by Balmoral, and out of Salem Stamford. He has developed into a grand animal, long, deep, massive and smooth, and of the best of quality, and indications point to his becoming a good sire. Amongst the females of the herd were noticed: Princess Alice, by Brigadier Beresford, out of Prairie Beauty, by Knight (imp.). She is a fine, straight, deep, well-ribbed cow, smooth and a good handler. A three-year-old heifer out of her was sold a short time ago to Mr. Ritchie Johnson, Saskatoon, who intends to found a herd of Shorthorns, and in this heifer he has certainly made a good choice. Princess Matilda is a fine, promising two-year-old, by Victor of Halse, out of Princess Alice. Bertha o' Day, by Robbie o' Day, out of Bertha 11th, is a grand, massive, deep, smooth cow, showing a grand combination of constitution with good quality. Roan Lily, by Scottish Prince, out of Lily's Favorite, is a splendid young cow of the best of breeding; a half-sister of her's sold at Chicago for \$5,000. Duchess of Maitland 2nd, by Brigadier Beresford, out of Duchess of Maitland, is another choice individual, with a record as a breeder. A cow out of her, Duchess of Woodmere, was seen with a good bull calf at foot. She is got by Victor of Halse. Duchess of Woodmere 3rd is a choice two-year-old heifer, and a calf by her side is a young animal of great promise. Little Duchess is a very sweet heifer, by Red Diamond, out of Duchess of Maitland. Lily White is a massive, smooth cow, by Robbie o' Day, out of Lily Gray, she by Manitoba Chief. Several young animals of both sexes are in the herd, and intending purchasers could not find a better lot to select from.

Burdock BLOOD BITTERS

CURES

Dyspepsia, Bolls, Pimples, Headaches, Constipation, Loss of Appetite, Salt Rheum, Erysipelas, Scrofula, and all troubles arising from the Stomach, Liver, Bowels or Blood.

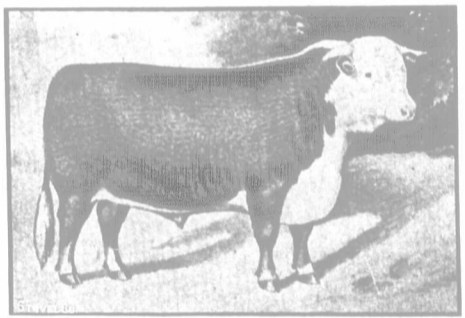
Burdock BLOOD BITTERS

Burdock BLOOD BITTERS

Mrs. A. Lethangue, of Ballyduff, Ont., writes: "I believe I would have been in my grave long ago had it not been for Burdock Blood Bitters. I was run down to such an extent that I could scarcely move about the house. I was subject to severe headaches, backaches and dizziness; my appetite was gone and I was unable to do my housework. After using two bottles of B. B. B. I found my health fully restored. I warmly recommend it to all tired and worn out women."

ISLAND PARK HEREFORDS.

This herd has a splendid show record, and is headed by Lord Ingleside 6th, winner of Diplomas, Silver Medal and several firsts at Winnipeg and Brandon.

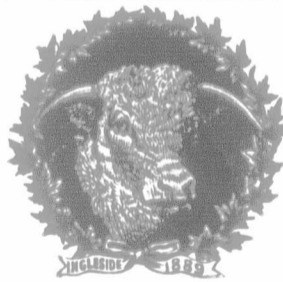


A carload of the choicest young Herefords brought out lately from the east. Twelve bulls and eight heifers for sale ranging from 1 to 2 years of age, heifers 2 years. This lot sired by True Briton (imp.) and Baronet (imp.). Stock bull for sale, heifers with calf to him.

J. A. CHAPMAN, Beresford, Man.

THE SUNNY SIDE HEREFORDS.

For sale, cheap: 20 bulls, singly or in car lots, good, thrifty, low-down, beefy type from 7 to 20 mos. old; also some choice young cows and heifers. Our herd numbers 90 head, and have the best of breeding and individual merit. Write us before placing your order. O'NEIL BROS., Southgate, Ont. m



INGLESIDE HEREFORDS 100 Head.

Calves to 8-year-olds. If you want to start a small herd, write for particulars. The quality and breeding is of the best. A good foundation means success, and here is where you can get it at prices and terms to suit your purse. on H. D. SMITH, COMPTON, QUE.

