

FARMER'S ADVOCATE

AND HOME JOURNAL

THE ONLY WEEKLY AGRICULTURAL PAPER IN WESTERN CANADA

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

SEPTEMBER 11, 1907

WINNIPEG MANITOBA

VOL. XLII, NO. 781

LLOYD'S HANDY WAGON SEAT



FARMERS This is just what you want it is lighter, handier, easier riding, more durable and safer than any other seat on the market. If your Implement dealer or hardware merchant does not handle them write direct to us, and upon receipt of \$3.50 we will send you one, express prepaid to any express office in Manitoba; and for \$4 to any part of Saskatchewan or Alberta.

Wawanesa Wagon Seat Company,
Wawanesa : Man.

POTATOES

We are now ready to contract for potatoes in carload lots. Correspondence solicited.

WILTON BROS.

1427 Erin Street, Winnipeg
Licensed and Bonded Grain Buyers

Give Your Watch a Chance

You will double the life of your watch if you let us make any needed repairs on it and give it a thorough cleaning every year. We are fully equipped to do every kind of repair work and our workmen take special pride in repairing watches. When they finish a job of this kind everything has been done that should be done. This kind of watch repairing is worth more but costs no more than makeshift repairing. Send your name and address for mailing box.

D. A. REESOR

"The Jeweler"
Issuer of Marriage Licenses
Official Watch Inspector C.P.R. & C.N.R.
BRANDON, Man.

GRAIN CONSIGNMENTS

Grain Growers **Frank G. Simpson**
A.T. Hepworth.

Mark You This
WE ARE
Far better able to get top prices for Grain than
YOU ARE
Mail us your Shipping Bills marked ADVISE
SIMPSON-HEPWORTH Co. Ltd., BOX 470
Strictly Commission Men Large Advances

Send us your shipments of
**HIDES, WOOL,
SENEGA-ROOT, &c.**



and receive
Highest Market Prices and Prompt Returns
Liberal Advances made on Consignments.

Write or wire us before selling

The Lightcap Hide & Fur Co. Ltd.

P.O. Box 484

172 to 176 King St., WINNIPEG, Man.

ALEX. NAISMITH,
President.

WM. PATERSON,
Vice-President.

C. D. KERR,
Treasurer

The Wawanesa Mutual Insurance Co.

HEAD OFFICE: WAWANESA, MAN.
A. F. KEMPTON, SECRETARY-MANAGER

Amount of insurance in force Dec. 31st, 1906 - - - - \$17,447,679.00
Assets over Liabilities - - - - - 224,096.56

The Number of Farmers Insured December 31st, 1906, over 15,248

Over 15,248 farmers insured. The largest agricultural fire insurance company west of Lake Superior. Agents wanted in unrepresented districts.

GASOLINE TRACTIONS

WE HAVE THEM
8, 12, 16, 20 and 25 HORSE POWER

WRITE
The Portage Iron & Machine Co. Ltd.
Portage la Prairie, Man.
Founders Machinists Boilermakers

CORRUGATED
METALLIC ROOFING
LIMITED
WINNIPEG
IRON

We Want Your Watch

A post card will bring a small box for mailing; then we will report cost of repairs and if satisfactory to you we will repair it and return to you post paid. Your watch will receive very careful attention. All work guaranteed.

D. E. BLACK,
Expert Watchmaker
and Manufacturing Jeweler,
The largest Repair Trade in Alberta.
130 5th Ave. East, Calgary, Alta.

FIRES ARE NUMEROUS

DELAYS are DANGEROUS

Losses promptly adjusted if you are insured in the

Hudson Bay Insurance Co. Ltd.

Address P.O. Box 1059, MOOSE JAW, Sask.
Live Agents wanted in unrepresented districts

Corrugated Iron

Just the thing for your Barns and Granaries

We have a large quantity of Galvanized Corrugated Sheets (No. 28 and No. 26 gauge) that are slightly discolored by water, that we are selling at a great bargain. If you cannot purchase this from your dealer, write us.

**WINNIPEG CEILING
AND ROOFING CO.,**
Winnipeg, Manitoba

Dept. A.

Thompson, Sons & Co. to the Grain Growers.

All grain markets are strong, especially the wheat markets. In order to realize highest prices, grain growers need to ship their grain to Fort William or Port Arthur and employ an experienced and reliable commission house to handle for them. We are such and respectfully ask you to employ us. We have the very best facilities for disposing of Wheat Oats, Barley, Flax. Write to us for shipping instructions and market information.

THOMPSON, SONS & CO. Grain Commission Merchants, P.O. Box 77 B, Winnipeg

We are still offering

A Free Trip TO NELSON, B.C.

to any purchaser of a block of our Fruit Land.

We have a splendid list of improved and unimproved, large and small tracts, which we want you to inspect. We believe that an inspection of the land, together with the general inducements of the Kootenay district, such as unexcelled scenery, a faultless climate, an abundance of water, good transportation and a ready market will guarantee a sale, and so we make this offer of a Free Trip.

Here is a couple of properties on our list:

320 ACRES of finest land, level, free of stone, well watered, 14 acres cleared and cropped, small bearing orchard, good house and outbuildings. Price only \$14 per acre. Cash and terms.

60 ACRES splendid lake front location. Best fruit soil, small clearing and orchard, balance easiest clearing. Fine running stream. An ideal home farm. Price \$75 per acre on easy terms

Clayton & Clayton

FRUIT LANDS
Box 104

REAL ESTATE
Nelson, B.C.

KOOTENAY LAKE Fruit Lands

CHOICE fruit lands in blocks of 5, 10, 15 or 20 acres, conveniently situated near the city of Kaslo, B.C., with all conveniences of a good town, daily transportation, mail, etc.

Fruit growing is a very profitable industry, and the finest fruit is grown at and near Kaslo. Our fruit took district prize in 1906.

Ideal situation, with fine climate, boating fishing and hunting.

We will make selections for you, if desired, and if you are not satisfied after examination of the land, we will refund your money.

We have large blocks suitable for colonization purposes.

A. J. OURLÉ

KASLO, B.C.

An Okanagan Snap

160 acres 4 miles from town; 60 acres bottom land cultivated; 3 acres bearing orchard. Splendid buildings, 18 head cattle, 5 head horses and all the implements. Price only \$8500. Terms Apply to

Armstrong Realty Co., Armstrong, B. C.

Send for List

FOR SALE

120 ACRES of FRUIT and HAY LAND

in British Columbia. Railway and wagon road through property. Well watered. Good fishing. Local market at highest prices for everything that can be raised. Price \$4,000. Half cash balance in 4 instalments at 8%. Address E. C. ARMSTRONG, 11 x 60, Nelson, B. C.

ALL ADVERTISING CONTRACTS ARE MADE SUBJECT TO A GUARANTEE OF 20,500 SWORN CIRCULATION

Farmer's Advocate and Home Journal

The Only Weekly Farm Journal in Western Canada.

PUBLISHED EVERY WEDNESDAY BY THE
FARMER'S ADVOCATE OF WINNIPEG, LIMITED.

GENERAL OFFICES:

14 and 16 Princess Street, Winnipeg, Man.
Branches at London, Ont. and Calgary, Alta.

BRITISH AGENCY—W. W. CHAPMAN, Mowbray House, Norfolk Street, W. C., London, Eng.

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, 12s.

ADVERTISING RATES—Single insertion, 15 cents per line, agate. Contract rates furnished on application.

REMITTANCES should be made direct to this office, either by Express or P. O. Money Order or Registered letter, which will be at our risk. When made otherwise we will not be responsible.

THE DATE ON YOUR LABEL shows to what time your subscription is paid.

CHANGE OF ADDRESS—Subscribers when ordering a change of address should give the old as well as the new P. O. address.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned if accompanied by postage.

ANONYMOUS communications will receive no attention.

LETTERS intended for publication should be written on one side of the paper only

THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.

Address all communications to

FARMER'S ADVOCATE OF WINNIPEG, LIMITED,
WINNIPEG, MAN.

McTaggart - Wright Co. Ltd.

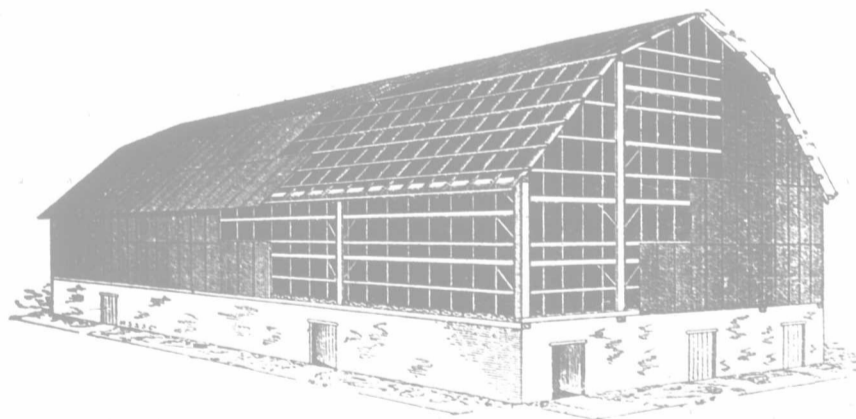
Hardware and Harness Mail Order House

We issue a Hardware and Harness Catalogue, and sell our goods direct to the consumer.

Send for our Catalogue. Mailed free to any address.

McTaggart - Wright Co. Ltd.

253 Main Street, Winnipeg, Manitoba



This cut shows an up-to-date Barn Construction, 40 feet x 70 feet, and the method of covering with Corrugated Sheets. The framework is light, as the corrugated sheets, when nailed in place, make the building very rigid. This drawing is made from actual plans and the barn has been built many times with splendid results.

The saving of wood sheathing, as compared with the ordinary barn construction, will cover the difference in cost between wooden shingles and our "Acorn Quality" Corrugated Galvanized Sheets.

This galvanized covering protects your building from lightning, prevents fires from the outside, is easily and cheaply applied, and OUTLASTS A GENERATION.

Do not make a mistake and put up an old style barn, when you can secure a better and more durable construction for less money.

See the page of barn illustrations in our new catalogue, and write for our book of testimonials with list of users.

CLARE & BROCKEST
WINNIPEG.

Provincial Exhibition

Victoria, B.C.

September 24 to 28, 1907

The Greatest Exhibition
Of Live Stock
In the Province

Parading at 2 p.m. daily

Flowers, Fruit
Art, Manufactures

4-DAYS HORSE RACING—4
Trotting & Running Events

Special Excursion Rates from
Calgary West

J. E. SMART, Sec.-Treas.

P.O. Drawer 761, Victoria, B.C.

Select Farms

IN LOWER FRASER VALLEY

British
Columbia's
Richest
Farming
District

Our new Real Estate List giving description and prices of farm lands is now ready. Send for one—it will be of value to anyone interested in this country.

Dominion Trust Co. Ltd.

T. R. PEARSON
MANAGER

NEW WESTMINSTER
B. C.

Kelowna's Famous Fruit Lands

ARE YOU GOING TO B.C.?

Take the trip down the beautiful Okanagan Lake and stop at Kelowna, the Orchard City.

Our Fruit Lands are level, no scrub, no rocks, no stumps, and within 3½ miles of town—(population 1,200). Beautiful Orchards adjoining property. Schools and churches convenient.

First-class market and packing houses. Those who came on our excursion in June returned delighted, and will move out at once.

We have no rocky mountain sides to sell. A perfect climate, easy life, beautiful surroundings.

Write for booklet and all information to

Central Okanagan
Land and Orchard Co.
KELOWNA, B. C.

Representatives:
Brown & Carscallen, Calgary, Alta.
W. A. Knight, Regina, Sask.
E. Bray, Wolseley, Sask.

Kootenay Fruit Lands!

Best in the World!

Write me for information. I know all about the land situation here, having been in business in Nelson twelve years.

S. M. BRYDGES, Nelson, B.C.
Brydges, Blakemore & Cameron, Ltd.



Have You Found the Answer to the Ever-recurring PIANO QUESTION?

Every excellence in design, construction and tone is embodied in the highest degree attainable in the

Gourelay Pianos

Are you a Home-lover, a Virtuoso, a Vocalist, or a Teacher of music? A Gourelay Piano will delight the eye with a beauty unexcelled in art design, ravish the ear with the purest "grand" quality of tone, enhance the natural quality of the voice, and aid the concert pianist in artistic performance.

Gourelay Pianos satisfy every test of time and use.

High priced but worth the price

Special Payment Plans

Shipped anywhere in Canada on approval.

Write your needs to

GOURLAY, WINTER & LEEMING

Head Office—189 Yonge St., Toronto.

MANUFACTURERS OF THE SUPERB

Gourelay Pianos



When You Go to Bed at Night



you needn't worry about the condition of your poultry, stock or crops if they are housed under

REX FLINTKOTE ROOFING

Costs less than shingles, protects better than tin or slate. Made of wool felt rendered absolutely proof against water by our saturating materials, and so resistant against fire that you can place a live coal on its surface without danger

SEND FOR FREE SAMPLES

and our valuable booklet on roofing. Make the fire test, try its strength, test its pliability; and if you go to your dealer's, be sure you are given the "Look for the Boy" trade-mark kind.

J. A. & W. BIRD & CO. 21 India Street, Boston, Mass.

Agents: Macenzie Bros. Winnipeg and Calgary

Frank O. Fowler President Angus McDonald Vice-President Jos. Cornell Manager

The Central Canada Insurance Co.

HEAD OFFICE: BRANDON, MANITOBA

Licensed under "The Manitoba Insurance Act." Full Government Deposit Registered in Saskatchewan and Alberta

The Saskatchewan Insurance Co.

HEAD OFFICE: REGINA, SASKATCHEWAN J. F. Bole, President G. T. Marsh, Vice-President Full Government Deposit Registered in the Province of Alberta

THE ALBERTA-CANADIAN INSURANCE CO.

HEAD OFFICE, EDMONTON, ALBERTA Full Government Deposit Registered in the Province of Saskatchewan H. C. Taylor President J. H. Gariepy Vice-President Edgar A. Brown Secretary

FIRE INSURANCE PUREBRED REGISTERED LIVE STOCK INSURANCE HAIL INSURANCE (in Manitoba)

Our premium rates are as low as is consistent with fair and liberal treatment of our patrons. Our loss claims are adjusted and paid promptly.

Enquiries addressed to Brandon, Regina or Edmonton for information regarding these lines of Insurance will receive prompt attention

We want energetic agents in districts where we are not represented, but only those who can and will get business for home companies need apply.

KINGSTON TORONTO WINNIPEG

Jas. Richardson & Sons

GRAIN

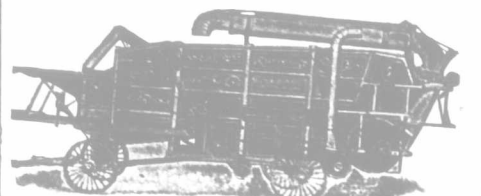
Highest prices paid for all kinds of in carload lots. Special attention paid to low grade samples WHEAT, OATS, BARLEY FLAX. Write for shipping instructions and price circulars.

Genuine Smith Stump Puller on FREE Trial

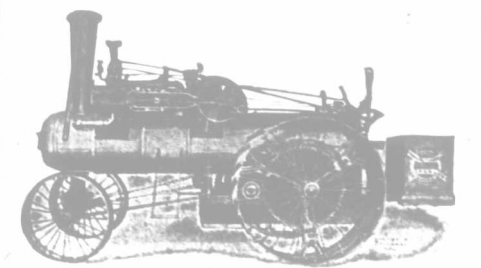
Built low-down for strength and power. One man with horse pulls biggest stumps—Prove it Free. Positively the only practical machine. 45 years in use. Simple, strong, easy to move, durable. Write at once for Free Catalogue and test offer.

W. SMITH GRUBBER CO., La Crosse, Wis.

Waterloo Threshers and Engines



Superior quality Engines 16 to 25 h.p. Heavy Gear Plowing Engines. Separators—"Champion" and "Manitoba Champion"—Sizes 33-42 to 40-62.



Head Office and Factory: WATERLOO, ONTARIO, CANADA. Branch Office and Warehouse: WINNIPEG, MAN., and REGINA, SASK. Write for Catalog and mention this paper. Address:

Waterloo M'f'g Co. Limited

If you are doing an Agricultural, Ranching or Commercial business, advertise in the Farmer's Advocate.



Is The Fastest Growing Company In Canada

Over \$2,700,000.00 MORE insurance was written by this company last year, than in any previous year.

The expenses were \$10,221 LESS than in 1905, while the volume of business on its books was much larger.

Is it any wonder then that the whole Canadian people have confidence in the wise, conservative business management?

And they show their confidence by taking out enough insurance in The Mutual Life to make it the fastest growing company in the Dominion.

Write Head Office, Waterloo, Ont., or call on

P. D. MCKINNON, Provincial Manager, Winnipeg THOS. JONES, Superintendent for Manitoba.

De Laval Separators

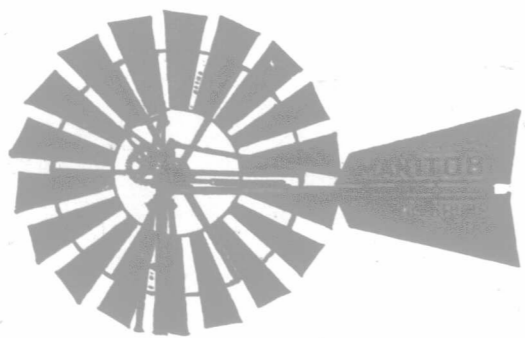
Highest Award St. Louis 1904

"DE LAVAL" on a cream separator is the stamp of quality and recognized in the dairy world as synonymous with THE BEST. Get one.

The De Laval Separator Co.

MONTREAL WINNIPEG VANCOUVER
Representatives everywhere

A MANITOBA WINDMILL

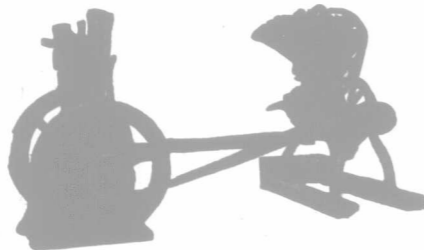


Will Pump Water
Grind Feed
etc., etc.
and do good service
to your entire satisfaction.

It's up to you to purchase one
Write for Catalog

MANITOBA WINDMILL & PUMP CO. Limited

Box 301, BRANDON, Man.



The Farmer's Friend

For Grinding, Pumping, Churning, and General Farm or Machine Shop Work, the Fairbanks-Morse Gasoline Engine

holds the lead. It will do more work than any other Gasoline Engine of same horse power.

For Sale by Dealers Everywhere.

Or cut out complete advertisement and send to

THE CANADIAN FAIRBANKS COMPANY, LTD. 92-94 Arthur St., Winnipeg.

Please send me illustrated Catalogue No. Gasoline Engines. I may want..... H. P.

Engine to run

Name

Town

Province

SHIP YOUR GRAIN TO THE Grain Growers' Grain Co.

LIMITED

The Farmers' Own Company

Send for Prospectus, Shipping Instructions, etc. Take a share or shares in the Company and take them now. Two thousand farmers have preceded you. Don't wait to be canvassed or coaxed into it. Come in on your own accord and bring others with you. Be a leader rather than a follower in this movement, which is designed to help the whole farm population to help themselves.

Send us your grain and get other farmers to do the same

RESULTS ACTUALLY ACCOMPLISHED

The value of the Policies issued by The Great-West Life Assurance Company is proved by the results already accomplished for Policyholders.

Every estimate of profit made to Policyholders has been realized or exceeded. Under the first declaration of profits, in 1897, the full estimated dividend was paid. Under the second dividend 50% over the estimate was paid; while this year Policyholders are receiving a third dividend of just double the first dividend and estimate.

Full information on request. State age next birthday.

THE GREAT-WEST LIFE ASSURANCE CO.

Head Office - - WINNIPEG

Ask for the leaflet "HOW TO INVEST INSURANCE PREMIUMS TO THE BEST ADVANTAGE."

SHIP YOUR GRAIN TO US



ROBERT MUIR & CO.
WINNIPEG, MAN.

Martinson & Co. Agents for Southern Okanagan Farm and Fruit Lands.

I have for sale 320 acres, 4 miles South of Swan Lake, Man., N. E. 1/4 of 31 & N. W. 1/4 of 32; Township 4, Range 10. Cheap at \$4000.