THE MAPLES FARM HEREFORDS

Near Orangeville, Ont., on C. P. R. (Green Sound branch). Imported and pure-bred bulls and heifers for sale, from imported and pure-bred dams and sired by imp. Spartacus No. 16829, 1760, winner of sweepstakes and silver medals, Toronto, 1902 and 1903. Young bulls a specialty. Prizewinners wherever shown. Inspection invited. Popular prices. W. H. HUNTER, on Near Orangeville, Ont. THE MAPLES P. O.

SHORTHORNS

BULLS IN SERVICE:

Marquis of Longburn = 41380 = 2nd prize 2-year-old, Winnipeg, 1903; sired by Marquis of Zenda (157854), imp. Imperial Hero = 26120 =, by Village Hero = 14322 =.

5 BULLS FOR SALE.

Three young bulls, the get of Marquis of Longburn, Imperial Hero and one of his sons. ADAMSON BROS., GLADSTONE, MAN.

Aberdeen-Angus Bulls

For sale: One one-year-old, two bull calves, sired by Laird of Tweedhill. Will sell right. on Drumbo Station. WALTER HALL, Washington, Ont.

TERRA NOVA STOCK FARM. Pure-bred Aberdeen-Angus Cattle.

Sires in service: Imp. Prince of Benton, 1st at Toronto and Winnipeg, 1903, from the same sire as the celebrated heifer Benton's Pride, which won in one season and sold for \$4,000, and Imp. Provost 16th of Powrie, 1st at Winnipeg, 1903. Some fine young bulls for sale. Prices reasonable. Write S. MARTIN, Rounthwaite, Man.

H. W. AYERS, HONEY CREEK, WIS.

Breeder of the celebrated Brown Swiss cattle and Tamworth swine. Cattle hardy, vigorous, grand milkers and fine beefers.

Correspondence solicited. Bulls and heifers for sale.

SHORTHORNS

Cows of true Scottish type. A good prize-ring record made by the herd. GEORGE LITTLE, Neepawa, Man. Five miles from town.

Lawyer—What was the thing that led to your financial downfall? You seemed to be doing a good business.

Bankrupt—I was, but one day I started out to see if I could borrow some money. I found it so easy that I kept on borrowing.

BEAUTIFULLY DRESSED DOLL FREE.



Girls, would you like to have the prettiest doll in the world for your very own? If so, send us your name and address on a Post Card and we will mail you postpaid, 8 large, beautifully Colored Pictures, each 100 inches named "The Angel's Whisper," "The Family Record" and "Rock of Ages." These Pictures are all handsomely finished in 12 colors and could not be bought in any store for less than 50c. You will find them for only 25c each, and give a Free Card, at each 50c. to each purchaser, return us the money, and we will immediately send you the most beautiful doll you have ever seen. Dolly is

21 INCHES HIGH, as big as a real baby, and has the loveliest, to g. golden curly hair, pearly teeth, beautiful dark eyes, rosy cheeks and movable head, arms and legs, so that you can put her in any position you wish. Her handsome dress has an elegantly tucked white yoke ornamented with diamond set gold buttons, and is trimmed with beautiful bows of satin ribbon edged with lace, and very full fine white ruching, which is draped around the yoke in the latest style. A very large hat ornamented with gold buckles and trimmed with an immense white imitation Ostrich feather completes her costume. Dolly has also lovely underwear, all trimmed with elegant lace, stockings and cute little slippers ornamented with silver buckles. The picture shown here is an exact photograph of Dolly herself, but of course the real doll is much prettier than her picture, because we cannot show the lovely colors of her dress nor her beautiful eyes and hair in a photograph. We know when you see her you will say she is the most beautiful doll you have ever seen. Louise Nunn, Hamilton, Ont., writes: "I am sorry that I have not written before to acknowledge my beautiful Doll, but I like her so much that I cannot leave her to write a note and tell you how pleased I am. All my little friends think she is just lovely." Mrs. Pearson, Yorkville Ave., Toronto, writes: "My little girl is high delighted with her beautiful Doll and I am very much pleased with the honest way you treated her. I can hardly get her to lay her Doll down, she likes it so much." Girls, remember this is the biggest, the most beautiful and the best dressed Doll ever advertised by any Company. There is not a rag cheap about it from its head to its feet. You could not buy it at any store for less than \$2.00 cash, and we want to give it to you absolutely free for selling only 8 Pictures. Could anything be easier? May Bruce, Hayesville, N.B., writes: "I sold all the Pictures in a few minutes. They went like wildfire. Everybody said they were the nicest Pictures ever sold for 25c." Miss Cooper, Oak River, Ont., writes: "I sold on 4 people and in about 15 minutes every one was sold. I could have sold many more if I had had them. They went like hot cakes. Eryone said, 'Oh! what beautiful Pictures; how much are they?' and when I answered 25c., they said, 'Why, you are almost giving them away!'" Write us a Post Card today, and this beautiful Doll will be your very own in a few days. We don't want one cent of your money and we allow you to keep out money to pay your postage. Colonial Art Co. Dept. 3337 Toronto.

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

Oak Grove Farm.



A number of choice young **BULLS**

by Masterpiece 23750 and Scottish-Canadian (imp.).

Bargains in heifers bred to Scottish-Canadian. Also spring pigs of both sexes and my stock boar Cronje for sale. Half-bred Angora goats, W. P. Rocks, W. Minorcas, W. Wyandottes, cockerels and pullets for sale. Correspondence solicited. Visitors welcome.

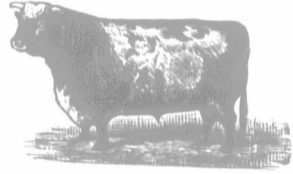
JAS. BRAY,
LONGBURN P. O., MAN.
Macdonald Station, C. P. R.

SCOTTISH SHORTHORNS.

FOR SALE.—16 bulls, from one to two years old; 16 year-old heifers; a few two-year-olds, bred to Sir Colin Campbell (imp.); also cows and calves. General—30339—, Lord Stanley 43rd=35731—and Sir Colin Campbell (imp.) 28878, our present stock bulls.

GEO. RANKIN & SONS
HAMIOTA, MAN.

CLYDE Stallions, Fillies and Mares



SHORTHORN Heifers and Bulls.

All for sale; no reserve. Prices and terms to suit. Improved farms for sale.

J. E. SMITH
SMITHFIELD AVE.,
Brandon, Manitoba.

FOREST HOME FARM CLYDESDALES, SHORTHORNS, YORKSHIRES AND B. P. ROCKS.

We have a grand lot of young bulls, from 6 to 20 months old, out of thick, heavy, richly-bred dams, sired by Robbie O'Day, Manitoba Chief, and Golden Standard; as fine a lot as we ever had to select from; some choice show animals, also cows and heifers. Sows, all ages, bred and ready to breed; spring and fall breed; a beautiful lot of B. P. Rock cockerels. Roland, C. N. R.; Carman, C. P. R.
ANDREW GRAHAM, Prop., Pomeroy P. O.

Shorthorns and Clydesdales.

We are now offering an extra good lot of young bulls, home-bred and imported; also stallions, and a few young mares which are in foal.

JOHN MILLER & SONS,
Claremont Sta., C.P.R. on Brougham P.O.

THIS MAGNIFICENT FUR COLLARETTE only \$5.45



Is made from specially selected skins of beautiful, soft, black Cooney Fur and fine quality Astrachan, with extra long fine extending welter on the shoulders, high straightish finish-wide fur on both sides and extra long wide graceful fronts, the very latest style. It is warmly padded, beautifully lined throughout with heavy purple-satin, and is ornamented with six long fluffy tails. For warmth, style and elegance there is no thing to compare with it, and at our special price, only \$5.45. It is positively the best value in the fur to be obtained anywhere.

SEND NO MONEY

Why give you the same privilege you would have to migrate to see and examine our Fur Collarette before paying one cent for it. Simply send us your name and address, also the name of your nearest Express Office, and we will ship it carefully packed for your free inspection. Then if after a thorough examination you and your friends are perfectly satisfied that it is the best value in the fur to be obtained anywhere, we will invoice you for it and you will pay us for it when it comes to your door. We will not send you a cent until you are perfectly satisfied. Write us at once and we will be glad to send you our catalogue. **JOHNSTON & CO., Dept. 13314 TORONTO, Canada**

John Johnston, Greenwood, Ont.



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Examine all the Cream Separators on the market; look carefully to their construction; then select the one which you think will do the best work and give you the least bother. We believe that's the

EMPIRE
Easy Running
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Guaranteed to run more easily, to be easier to clean and last longer than any other. It's for you to decide. Try it first. Get our free book.

Empire Cream Separator Co.
28 Wellington St. W.,
TORONTO, CANADA.