Make us an offer.

Martinson & Co., Penticton, B.C.

The Cause and the Effect

As the making of good bread depends as much upon the flour you use as the ability of the cook to bake; so does the manufacture of telephone apparatus depend for perfection as much on the quality of machinery as the competency of our workman.

Our machines are of the most improved and up-to-date type, and they are looked after and made to do their work by the most able machinists Canada can produce, which is saying a great deal.

The natural result is that we put out only such apparatus as the strictest inspection can find absolutely no fault with.

You will need a telephonic communication in your locality very shortly and it will be profitable for you to write or call immediately. "Do not put off till to-morrow what you can do to-day."

Northern Electric & Manufacturing Co. Ltd.

181 Bannatyne Ave., WINNIPEG
Cor. Guy & Notre Dame Sts., MONTREAL

Your silent salesman—an Advocate Advt.

Farmer's Advocate

and Home Journal

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Sept. 11, 1907

WINNIPEG, MANITOBA.

Vol. XLII. No. 781

EDITORIAL

Knowing How and Doing It.

There is many an industrial institution that goes down because it is not able to get enough capital to just pull it through a crisis. The man who is always just a little behind with his work is quite familiar to us and we have all of us wondered that if we turned in and helped him to catch up, how long he would be apace with his work. It is a safe guess that the next day even if it were Sunday would find him in the same hurry. All of us at times are rushed a little beyond our pace, but the average man usually manages to keep his work in line. These remarks are anent the point raised by our correspondent from whose letter we quote.

EDITOR FARMER'S ADVOCATE:

"I see an article in your issue of August 14th headed 'The Eternal Bugbear.' Now I am afraid you have not quite grasped the situation. The trouble is not so much that farmers do not understand the necessity of getting rid of weeds, as it is owing to the small profits in farming. We often have fields of grain we know should be plowed up but we have payments to meet and we must get what we can out of the crop to meet them, although we know it is not good farming.

"The so-called business men of this country and Eastern Canada seem to think the farmers of the West are making large profits, a great mistake, which I know from twenty-six years' experience.

"The cost of humble farm implements and all other manufactured goods and labor have got to such an enormous price that farmers have a hard time to make a living except on new land, so you will find thousands of farms in good localities for sale because the owners know they cannot clear them and make a living. I have been discussing this weed question with quite a number of our best farmers and they seem to think the same."

We think we understand that there are a lot of men who do not believe that "whatever is worth doing is worth doing well," but we disagree with them. At the same time we understand that it is an easy matter in these days of high priced labor to do a thing so well that the extra time spent upon it makes away with the profit that should result from the work. These days are testing men's ability to farm and those who know just when enough work has been spent upon a certain job, or a given piece of land to make it yield the maximum profit overwork performed at the present cost of work, are the men who will be and are marked as the "successful" farmers. In fact, it is in their ability to tell how much is enough and what too little work upon their land that the secret of their success lies. There is in the management of every farm a certain imaginary limit of expenditure of time and labor below which if a man stops the returns for his crop will not pay for the little work he has already done, and above which up to another certain point the extra work done represents varying degrees of clear profit. Nor does this success depend solely upon the bulk of work done. The doing of work just at the right time, and that by the way is generally just before the average man does it, often effects more good than considerably more work done at another time.

Luckily this is not simply theory. We have the "successful" farmer in every community. His farm is the most free from weeds, his crops the largest, his stock are generally just a little above the average, his fences in repair, his buildings neat and trim and everything about the place reflects the presence of a directing mind.

If we were to be asked why there are not more of the "successful" type of farmers in the country, we would say that the habit of compromise becomes too prevalent and the art of good farming has not yet become an imperative necessity. Men are too ready to say "good

enough" because of the extreme generosity of the soil in the past, and of the tendency upon the buyers of stock to discriminate against the man who raises the best, but this policy is responsible for the unfarmlike condition of many of our farms. There may be a deal of truth in what our correspondent says, that farmers are not lacking in knowledge of what should be done, but we are certain that there is not an over supply of natural knack for farm management.

Making a Choice.

The enquiry of one of our readers, in another column, as to the nature of the course at the Manitoba Agricultural College, is no doubt identical with that being asked by many other young men. The complexity of the problems of life always impress a man as he gets on in years and comes in contact with them. Few men there are who have not wished that they had a larger theoretical knowledge of their work and the man who has not expressed such a wish is nursing in his system a most colossal self-satisfaction that is not of any use to himself and an annoyance to his friends.

There are many young men who have asked themselves the question: will it pay me to take a course at an agricultural college? Will I be better off financially and socially if I spend two winters and probably three hundred dollars at the college than if I stayed at home and work and save money? The writer well remembers when some twelve years ago, he analysed the situation with relation to his own prospects and decided then that for the man who had a living to make with his hands that a better use could be made of his strength if his brain were able to lend more help. The conclusion has proved to be sound from the standpoint of a hired man, from that of an actual owner and manager of a farm it is doubly true.

For the average bright, level-headed Canadian farmer's son, equipped with a fair public-school education—all the better if he has spent a year or two in High School as well—we believe the questions asked may be answered without hesitation in the affirmative. However, no worthy ex-student would think of gauging the benefit merely by the extra money his college education enables him to make. The courses are and should be practical, for only a practical curriculum can sufficiently attract and effectually uplift the farm boys of the country. The worth and dignity of practical knowledge is very properly exalted, but the greatest benefit from a useful education is not the dollars and cents there may be in it, but the mental and manual discipline developed in the student, the intelligent interest aroused in his life-work, and the opening of his eyes to the vast field of knowledge about him—a field which his course, so far from exhausting, merely qualifies him to enter and explore in after life. It gives him a key to unlock the mysteries of agricultural science, which rivals astronomy in its fascinating interest, and is fraught with far more real, substantial benefits to mankind. We once heard a farm boy say that if he were going to be a farmer he would want to take a course in astronomy or theology, so that he might have an interesting hobby to enliven his life-work. If that lad would take a course in an agricultural college, he would change his mind on that score. He would make a hobby of his occupation. His problem would be how to master the intricacies of soil chemistry, manures, fertilizers, the life-histories and means of combating weeds, insects and fungous pests, plant breeding, selecting seed, farm forestry, and a thousand and one other lines of practical research, now so generally neglected. It would tend to keep him out of ruts of practice, make him a progressive, thinking farmer, and stimulate a joy and interest in his work. Work would become a pleasure; and when work is a pleasure, life is a pleasure.

But why multiply arguments? Surely most of the farm boys of Canada who expect to engage in the noblest and one of the most difficult of all callings have seen enough and heard enough to convince them of the wisdom of taking a two-years' course in a good agricultural college. Two or three hundred dollars will defray the necessary expenses, and seven months for each of two winters is a short time to spend, considering the advantages to be gained. In the American Republic the attendance at these courses is increasing by leaps and bounds. Will Canada lag behind? Where hundreds now attend these institutions, we should have thousands. Sit down, young man, and think it over, and then send in your application early and secure admission. You will never regret it. The college course and college life will enlighten, inform and broaden you out. It will make you a better farmer, a better husband and father, and a better citizen of the neighborhood and of the nation at large. It will lift you out of the neighborhood groove and introduce you to the larger agricultural outlook of the world at large. Will it pay? Ask those who have been there.

Meat Inspection.

On the first of this month the Dominion Meat Inspection Act came into force by the provisions of which expert meat inspectors are placed by the Dominion Government in every abattoir throughout the country. The Meat Inspection Act was framed to prevent in Canada a repetition of the abuses that were charged against the Chicago packers, and the arrangement is welcomed alike by public and packers. The latter can now put their product out with the enhanced value and prestige that "government inspection" gives to it and the public feel more secure from danger of contamination through diseased meats.

The Season's Compensations.

The dampness of the season is not without its compensations. In Alberta where often crops are short and grass dry for need of rain they are reaping a large harvest and cattle were never seen to do better. Further east one of the chief causes of fear is that the grain will ripen too fast for the want of a few showers. This year moisture has not been lacking. In Manitoba the rains of late July and August saved most of the crop on the southern side of the province from a total failure, and put in the fields a promise of from ten to fifteen bushels to the acre. On the ranches the cattle needed just such a season as we have been having. There was a lot of depleted vitality to be regained and the rains kept the grass green and abundant, long after it usually has become brown, yet not so soft that stock would not ripen up. The range cattle have made up more than could have been expected of the weight, numbers and vitality that they lost last winter, and the dairy farmers of foothill province have benefited by the persistent springing of new grass. This condition prevails all over the stock raising country north and south and already the cattle trade is beginning to feel an easy tone. People are heard to remark that there will be cheap beef to make up for dear wheat and while the numbers of cattle that will come off our Canadian ranges is fully fifty per cent. short of what it was in 1906, still the ranges and feed belts to the south are turning off large consignments.

But while the season illustrates the law of compensations it also emphasizes the wisdom of diversity in farming. The man who has been less worried about the drouth first, the rain next, and the frost last, ruining his crops, is the man who is not a specialist in any one line. Land that is given a chance to do several of the things it is capable of doing, and also permitted to do these things in turn will give a better account of itself than if it is kept doing one thing under all conditions of climate, and this not forgetting the greater amount of work involved in so handling land.

HORSE

Lameness in Horses.

(Continued.)

A SPRAIN OR STRAIN.

A sprain or strain may be defined as violence inflicted upon a soft structure, with extension and often rupture of its fibres. A sprain may be suddenly caused by violent extension or stretching of soft structures, or by repeated slight stretching without a rupture of fibres, in which case the repeated tension produces an altered nutrition, which results in inflammation of the part, and finally to a softening of some portion of the fibres, by which they lose their toughness and become practically broken across. A slight sprain may be practically merely a bruise, while violent and excessive extension may rupture the whole structure of the part. Extension is not always the cause of a sprain; a muscle may be sprained by the opposite condition, viz., violent contraction, by which the fibres may be broken across or the tendinous fibres torn, from their attachments at either end of the muscle. Sprains produced in this way are sometimes noticed as the result of the violent contractions of the muscles we notice when a horse is being thrown with hobbles or side lines, or by violent efforts to loosen himself when down; in vain efforts to regain his feet when halter cast, etc., etc. Sprain may be confined to the sheaths or fibrous coverings of the muscles (each individual muscle having a separate fibrous covering called a sheath), but these are of minor importance compared with sprain of muscular fibre tendons or ligaments. Sprain of muscles or tendons are found in various parts of the body or limbs. A horse may sprain the muscles of his neck by falling on his head. If the fall be severe, the sprain may be complicated by injury or even fracture of some of the bones of the vertebra, and this may cause sudden death. The muscles of the back may be sprained by the hind feet slipping forward. When a muscle is sprained, the accident is succeeded by pain, swelling, heat, and loss of function. An inflamed muscle cannot contract properly, the loss of contractile power being in proportion to the severity of the sprain; hence, in some cases the symptoms simulate those of paralysis. The swelling of an inflamed muscle is very often succeeded by a loss of substance, a wasting away, called atrophy; and sometimes by fatty degeneration of its fibres, whereby they lose their red, fleshy appearance and assume that of whitish threads of fat. When examined by a microscope, the contractile tissue, called the sarco elements, is seen to have been replaced by glistening oil particles, so that the function of the muscle is temporarily completely destroyed. If the whole muscle is involved, its contractile power no longer exists. This loss of power will, of course vary according to the extent of the muscular structure involved in the primary lesion.

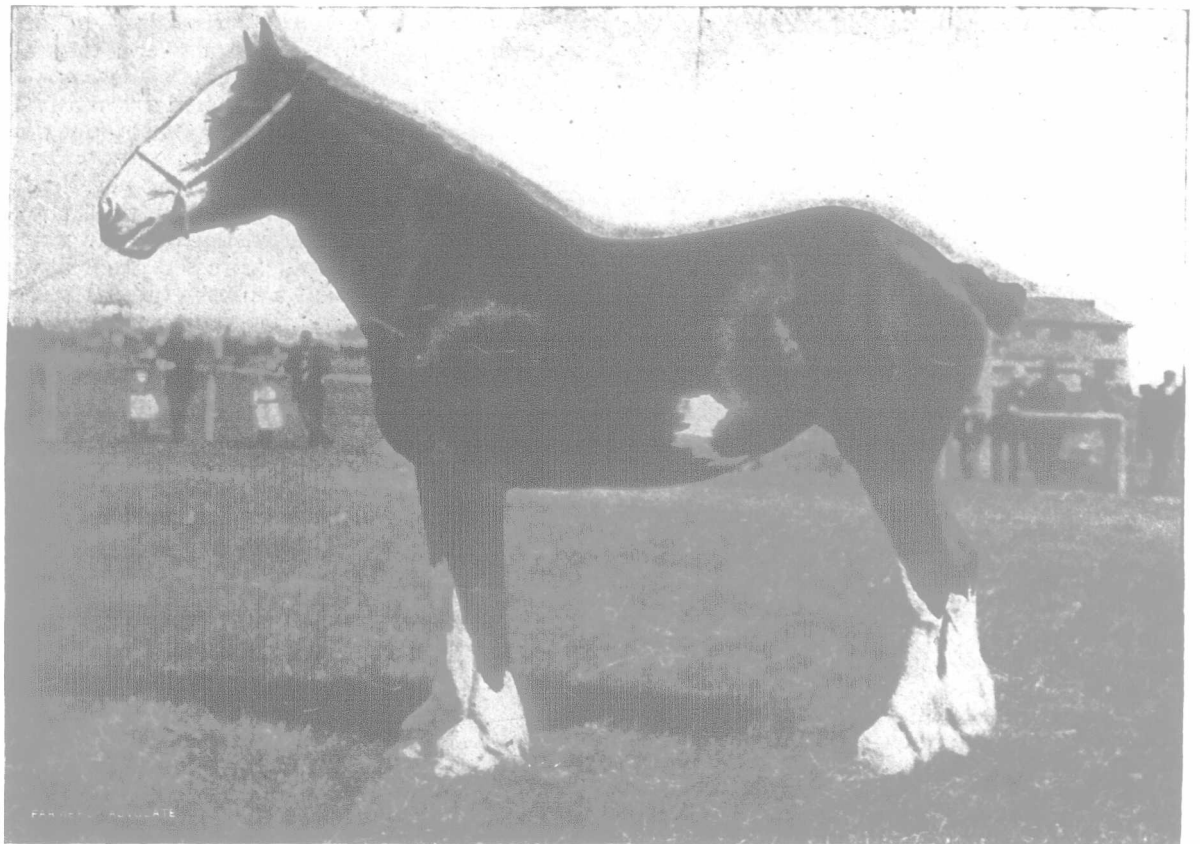
Atrophy of muscular fibre, and consequent fatty degeneration of its contents (probably better noticed in cases of sweeney than in other sprains), is often due to pressure by an inflammatory exudate (which occurs to a greater or less extent in all sprains), formed in the spaces of the connecting tissue. It is well to remember this, as it teaches us that the sooner an exudate can be removed, the less probability there is of degenerative changes taking place in the true muscular elements. The changes taking place in inflammation of muscular tissue, whether arising from sprain or other causes, are: First, swelling, caused by congestion of the vessels and the exudate that is thrown out into the tissues as a result of the same. Second, atrophy, or a wasting away of muscular tissue, from the pressure of this exudate upon the muscular fibres, and from loss of function. It is a well-known fact that if, from any cause, a muscle does not perform its functions, it will gradually become smaller from inactivity. If this want of function be accompanied by the pressure noted, the atrophy will be more speedy and better marked. Third, fatty degeneration of the sarco elements, and permanent loss of contractility.

Treatment for sprain depends to some extent upon the seat of the accident and the tissues involved, but the general treatment may be said to be: First, locate the lesion, give rest, make comfortable in a box stall, if possible; give a slight purgative, as 6 drams aloes and 2 drams ginger,

and feed lightly. If the sprain be very severe, causing complete loss of power of a limb or limbs, it is well to place in slings. Bathe the affected parts long and often with hot water, and, after bathing, apply an anodyne lotion, as 1 ounce laudanum and 4 drams acetate of lead to 8 ounces water, until the acute inflammation and soreness has disappeared, then change to cold water and camphorated liniment. If the lameness is persistent, apply a smart blister, as 2 drams each biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off the parts, tie so that the patient cannot bite them, rub the blister well in daily for two days; on the third day wash off and apply sweet oil; let patient loose now, and oil every day. It may be necessary to repeat the blister every month for a few times. The blistering not only has a tendency to cure the lameness, but, by stimulating absorption, tends to reduce any chronic swelling that may remain from organization of the exudate that was thrown out during the inflammatory stage of the lesion.

"WHIP."

like Bakewell, followed it up, and many pedigrees can be traced back nearly one hundred years. Still it was not until 1883 that the Shire horses had their own classes at the Royal Show, but a band of enthusiasts were working for the breed, and in 1877 the Shire Horse Society was established, and in 1880 the first London Show was held. The entries on that occasion numbered 110, and they have since reached 860; but, to prove the carelessness as to soundness which existed in those days, it is only necessary to say that a considerable number of those examined were cast by the veterinary surgeons, chiefly for sidebone. The growth of Shire-horse breeding was, however, phenomenal from the outset. He is above everything, a cart horse, which will do the work of the farm for three or four years and then make a good price; therefore, it is not surprising that twenty years should see a great improvement in the breed and hundreds of tenant farmers breeding and exhibiting high-class specimens of it, and only last autumn the foals of farmers made as much as 150 gs. by auction. The value of Shires for draught purposes was



FOUR-YEAR-OLD CLYDESDALE MARE, IRENE, (IMP.)
First in her class and champion at Regina Exhibition, owned by P. M. Bredt, Regina,
imported by John A. Turner, Calgary. Sire, La'ori.

Progress in Horse-Breeding.

It is only since the formation of Studbooks and Breed Societies, and the growth of the show system, says a writer in the London Live-stock Journal, that the rank and file of English horse breeders have seriously attempted to improve their own stock.

It was during the eighties that Britons woke up to the fact that they possessed several kinds of horses which were the best in the world, and that by keeping the breeds pure and recording the pedigrees much benefit would accrue to those who bred them and cared to take the trouble in the selection of parents and the keeping of records. The Thoroughbred had long been looked upon as the horse for speed, and the doings of the celebrated Eclipse had proved the worth of this breed for riding purposes. The General Studbook (Weatherby's) had then been in existence for many years. Another light legged breed which could in those days claim to be an old-established one was the Hackney, noted for its knee action—"trotting of its own courage," as an ancient writer called it. The Royal Agricultural Society instituted a class for them at its 1848 show, but it was not till 1883 that the Hackney Horse Society was founded, and it is during the twenty-four years that an annual show of the breed has been held in London that the type has been fixed and the commercial value of prizewinners discovered.

During the past twenty years, the most popular breed of horses in England has unquestionably been the Shire (or old English cart horse), so named in the reign of Henry VIII., when the improvement of the breed really began. Others,

quickly recognized by American and other foreign buyers, and about twenty years ago a large export trade in them developed, the number of export certificates granted in 1889 being 1,264, which was a capital performance for an eleven-year-old society. Since that time farmers from every English county have joined the ranks of breeders, and as they naturally want to participate in the honors obtainable for those who breed winning animals at the London and Provincial Shows, and as no unsound one is awarded a medal, it follows that sound parents have to be used to obtain the desired results.

Although twenty years of improvement may be claimed by all the leading British breeds of horses, none can equal the heaviest draft horse for making headway and finding supporters.

Registry of Imported Clydesdales.

The representatives of the Clydesdale Horse Association of Canada are certainly entitled to congratulation and commendation on their success in inducing the council of the Scottish Association to give registration numbers with the export certificate in case of animals coming to this country. It was a good deal to expect from a people so generally considered conservative of their institutions, but their proverbial frugality evidently proved their vulnerable point in this emergency, as they could not well afford to continue a course which, in view of the action of the Canadian Association, would have seriously checked the trade of importation which is bringing so much "siller" to the coffers of their Association and the pockets of the breeders. And it

was an act of diplomacy on the part of the Canadian contingent in taking advantage of the circumstances to raise the standard of registration, which was certainly desirable. While in point of economy, and for other reasons, there is much to be said in favor of the principle of delaying the granting of registration numbers until the animals have proved breeders, there is certainly more general satisfaction to all concerned in having permanent numbers assigned at the time of registration, and it is just a question whether the system adopted by some breed societies of requiring the registration at or under the age of two years is not the wiser and safer plan. There was surely need of a shaking of the dry bones of the Scottish breeders in the matter of registration, and the new order of things should greatly strengthen the financial condition of both associations and place the directorate in a better position to advance the interests of the breed by offering special prizes and by other means which may in their wisdom be devised.

to say, from their reports, Montana was freer from Glanders than any state with which he was acquainted. On the other hand Montana has well based complaint against Canada."