16 Shorthorn Bulls FOR SALE.

Bred in the herd that produced Topman and Moneyfuffel Lad; sweepstakes winners at Toronto, all ages competing; also Lord Stanley, junior champion over all beef breeds, and heading three first-prize herds at World's Fair, Chicago.
Yonge St. Trolley Cars from Union Station Toronto, pass farm.

J. & W. RUSSELL, RICHMOND HILL, ONTARIO.

SHORTHORNS FOR SALE.
Four bulls, that challenge comparison, sired by the champion champions, Spicy Marquis (imp.). This is a rare chance. Brave Ythan at head of herd.
on **JAMES GIBB, Brooksdale, Ont.**

W. G. PETTIT & SONS FREEMAN, ONT., Importers and Breeders of

Scotch Shorthorns

110 head in the herd, 40 imported and 20 pure Scotch breeding cows. Present offering: 3 imported and 6 pure Scotch from imported sire and dam; 6 Scotch-topped from imported sires; also imported and home-bred cows and heifers of the most popular type and breeding. A few choice show animals will be offered.
Burlington Jct. Sta. Telegraph & Telephone

Spring Grove Stock Farm Shorthorn Cattle and Lincoln Sheep.

HERD prize and sweep stake at Toronto Industrial Exhibition, three years in succession. Herd headed by the Bruce Mayflower bull, Prince Sunbeam, imp. Present crop of calves sired by Imp. Wanderer's Last, sold for \$2,005 High-class Shorthorn of all ages for sale. Also prizewinning Lincolns. Apply on

T. E. ROBSON, ILBERTON, ONT.



Imported and Canadian-bred bulls, cows and heifers for sale of their losing families: Broadhooks, Village Maid, March mess, Victoria, Beauty, Merry Lass, and other good strains. Four extra good bulls, ready for service. **H. J. DAVIS,** Importer and Breeder of Shorthorns and Yorkshires, Woodstock, Ont., C. P. R. and G. T. R. main lines.

GOSSIP.

"Now, then, Charlie, don't you admire my new silk dress?"
Charlie (with emphasis): "Yes, mamma."
Mamma: "And, Charlie, all the silk is provided for us by a poor worm."
Charlie: "Do you mean dad?"

Several men were recently discussing the merits of the great men the world has produced, each saying that his hero was the greatest. As the temperaments of the men differed, they argued for warriors, statesmen and poets. One claimed the laurel for Shakespeare.
"My friend, William Shakespeare, was the greatest man that ever lived," he declared with emphasis.
"Your friend?" replied another.
"Why, he's been dead more than a hundred years."
"Well, well," was the reply, "how time do fly."

In one of Glasgow's finely laid out cemeteries, a rich citizen, who was notorious as a skeptic, had erected a massive mausoleum on what he termed "his ancestral plot." One day he met a worthy elder of the kirk coming away from the vicinity of the imposing mass of masonry, so he said to him:
"Well, Davvit, ye've been up seein' that gran' erection o' mine?"
"Deed, hiv' I, sir."
"Gey strong place that, isn't it? It'll tak' a man a' his time tae raise out o' yon at the day o' judgment."
"Hoot, ma mon," said David, "ye can gie yersef little fash about risin' gin that day comes. They'll tak' the bottom out o't tae let ye fa' doon."

James J. Hill, the railroad magnate, unbends occasionally, and when he does he likes to tell a story of the days when the line with which he was first connected used to be called the slowest road on earth. One day, "Diamond Joe" Reynolds, the Mississippi steamboat man, offered to match one of his boats against one of Hill's trains for \$500 a side. Hill laughed good naturedly, but did not except the challenge. "Say, I'll race you up the stream," urged Reynolds. "Oh, thunder," said Hill, in well-simulated disgust, "if you're going to stick to the river you might as well drop the notion of a race. I thought you meant you'd bring your boat out on the prairie alongside the track and give me some show."

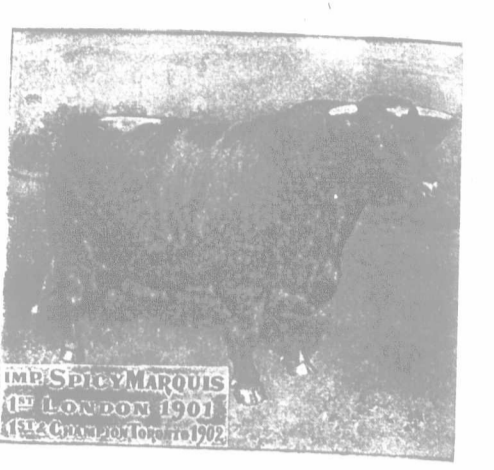
A dog fight in which brain counted more than brute strength was illustrated to a group of Cornell professors, recently, who, while returning from skating on Beebe Lake, witnessed a tragic battle between two of the best dogs in Ithaca. For years the valuable bull terrier owned by Dr. Luzerne Coville has held the championship. But one bitter enemy had he in the collie owned by Professor W. F. Durand, head of Sibley College. Several times they had met, and as many times the pet of the engineering college had been worsted.

One day last week they met for the last time. The collie was being whipped, when of a sudden it seemed to realize the opportunity and ran to the edge of Fall Creek Gorge, only a few feet away. The professors, who had tried to part the animals, dared not approach the dangerous spot, but the bull terrier followed, and in a moment the two were fighting on the edge of the high precipice. Getting on the safe side, the "foxy" collie, inch by inch, pushed back its opponent until over the edge it sent the bull terrier, 100 feet to its death. Then, with a triumphant look, it rejoined its master.

ONE WAY.
Flannigan: "Shure, these scales is no good at all for me. They only weigh the heft o' 200 pounds, an' Oi'm near to 250."
Flannigan: "Well, man alive, can't ye git on thin twice?"

LEGAL LORE.
Just after the war an old darky came up to the governor and said: "Marster, kin you make me jestice ob de peace?"
"Well, Uncle Ned, in a case of suicide what would you do?"
Uncle Ned thought deeply. "Marster, I'd make him pay de costs ob de court and support de child."—Happiness Magazine.

TROUT CREEK SHORTHORNS



Seven Imported Bulls for Sale.
JAS. SMITH, Manager, Millgrove, Ont.
W. D. FLATT, 378 Hess St. South, Hamilton, Ont.

R. & S. NICHOLSON Sylvan P. O. Parkhill Station, Ont.

SHORTHORNS

Have for sale:
13 IMPORTED HEIFERS,
20 HEIFERS (choice),
Safe in calf to Imp. Spicy Count. Home-bred herd composed of Nonpareils, Minas, Clementinas, Cruickshank Lovells, Shelthin Rosemarys, A. M. Gordon's Estelles, Miss Symes, etc.

OAK LANE STOCK FARM.
Shorthorns Cotswolds
Yorkshires and Barred Rock Fowls.
Imported and Canadian-bred Shorthorns. Open to take orders for N. W. trade. Write for prices. Satisfaction guaranteed.
GOODFELLOW BROS., MACVILLE, ONT.

JOHN DRYDEN & SON BREEDERS OF

CRUICKSHANK SHORTHORNS AND SHROPSHIRE SHEEP.

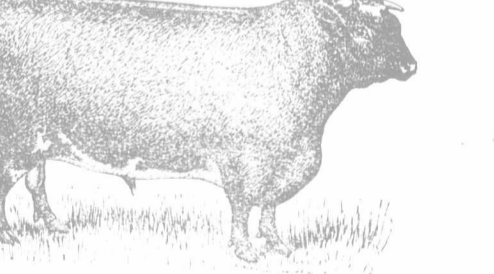
Catalogue of twelve young bulls of choicest breeding and splendid quality sent on application. Your choice of 25 BEAUTIFUL YEARLING RAMS at reasonable prices. Also a FEW SELECT EWES.
on Station and Post Office, Brooklin, Ont.

HUNTLYWOOD FARM SHORTHORNS AND SOUTHDOWNS

We have for sale two fine young bulls of the noted Broadhooks tribe and one Secret. Write for prices.
on **W. H. GIBSON, Mgr., Point Claire P. O., Quebec**

T. DOUGLAS & SONS, STRATHROY STATION & P. O., BREEDERS OF

Shorthorns and Clydesdales
88 Shorthorns to select from. Herd bulls (Imp.) Diamond Jubilee =2881= and Double Gold =37854=. Young bulls, cows and heifers for sale at all times. Also one (imp.) stallion and two brood nares.
on



19

High-class Shorthorn Bulls For Sale

Some imp. and some from imp. cows, and sired by imp. bulls. Also cows and heifers. New importation came home Dec. 1st.
on

Arthur Johnston, Greenwood, Ont.