This statement of the diagnosis being confirmed was corrected in our August 28th issue, and as for the other assertions the experience of the Montana veterinarians is quite unique. The assertions that not a single reactor has been noted is so sweeping as to discredit the work done for in the course of properly conducted mallein tests. Veterinarians find that an average of five per cent. of healthy horses will react due to some other constitutional disturbances or local conditions. In fact, we know of a certainty of a horse having been tested and turned back at the border to Montana within the past month. Canadian farmers do not require the recital of specific instances of glanders being introduced from Montana, nearly every one can cite a case from his own observation or to his positive knowledge. As for the outbreak of mal du coit in southern

yet not thoroughly organized. At the same time we do not deny that mange is carried by Canadian cattle across the line, but in the matter of diseases there should be no free exchange. A high fence along the international boundary, across the prairie country, would be most useful, in preventing the too free interchange of animals that may be infected with mange, glanders, mal du coit or other serious diseases. By all means let there be as much liberty of trade as possible between the two countries, but each owes it to herself to guard against importations of disease.

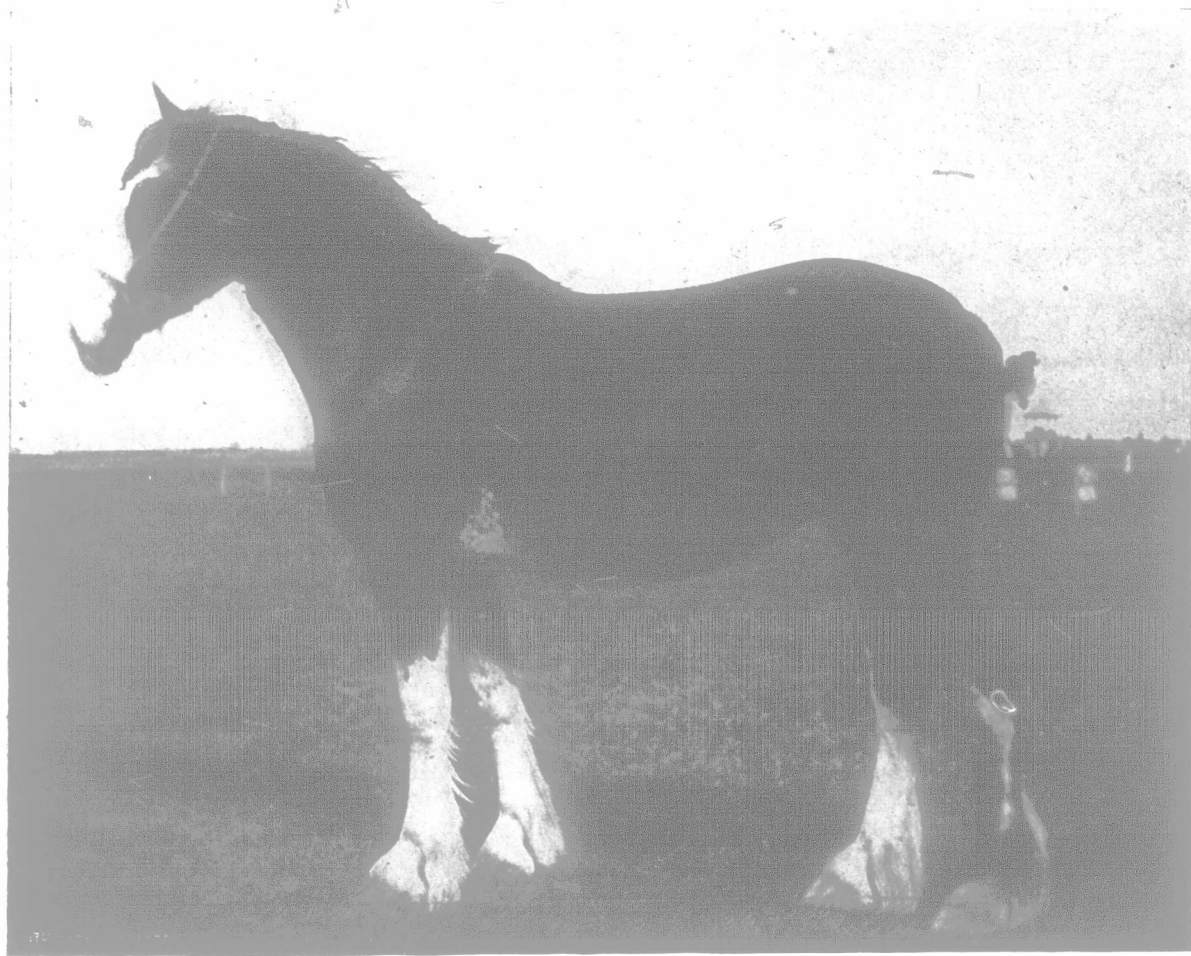
Peculiar Births.

EDITOR FARMER'S ADVOCATE:

We read some weeks ago in your paper of a strange case, that of a mare slipping a foal and some months later having another colt which lived. You asked at the same time if anyone had experienced a similar case. Several years ago when we were in Manitoba we had a mare that slipped her foal. Naturally we thought no more about it, until, when, driving through a slough some months later, the ice broke beneath the mare and the sudden shock of the cold water showed unmistakably that there was another colt which came three weeks after, alive and bright and healthy.

R. WALTON.

Mr. R. W. Stephens, Lambeth, Ont., during a call on the FARMER'S ADVOCATE a few days ago, cited a case, coming under his own observation, of a mare, bred in the spring months, slipping in the fall a foal about the size of a cat, and May 24th, following, producing a living foal that grew into a useful horse. Also, a case where a mare was bred to two horses in same heat, one a light horse, the other a heavy-draft, and produced twins, one plainly the get of the light horse, the other of the heavy horse.



BARON'S LASSIE

Winner of first in the three year old Clydesdale filly section at Regina, 1907. Sire, Baron's Gem, bred by A. & G. Mutch, Lumsden, Sask, owned by R. H. Taber, Condie, Sask.

The Interchange of Disease.

Our readers will remember the article in our June 12th number, upon the work of the Dominion Department of Agriculture with mal du coit at Lethbridge, Alta. In the article the statement was made that no other veterinarian had confirmed Dr. Burnett's diagnosis of mal du coit that the disease was traced to Montana from which state Canada had received several seedings with glanders.

Lately, we have received a letter from the state veterinarian of Montana in which he takes exceptions to these statements and alleges that Canadians are wilfully malicious in making statements about the health of animals in Montana, and claim that "During the past year Dr. Melvin, at my request, stationed Dr. Davidson in Helena, for the special purpose of determining whether or not the allegations of the Canadian authorities were true relative to the existence of this disease in Montana. Up until this time (with seven men under him, constantly making investigations, since early spring) Dr. Davidson, or his assistants have been unable to find even the slightest suspicion of Dourine in this state. Of the several hundred horses tested by Federal and Deputy State Veterinarians, intended for Canadian export this year, not one reactor has been found. Dr. Treacy, Federal Inspector, in charge of this district, made the statement to the writer on Wednesday last, that, although his inspectors (seven of whom have been working in Montana) had been instructed to look carefully for all infectious diseases, he was able

Alberta, Dr. Rutherford in his evidence before the committee of the House of Agriculture and Colonization, said in discussing the origin of the disease in western horses;

"Of the other outbreaks, one is traceable to horses brought from Utah, another to an importation from Oregon, while in the third case a strong suspicion attaches to a band of mares purchased in Montana. It is only fair to say that the United States authorities, as well as those of the individual states, have reported after investigation that they have been unable to find the disease in any of the districts where the suspected animals originated. The evidence in our possession, however, has an entirely contrary bearing on the case, and when one remembers the remarkably insidious nature of the disease and the fact which is undeniable, that it has existed to a greater or less extent on the open range in several of the western states for an indefinite period, the reasonable inference is that the presence of maladie du coit in Alberta is due to infected mares or stallions imported by persons, let us hope, ignorant of the terrible scourge which they were introducing among Canadian horse breeders."

In publishing statements to the effect that contagious disease outbreaks are traceable to the states we do not do so with the object of maligning the stock of our neighbor's, (we do not favor protection of either the American or British types) but we do wish to emphasize the necessity of more strict inspection than the country was provided with a few years ago, and also for improvement in our present system which is as

What the Beef Commission Should Find.

An interview is reported from Edmonton that the Beef Commission will visit the British markets for Canadian stock with the object of getting a fuller insight into the cattle trade, so that the reports to the provincial government may be more comprehensive. Should the Commission finally decide to go and should they watch the cattle which go from Canada and other countries to that great meat market of the world, they will be convinced of one thing, and that is that in the ultimate market there is no partiality shown to cattle from any particular country, and that every animal brings just what he is worth. They will find, too, that there are many cattle worth more than those which Canada sends, that in fact Canadian cattle are not by any means the best that England receives, even with the liberal supplies of grain fed stock that go from Eastern Canada to raise the average. This fact is known to shippers and others that have investigated the trade on their own account, but if the Commission bring in the same findings it will help to emphasize an unwelcome truth and may do much to remedy the real cause of the unsatisfactory state of the stock trade.

They will also find that the cattle raised in other countries such as the United States and the Argentine are culled much closer than they are in Canada; that the canneries take a lot of the cheapest stuff, and the refrigerators much of the stuff of a class that in Canada pulls down the average. And this only indicates that Canada needs the operation of freezers and canneries to make a profitable use of her stock.

Whatever we may say about the trade and however we may rant about Gordon & Ironsides and Pat Burns, we have to admit that our cheapest cattle are not worth much more than they bring upon the market. But another thing that the Beef Commission should embody in its report and place a lot of emphasis upon is the discouragement to producers in the lack of discrimination upon the part of the buyers. Just as long as the market takes our cattle without putting a larger premium upon the best and maintaining a firm discrimination against the poorest, so long will real improvement in our cattle be delayed and so long the unsatisfactory

STOCK

conditions will exist, the farmer raising lanky, ill-bred, ill-fed steers because they bring just about as much as something better and the buyers keeping the prices down because the quality is low. A discriminating market will save the situation. Chicago and other American markets went through the same experience as Winnipeg is going through now, but when S. & S. began specializing in the cheap stuff and others in the better stock then the producer began to reap the benefit of raising high quality stuff. In Western Canada producer, drover, exporter and packer should work together toward this end. The only apparent detriment appears to be that no one interest will start. In this case it is the duty of capital to manage to avoid waste.

Heifer vs. Steer Beef.

With the object of finding out something about the relative value of bullocks and heifers for feeding purposes, experiments were carried out by the United States Department of Agriculture. The experiments have been carried out for some years and the results should prove interesting. In the first trial, five animals were used in each lot; one lot being steers, another spayed heifers, and a third open heifers. They were Shorthorns of like breeding, and treated alike previous to tests. In this case several of the heifers calved and interfered with the trial, and too much importance must not be attached to the results. The steers made the larger gain, and sold at $\frac{1}{4}$ d. per lb. more than the heifers. The steers made an average gain in eleven months of 806 lbs., and one heifer clear of calf made 775 lbs. When slaughtered the carcasses were examined by an expert, and the heifers were found to give a larger percentage of prime cuts than the steers, so that on the basis of meat and by-products obtained, the heifers were worth fully $\frac{1}{4}$ d. per lb. more than was paid for them. Crediting each lot with the actual value of the different cuts and the by-products, and not including the expense of killing and handling, it was calculated that the butcher made about three times as much out of the heifers as out of the bullocks.

The second trials were made with fifteen pure-bred Herefords. The animals were proportioned as before. In this case the gain by the open heifers was 1.86 lbs. per day, being greater than either of the other lots, and that too with less food and at less cost. There was very little difference between the other two lots, either as regards gain per day or cost of the gain, though the heifers had the advantage. Carefully conducted slaughter and block tests failed to show any difference in the quality of the meat, although the percentage of high-priced cuts, ribs, and loins was greater in both lots of heifers than in the case of the steers. It has been claimed that in heifer carcasses there is a greater percentage of fat, thereby rendering them of less value to the consumer. The report concludes:—"It was observed in this and other investigations that under similar conditions heifers are inclined to take on flesh a little more readily than bullocks. Larger gains by the heifers may not be shown, but there is a tendency to finish at a little earlier stage in the process of fattening. The difference between bullocks and heifers in this respect, when fed under the same conditions, has also been noted by practical stockmen feeding on an extensive scale.

"The fact is emphasized that heifer beef has been much under-estimated, since in both trials the heifers have returned a higher net profit on the block than the steers, notwithstanding the fact that the steer beef was rated higher than the heifer beef. So far as could be learned from these experiments, spaying had no particular influence on the gains made."

"These tests are in conflict with the American belief, but from the number of animals used the trials cannot be said to be quite reliable. On the other hand, however, the fact must be taken into account that the results are in accordance with what has appeared to many breeders to be the case.

A Few Problems in Cattle Breeding.

In a letter to the FARMER'S ADVOCATE of London, Ont., Prof. G. E. Day, who as an authority upon live stock is known from coast to coast, outlines some of the objects which cattle breeders should have in mind in pursuing their work. These are so universal in their application that we publish them here.

Many and varied are the problems facing the breeder of live stock. It is not the intention of this article to attempt a solution of any of these problems, but rather to call attention to a few which face the cattle breeder, with a view to aiding the beginner to understand more clearly what confronts him, and perhaps stir up some veterans to give the public the benefit of their experience.

One of the perplexing problems facing the breeder of cattle is the question of fashion in pedigrees, and he may find himself sometimes driven to follow a course which his reason tells him is not

development of milk production among beef cattle. All are agreed that the ability to give a large flow of milk is a valuable accomplishment on the part of any cow, and it is a very common thing to find the best milkers the best breeders in the herd. But how is the milk-producing propensity to be developed? How much depends upon breeding, and how much upon management? If it is mainly a question of breeding, where are the bulls to be obtained to assist with the work? It is hard enough as it is for the breeder of beef animals to secure a bull good enough to head his herd, without having to restrict his selection to



JUNIOR FIRST PRIZE HERD OF WESTERN CANADA.
Property of J. G. Barron, Carberry, Man.

the best. Fashion has its sway among horses, cattle, sheep, and swine, and while it has had a more powerful influence in some breeds than in others, there are few breeds which have not, at one time or another, come more or less under its spell. At the present time there is a tendency in some quarters to rebel against the decrees of fashion, and a good deal of discussion regarding the matter has occurred of late, especially among American Shorthorn breeders. Just what will be the outcome, it is hard to say, but it is useless for the small breeder to attempt to overthrow the established customs or prejudices. If anything is accomplished in gaining recognition for what are commonly called "plainly-bred" cattle, it must be through the concerted action of some of the most influential breeders. It will not do to be too radical in such matters, and it must be remembered that the fashions of to-day are usually based upon a pretty sound foundation, namely, actual merit. It does seem too bad, however, that so many really excellent cattle should be slightly passed over and dubbed "plainly-bred," no matter how many sires of unsurpassed breeding and excellence appear in the pedigree, merely because the nearest imported cow appears a long way from the top of the pedigree, and does not boast any of the blood which is most popular to-day. Surely the crosses subsequently introduced have long since obliterated any trace of the original blood; and if the sires have been wisely chosen, why should such an animal be discounted? When we learn to study the law of heredity intelligently, and are able to understand clearly just what a tabulated pedigree means, we shall be apt to lose a good deal of respect for the average breeder's method of deciding upon the merits of a pedigree. We sometimes forget that, no matter how "blue" may be the blood employed, there can be no sound work done in animal breeding which is not based upon utility. We are also apt to deal too much in names, and lose sight of the merit which made those names famous. If the merit has come down with the names, then we certainly have something to be proud of; but if much if not all the merit has been lost in transit, of what value to us are the names, so far as improving our stock is concerned? So long as certain families of cattle show superior merit to all others, it is only right that they should meet with popular favor; but when another family demonstrates its ability to produce equally good animals, why should it not be accorded equal favor? In the face of these problems, experiment stations stand helpless, for it is only the breeders themselves who can work out the solution.

Another problem of great importance is the

milking strains. If, in developing the milking qualities of our beef cattle, we lose much of that tendency to fatten, which has taken generations to develop, would such a result be a really desirable attainment? These are problems which are worrying many thoughtful breeders, and which are frequently lightly discussed by people who fail to look at all sides of the question. There is room here for research work on the part of experiment stations, and work in connection with some phases of the problem has been planned for immediate undertaking at Guelph. It is a large order, and means years of patient work, and probably more space than we can afford, to carry out the work thoroughly. The public need not look for results for some years to come, and it is quite possible that the main issues may never be settled. At the same time, there are many minor points of interest upon which some light may be thrown, and thus make the enterprise worth while.

Closely associated with the problem just mentioned, comes the question of the dual-purpose cow. We know that such cows exist, but are they more desirable or less desirable than the special dairy cow? Also, what about the man carrying on mixed farming under conditions not the most suitable for making the largest profits out of dairying? There are also many varying conditions, and, as in all other live-stock investigations, so many variations arising from the individuality of the animals employed, that it seems almost hopeless to attempt anything like systematic investigation. But, possibly a little light is better than no light, and there are probably enough side issues to make the undertaking worth while. Be that as it may, we think we can safely promise the public some work along this line, though, as in the other case, years will be required to get results.

Space will not admit of the introduction of further cattle-breeding problems in this article, but the ones mentioned are sufficiently serious to furnish food for thought for some time, and we would like to hear from anyone who has worked out even a partial solution of any one of them.

Weights Should Be More Just.

EDITOR FARMER'S ADVOCATE:

In discussing the general subject of stock-raising and stock selling with a go-ahead American farmer the other day several matters cropped up which I would like to have your opinion and that of others upon. I would like also to have them brought under the notice of the Beef Commission

FARM

for I do not remember reading anywhere of any one else raising these points.

The first of these comes under the head of weighing. As things now are I sell to a buyer, either in the country or from Winnipeg, and he immediately deducts five per cent. for shrinkage. This I maintain is unfair since the stock may have come in by road only a very short distance and it is all treated, in the matter of five per cent. reduction, alike whether the road travel was one or twenty miles. There is no weighing facilities at these little stations up and down the line and the first time the stock is weighed after leaving the farmer's hands is after the journey of forty or fifty hours without being fed or watered. I think that the railway companies should be compelled to furnish better stock yards at their small stations and a proper weighing scales at each yard. The installation of scales at each yard would doubtless entail a large outlay on the part of the railroads but they could recoup this and make a handsome profit in the long run by making a small charge per head for the use of the machine. Any farmer in this way could know, and the buyer could know, just the exact weight shipped. Now, again at the Winnipeg end surely the American plan of having every animal fed and watered on arrival and before being weighed is more fair than the present grab plan of the big buyers? In Chicago the cost of feed to the animal is paid by the purchaser and deducted by him from the amount paid to the seller.

The farmers are, beyond dispute, the backbone of Canada to-day and will be for many years to come and it seems but wise policy for the railroads to treat the farmers fairly and if they will not do so, then the government ought to step in and take a hand for the welfare of the country they are sent to Ottawa to look after.

There is one more matter I would like to have ventilated and that is the elevator charges at shipping points. Last year a farmer near here escaped a charge of six cents a bushel by loading straight into cars—had the grain passed from his wagons, through the elevator and so on to the cars he would have been mulcted in some six cents a bushel. Surely the operation of passing the grain along in this way is not worth that much however a man may figure out insurances, risks and so on?

Thanking you for your space and trusting that others will give their views on these points.

PRAIRIE CHICKEN

British System of Land Tenure, a Curse.

The British land system—namely, that of landlord, farmer, and laborer—which meant three separate castes, had broken down in every other country in Europe, had broken down in Ireland, and was breaking down in England. To it was mainly due the startling rural depopulation, said Jesse Collings in an address before the British Association for the Advancement of Science, as reported in the London Times. The conclusions at which he had arrived were: (1) That the policy of placing trade and manufacturers above agriculture was a wrong one; (2) that an amount of capital (including the personal labor of the cultivating owner and his family) properly invested in land yielded a far greater return to the community than a similar amount invested in commerce and manufactures; (3) that, if health, physical strength and an increase of the population were to be reckoned as natural assets, agriculture enriched the nation far more than manufactures possibly could; and (4) that the home-trade, resulting from the development of agriculture, was larger, more certain, less fickle, and more valuable than the foreign trade. Agriculture must not be regarded simply as any other trade, but as the basis of all trades. Leaving the larger branches of agriculture—the raising of corn, cattle, etc.—and turning to "small cultivation," it was to be observed that we annually imported some sixty million pounds' worth of smaller articles of food, such as butter, cheese, bacon, eggs, poultry, fruit, vegetables, etc., and that those articles might be wholly or mainly produced at home if our land system were what it ought to be. We had the land, and we had the men standing idle or only partially employed. Many country-bred men now employed in towns would gladly return to the villages (for which they were better fitted) if adequate and reasonable facilities were offered to them. "Occupying ownerships" ought to be the governing principle of our land system instead of being a mere incident in it. To facilitate the carrying out of

the suggested scheme of small occupying ownerships, the author strongly advocated (1) a better system of rural education, and (2) the establishment of co-operation among the cultivators both for the purposes of buying and selling. But co-operation was the natural outcome of small ownerships, but was not readily adopted by yearly tenants, who were often here to-day and gone to-morrow.

Range Cattle Doing Well

EDITOR FARMER'S ADVOCATE:

In this section cattle have done fairly well this season but on account of being very thin last spring when going out to grass they have had a hard pull uphill as there was a depleted frame to start work on. The Heel fly has also been very hard on them making feeding in the middle of the day an impossibility. As the day got warmer the cattle would simply get into shade until evening.

Farther east of here where the range is more extensive reports are quite favorable.

The cattle are doing well and steers will be ready for shipment about the middle of September. The grass has been fairly good this year as we have had an abundant rainfall.

Men who fed their cattle in the sharp times of last winter will be able to sell their stock quite a little earlier and that should be quite an advantage.

Everyone is of the opinion that there wont be as many cattle shipped this year as in general.

Butchers claim that this time last year the cattle were all fat but there isn't the number to choose from this year and consequently the shipments will be smaller.

Lacombe, Alta.

"OBSERVER."

The same report as the above came from the south eastern part of Alberta. Ranchers in that district inform us that the grass has grown well but has ripened off in spite of the plentiful rainfall and that the cattle are about ready to go out. The general impression among the ranchers is that there will not be more than 30,000 cattle marketed from the ranges this year as against 90,000 last year. There is a lot of talk about shipping to Chicago but according to several cattlemen whom we have met there does not appear to be many steers going that way.

Hogs in Clover.

Upon the question of pasturing hogs upon alfalfa, comes the following conclusions:

The number of hogs that may be pastured profitably on an acre depends very largely on the amount of grain fed. Probably from six to eight hogs, under ordinary conditions, would be about the right number. This would allow enough alfalfa to grow to make three fair crops per year. The fields should be small rather than large, so that the part nearest the water and sheds will not be kept too close to the ground and that at the farther end of the field be left untouched.

We have not observed satisfactory results with sows run on alfalfa without grain during the pregnant period, although very little grain is necessary for pregnant sows which are to farrow in the fall.

Fall Treatment of Stubble; Corn Land.

Which is the better way to treat stubble this fall, to burn stubble or plow it down? The land is not heavy neither is it very light. It was broken and backset last year. I broke a piece of land in the spring and seeded it to flax. If I manure it this fall and plow it, would it be good for corn next year?

J. J.

There is nothing much lost and very much time gained in burning stubble when the land does not need cultivating nor the addition of vegetable matter to make it more capable of holding moisture. The practice of burning stubble after the first crop is quite common, as new land is not in very great need of further cultivation and time is saved for other work, of course, the land should be well cultivated in the spring to prepare a seed bed. This is assuming that the soil is the average prairie loam. If it were either heavy or light the plowing in of the stubble would help it and burning the stubble would be a positive loss. Decaying stubble makes heavy clay less liable to bake or harden and more easy for plant roots to penetrate and in sandy soils it tends to make them more drouth resistant. We would not advise the general practice of burning stubble for the reason that most soil are the better for vegetable matter being added and cultivation invariably results in better crops, through improvement in the texture of the soil and the liberation of plant food. That is the plowing deepens the seed bed and brings fresh soil to the surface. Most soils also require a system of cultivation that will keep weeds in check, and while burning the stubble and spring cultivation will destroy many seeds, it is not an unqualified success since so many seeds escape the fire and remain dormant until after cultivation next spring.

By manuring and plowing the flax land this fall and working it well, next spring it should be in good form for corn. If the manure is charged with weed seeds it will be necessary to kill as many as possible before planting the corn, and to do this effectively it may be that the land will have to be plowed again. Generally speaking, if the land is harrowed after the fall plowing the weed seeds will germinate in the early spring and the weeds can be killed with the disc and cultivator or by light plowing.

The Instalment Plan.

EDITOR FARMER'S ADVOCATE:

I was approached the other day by an agent who wished to make a sale. "You need not worry about paying," he said. "Will give you easy terms, whereby you can make us monthly returns. Your credit is good, and you can make the terms as small as you like." I was not keen to purchase, and dismissed the agent in order to have time for a little figuring. The result was that I discovered that it would pay me

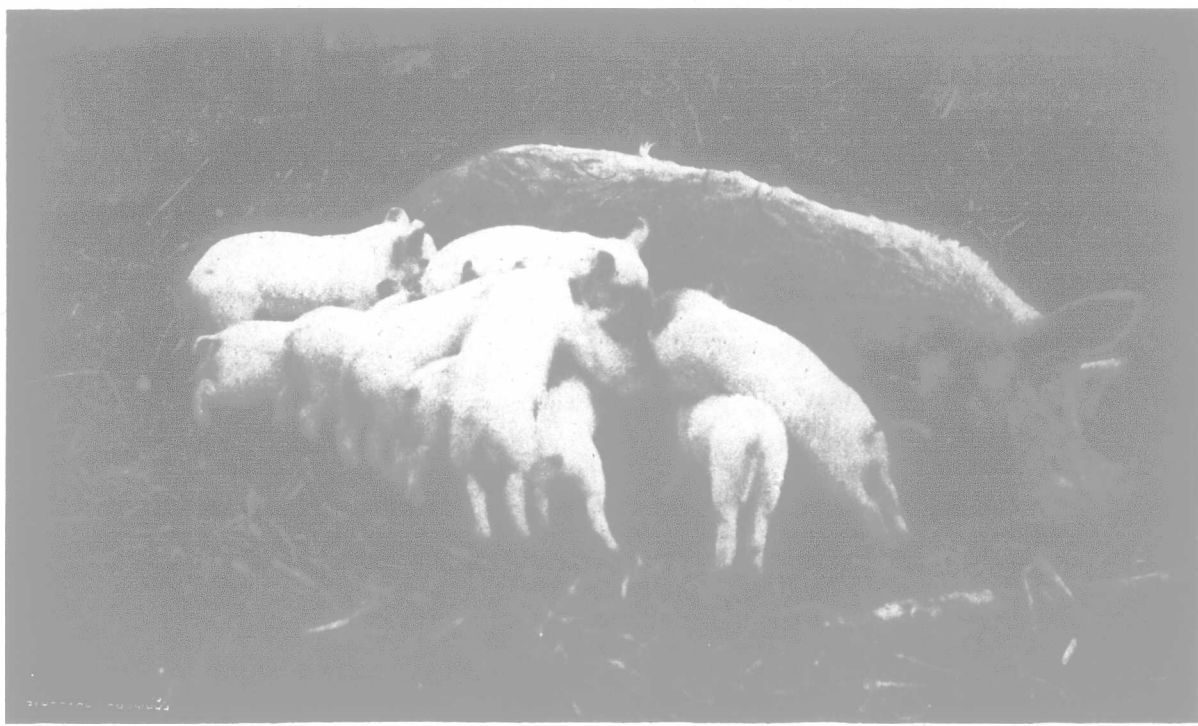


Photo The Compliments of Prince Albert Board of Trade.

twice over to purchase on a cash basis rather than accept the agent's enticing terms. The terms he offered, while they looked easy, were really terms demanding a high rate of interest. Further, on making some inquiry I found out that many who had tried the monthly instalment method of payment had come to realize that they were paying dearly for any seeming advantage, and that they felt themselves continually reminded that they were in debt. In not a few cases people had become discouraged, and had abandoned payment altogether, much to their loss.

The best thing for one to do is to keep out of debt, and to buy and sell on a cash basis. It will mean self-denial, but it is astonishing what a little ingenuity and economy will do for one. Indeed, the average farmer will do well to remember and to act upon the advice given by the Old Country agriculturist to his son: "Jock, gang in debt for but ae thing—dung." No one can afford to go into debt for anything that does not give a reasonable assurance of a fair return. Food, land, clothing and implements must be had, of course, but a little consideration and contriving will reduce one's actual necessities to an astonishingly small minimum. Paying in cold cash is better for both buyer and seller, and waiting till one can do so will save many an anxious hour, and many a disappointment; whereas the easy payment system usually means either the purchase of something one does not want, or paying too much for one's purchase. It is better to get on in what the Scotch call a canny way than to invest readily and extensively in things that are handy in their way, but which are not really necessary. It is wonderful how far brains and patience can make things go. The newest thing is not always the best. Let others do the experimenting. It is the agent's business to sell goods, but it is the farmer's business to buy only what he puts to a paying use, and on terms that are the most reasonable. It is so easy for one to sign his name to a contract; pay day looks far off, but it is sure to come, and with it has come in many instances a deal of tears and heartbreak.

O. C.

The Restless Country Boy.

EDITOR FARMER'S ADVOCATE:

Restlessness is a characteristic of all healthy boys, and should never be a source of worry. A young colt may be perfectly happy if only he have plenty of grass and shade and water and liberty. But a boy with forming hands and a contriving mind is restless because he finds stirring in him the possibilities of the infinite. It need not be wondered at, then, if the country father finds himself wrestling with a very live problem when he undertakes to guide his growing boy.

There are various things that contribute to the restlessness of the country boy. In the first place, his familiarity with country life has dulled his senses to its charm. The delights of rural surroundings, by reason of his daily contact with them, have become mere commonplaces. On the other hand, he sees the town only occasionally, and knows professional life only from the outside. The preacher, to his way of thinking, works only half an hour a week; the doctor does little but drive behind a brisk-stepping horse; while the clerk has a delightful time handling light goods, sheltered from the hot sun and the storm.

Further, the boy is exposed to the mischievous effect of the class of literature that belittles country life. In too many of our papers and books for young people the hero is represented as one who finds no scope for his talents amid farm surroundings, and who comes to his own only upon leaving the old home for a life of adventure. The country boy feeds on this, and soon comes to believe it.

Again, as the FARMER'S ADVOCATE has been reminding its readers, our school system does not foster a love for farm life. However we account for it, our schools do not encourage our boys to make their living from the soil. Our high schools and universities point the way to the surgery, to the chemist's laboratory, to the mine, to the pulpit, to the bar, or to the legislative hall, but in how many cases is there a serious effort made to teach the students the wealth of the sun-swept valley and prairie, and the satisfaction that comes to mind and heart and fortune by a pursuit of agriculture, the most ancient as it remains the most honorable of the arts? A father need not be surprised to find his son ill disposed to follow in his footsteps if he allows him to be taught for six hours in the day, and for five days in the week, that farming is a poor, sordid and unremunerative occupation.

The cure for this restlessness cannot be wrought in a day. A permanent change in conditions is brought about very slowly, but the farmer must make it his business to see that the change is being brought about. In the meantime let him use all the tact, born of his love and good sense, to show his son the advantages amid which he has been reared. As best he can, let him make his home and work attractive. A little money spent in music and pictures and magazines, and in encouraging his children in carrying out experiments in poultry, in roots, in dairying, or in any farm work in which they take an interest, will be an investment that will yield a tenfold return. A house full of laughter of young friends brought in occasionally may rob the farmer of some hours of needed rest, but they will do not a little to relieve country life of its monotony, and do a great deal in the way of preserving for the farmer what is worth more to him a thousand times over than any bank account in the world, the love and service of his boys and girls.

O. C.

Handling a Traction Engine.

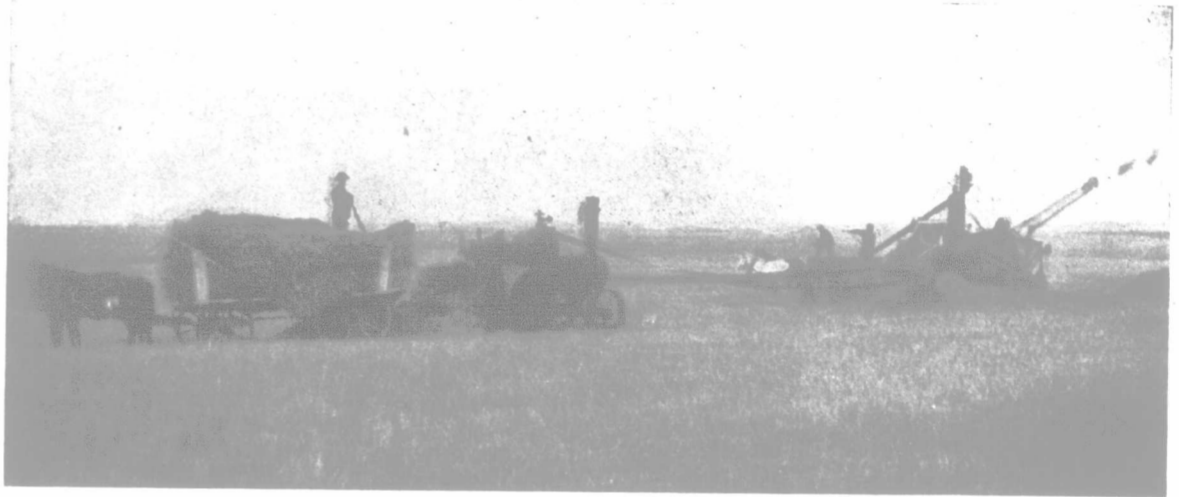
EDITOR FARMER'S ADVOCATE:

In your issue of Aug. 14th you print an article on traction engine boilers and the hardships they have to contend with. The effects of dirty water might be largely avoided. It is an every day occurrence to see a tank of water pulled in alongside of an engine, then the fireman or engineer as the case may be, plunk in the hose and turn on the injector, never taking into consideration that all the mud, sand and filth that the average threshing tank contains is all mixed through the water by the jolting of the wagon. I have seen this done when the boiler would probably contain half a gage of water and when there was sufficient water in the boiler to allow time for that in the tank to settle twice over.

Second, was the unevenness of ground, boilers travelled over. I would judge such as going down hill and causing the crown shut to become exposed. This can be overcome by turning the engine and backing down hill. The sudden

Lightning, and Some Means of Protecting Our Buildings and Live Stock From It.

The alarming frequency with which in the past few months we have read of property destruction by fire, due primarily to lightning, has set people thinking. It is no uncommon thing to read, after a severe storm, of farm buildings burned, houses damaged, stock killed or human lives sacrificed. It is only a few weeks since a Southern Saskatchewan town was partially destroyed by fire originating from a lightning bolt. It is an every day occurrence during the summer for houses to be damaged and their inmates injured from this cause. The financial loss during a season must be enormous. It is generally, though by no means always the case, that towering structures are most frequently hit, thus in cities and towns churches with lofty spires are damaged oftener than other buildings. Barns and houses on the open prairie for the same reason seem to be struck more frequently than objects closer to the surface of the earth.



THRESHING ON THE FARM OF THOS. NELSON, MOFFAT, SASK.

changes of temperature caused by in-rushes of cold air may be avoided also. If you see the steam is going to rise too high, plug the shuter tightly with straw and close the damper. If there is a clinker to remove from the bottom of the fire box, it is up to the engineer to fire while the fireman removes it, thus keeping the fire in its ordinary condition.

As to employing ignorant fireman, it is the engineers duty to put him wise, as it will be of great service to himself and also to the life of the boiler.

There need be very little trouble over the internal conditions of the boiler if some of those so-called engineers would follow my method of caring for the boiler they may have in charge. Blow off the boiler every Saturday night and clean the mud out every other Saturday night. Some districts where the water is not so good, it is necessary to blow out twice a week, and remove the mud once a week. I have been operating engines in Saskatchewan for the last ten years and have had two engines in that time, but have never had an occasion to caulk a joint or roll a flue. I did not dispose of my first rig because it was worn out at all, but because I got the big head and had to have a big out-fit.

If the writer of the above mentioned article would tell us how to avoid these troubles it would be of a great deal more value to the public in general in place of telling us of our everyday troubles, occupying valuable space in the paper which is of no profit to anyone, as there are so many owners of threshing machines who have no knowledge as to how a boiler should be cared for, and that about fifty per cent. of the value of their outfit is in their boilers. Time and again I have seen men going through the country looking for an engine to run, when probably they had only fired the fall before, looking for the big money.

If you are approached by a stranger with recommends dated 1903 and 1904, get leary of him at once as you can't afford to take chances on a man who gets his experience two or three years ago. The man with these old recommends is capable of twisting off all the set screws, and of cutting out all the brasses, valves and gears.

"RUSTY."

Scientists account for this fact by assuming that the discharge of lightning from cloud to earth, is for the purpose of establishing an equal balance between the quantity of electricity stored in or developed by the cloud, and the quantity that exists in the earth, and that in its passage from one body to the other it takes the shortest possible course that can be found. This, as between cloud and earth, would be from the lowest strata of the former to the nearest point on the surface of the later. This point may be only a portion of the surface of the soil, it may be a tree or it may be a building. It is common observance that lightning prefers almost any other conducting medium than the atmosphere. It will jump through several miles of space to the earth and then when within a few feet of its goal will deflect its course and take to anything denser than air that comes in its way. The atmosphere, seemingly, is not a very satisfactory conducting medium. It is for this reason that barns and other out buildings in the country are so frequently hit. They are the loftiest structures that can exert attraction on the descending electric current, they will be, when the storm is passing directly over head, the closest point between the cloud and earth. Barns, too, seem more frequently hit than houses, at least statistics show this to be the case, the reason may be that they are higher on the average than dwelling houses. The fact is, however, that between unfilled barns and houses there is little difference in the relative frequency with which each is struck. Filled barns, though, seem of all buildings the most susceptible to damage from lightning stroke. The reason is not difficult to discern. In a barn recently filled heat is generated. The air within and surrounding such a barn becomes perceptibly warmer and moister. It decreases in weight and is forced upward until a column of warm moist air will be ascending from the roof in the same manner as smoke rises from a chimney, diffusing itself outward in all directions as it ascends. If such a phenomena as this occurs, as it very naturally may, and at the very moment when a cloud heavily charged with electricity is hanging overhead, the discharge from that cloud will encounter when far above the earth, the widened column

of warm air ascending from the barn. Now lightning seems to prefer any medium of conduction rather than the motionless atmosphere. It is common observance that it follows air currents readily. Hence if a bolt is descending in the close vicinity of an ascending air column, no matter how slow such a column may be moving, it will deflect that bolt from its course and the electric current carried downward by the rising air, reaches the barn and through it the earth. This, is at least a theoretical explanation of the frequency with which filled barns are damaged by lightning.

It is an old saying that lightning never strikes twice in the same place. There is no foundation either in science or fact for any such a statement. We have known three barns erected on the same site to be burned successively by lightning. Any particular site that offers a path to a lightning flash, is just as likely and in some cases more likely to offer a path to a second stroke. There may have been something in the geological structure immediately beneath the barn in this case that offered a path of least resistance to the current, or the barn may have been more elevated than surrounding objects. In any event it is very unwise to build a third barn on the same site where two have been struck by lightning. The first stroke may have been of accidental occurrence; but where two strokes have been received on exactly the same site it occurs very likely from some peculiar formation of the ground.

Of the means of protecting buildings from lightning strokes the natural ones are the most efficient, and trees are the most efficient of natural protective agents. Buildings with tall trees growing near them are seldom struck. A clump of trees seems to draw the lightning to it. In this country, however, it is unpracticable or impossible to grow trees to a sufficient height to have much protective influence. It is necessary therefore to resort to other means, and the only other means of protection is by metal rods on the roof or the highest point of the building, extending down into the moist earth, to convey the thunder bolt harmlessly away. Opinions differ of course as to the efficiency of rods for this purpose, but authorities generally agree that relatively few buildings thus protected are damaged by lightning stroke. While it cannot be denied that some buildings equipped with rods have been destroyed by lightning, yet the number has been so very limited as not to break the rule that rods are a real protection.