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

GOSSIP.

Secretary R. W. Park, of the American Galloway Breeders' Association, has resigned as secretary of that organization. It is understood that he will resume the management of his Missouri farm.

Mr. George Little, Neepawa, Man., writes to say that he has sold to Mr. James MacCreery, of Arden, Man., the bull calf, Pride of Langford. He is by Scottish Canadian (imp.), out of Rosette 14th =32688=. Mr. Little believes the bull has gone into good hands, and that he will give a good account of himself.

In another column, Mr. John Graham, Carberry, announces for sale four Clydesdale stallions and two Shorthorn bulls, all imported. A representative of the "Farmer's Advocate" has not yet had an opportunity of inspecting these animals, but we hope to give our stockmen readers the benefit of their description at an early date. From the announcement already made, it is important to notice that the breeding is gilt-edge, and those who contemplate purchasing animals of this class should pay this enterprising Carberry breeder a visit.

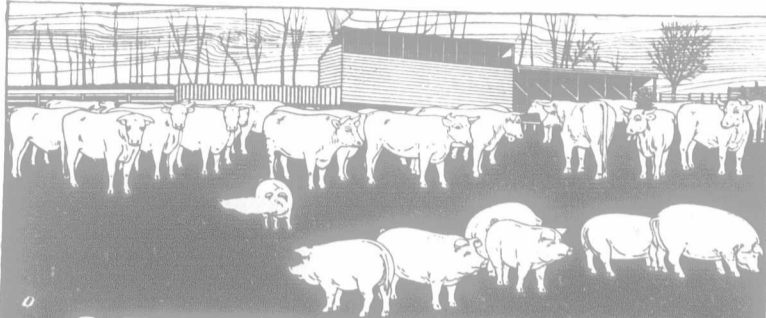
It is, or was, usual to designate Parliamentary committees by the names of the bills which they met to consider. About sixty years ago, a bill was introduced into the House of Lords for enclosing the lands in the parish of Great Snoring, in the County of Norfolk, and was in regular course committed to a select committee. It was sometimes a practice to move that on a select committee all the Lords who attend it shall have voices; and Lord Eldon, then Lord Chancellor, one day rose with the greatest gravity and said:

"I request your Lordships' serious attention to the motion I am about to put. It is that all the Lords who attend the Great Snoring Committee shall have voices."

Mr. Joseph Laidler is one of the Neepawa farmers who have made Neepawa district celebrated for the forward and progressive stage in which farming and pure-bred stock-raising is to be found in it. Mr. Laidler owns a few registered Shorthorns of good breeding and individuality. His herd bull is Kruger, got by Royal Charlie, out of one of the well-known Lynch cows. He is about a year old; a thick, low-set, full-quartered fellow, showing every indication of correct, thrifty development. Superba 5th, by Village Hero, out of Superba 2nd, she by Duke of Colonos, is a good breeding cow, with a heifer calf following her, which gives good promise. Raising Berkshire swine is Mr. Laidler's principal industry, and his herd is the result of much care and applied intelligence. A splendid stock of breeders is kept, and every member added to the breeding herd is proved by every possible test to be a good one before it is admitted. Cherry Lane Baron, by Long-fellow 10th, out of Locust Blossom, is a strong, heavy, smooth fellow, which has given every satisfaction in his get. Honest Tom, by Fitz Lee, out of Rosamond, is a younger leader, giving every promise of success. Amongst the sows are: Victoria, by Baron Lee, out of Heather Belle. She is a well-formed, smooth sow, and a prolific breeder. She farrowed fifteen pigs on three consecutive occasions, and twelve on the fourth. Princess, by Neepawa Lad, out of Modesty, is also a good pig, and a prolific breeder. Prairie Girl, by Halle, out of Maude, is a breeder which has given a good account of herself. Mr. Laidler's herd is one from which breeders may, with full confidence, augment their stock in the full assurance that they are getting choice Berkshire blood and quality.

THE IMPROVEMENT OF HOME GROUNDS.

The Wisconsin Experiment Station has issued Bulletin No. 105 on the Improvement of Home Grounds. It contains a good deal of valuable information of use to those who can appreciate beautiful home-surroundings. A copy, we believe, would be furnished the farmers of Canada who address the Agricultural Experiment Station, Madison, Wisconsin.