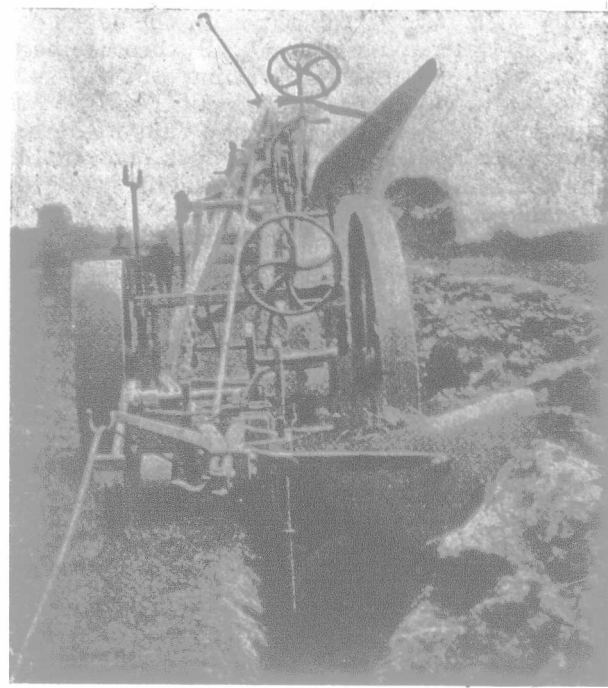
A good many farmers, however, seem prejudiced against rodding their buildings. This prejudice arises not so much from the belief that lightning rods are without merit as protective agents, as it does from the fact that the lightning rod swindle was perhaps the greatest ever perpetrated upon the agriculturists of this country. This is the chief reason why there are not a greater proportion of buildings rodded to-day. Nowadays, however, it is not necessary to call the services of these gentry in putting up rods. The work can be done by any man sufficiently intelligent to build a wire fence.

In constructing a rod the first thing to do is to find the length of cable needed as for an ordinary barn, the full length may as well be made at one operation. Liberal allowance should be made for grounded ends, as a connection with damp earth at a sufficient number of places is of first importance. If a small well auger can be got and

hole bored to a depth of seven feet it will be all right. If not then a hole four or five feet deep can be dug and the end of the rod curled into a flat spiral. Highest lines and projecting points should be specially guarded, and it is, therefore, well to have rods on all ridgeboards. For plain barns, with one ridge and two gable ends the rod can be run the whole length of the ridge descending and entering the ground at both ends. Sometimes barns are built T shaped in which case an addition to the rod with the two grounded ends already mentioned, another with its end in the earth at the outer end of the addition, should be run up the gable end to the ridge, then along the whole length of ridge, and connecting with rod on the main building. There would thus be three earth terminals, and all ridges protected. Upright points may be added afterwards. They should be five feet high and not more than twenty feet apart. To make these, lengths of six and a half feet can be cut off, and a sharp bend made a foot and a half from one end, this extra length to be opened up and wrapped around the rod where it is attached. This makes all solid and gives good electrical connection. At the upper end of the points the wires may be spread out in all directions. Total up all these lengths and you have the full length of rod required. You can now begin manufacturing it. Use soft galvanized, number nine wire, nine strands. A wagon wheel answers very well for twisting. Set the wagon in a convenient place, and raise the wheel as if for greasing. Measure out the needed length and drive a stake with a hole bored in it, through which the ends of the wire can be passed, and bent round. The other ends of the wire can be hooked, each around a spoke of the wheel close to the hub. In measuring the wires care should be taken to have them of equal length, and an allowance made of one foot in 200 for shrink in twisting. Now, having the nine wires stretched out and fastened securely before beginning to twist, brace well both the wagon and stake, for there will be a considerable draw. It is well, also, to throw some poles or boards across under the wires to keep them out of the grass and mud. Turn the wheel until the cable is sufficiently twisted to hold together, and the job is done. The rod can be stapled close to the building, as the old idea of the necessity of insulation seems entirely abandoned. To hold the points upright get the blacksmith to make you an iron tripod for each. Have the rods run direct as possible with few sharp turns. Such a rod will weigh one half pound per foot, and the cost of the entire material, fittings included for a barn seventy feet long and forty feet high, will be less than \$5.00.

In this country, too, considerable loss results every year from stock being killed by lightning in the field. Invariably such stock is huddled against a wire fence. The fence at some point may receive an electric charge and the wire conveys it along until it diffuses itself into the earth. Each post conducts a portion of the charge away, and any objects close to or in contact with the wires likewise will receive a portion of the current. The remedy in this case is to have the fence wires grounded, to have, at frequent intervals, say every 100 feet or less a wire leading down into the soil, giving direct connection between the fence and earth, and furnishing means whereby the electric current is conveyed harmlessly away. Such a connection could be readily and cheaply made, and there is little

doubt but that it would provide stock in the fields with a very large degree of immunity from lightning stroke.



PLOWING 30 INCHES DEEP. Showing the possibilities of deep cultivation to increase the moisture-holding area of the soil.

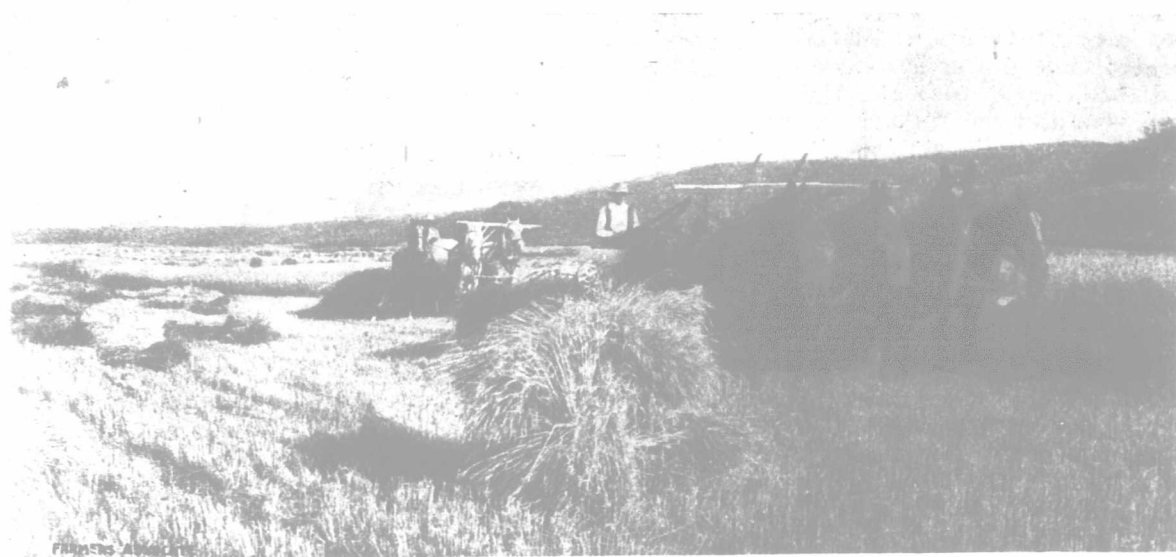
Making Cement Walks.

What is the right way to construct cement walks? Would you advise putting them down on the farm between the house and outbuildings?

Replying to this enquiry for information on cement walk construction we can do no better than give the following plan, which if carefully followed will be found productive of highly satisfactory results: Prepare the foundation by making an excavation from 2 to 8 inches deep, the depth depending on the character of the soil, —and a few inches wider than you intend the finished walk to be. Fill this excavation in to the level of the ground with gravel, broken stone or cinders, and ram it down solid. When the foundation is ready, place boards along each side of the walk to hold the mortar in place while it is setting, also to give a nicely finished edge on the concrete. These boards would be the better of having their inner sides planned. They should be 4 inches wide, or wider or narrower, proportionately, as you intend making your walk thicker or lighter than the one here described. Four inches is, however, a fair thickness and we would not advise making it any less. These out-boards should be fastened to stakes and the stakes should not protrude above their upper edge as the most convenient way to level the concrete when finishing is by running a straight edge along the top of the boards.

It is always necessary to lay the concrete off into blocks, to prevent injury from heat and frost. There are two ways recommended for doing this. The first is to cut through the concrete after the top surface has been laid, and before the mass hardens, with a trowel or spade, going right through the foundation from edge to edge of the walk. The second plan is to lay off the walk into sections by means of cross pieces placed four or five feet apart. This is the most satisfactory method. To do it properly get slats an inch thick and 4 inches wide. Their length should be exactly the width of the walk. Place them in at about 4 feet intervals, and peg down securely. You are now ready to put in the mortar. For the base coat prepare a mixture of one part Portland cement and 8 parts gravel or broken stone. Mix it thoroughly both wet and dry and ram it down well on the foundation. This layer should be 3 inches in thickness. It is best not to have too much base mortar down in advance for unless plenty of help is at hand the foundation may get set before the surface is laid, in which case the bond between it and the base layer will be imperfect. Mix the finishing coat one part cement to two parts fine gravel or, preferably, clean, rather coarse sand. Spread it out and level quickly with a straight run over the top of the outside boards, finishing the surface up with a wooden float. Bevel off the edges on all four sides and the block is complete.

In building in blocks after this method, it is always necessary to put in the blocks alternately,



CUTTING FALL WHEAT ON MR. GEO. BUCHANAN'S FARM, PINCHER CREEK, ALTA.

in order to get the wooden crosspieces out and provide for a proper joint when building. Leave each alternate space as you go along, and when the mortar in the sections filled has hardened sufficiently, remove the cross pieces, place a three inch strip of tar paper on the edges of the blocks, thus exposed and fill these remaining spaces as before. In finishing off the surface layer always be careful to cut a groove right through to the joint you have thus made in the lower strata. If the cross edges of each block, as it is laid, is bevelled off only slightly the groove, of course, will be made as you go along. Cover each section as it is completed, with boards, straw or sawdust, and protect it from dust, dirt, currents of air and the sun for a few days while it is setting. Sprinkling occasionally will help the setting process and make a harder finish.

A walk thus constructed will prove satisfactory for a good many years. Nowadays when lumber prices are prohibitive to the use of that material for purposes such as this, cement has come into general use on the farm and in addition to being used as a foundation and building material seems now coming into use for nearly everything else as well, hog troughs, water troughs fence posts, etc. It is of exceptional value for building walks and our correspondent need not hesitate long about using it for this purpose.

DAIRY

The Great Milker Petered Out.

EDITOR FARMER'S ADVOCATE:

I believe there is nothing that will so help a man to get the best results as the milk-record system. One can so easily detect the results of any change in feed or otherwise, and remedy it, perhaps not so much on the whole herd, but individually, for I have found from experience that it pays well to cater to the likes and dislikes of different cows. The ration fed to one cow profitably might be far out for another. Some claim to be able to tell how much a cow gives merely by guess, but to me they are far out. It is very easy to remember the two or three months in the flow when the cow is giving, say, forty pounds per day, and forget all the rest of the year when she has dropped down to less than half that amount. I once bought a cow for a good price that was noted as a great milker, and she started out to lead, and did so for about two months, and finished second to last, with a small two-year-old behind her. There is no other correct way but to keep a record of milk, both as to quantity and quality. Form and appearance count for a great deal, but often fail, but performance always counts.

Of course it takes some time to do the figuring, but so very little that the interested man will enjoy, and, indeed, should be anxious to get at and work out his operations on business principles. Dairying for profit, like many other things, lies behind so much fine figuring that the majority never get at the real truth, thereby making their work a drudgery in place of pleasure.

D. D. GRAY.

Central Experimental Farm, Ottawa.

In the article which Mrs. Tomes prepared for us upon her method of making butter for exhibition a fault of the printers made her say she had difficulty in getting a market for her product. This should have read "I have no difficulty in finding a market for my butter." The context doubtless indicated what the meaning was.

Wide-Awake Dairymen.

EDITOR FARMER'S ADVOCATE:

I have been keeping individual milk records for the last three years. I take records once and sometimes twice per week by the use of a forty pound steelyard, which I keep in the barn. As I know the weight of my pails, it takes but very little of my time to weigh. I have a little pass-book with the name of each cow, and I credit her with her milk. My cows are graded Short-horns. Before I commenced keeping records, I calculated so much to the cow per month, say, five dollars, for I heard it often mentioned that it was about the average; but when I kept records I found some of my cows were giving twenty pounds while others were giving as low as nine pounds

at a milking. Now, I consider if a cow does not give fifteen pounds of rich milk, it is better to let calves on her for veal, and get rid of her as soon as I can. I may say that I find in this part that the best dairymen are the men who keep a close record of the feed they feed their cows and the returns they get from each individual cow, and value a good cow very much above an inferior cow.

B. C.

FRANK MUNROE

Hints on Making Butter for Exhibition.

As a number of our correspondents have recently been asking for suggestions on the making of butter for exhibition purposes, we take it that there is more or less general demand for information on this question, hence these hints. It is taken for granted that those who read the article are familiar with the ordinary routine of buttermaking, thus it will not be necessary to go into details.

The first and most important thing necessary for a buttermaker to bear in mind is the basis or scale of points used for judging. What does the judge usually consider when he or she starts to work on fifty or two hundred lots of butter at an exhibition? The judge must have something definite in his or her mind as to what constitutes a standard of perfection. This standard usually consists of some scale of points, the total making one hundred for the sake of convenience. Even if the judge uses no set scale, he must have some definite ideal in his mind or his judgement is worthless. The standard of perfection is usually made up of: Flavor, Grain, Body, Color, Salting and Packing. As flavor is the most important quality in butter, the maker must ever bear in mind that the judge is likely to decide about one-half the merit of each lot of butter according to its flavor. Most judges now give preference to the mild, creamy flavor, rather than to the acid flavor of former times, hence the buttermakers should not ripen the cream so much as formerly. In no case should the cream have more than five (five-tenths) of one per cent. acid at the time of churning. Where no acidimeter is available, churn as soon as the cream thickens and has a mild, acid flavor. Having cream from perfect milk, or milk with an absence of any fodder or weed flavor, is a great help in getting fine-flavored butter. The use of a culture or good-flavored starter is also a help. If there is any objectionable flavor on the milk, the cream should be pasteurized when sweet; that is, be heated to 160° F. for about ten minutes, or 180° to 185° for two or three minutes. If a good culture is not available, this pasteurized cream may be cooled to about 50° and be churned without any ripening whatever, after standing one or two hours. Such butter has the nice creamy flavor liked by English people, and by a growing number of Canadians.

Don't forget that flavor is the most important point in exhibition butter.

The second point is the grain and body of the butter. A judge likes to have the butter "iron" nicely, i.e., when he pulls a sample out of the print, tub, box, or crock, it should leave the back of the trier clean—not greasy; should be close in body and texture, and not too hard and brittle, nor yet too soft. When the butter is of such consistency that it spreads nicely on bread, its grain and texture are considered perfect.

Temperature of the cream and butter at the time of churning and temperature of the butter at the time of judging are the two most important factors governing grain and body. The character of the fat which is influenced by the cow and her feed, is another factor. Method of working is another; some butter is spoiled by over-working. Work sufficiently to make the body firm, the color even, and the appearance waxy, but avoid too extremes of "over" or "under" working. The "end-point" is something which cannot be described and is learned only by experience. Working sufficiently to mix the salt well, then allowing the butter to stand for one to three hours before finishing the working, is a much safer plan than to depend upon one working. Once working is almost sure to produce butter more or less mottled.

As tastes vary with regard to color and salt in butter, it is very difficult to give general directions which cover all cases. It is better to err on the side of light color and light salting, than go to the other extreme. Up to the end of September it is hardly necessary to use any coloring. After a heavy frost or two a small amount of vegetable butter color added to the cream just

before churning is advisable in order to obtain the "June-grass tint." The main point is to have the color uniform. Mottles, streaks, waves, etc., are always scored down by a competent judge, as this indicates faulty workmanship. The preventives are: washing out the buttermilk with water or brine, even distribution of fine salt and working twice. If these points are noted there is little danger of mottled butter. "White specks" in butter are prevented by straining the cream into the churn, thus removing particles of curd, dried cream, etc., that produce "specks."

Salt at the rate of three-quarters to one ounce of salt per pound of butter for prints and one-half ounce for boxes. Tubs and crocks may usually be salted the same as for prints, because these are chiefly sold on local markets, where the demand is for higher salting than for the export trade.

The use of fine salt having sufficient moisture present in the butter to dissolve the salt, and twice working, will usually prevent grittiness which is the most common fault under this head after "too high" or "too low" salting. The tendency is for milder salt in butter, in order that the true creamy flavor of the butter, may be more apparent.

The oblong pound print, wrapped in plain parchment butter paper, is the best form. The print should not be too high and narrow, which gives the judge the impression that the butter cannot "stand-up." The top, bottom, sides and ends should be close and straight, or nearly so. Some prints look as if some one had sat down on one edge of them! This is caused by a faulty printer, or not removing the butter properly from the printer. By holding the ladle against one side of the print, the butter can usually be removed without trouble. The fifty-six-pound box is best for export. This should be neatly finished on the top. A fluted roller passed over the smoothed surface of the butter, relieves the top of that tendency to a greasy appearance. The box should be lined with heavy parchment paper. The butter should be packed in small lots so that if the judge "strips" the package it will present a close, uniform appearance on all sides and on the bottom. As a rule it is not necessary to put salt paste, or anything except the parchment paper, on the top of the butter. Tubs, crocks, etc., should be filled to within about half an inch of the top, then be covered with a parchment paper, or clean cloth circle, and nothing else except the cover. Fancy patterns or scrolls on top of the butter are usually disliked by the judge.

GENERAL DIRECTIONS.

1. Have the butter made at least three days before it is judged. This gives time for the grain to set and the color to become uniform. It is a mistake to send butter to an Exhibition the same day or the day after churning.

2. Ship in a clean case, preferably enclosed in another case, or in a canvas cover. In hot weather pack in ice before shipping or delivering. Pieces of ice in the basket or box containing the prints tend to keep the butter cool and firm. If the exhibition has a good refrigerator, ship in time to have the butter cool before judging day. Also ship or deliver in time. A judge is usually annoyed at having to go over another lot or two after he has finished a class, which possibly means that he may have to alter the score on several lots, in case of ties. The person who delivers late at an exhibition seldom gets more than "cold justice."

3. Be not over-anxious with the exhibition butter. Many persons become so anxious about having their butter so much better than usual that they spoil it, and in many cases the lot sent to the exhibition is not equal to the average make.

4. Bear in mind that the judge will judge the butter chiefly on the question of flavor. He or she will not consider the grain, color, salt and package. These are the five main points to always keep in view when making butter for exhibitions, or at any other time.

O. A. C., Guelph.

H. H. DEAN.

Prize Butter Making.

EDITOR FARMER'S ADVOCATE:

We have been much interested in the articles that appear from time to time in this department on the subject of home butter making. The system outlined in last week's issue by Mrs. Tomes, of Plumas, seemed particularly valuable indeed. There were some points though in connection with her method, on which we are not quite clear. One of these is the washing of the butter. In our own experience we have always

found it best to wash the butter right out immediately the buttermilk is drawn, revolving the churn quite rapidly while the operation is going on, to prevent the butter forming into chunks. We have always found that when butter gets into lumps it is more difficult to get the buttermilk removed, also more troublesome to salt evenly. We cannot just see what merit there is leaving the butter in the churn for half an hour. We always like to get the churning done with as quickly as possible, and the utensils cleared from the kitchen. We always use a strainer too, when taking the buttermilk off, for when the butter granules are the size of wheat grains some of them are liable to escape through the outlet.

Then there is the matter of salting. In our own practice we have always guessed at the weight of salt used and generally came near enough the mark, though we believe it would be more accurate and better to use the scales. The trouble we always experience is this: We salt in the churn and unless the butter is taken out and weighed and put back in again, which is no small chore on our farm—where the nearest set of scales is in the barn, and they won't weigh in ounces,—we have no idea as to how much butter we have or how much salt we add. Of course, after a time, when one gets accustomed to guessing, fairly satisfactory results are attained. We don't like to work our butter too much, we have never used a Water's mixer preferring the ordinary lever worker, and turning it over about three times. The butter is then put up in rolls or prints. If we have any criticism to make of the methods employed by your correspondent it would be that she takes too much time in affecting the transformation from cream to butter. By her method an entire forenoon is required in the operation, altogether too much for the average housewife to devote to it.

Brandon.

Mrs. J. M. A.

APIARY

Honey Production In The Moose Mountain District.

EDITOR FARMER'S ADVOCATE:

The Moose Mountain country has, since its first settlement in the early eighties, been looked upon as an ideal mixed farming country—one producing some of the best cattle in the West, and wheat unsurpassed in both quality and average yield. But few of the residents of the Moose Mountain country, much less others, realize that another profitable industry can be successfully carried on despite the fact that the winter temperature occasionally reaches the forty below zero mark. The industry we have reference to is that of the production of honey, and Cooper Bros., a few miles north of Carlyle, Sask., have with an experience of ten years fully demonstrated the success of bee-keeping.

Chas. Cooper was born in India, and William in Somerset county, England, not far from Cannington, from which Cannington in the Moose

Mountain district gets its name. Charles attended Chard grammar school and William Cheltenham school, the former with the intention of entering the ministry, the latter the army.

But the call of far-off Canada was stronger than either ministry or army, and the former came to the Moose Mountain country in 1886, and the latter in 1892, for the purpose of farming. Charles homesteaded and afterwards bought a quarter section more. William spent some time in fruit farming in British Columbia, afterwards returning to the Cannington district of the Moose Mountain country and homesteaded.

"Try bees," was the suggestion of a Cannington lady and for once the bachelor brothers decided to take a lady—at her word—and they purchased their first colony at Portage la Prairie. The prospects the first year were not at all the brightest for the colony did not winter well and neither did the honey—the bees died and the honey got frozen.

However, another colony was purchased and increased with the years until to-day the Messrs. Cooper have sixty-eight colonies, which in the summer are located near their house and are practically surrounded by bluffs, thus being sheltered from the winds. In the winter the hives are stored in the cellar. The food supplied the colonies to tide them through until the blossoms come, is mostly old honey which may have become somewhat discolored or heated too much. To supply the nectar for summer patches of alsike clover are raised. White clover is also raised. In seeking its food the bee is a valuable assistant to the Messrs. Cooper who are extensive gardeners.

Aside from the above mentioned labor in connection with food supply, the only attention the bees require is during the summer to prevent too frequent swarming. This is done by cutting out the queen cells. This work and the extraction of honey is not fraught with the dangers which the uninitiated might imply. After being among the bees for some time their sting is scarcely noticeable.

In placing the colonies away for winter, care is taken that a sufficient supply of honey is in each colony—about fifty pounds. In some cases honey is taken from the stronger colony and given to the weaker.

Coming to the financial side of the bee industry, we may say that last year the Messrs. Cooper had a two-ton harvest which was disposed of locally at fifteen cents a pound. The honey harvest, like other harvest, may vary according to the season, showers and hot weather between, being the most favorable. A ready market is always found in the West, as much of the honey shipped from the East has been found to be adulterated.

Cooper Bro's. honey exhibit is always one of the interesting and attractive features of the Moose Mountain Agricultural fair held at Carlyle.

The Messrs. Cooper after ten years successful bee culture are fully convinced that the production of honey can easily be made a valuable adjunct to the industries of Western Canada, and particularly amidst the sheltered vales and bluffs of the beautiful Moose Mountains, so aptly described as the "Park Country." The long sunny days common to this country give

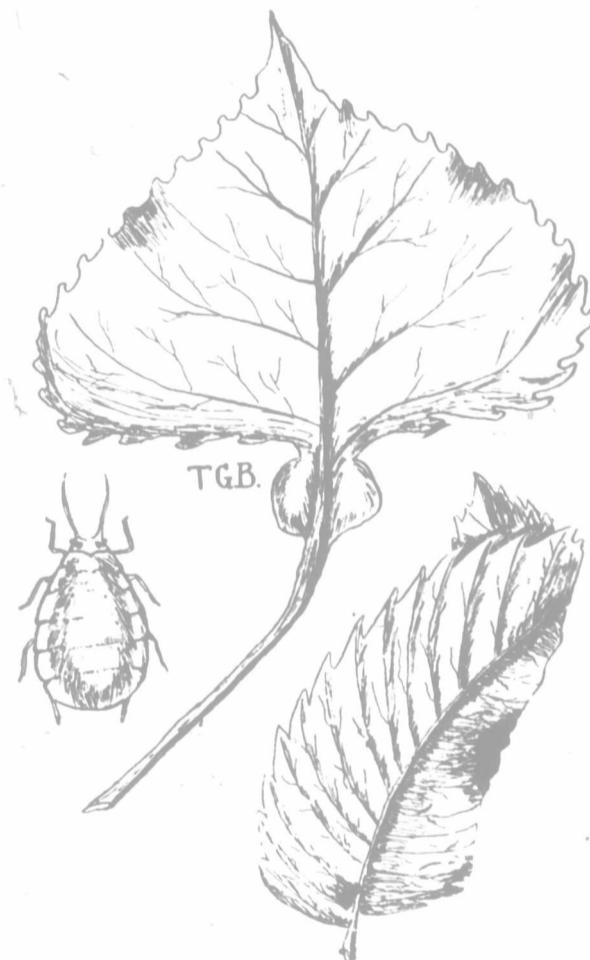
the busy bee every opportunity to work overtime and Cooper Bros. two-ton harvest last year is indisputable evidence that the opportunity is taken advantage of.

THOS. JARROTT.

Horticulture and Forestry

Plant Lice and Gall Lice: Some of the Species that Injure Shade and Forest Trees.

Considerable injury has been wrought in some localities this season by plant lice working on the leaves of the elm, maple, cottonwood, poplar and other trees. In Winnipeg the elm shade trees on the streets have been attacked, by an insect that causes a partial curling of the leaf, forming an enclosure within which the insects lay their eggs and hatch their broods. At this season they have nearly all disappeared. Their life cycle is completed and having laid the eggs to perpetuate their species next year, the brood of 1907 is no more. They have left, however, some very tangible evidence of their existence and some of the weaker trees have been checked in growth or permanently injured by their attacks. This species, or one very similar to it, seems also to infect the maple and poplar. Its ravages on them are, fortunately, however not so



WORK OF THE ELM LEAF LOUSE AND WILLOW GALL INSECT, WITH WINGLESS FORM OF ADULT.

serious as they are on the elm. Another species is at work on the poplar and cottonwood, but it is a gall former, that is to say forms galls, or unnatural growths on the twigs or leaves in which it passes its life and rears its young.

Plant lice are among the lowest forms of insect life. They are so common that a detailed description of them is unnecessary. Nor would such description serve any useful purpose here since they are so minute that the ordinary observer would gather little information concerning the species from a casual examination of the individual. The illustrations here given showing the manner in which they affect injury to their hosts, is a better means of guiding us to an understanding of their habits, their characteristics and their appearance. There are some points however, in respect to these insects that is of general interest, that applies to nearly all species and which is interesting enough to be taken up here. The first of these is their manner of reproduction. The rapidity with which these creatures multiply and reproduce themselves is simply marvellous. Huxley, the eminent English scientist estimated that ten generations of plant lice from a single ancestor would produce



COOPER BROS. APIARY IN THE MOOSE MOUNTAIN COUNTRY.

a mass of organic matter equivalent to the bulk of 500 million human beings, a mass equal to the whole Chinese population, and later investigators believe that if anything this is an underestimate. Fortunately, however, these insects have too many natural enemies to multiply with such stupendous rapidity as this. There are a number of predaceous and parasitic insects that prey upon or infest them at every stage of their existence, and are the means which nature provides of holding them in check. One of the most common of the predaceous forms is the lady beetles, an insect that feeds upon plant lice and such forms continually, and from these habits makes itself one of the most beneficial forms known.

The method of reproduction by which plant lice multiply themselves with such rapidity, is a method known to scientists as "parthenogenesis," which means virgin birth. That is to say individuals are born alive from a single female, and these in turn go on generation after generation, producing living young, not from the egg as insects are usually produced, but by actually giving birth to living individuals. This continues in most cases until well into August, when a generation is produced that contains both males and females, that is winged and that reproduces itself through the egg. This is the stage in which the winter is passed. In the spring the return of warmth hatches the egg which has been laid on some convenient twig, and the sexless "stem-mother" which it produces, brings forth her sexless generations of living lice, and these in their turn bring forth theirs in inestimable numbers until the return of fall brings round again the brood of sexed and winged forms by which perpetuation and dispersion of the species is ensured. The winged forms may appear once or twice during the summer but true males are produced but once. The fact too that this last generation has wings provides not only for the dispersal of the pest but for the return to some perennial plant of the summer broods that have been feeding upon grasses and other annual plants.

Another remarkably peculiar thing about insects of these species is the relationship that exists between some kinds of them and ants. Most of the plant lice excrete a honey like substance called "honey dew", which is greatly enjoyed by ants, and these creatures in a surprisingly intelligent way care for the plant lice, drive away their natural enemies carry them bodily to better feeding grounds and when necessity arises they assist in migrations from place to place and actually prepare locations in advance of transportation. To the ants these insects bear about the same relation as the milch cow does to man. In fact they are called "the milch cow of the ant."

The elm leaf louse, illustration of which is given, makes its appearance in July and the first signs of its presence is a slight curling up of the leaf edge. If this little fold is opened up a number of very small, wingless, greenish blue mites will be seen within. This is one of the sexless generations, it has been produced by a winged "stem-mother," and each individual of the brood is now producing sexless generations of its own. It is not an unusual thing to find from one to a dozen lady beetles within this enclosure too, as busily engaged in devouring the lice as the lice are in reproducing themselves. About the middle of August, males and winged females are produced. The males may or may not be winged, but the females are always thus provided. They emerge from the leaf and are

ready to migrate to other locations where the eggs are deposited and provision made for perpetuating the species over winter. This done the insect dies. There are two seasons at which this pest can be attacked and destroyed. It may be sprayed with some remedy that kills by contact as whale oil soap or Kerosene Emulsion during the summer season, or the trees may be treated with washes or solutions similar to the two named, in winter to destroy the eggs. Summer treatment is the most effective and kerosene the best remedy. Insects of the same species as this attack nearly all deciduous trees, maple, oak, cottonwood, poplar and willow. The treatment in all cases is the same.

The other figure in the illustration represents a very common pest of the poplar. This is a typical gall former. It differs from the species just described in that it causes the plant to throw out unnatural growths or galls, in which the lice develop and reproduce themselves. These galls form right at the base of the leaf, are found most abundantly on poplar, are generally spherical in shape and about half an inch in diameter. They are so common this year on the poplar that a casual observer might readily mistake them for a natural growth, nearly every leaf is infested. If one of them is cut open any time after mid-summer it will be found full of plant lice, the progeny of a single specimen that laid an egg here earlier in the season and with the egg excreted a minute drop of poison which irritated the plant and produced the gall. There are hardly any of these gall making species abundant enough to be seriously troublesome. Should they become so, however, the remedies advised will be found as effective as any.

POULTRY

The Fattening of Farm Chickens.

"Advanced Methods of Poultry Farming," by A. W. Foley, Poultry Superintendent in Alberta, the first poultry bulletin published by the Albertan Government, came to hand some little time ago. It takes up in a general way and with much detail the whole business of poultry farming. Attention is given to every phase of the industry from the building of a poultry house and establishing a flock to the fattening of the chickens and the marketing of them or their products at home or in the British market. The advice given all through is thoroughly practical in its nature, it is given by a practical man and is based largely on work actually done in the chicken business in Alberta. As such it appeals particularly to poultry men of the west. It is the first real authority, we have of our own, on the industry. The following is taken from this bulletin under the head, "Fattening":

"A visit to almost any store handling poultry will demonstrate that a large amount of the dressed poultry offered for sale is poorly fleshed and equally poorly dressed. This is not because the demand for poultry is small but through ignorance of the best method of fattening and dressing birds. The fact is that in but few cases have the birds received any particular attention in the way of preparing them for market. Of recent years it has been demonstrated that poultry should be specially fattened in much the same way as beef, mutton or pork, in order to produce the best results. It is just as reasonable to confine poultry when being fattened as the larger animals. The simplest method of doing this is by the crate feeding system outlined below, but many a farmer can obtain improved results if the birds intended for sale were only confined in a suitable shed with a clean floor, good ventilation, and such foods as would be fed were the birds being fattened in crates. The crate system is much the

better plan, however, and it is advisable to adopt it whenever possible.

The Crate Feeding System.—During the past few years the crate feeding of chickens for market has been introduced from England, and has made substantial progress in Canada, because it has proved to be the most satisfactory means of preparing poultry for market. The work of fattening is readily conducted in the crates. The gain in live weight made by the birds ranges from one to three pounds per chicken during the fattening period.

Crated chickens command an increased price per pound because they supply a much larger percentage of meat than when lean. The flesh is also more tender and palatable because it is produced by the wholesome food that is of necessity fed during the fattening period. The confining of birds in crates also tends to render the muscular tissue less tough, and in properly fattened birds there should be an almost entire absence of such tissue.

Cost of Food and Grain in Weight by Crate Feeding.—To illustrate the gains which can be obtained by crate feeding, the following figures taken from the results obtained at the Dominion Government Breeding Station, Bowmanville, Ontario, are given:

No. of Chickens	Weight of Chickens	Cost of Chickens	Cost of Meal	Cost of Milk	Total Cost	No. lbs. Grain	Dressed Weight	Am't rec'd. at 15c.	Profit over Cost
lbs.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	lbs.	lbs.	\$ c.	\$ c.
36	111	7.77	1.30	.70	9.77	48	146	21.00	12.13
48	164	11.48	1.00	.85	13.03	76	194	29.10	15.17
48	165	11.55	2.10	1.10	14.75	80	194	29.10	14.35
60	140	10.22	1.96	1.00	13.18	64	174	25.95	12.77
60	195	13.95	2.10	.87	16.92	105	220	33.00	16.38
62	185	12.95	1.70	.70	15.35	83	210	31.50	16.15
72	200	14.00	1.80	.87	16.67	88	205	30.75	14.08
	166	11.62	3.75	1.25	16.62	80	231	34.65	18.03
434	1332	93.24	16.31	7.34	116.89	594	1573	235.95	119.06

RECORD OF FATTENING RESULTS.

The birds fattened in this lot were of a desirable type and the results, as will be observed, were exceptionally good showing a profit of over 100 per cent, for three weeks of fattening. Some allowance must be made, however, for killing and dressing as these are not included in the above statement.

As stated elsewhere in this bulletin, the type of bird that is capable of producing the best results in egg production is also the best type of bird to produce flesh in the fattening crate.

In order to have the chickens plump and well fleshed for the market when they are at the most profitable age, they should be placed in the fattening crates when they are between three and four months old. It is not meant by this that the chickens cannot be fattened profitably when they are more than four months old. Suitable market chickens will show gains in the crate at any age, but the most profitable gains are made by birds weighing 3½ lbs. to 4 lbs.

Construction of Fattening Crates.—The fattening crates are 6 feet long, 16 inches wide and 20 inches high, inside measurements. Each crate is divided by two tight wooden partitions into three compartments, and each compartment holds four birds. The frame pieces are two inches wide and ¾ inches thick. This frame, see Fig. 38, is covered with slats placed lengthwise on three sides,—bottom, back and top,—and perpendicular in front. The slats for the bottom are ¾ inches wide and ¾ inches thick; the back, top and front slats are the same width but only ½ of an inch thick. The space between the slats in front are two inches wide to enable the chicken to feed from the trough. The bottom slats are 1½ inches apart, with the exception of the space at the back of the crate, which is 2¼ inches wide. The bottom slats are always placed upon the top of the cross pieces of the frame. This is done to prevent any injury to the chickens' feet should crate be moved and placed on the ground when full of birds. The back slats are placed lengthwise 1½ inches apart, and the top slats are also placed lengthwise 2 inches apart. Two strips should be nailed under the top slats near the ends of each division and hinged to



TOMATOES AND TOMATO VINES AT EDMONTON.

FIELD NOTES

Twenty-Ninth Canadian National Exhibition.

the frame work. When the slats are sawn above the partitions, doors are formed for putting in birds.

The crates are placed on stands 16 inches from the ground and the droppings from the chickens received on sand or other absorbent material. A light "V" shaped trough 2 1/2 inches inside is placed in front of each crate, and is carried on two brackets nailed to the ends of the crate. The bottom of the trough should be 4 inches above the bottom of the crate and the upper inside edge 2 inches from the crate.

In fattening for the market it is always advisable to use the fattening crate described in this bulletin. If only a small number of chickens are to be fattened packing boxes of suitable dimensions can be adapted for the purpose. The open top of the box should become the bottom of the crate, and one side should be removed for the front. Laths should be nailed up and down the front and lengthwise on the bottom to form the floor. The laths should be placed the same distance apart as recommended in the construction of the regular fattening crate. A board should be loosened in the top of the box to remove the birds, and a feed trough arranged in front.

In warm weather the crate should be placed outdoors in a sheltered place.

In unsettled weather it is advisable to construct a rough board shelter above the crate so as to shed the rain; or the fattening should be carried on inside a shed or barn.

During cold weather the crates should be placed in a warm building. Abundant ventilation is required at all times.

Killing Lice.—Before the birds are put into crates they should be well dusted with sulphur, or any good louse killer, to kill any lice on them. They should be treated again three days before they are killed.

Feather Plucking.—Birds that are fattening in crates sometimes pluck the feathers from one another. This habit is caused by irritation at the roots of the feathers, and results either from over-heated blood or parasites. The remedy is to remove the chickens that do the plucking and feed the others more skim milk, or add animal food and vegetable matter to the fattening ration.

If the trouble is caused by parasites, they will be found in the white powdery matter at the base of the quill. A sulphur and lard ointment should be applied to the affected parts.

Feeding.—It is necessary to feed the birds lightly the first few days they are in crates, not feeding all they will consume. The food should be given twice a day, and after the birds have eaten what they require, the balance should be removed and the troughs turned over. Fresh water should be supplied daily, and grit two or three times a week.

Fattening Rations.—A satisfactory fattening ration is one that is palatable and that will produce a white-colored flesh. Oats, finely ground, or with the coarser hulls sifted out, have proved the best grain for fattening and should form the basis of all the grain mixtures. The most suitable meals for fattening are ground oats, buckwheat, barley and low grade flour.

Satisfactory mixtures of meal:

- (1). Ground Oats (course hulls removed).
- (2). Siftings from rolled oats (no hulling dust should be included).
- (3). Two parts ground oats, two parts ground buckwheat, one part corn.
- (4). Equal parts of ground oats, ground barley and ground buckwheat.
- (5). Two parts of ground barley, two parts of low grade flour and one part of wheat bran.

The meal should be mixed to a thin porridge with sour milk, skim milk, or buttermilk. On the average, 10 pounds of meal require from 12 to 15 pounds of milk.

When sufficient skim milk or buttermilk cannot be obtained for mixing the mash, a quantity of meat meal, blood meal, or beef scraps and raw vegetables should be added to the fattening ration. A good proportion is one part of the meat meal to fifteen of oatmeal.

The birds should remain in the fattening crates for a period not exceeding 24 days. Some birds will fatten more readily than others and should therefore, be removed from the crate and killed as soon as they are ready. During the last week it is well to feed a little beef tallow, shaved into the trough or melted and mixed in the mash. About one pound of tallow to 50 or 60 chickens per day is a fair allowance.

Marking Eggs.

The suggestion is made that poultry raisers or rather all those engaged in the production and sale of eggs, stamp each day's gathering with the date upon which they were laid. The suggestion is a good one. It would tend to add a greater value to fresh eggs and increase confidence in honest producers. In winter a fresh egg that is honestly stamped with its age would bring fifty per cent. more than if the consumer had to take the risk of its age. Stamps are easily procured and the egg producer who is anxious to develop and improve a first-class trade will adopt this as one of his business practices.