3 FEEDS FOR ONE CENT

other not. The pig being fed "International Stock Food," shortly after using it, made a gain of one pound per day over the other and gradually went up till there was a gain of over two pounds per day. Have also tested it upon our horses while doing heavy work, milch cows and calves, and can fairly and honestly say that I do not want, and don't think I could get any better stock food. One of our mares got cut badly by being thrown out of the horse-power while threshing. We at once applied your "Silver Pine Healing Oil" with the best of results. Any man who keeps stock should have it on hand always. In fact, I cannot say too much in recommendation of your goods that I have tested. I remain,

Very truly yours,
JNO. T. PAYNE.

WE HAVE HUNDREDS OF THOUSANDS OF SIMILAR TESTIMONIALS AND WILL PAY YOU \$1000 CASH TO PROVE THAT THEY ARE NOT GENUINE AND UNSOLICITED. We own "International Stock Food Farm," which is located 12 miles from Minneapolis and contains 600 acres. We feed "International Stock Food" every day to all our World Champion Stallions, Dan Patch 1564 and Diadem 2354; to our Yorks Stallions, Hood Marx, Goss, Wink Horses, Cattle and Hogs. "INTERNATIONAL STOCK FOOD" FEEDS FOR ONE CENT is prepared from Roots, Herbs, Seeds and Barks and won the Highest Medal at Paris Exposition in 1903 as a High-Class vegetable, medicinal preparation to be fed to stock in small amounts as an addition to the regular feed. It is a Great Aid in Growing or Fattening stock because it increases their appetite and Aids Digestion and Assimilation so that each animal obtains more nutrition from the grain eaten. We positively guarantee that its use will make you extra money Absolutely Harmless even if taken into the Human system. You insist on eating medicinal ingredients with your Own Feed at every meal. Salt is a stomach tonic and worm medicine, Pepper is a powerful stimulating tonic, Mustard is a remedy for dyspepsia, Vinegar is a diuretic. You eat these medicinal ingredients almost with every mouthful of your food, and it is proven that these Medicines promote health and strength for people and improve their digestion. "International Stock Food" contains pure vegetable medicinal ingredients that are just as safe and as necessary an addition to the regular feed of your stock if you desire to keep them in the best possible condition. "International Stock Food" is endorsed by every High-Class Farm Paper. It purifies the blood, stimulates and permanently strengthens the entire system so that disease is prevented or cured. "International Stock Food" is sold on a "Spot Cash Guarantee" by Fifty Thousand Dealers throughout the World. Your Money will be Promptly Refunded in Any case of failure. It will make your Calves or Pigs grow Amazingly and has the largest sale in the World for keeping them healthy. Beware of the many Cheap and Inferior Imitations. No Chemist can separate all the Different powdered Roots, Herbs, Barks and Seeds that we use. Any One claiming to do so Must be an Ignoramus or a Falseifier.

A \$3000.00 STOCK BOOK FREE

BOOK CONTAINS 183 LARGE ENGRAVINGS OF HORSES, CATTLE, SHEEP, POULTRY, ETC.

The Cover of this Book is a Beautiful Live Stock Picture. Printed in Six Brilliant Colors, and Without Any Advertising on It. Size of Book is 6 1/2 by 9 1/2 inches. It cost \$3000 to have our Artists and Engravers make these Engravings, which are the finest engravings of Horses, Cattle, Sheep, Hogs and Poultry that you have ever seen. They are all made from actual photographs and are worthy of a place in any library. It also gives Description, History and Illustrations of the Different Breeds of Horses, Cattle, Sheep, Goats, Hogs and Poultry. It contains Life Engravings of many very noted Animals. It contains a Finely Illustrated Veterinary Department That Will Save You Hundreds of Dollars, because it describes all common diseases and tells you how to treat them. The Veterinary Illustrations are large and scientific and better than you can obtain in any other book regardless of price.

WE WILL PAY YOU \$10.00 CASH IF BOOK IS NOT AS DESCRIBED
WE WILL MAIL ONE COPY OF THIS BOOK TO YOU ABSOLUTELY FREE, With Postage Prepaid, If You Will Write Us At Once, Letter or Postal card, and ANSWER THESE TWO QUESTIONS:

1st.—NAME THIS PAPER. 2nd.—HOW MUCH STOCK HAVE YOU?

Address At Once.... **INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN., U. S. A. TORONTO, CANADA.**



Largest Stock Food Factory in the World
Capital Paid in, \$2,000,000
775,000 Feet of Space in Our New Factory.
Contains Over 16 Acres of Space.