Three new buildings costing over \$400,000 are the past year's monument to the enterprise of the Canadian National Exhibition management and the municipal council of the city of Toronto. Last fall on Thanksgiving eve, the grand stand and main building on the exhibition grounds at Toronto went up in smoke. With push that would do credit to any Western city the directorate and the city council got to work, and today there stands on the scene of the conflagration a magnificent quarter-million-dollar grand stand, built of steel, brick and concrete, and provided with 15,000 chairs, also a superb architectural achievement in the form of an agricultural building, representing an outlay of nearly one hundred thousand dollars, and devoted to the housing and display of farm and garden products. It also is of steel, brick and concrete construction, dimensions 254 feet long by 58 wide, with three wings each 58 feet wide, and extending back 156 feet. In the basement is ample temperature, regulated storage for plants and shrubs. The other new structure is the railway exhibits' building, erected by the railway companies for the housing of their annual exhibits.

Toronto's exhibition is a wonder. Year by year it has grown vastly in excellence and popularity, and 1907 simply eclipsed all previous records. Concealed on broad lines, backed by the city of Toronto and its individual moneyed men, and pushed forward with bold and daring enterprise, begotten of civic pride and the stimulation of success, it has now in the eighth year of its majority attained proportions and been evolved to a perfection of organization and management, that fairly beggar superlatives. To these encomiums the attendance testifies. Though continuing for two whole weeks it drew this year day after day, crowds ranging from sixty to a hundred and twenty-five thousand people, and as for the grandstand it is already quite too small. Night after night it was packed long before the performance began and throngs of four, five and six thousand filled the space between the stand and the track rail. The evening attractions were hippodrome and pantomime followed by band music, tattoo and pyrotechnic exhibitions, all of a high order. The midway was relegated to a remote corner of the grounds and was unusually free from objectionable features. The display of manufactured goods was infinite and the process building afforded instructive entertainment for multitudes interested in seeing how the things we daily eat and wear and use are prepared.

But from an agricultural point of view the crownning glory of Toronto Exhibition is the live stock, and the usual high-class aggregation was on hand. In horses the most noteworthy and encouraging fact was the continued improvement in the class for Canadian-bred draft, (the Clydesdale or Shire). The open classes of Clydesdales as well as Hackneys, Thoroughbreds, Standardbreds and Roadsters were well up to the mark. Neither Percherons nor Coach horses were entered at all in the breeding classes. A departure this year was in judging all the horses, breeding classes as well as harness and saddle exhibits, in front of the grand stand. A few classes of every breed being pulled off each day. Formerly, it has been customary to show the breed-classes in a small separate ring where they could be watched by horsemen and others interested without any charge. The old plan is preferred by the horsemen, for under the present system, few farmers see the judging done, as to see at all would necessitate the payment of six admission fees and the spending of every afternoon for a week in the ring. On account of the way in which the judging was spun out it was inconvenient for some of the judges to be present long enough to dispose of their particular breeds, hence some substitution was resorted to. The following men decided the honors in the respective breeds. Thoroughbreds, Mr. J. G. Rutherford, Ottawa, and J. S. Bratton, St. Louis, Mo. Standardbreds and Roadsters, Dr. Rutledge, Lambeth, Ont. Hackneys, W. H. Gibson, Beaconsfield, Que., and J. S. Bratton, Clydesdales, Shires and Canadian Draught's, Capt. T. E. Robson, London, Ont., Alex Russell, Corville, Ont., Alex Galbraith, Janesville, Wis., and Prof. Curtis, Ames, Iowa. For the most part the work was well done, though there were cases of course, where the rail talent differed from the dispensations of the ermine wearers. One practice, however, that must not pass unmentioned was the disqualification, after they had been judged, of several horses previously passed by the vets who subsequently threw them out. The prevailing trouble or excuse appeared to be sidebones. This was about the only blot on the administration of the show.

Clydesdale awards—Stallion 4 years or over, 1, Sir Marcus, Graham & Renfrew, Bedford Park; 2, Right Forward, Graham Bros. Claremont; 3, Adam Bede, Smith & Richardson, Columbus; 4, Baron Bean, Robt. Davies, Toronto; 5, Baron Silloth, Robt. Ness, Homick P. O.

Stallion, 4 years and over, importers excluded—1, Royal Baron, Hodgkinson & Tisdale, Beaverton; 2, Durbar, Orangeville Association; 3, Cairngaan, David Graham, Pickering; 4, Caleph, John Raymer Ringwood.

Stallion 3 years old—1, Buteman, Graham Renfrew; 2, Royal Choice, Graham Bros.; 3, Buchlyvie Laird, Smith & Richardson; 4, Kilfillan Chief, Thos. Mercer, Markdale; 5, Vanderbilt, Robt. Ness.

Stallion 2 years old—1, Drawdykes Baron, Graham & Renfrew; 2, Boreland Chief, Graham Bros.; 3, Bullseye, Dalgety Bros., London; Baron Columbus, Smith & Richardson.

Stallion 1 year old—1, Royal Benedict, Robt. Ness; 2, King o' the Barons, Graham Bros.; 3, Gay Sprig, Graham & Renfrew.

Champion geld mare—1, Flora of Ardyne, Robt. Davis; 2, Pearl, Donald Gunn & Son, Beaverton; 3, Lady Macraith, Wm. Edwards, Claremont.

Filly 3 years old—1, Fifishire Lass, Hodgkinson & Tisdale; 2, Thorncliffe Queen Alexandria, Robt. Davies; 3, Marietta, Robt. Davies.

Filly 2 years old—1, Margherita, Donald Gunn & Son; 2, Crissa Princess, Hodgkinson & Tisdale; 3, Strawberry Bloom, Robt. Ness.

Yearling filly—1, Hilda 2nd, Graham Bros.; 2, Cragie Belle, Hodgkinson & Tisdale; 3, Belle of Dildawn, Robt. Ness.

Brood mare and foal—1, Dunrobin Mabel, Donald Gunn & Son; 2, Lady Lockfergus, Robt. Davies.

HACKNEYS.

Stallion, three years old—1, T. A. Cox, Brantford, Crayke Mikado; 2, A. E. Yeager, Nottingham Squire; 3, Graham & Renfrew Co., Bedford Park (imp.) Cliff Royalist.

Filly, one year old—1, H. J. Spencely, Boxgrove, Her Majesty; 2, T. A. Cox, Brantford; 3, Hodgkinson & Tisdale, Beaverton, Br. Cherry Blossom; 4, W. E. Butler, Ingersoll, Ch. Hollin Helen.

Brood mare, with foal of the same breed by her side—1, Graham Bros., Claremont, Ch. Minerva; 2, Hodgkinson & Tisdale, Br. Wild Cherry; 3, H. J. Spencely Boxgrove, bay, Rosalee; 4, Graham Bros., Claremont, Misfire.

Foal of 1907—1, Graham Bros., Claremont, Gondolier; 2, Graham Bros., Toggeny; 3, Graham Bros., Madonna; 4, Hodgkinson & Tisdale, Beaverton, Dictator.

SHORT HORNS.

Bull, three years old and upwards—1, W. G. Pettit & Sons, Freeman, Prime Favorite; 2, J. A. Watt, Salem, J. Victor; 3, W. C. Edwards & Co., Rockland, Ont., Berie's Hero; 4, Peter White, Pembroke, Marigold Sailor.

Bull, two years old and under three—1, A. E. Meadows, Port Hope, Challenge Plate; 2, John Guardhouse & Sons, Highfield, Prince of Archers; 3, John Miller, jun., Ashburn, Lancaster Champion; 4, James Cowan, Seaforth, Golden Emir.

Bull, senior yearlings, calved before January 1, 1906, and under two years—1, W. R. Elliot & Sons, Guelph, Rose Victor; 2, Geo. Amos & Son, Moffat, Bud's Emblem; 3, Hastings Bros., Crosshill, Snowball Hero.

Bull, junior yearlings, calved on or after January 1—1, Kyle Bros., Ayr, Clipper Chief; 2, J. A. Watt, The Dreamer; 3, W. R. Elliot & Son, Victor of Maple Hill; 4, John Guardhouse & Sons, Prince Victor.

Bull calf, senior, calved before January 1, 1907, and under one year—1, Thomas Redmond, Millbrook, Gallant Sailor; 2, Geo. Amos & Son, Lancaster Victor; 3, Daniel Talbot & Son, Everton, Hillcrest Granger; 4, John Miller, jun., Choice Merchantman; 5, John Fairbairn, Spring Creek Archer; 6, H. Smith, Exeter, Jealous Lord; 7, Daniel Talbot & Son, Pride of Hillcrest.

Bull calf, junior, calved on and after January 1, 1907—1, H. Smith, Baron's Pride; 2, Kyle Bros., Jessie's Chancellor; 3, Kyle Bros., Vice-Chancellor; 4, W. G. Pettit & Son, Tillboursies Favorite; 5, W. R. Elliot & Sons, Golden Star; 6, John Guardhouse & Sons, Scottish Knight.

Bull, senior champion, over two years—1, W. G. Pettit & Son, 2, R. A. E. Meadows.

Bull, junior champion, under two years—1, Kyle Bros. 2, R. W. R. Elliot & Son.

Bull, grand champion—1, W. G. Pettit & Son; 2, R. Kyle Bros.

Cow, three years old and over—1, W. C. Edwards, Pine Grove Clipper; 2, J. A. Watt, Tiny Maud; 3, J. A. Watt, Olga Samford; 4, W. G. Pettit & Sons, Warden Blossom.

Cow, under four years, in milk—1, H. Smith, Golden Lovely.

Heifer, two years old and under three—1, Geo. Amos & Son, Flora 90th; 2, W. C. Edwards, Butterfly Girl; 3, W. G. Pettit & Sons, Rosetta 12th; 4, J. A. Watt, Fanny B. 38th; 5, W. G. Pettit & Sons, Jilt's Lady; 6, John Guardhouse & Son.

Heifer, senior yearling, calved before January 1st, 1906, and under two years—1, Peter White, Pembroke, Mina Lass 14th; 2, W. C. Edwards, Pine Grove Mildred 13th; 3, John Dryden & Son, Brooklyn, Golden Bracelet; 4, J. A. Watt, Stamford Queen.

5, Peter White, Gloucester Queen 5th; 6, H. Smith, Village Rose.

Heifer, junior yearling, calved on or after January 1st, 1906—1, Peter White, Belvedere Lily 9th; 2, John Currie, Eramosa, Ont., Roan Beauty; 3, H. Smith, Beauty Rose; 4, Thos. Redmond, Marigold 44th; 5, Geo. Amos & Son, Lady Mysie; 6, Kyle Bros., Lady of the Valley.

Heifer calf, senior, calved before January 1st, 1907—1, John Dryden & Son, Golden Heroine; 2, J. A. Watt, Salem, Mildred 30th; 3, Peter White, Bedford Bessie; 4, Geo. Amos & Sons, Victoria 75th; 5, W. P. Pettit & Sons, Avere 13th; 6, Goodfellow Bros.

Female Senior champion—Geo. Amos & Sons, Flora 90th, Reserve, W. C. Edwards, Pine Grove Clipper.

Junior female champion—Peter White, Mina Lass 14th.

Grand female champion—Geo. Amos & Sons.

Graded herd: bull, two years old and over, cow, three years or over; heifer, two years and under three heifer, one year and under two, and heifer under one year—1, W. C. Edwards; 2, J. A. Watt; 3, W. G. Pettit & Sons.

Exhibitor's herd: one bull under two years old, two heifers one year old and under two, and two heifers under one year—1, Peter White; 2, H. Smith; 3, Kyle Bros.; 4, J. A. Watt.

Breeder's herd: one bull under two years, two yearling heifers, and two heifer calves, all bred and owned by exhibitor—1, Jno. Dryden & Son; 2, H. Smith; 3, J. A. Watt; 4, Geo. Amos & Son.

JERSEYS (120 ENTRIES).

Bull, three years old and upward—1, Wm. McKenzie, Kirkfield; 2, 3, and 4, R. H. Bull & Son; Brampton.

Bull, two years old—1 and 2, R. H. Bull & Son; 3, David Duncan, Don; 4, E. Wicks & Son, Bedford Park.

Bull, one year old—1, T. Porter, Carlton West; 2, David Duncan; 3, B. H. Bull & Son.

Bull calf, under one year—1 and 2, B. H. Bull & Son; 2, E. Wicks & Son; 4, E. P. Ball, Rock Island, Que.

Bull calf, calved since January 1st, 1907—1, David Duncan; 2, 3, 4, B. H. Bull & Sons.

Bull, senior champion—1, Wm. McKenzie, Pearl of Kirkfield.

Bull, junior champion—T. Porter, Golden Fox of Dentonia.

Grand champion bull—1, Wm. McKenzie, Pearl of Kirkfield.

Cow, four years old and over—1 and 3, B. H. Bull & Son; 2 and 4, David Duncan.

Cow, three years old—1, B. H. Bull & Son; 2, Wm. McKenzie; 3, David Duncan; 4, E. Wicks & Son.

Cow of any age with two of her progeny—1 and 2, B. H. Bull & Sons.

Heifer, two years old—1, 3, 4, B. H. Bull & Son; 2, David Duncan.

Heifer, one year old—1, David Duncan; 2, 3, 4, B. H. Bull & Son.

Heifer, one year old, out of milk—1, 2, David Duncan; 3, B. H. Bull & Son; 4, T. Porter.

Heifer calf, under one year—1, 2, 4, B. H. Bull & Son; 3, David Duncan.

Heifer calf, calved since January 1st, 1907—1, T. Porter; 2, 3, 4, B. H. Bull.

Four animals, the progeny of one bull, all bred and owned by one exhibitor—1 and 3, David Duncan; 2, B. H. Bull & Son.

Herd, one bull and three heifers under two years old; heifers bred and owned by one exhibitor—1 and 3, David Duncan; 2, B. H. Bull & Son.

Graded herd, one bull any age; two females over three years, one female over two years and under three; one female over one and under two years; one female under one year, owned by exhibitor—1, 2, and 3, B. H. Bull & Sons.

Female senior champion—B. H. Bull & Sons, Sweet Eyes.

Female Junior champion—B. H. Bull & Son, Brampton Henrietta.

Grand Female champion—R. H. Bull & Son.

HOLSTEINS.

Bull, three years old and upwards—1, Logan Bros., Amherst Point, N. S.; 2, A. C. Hallman, Breslau; 3, G. W. Clemons, St. George.

Bull, two years old—1, Logan Bros., N. S. Bull, one year old—1, Logan Bros., Jacob Clark; 2, G. W. Clemons; 3, J. W. Lee & Son, Simcoe.

Bull calf, under one year—1, C. H. Hallman; 2, Logan Bros.; 3, A. C. Hallman; 4, Logan Bros.; 5, G. W. Clemons, Count Posch de Boer.

Bull calf, calved after January 1, 1907—1, Logan Bros.; 2, Logan Bros.; 3, A. C. Hallman.

Bull, senior champion—Logan Bros.

Bull, junior champion—A. C. Hallman.

Bull, grand champion—Logan Bros.

Cow, four years old and upwards—1, Logan Bros.; 2, Logan Bros.; 3, G. W. Clemons, St. George, 3rd; 4, A. C. Hallman, 2nd; 5, A. C. Hallman.

Cow, three years old—1, G. W. Clemons; 2, A. C. Hallman; 3, J. W. Lee & Sons, 4th, Flower 2nd;

Heifer, two years old—1, G. W. Clemons; 2, L. W. Lee & Sons; 3, Logan Bros.; 4, Logan Bros.; 5, J. W. Lee & Sons.

Heifer, one year old, in milk—1, Logan Bros.; 2, G. W. Clemons.

Heifer, one year old, out of milk—1, Logan Bros.; 2, Logan Bros.; 3, A. C. Hallman; 4, G. W. Clemons; 5, A. C. Hallman.

Heifer calf, under one year—1, Logan Bros.; 2, Logan Bros.; 3, Logan Bros.; 4, Logan Bros.; 5, G. W. Clemons, Julia Arthur 3rd.

Heifer calf, calved after January 1, 1907—1, Logan Bros.; 2, G. W. Clemons; 3, G. W. Clemons; 4, J. W. Lee & Sons.

Four animals, the progeny of one bull, under two years, owned and bred by exhibitors—1, Logan Bros.; 2, A. C. Hallman; 3, G. W. Clemons; 4, Logan Bros.; 5, J. W. Lee & Son.

Herd of one bull and four females over one year old, owned by exhibitor—1, Logan Bros.; 2, G. W. Clemons; 3, A. C. Hallman; 4, J. W. Lee & Sons.

Young herd, consisting of one bull and four females, one year old and under three—1, Logan Bros.; 2, G. W. Clemons; 3, A. C. Hallman.

Female, junior champion—Logan Bros.

Female, grand champion—Logan Bros.

AYRSHIRES (109 ENTRIES).

Bull, three years old and upwards—1, R. R. Ness, Howick, Que.; 2, Wm. Stewart & Sons, Menie, Ont.; 3, P. H. Gouin, Three Rivers, Que.

Bull, two years old—1, Harold M. Morgan, St. Anne de Bellevue, Que.; 2, Alex Hume & Co.; 3, Hector Gordon, Howick, Que.; 4, Harold M. Morgan.

Bull, one year old—1, R. R. Ness; 2, Alex Hume & Co.; 3, Wm. Stewart & Son; 4, P. H. Gouin; 5, Alex Hume & Co.

Bull calf, under one year—1, Hector Gordon; 2, W. Stewart & Sons; 3, Alex Hume & Co.; 4, P. H. Gouin; 5, Harold M. Morgan.

Bull calf, calved after January 1st, 1907—1, Harold M. Morgan; 2, Wm. Stewart & Sons; 3, Alex Hume & Co.; 4, Wm. Stewart & Sons.

Bull, senior champion—R. R. Ness, Barcheski King's Own.

Bull, junior champion—R. R. Ness, Netherhall Goodtime.

Bull, grand champion—R. R. Ness, Barcheski King's Own.

Cow, four years old and upwards—1, Alex Hume & Co.; 2, R. R. Ness; 3, P. H. Gouin; 4, Wm. Stewart & Sons; 5, P. H. Gouin.

Cow, three years old—1, Alex Hume & Co.; 2, R. R. Ness; 3, P. H. Gouin; 4, R. R. Ness.

Cow, dry in calf—1, Harold M. Morgan; 2, Alex Hume & Co.; 3, Hector Gordon; 4, R. R. Ness.

Heifer, two years old—1, R. R. Ness; 2, Hector Gordon; 3, Wm. Stewart & Sons; 4, Hector Gordon.

Heifer, one year old out of milk—1, R. R. Ness; 2, Harold M. Morgan; 3, Wm. Stewart & Sons; 4, Alex Hume & Co.; 5, Hector Gordon.

Heifer calf, under one year old—1, 2, and 3, R. R. Ness; 4, Harold M. Morgan; 5, Wm. Stewart & Sons.

Heifer calf, calved since January 1st, 1907—1, Alex Hume & Co.; 2, Harold M. Morgan; 3, Wm. Stewart & Sons; 4, Alex Hume & Co.

Female senior champion, two years and over—1, Alex Hume & Co., Eva of Menie.

Female junior champion, under two years—R. R. Ness, Buchan Flora.

Grand female champion—Alex Hume & Co., Eva of Menie.

Graded herd: one bull, any age; two cows, over three years; two-year-old heifer; yearling heifer, and heifer calf—1, R. R. Ness, Howick, Que.

Events of the Week.

CANADIAN.

Agnus Grant of High Bluff, Man., finished cutting his wheat on Sept. 4th.

Five hundred miles of government telephone lines will be completed at Alberta by the end of the year.

The Winnipeg Maroons are Champions in the Northern Copper Country Baseball League, winning seventy games and losing twenty-seven.

F. Webster, an expert from Ohio, believes that Northern Alberta has a large store of natural gas, and that in two years Edmonton will be using it as fuel.

An excursion train from Markdale, Ont., to the Toronto exhibition, jumped the track when going round the horseshoe curve below Orangeville. Seven persons were killed and more than twenty injured.

The extensive barns of the Macdonald Agricultural College at Ste. Anne de Bellevue, P. Q., were struck by lightning and totally destroyed. The loss is about \$35 000 but is covered by insurance.

A new trade agreement between Canada and France allows certain French goods to enter this country at lower rates in return for the granting of the minimum tariff to a number of exclusively Canadian products.

The chief engineer of the Quebec bridge company gave evidence at the inquest that a flaw had been found in the construction. It was thought to be unimportant, but an inspector was sent to New York to discuss the question with the engineers of the company.

BRITISH AND FOREIGN.

Revolution is said to be imminent in the Argentine Republic.

The telegraphers' strike does not seem to be likely to end soon, for the operators in New York and Chicago are seeking other employment.