WE WILL PAY YOU \$1,000 IN CASH
If We Ever Refuse to Refund Your Money on our "Cash Guarantee" that is printed on every label of each of these preparations. They are sold by 60,000 dealers. "International Poultry Food" (a remarkable egg producer, and insures good health and rapid growth for all kinds of poultry. "International Worm Powder," "International Hoof Ointment," "International Phenol-Oil" (A sure disinfectant and germicide). "International Compound Absorbent" (Acid curbs, spavins, etc., while horse works). "Silver Pine Healing Oil" (The wonderful quick cure for barbed-wire cuts, kicks, lumps, etc.). "International Compound Absorbent" (Acid curbs, etc.). We will be Glad to Refund Your Money if they ever fail and agree to accept your plain, written statement and leave the entire matter with you. **INTERNATIONAL STOCK FOOD CO., Minneapolis, Minn., Toronto, Canada.**

PINE GROVE SHORTHORNS AND SHROPSHIRE.

Our herd comprises over 150 females, including our last importation of 30 head, all of the most esteemed strains. Of Shropshires, we offer a few choice Rams, also high-class Ewes bred to first-class Rams. Address

W. C. EDWARDS & CO.,
Rockland, Ontario.

OUR PRESENT OFFERING

17 SCOTCH BULLS

Imported and Individuality, and Breeding, Home-bred. Quality,

and reasonable prices. Catalogue free.

JNO. CLANCY, Manager. **H. CARGILL & SON, Cargill, Ont., Can.**

AYRSHIRES

WATSON OGILVIE, PROPRIETOR.

Ogilvie's Ayrshires won the herd and young herd prizes at Toronto, London and Ottawa in 1900; also at the Pan-American, in 1901, and in 1902 they won all the herd prizes and medals, sweepstakes and diplomas, with one exception. The cows are all imported, and were carefully selected for strength and constitution, style, size of teats, and milk (quantity and quality). The herd is headed by Douglasdale (imp.) champion at the Pan-American and at Ottawa, Toronto and London, in 1902, ably assisted by Black Prince (imp.). Stock, imported and home-bred, for sale at all times.

ROBERT HUNTER, Manager.
Near Montreal. One mile from electric cars. **Lachine Rapids, P. Q.**

Hawthorn Herd OF DEEP-MILKING SHORTHORNS.

FOR SALE: Five young bulls, also a few females, by Scotch sires. Good ones.

Wm. Grainger & Son, Londesboro, Ont.
We are offering **18 BULLS** from 4 to 10 months old, sired by imported Diamond Jubilee =28861=. Also a few females, all ages, of good Scotch breeding.

FITZGERALD BROS., Mount St. Louis, Ont.
Elmvale Station, G. T. R.; Hillsdale Telegraph Office.

Shorthorns, Clydesdales, YORKSHIRES.
I offer for sale a young red bull calf by Republican (Imp.), out of Nonpareil 34th (Imp.)—a good one. Also young Yorkshires and Clydesdales, all ages. Also Count Amaranth at a bargain, if taken soon.

A. E. HOSKIN, SPRINGVALE FARM, COBOURG STA. & P.O.
SHORTHORNS (Imp.)

We have on hand for sale 3 yearling bulls (imported in dam), 7 three-year-old heifers (imported in dam) due to calve during next 3 months. These young animals are of exceptional breeding and individuality. Prices reasonable. Write for particulars.

EDWARD ROBINSON, Markham P.O. & Sta. SHORTHORNS.
Importer and breeder of choice Shorthorns. Scottish Hero 156726 at the head of herd.

JAS. A. CRERAR, Shakespeare, Ont.
SHORTHORNS FOR SALE.

I am offering for the next month, at exceptionally low prices, several young bulls, heifers and bred heifers of choice Scotch breeding and good individuality. These are rare bargains. Write for my prices, I feel sure they will tempt you. Address

H. SMITH, Exeter, Ontario.
Rosevale Shorthorns
Herd comprises Augustas, Polyanthus, Crim-son Flowers, Minas, Strawberrys and Lavinias. For sale, both sexes, the get of Imp. Mar-engo Heydon Duke, Imp. Baron's Heir, Imp. Golden Able and Imp. Golden Conqueror. **W. J. Shean & Co., Owen Sound P. O. & Sta.**

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