Louis Glass, vice-president of the Pacific States Telephone company, was sentenced in San Francisco to five years in San Quentin prison, for bribery.

A new law making it possible for a professional thief who has been convicted more than once, to be arrested when found loitering in a public place, or riding on a public vehicle, and who can be sentenced to six months in prison, has gone into effect.

A meeting of the presidents and managers of several elevator companies throughout Minnesota was held at Minneapolis for the purpose of forming a big merger of farmers' elevators. There are two hundred companies in the organization.

The Persian premier, who was also minister of the interior, was assassinated on the last day of August as he was leaving the national council in Teheran. The murder is thought to be the work of a secret society.

The dock laborers of Antwerp, Belgium went on strike and were locked out. In sympathy with them the porters went out and riots have occurred between them and the Englishmen who had been brought over to handle the cargoes. Buildings of great value have been fired by the mob.

Calgary Notes.

The Government Poultry Fattening Station sent 1900 pounds of dressed poultry to Calgary recently which fetched 20 cents per pound. The demand all round for good table poultry seems to be considerably in excess of the supply.

Cattle shipments will soon be in full swing now. Already a few consignments have left Medicine Hat. J. D. McGregor sent 220 head, A. Brown 3 car loads, P. Day 108 head, L. C. Brown 3 car loads. M. D. Mitchell of Medicine Hat will be shipping fifteen car loads to England on Sept. 20th.

The Direction of the Greatest Progress.

The direction in which the surest and most helpful progress lies for the betterment of mankind, is not in politics nor in religious faith, nor in what is usually meant when we say "education"—that is, the formal training of youth in a conventional set of studies. The most rapid and certain progress would be made by the application to daily life of the scientific knowledge that has been accumulated. Some discoveries and inventions do find practical application quickly and easily, such as electric lighting, the telephone, the gas-engine inoculation for diphtheria, and many more. Others, and many very much simpler, remain unapplied or are slow in finding practical use. We are beginning to apply the transmission of power by the rapid development of hitherto unused water-power. But we are yet very slow about it. We are strangely slow, too, in applying electricity to many household uses. In the great field of preserving health-preventive medicine, we sometimes call it—we are criminally slow. The quack and vendor of drugs, even of unknown drugs, do as thriving a business as they ever did. In those tasks that require more compact social and political organization, such as the conquest of tuberculosis, the prevention of diseases conveyed by milk and water, the extermination of mosquitoes and the like, we go forward hesitatingly. The adoption of healthful methods of eating, even the eating of less food in middle life, is a slow progress. Real health-resorts, or sanatoria places where men and women may learn before disease attacks how to live so as to avoid the ailments that wrong system of life will surely bring, ought to be within the reach of everybody and ought to be so conducted as to be free of "fads" and above the suspicion of mere private gain. Along with this conception of right living and of guarding against disease, we ought to develop practitioners of prevention, prescribers of modes of life according to individual needs.

Again, the application to agriculture of the facts that have been demonstrated over and over again, and that are not yet in general use would enable many men, perhaps most men, who now till the soil, to double their yields. Yet the teaching of the farmers who are themselves now tilling the earth has been hardly begun. These facts, for example,

have been proved time and again: By the expenditure of one per cent. more—of \$101 where \$100 is now spent—the dairyman who has common cows could get a breed of cows that would yield from 10 per cent. to 25 per cent. more milk or butter. The same will hold good of wheat—common wheat as against wheat of a good variety. The labor is the same in each case.

Most of these tasks require community of action. They require a degree of co-operation that we have not developed yet. A sufficiently compact organization and co-operation of society would enable us to eliminate an enormous number of economic wastes that we endure only by reason of habit.

It will become one of the evidences of public spirit in men and in bodies of men that they turn their attention to such tasks. The Merchants' Association of New York had not the slightest idea, when it was organized, that it would ever consider it a part of its business to set about the possible extermination of house flies; and yet it would be hard to find a greater public service that it could do.

We have hitherto left comprehensive plans for the practical betterment of groups or communities of people either to the commercial interests of inventors (a perfectly good method as far as it goes) or to the impractical and badly managed experiments of the builders of Utopias or of "colonies," who have burdened the real work of betterment with a lot of theories and doctrines. There is an indefinite field of work in furthering the practical application of scientific knowledge for all sorts of organizations. If a great association of merchants in New York think it worth their while to attack flies, any practical organization of men or women may find similar tasks near at hand.—*World's Work.*

Things to Remember.

Nelson Fair.....September 13-18
Victoria Exhibition.....September 24-28
New West Minister Exhibition.....October 1, 2, 3, 4 and 5

MANITOBA FAIRS.

Woodlands.....September 27
Kildonan.....September 25 and 26
Gilbert Plains.....October 1
Plumas.....October 2
Meadow Lea.....October 3
Macgregor.....October 4
Beausejour.....October 4 and 5
Selkirk.....October 9 and 10

SASKATCHEWAN FAIRS.

Lloydminster.....September 19 and 20
Radisson.....September 24
Quill Lake.....September 26
Watson.....September 27
N. Battleford.....October 1 and 2
Duck Lake.....October 4
Kinistino.....October 8
Tisdale.....October 10
Melfort.....October 15 and 16

ALBERTA FAIRS.

Didsbury.....September 13
Olds.....September 16 and 17
Magrath.....September 19 and 20
Raymond.....September 24 and 25
Cardston.....September 26 and 27
Medicine Hat.....October 1 and 2
Vermillion.....October 1 and 2
Vegreville.....October 3 and 4
Lacombe.....October 3 and 4
Ponoka.....October 7 and 8
Wetaskiwin.....October 9 and 10
Nanton.....October 15
Pincher Creek.....October 16
Priddis.....October 18
Viking.....October 7 and 8
St. Albert.....October 8 and 9

MARKETS

October wheat reached the dollar mark on Sept. 3th, the highest point touched by this option this season. The advance came on the strength of unfavorable European reports. Wheat in Berlin jumped ten cents in less than two days. It was reported that stocks in that country were exhausted, that the continued unfavorable weather was interfering seriously with harvesting and injuring the quality of the crop as well. The demand abroad for American wheat became more active and the local market established new high price records in all futures, this too in the face of a continually increasing visible world's supply. The advance came unexpectedly. Wheat in every market in America for the past month has slumped or soared as the weather in the Northwestern portion of the continent was reported favorable to or likely to injure the growing crop. This time, however, the jump came when weather conditions all over the wheat belt were unusually propitious, but as the high values reached were largely speculative in character, the advance could not be maintained. Towards the close of the week there was a general desire among the larger operators to sell, and this coupled with reports that indicated a much greater yield than was anticipated a fortnight ago in many districts in Saskatchewan, Manitoba, and the Dakotas, caused prices to drop two or three cents as rapidly as they had advanced.

Export demand for western wheat shows some improvement but there is upwards of seven millions of old wheat to go out before navigation closes, and an average crop in addition is now safely in sight. The supply of old wheat seems to be holding out well, deliveries for the week averaging around forty cars per day, but shipments from Canadian and American ports despite the reported activity in European demand have not been as heavy as they should. Importers do not care to buy very heavily on prices so purely speculative as they have been in America of late. Hence, while a good many of these countries require wheat, or will require it as soon as their own short supplies are exhausted, importing in any volume will be delayed until values here right themselves more on the basis of supply and demand than they are at present. It is not probable that present prices will shade off considerably during the next three weeks. It is doubtful if any October wheat will be delivered at prices now current in this option. At the same time there is little likelihood of values going much below what they were a week ago. The shortage in the world's wheat supply is serious enough to keep prices up above the last few year's average no matter how bountiful the harvest is that is now being gathered in Northwestern America. Europe is going to import more largely in 1908 than she has for the past few years. Despite all rumors and reports to the contrary, in a good many European States, the wheat crop is far below normal. The feverish anxiety with which Germany snapped up American offerings early in the week goes to show that a serious shortage is anticipated in the supply there. It is just possible too, that the second half of the season of 1907-08, will be more sensational in the matter of prices than this. The play hinges to a large extent on the forthcoming Argentina crop and the available surplus for export from India. The latter country has on former occasions made good deficiencies in supplies, but this year reports from there have so far been disappointing. As it stands at present it looks as if nearly all the available wheat of Canada, United States and Russia will be required in the season just opening, so that if Argentina should fail to reap in as great abundance as is now promised, wheat prices about next May will reach a point they haven't touched for some time. But this is largely speculative. With the advance in wheat, oats went up a cent and have maintained the higher level. The general prospects are for steady values for this cereal, though no one can foretell what will happen when the new crop comes in.

Prices are for grain in store at the lakes, wheat, No. 1 Hard, \$1.02, No. 1 Nor. \$1, No. 2 Nor. 98c. No. 3 Nor. 94c. Futures, Oct. 102c, Dec 102c., May 108c.
Oats per bushel, 43c. Futures, Oct. 42c, Dec. 40c., Barley 51 cents.

PRODUCE AND MILLFEED (WHOLESALE).

Bran, per ton.....\$17.50
Shorts, per ton.....18.50
Barley and Oat Chop, per ton.....25.00
Oats, chopped, per ton.....27.00
Barley, chopped, per ton.....22.00
HAY, (baled) in car lots, per ton,
Prairie.....11.00 @ 13.00
Timothy.....13.00 @ 16.00
BUTTER—
Fancy, fresh made creamery prints.....26
Creamery, 56 lb. boxes.....24
Creamery, 14 and 28 lb. boxes.....24
Dairy prints, extra fancy.....22 @ 24
Dairy, in tubs.....19 @ 20
CHEESE, Manitoban at Winnipeg.
Eggs, fresh, f. o. b. Winnipeg subject to candling.....17 @ 18

LIVE STOCK.

There is a good demand for export cattle and few of quality coming forward. Just at present ocean space is plentiful and cheap and shippers are anxious to take advantage of it, but export stuff seems hard to find just yet. A few train loads went East last week, large consignments being received from the Knight Sugar Company, Raymond, Alta., Eldridge Bros., and J. Peters, Carston. About 350 head of exporters came in on Friday, but the bulk of the stock coming in is poor quality, butchers' old bulls, fleshless cows and so on. The supply of this kind of stock is too heavy, demand has fallen off and offerings unless of pretty good quality go begging. Despite the activity of export demand prices for this class show little advance if any over a week ago. A few lots last week may have been handled at 4 1/2c or 4 3/4c, but the bulk went at around 4c with some less. These prices mean of course freight assumed. Sheep and lambs are scarce, and prices a little firmer. Hogs average around the same as a week ago with prices strong.

Export steers, off cars \$3.75 to \$4.50; butchers' cattle (choice), 1,000 to 1,100 lbs. \$3.50; 900 to 1,000 lbs. \$2.25 to \$3.00; common stuff \$2.00 to \$2.25; bulls and cows \$2.00 to \$3.00. Sheep \$6.00; lambs \$7.00. Bacon hogs 150 to 200 lbs. \$6.75; heavier \$6.25; roughs, stags and old sows \$4.00 to \$4.50.

TORONTO LIVE STOCK MARKET.

At the Junction stock yards this week an average

volume of business was done. The quality of the stock generally was below the average. Ontario pastures have suffered severely this past summer from prolonged droughts, and the scarcity of grass reflects itself too plainly in the live stock offerings. The better animals are quickly purchased at good prices, the sale of others is slow. The tendency is toward higher prices. One load of export steers sold this week at \$5.50. Export steers \$4.75 to \$5.25; bulls for export, \$3.50 to \$4.50; butchers' cattle \$4.25 to \$4.60; medium butchers' \$3.75 to \$4.10; common and scrubs \$2.50 to \$3.50; cows and second quality bulls \$2.00 to \$4.00. Sheep \$4.40; lambs \$5.85. Calves \$5.00 to \$6.00 per cwt. Bacon hogs \$6.25; fats and lights \$6.00.

CHICAGO LIVE STOCK MARKET.

Prime steers \$4.15 to \$7.30; cows and heifers \$1.20 to \$5.35; Texas steers \$3.50 to \$5.00; stockers and feeders \$2.60 to \$5.10; western \$4.20 to \$6.00. Sheep, natives \$3.00 to \$5.45; western \$3.00 to \$3.40; lamb \$5.00 to \$5.75; western \$5.00 to \$7.25. Hog, light \$6.00 to \$6.50; heavy \$5.35 to \$6.10; mixed \$5.60 to \$6.45; average hog price \$5.75.

Contents of this Issue.

ILLUSTRATIONS.

Four-year-old Clydesdale Mare, Irene, (Imp.)... 1404
Baron's Lassie..... 1405
Junior First Prize Herd of Western Canada... 1406
The Compliments of Prince Albert Board of Trade..... 1407
Threshing on the Farm of Thos. Nelson, Moffat, Sask..... 1408
Plowing 30 inches Deep..... 1409
Cutting Fall Wheat on Mr. Geo Buchanan's Farm, Pincher Creek, Alta..... 1409
Cooper Bros. Apiary in the Moose Mountain Country..... 1411
Work of the Elm Leaf Louse and Willow Gall Insect..... 1411
Tomatoes and Tomato Vines at Edmonton..... 1412
Five of the First Women Members of Parliament in the World..... 1417
The Leicester Show Flock..... 1422
Shorthorn Cow "Roan Ury"..... 1427
Roan Pansy..... 1428
Stolen Duchess..... 1430

EDITORIAL.

Knowing How and Doing It..... 1403
Making a Choice..... 1403
Meat Inspection..... 1403
The Season's Compensations..... 1403

HORSE.

Lameness in Horses..... 1404
Progress in Horse Breeding..... 1404
Registry of Imported Clydesdales..... 1404
The Interchange of Disease..... 1405
Peculiar Births..... 1405

STOCK.

What the Beef Commission Should Find..... 1405
Heifer vs. Steer Beef..... 1406
A Few Problems in Cattle Breeding..... 1406
Weights Should Be More Just..... 1406
British System of Land Tenure, a Curse..... 1407
Range Cattle Doing Well..... 1407
Hogs in Clover..... 1407

FARM.

Fall Treatment of Stubble Corn Land..... 1407
The Installment Plan..... 1407
The Restless Country Boy..... 1408
Handling a Traction Engine..... 1408
Lightning and Some Means of Protecting Our Buildings and Live Stock From It..... 1408
Making Cement Walks..... 1409

DAIRY.

The Great Milker Petered Out..... 1410
Wide-Awake Dairyman..... 1410
Hints on Making Butter for Exhibition..... 1410
Prize Butter Making..... 1410

APIARY.

Honey Production in the Moose Mountain District..... 1411

HORTICULTURE AND FORESTRY.

Plant Lice and Gall Lice—Some of the Species That Injure Shade and Forest Trees..... 1411

POULTRY.

The Fattening of Farm Chickens..... 1412
Marking Eggs..... 1413

FIELD NOTES.

Twenty-Ninth Canadian National Exhibition... 1413
Calgary Notes..... 1414
The Direction of the Greatest Progress..... 1414
Events of the Week..... 1414
Things to Remember..... 1415
Markets..... 1415
Home Journal..... 1416
Gossip..... 1422
Questions and Answers..... 1425

HOME JOURNAL

Life, Literature and Education

IN THE WORLD OF LITERATURE AND ART.

The respect of former pupils of the Goderich, Ontario, Collegiate Institute for their former Principal, Dr. Strang, took the very sensible and practical form of a gift of a thousand dollars.

Madame Calve, who has thrilled her way to the hearts of the whole world and who has incidentally amassed a large fortune with her lyric honors, has decided to cultivate the vine in southern California on a half million dollar ranch which she is about to buy.

A scholarship which includes board, fees, and a fair allowance for pocket money, at any university in the Dominion, is offered by the Canadian Courier, Toronto. This is a valuable prize for some energetic student. The competition commences August 10th, and closes October 10th.

The Niagara movement, the promoters of which include many white and colored educators of the negro race, began its annual meeting here today. During its five days' session the society will observe the 100th anniversary of the abolition of the slave trade and the centenary of the birth of Longfellow, Whittier and Agassiz.

Sir John Murray, K.C.B., F.R.S., the well known Edinburgh naturalist, is traveling through Canada. It is not a new country to him for his youth was spent here. He has accompanied many important expeditions for scientific purposes and has won medals in France, Germany, England and Scotland for his services to science.

In the ancient and beautiful Salisbury Cathedral, Ambassador Whitelaw Reid this afternoon unveiled a handsome marble tablet in memory of those killed in the terrible accident on July 1st, 1906, by the derailing of the American Line express. Twenty-three persons, mostly Americans and Canadians, lost their lives in the disaster.

Richard Mansfield, the well known actor, died at his summer home in Connecticut on Aug. 30th. He was born in Denmark in 1857 and has been much on the stage in both England and America. His first great success was in New York in 1883, when he appeared as Chevalier in "A Parisian Romance."

The committee of architects which was appointed to inquire into the condition of St. Paul's Cathedral has issued a report, which declares that, while the cathedral is in no immediate danger, elaborate precautions are necessary to preserve it from disaster. The cathedral has been sinking for two centuries.

The annual meeting of the Canadian Women's Press Club will be held in Winnipeg, Sept. 11th and 12th. The interest of the meeting centers round the presence of Miss Clare Fitz-Gibbon, the representative of the Canadian women journalists in Great Britain. Miss Fitz-Gibbon is better known to Canadian readers under the pen name of "Lally Bernard."

The long contemplated removal of the fortifications of Paris, France, has begun. Picks and shovels were set to work on the ramparts of which some sixty years ago on their completion M. Thiers, who was their author, said: "And now Paris is impregnable." This dictum the Prussians proved to be unfounded in 1871, when they made a breach whereby they might perhaps have entered had not the town surrendered.

The Baptists of British Columbia are establishing a new college at Summerland, in the famous Okanagan valley. A beautiful campus of twenty acres overlooking the town has been donated by two wealthy fruit growers, brothers, named Ritchie, who are also at their own expense erecting the first of a series of fine college buildings. Prof. E. W. Sawyer, of Acadia university, Wolfville, N. S., and a distinguished graduate of Harvard, has been called to the principalship and he is to be assisted by a strong faculty.

Here are two representative specimens of the sort of people whom Russians are massacring and forcing to emigrate:—Among the graduates of the Boston grammar schools was a fifteen-year-old Jewish boy, born in Kishineff, who has been in the United States less than a year. When the schools opened last fall he could not speak a word of English. But he tackled the new language with such determination that he was soon promoted from one grade to another until he ended the year a graduate of the ninth grade and ready for the high school, which he proposes to enter in the fall. At Roxbury, Mass., graduated at the head of her class, Ada Kasurof, seventeen years old, who with her family came from Warsaw last August. Although she had the benefit of a private college in Warsaw, she could not speak a word of English, but in ten months had so mastered it that she has not only graduated at the high school, but has passed the entrance examination for Columbia College, and is master of seven languages—French, German, English, Polish, Hebrew and Latin.—Montreal Witness.

A great monument to Work, emblematic of the age in which we live, has been designed by the French sculptor Rodin. The design is for a tower 200 feet high, with a central shaft, surrounded by a spiral staircase supported by eight pillars. At either side of the main doorway is a gigantic figure, one representing Day, the other Night. The outer surface of the tower is to be plain, all decoration being reserved for the inner column. This is to be covered with bas-reliefs and statues representing all kinds of labor and human effort. Miners and divers are appropriately placed on the ground floor. On the top is a small pink marble temple with gilded roof, crowned by two winged figures symbolizing Humanity freed from slavery. The tinted marble and gold are intended to suggest the perpetual sunrise of happiness on honest toil. M. Rodin acknowledges that it would be a costly affair to build, but has hopes that in the United States will be found men whose imagination will be taken with the idea of so placing wealth at the service of art.

THE KING'S REBUKE OF VULGARITY.

King Edward during his annual visit to the famous Austrian baths at Marienbad, mingles to a very large extent with the people of the place and lives much the life there of the ordinary visitor. This lack of ceremonial led to an action on the part of the King which has caused much remark in the city. One evening the King entered a *cafe chantant*, and sat for a time listening to the musical program always supplied in these places. Beside the members of the King's suite there were present in the cafe a large number of Americans and Englishmen.

During the course of the evening a woman, belonging to the company of entertainers who had come from Vienna, sang a vulgar song and when encored sang a still more indelicate one,

whereupon, King Edward, in deep displeasure rose and left the place accompanied by his suite. His example was followed by all the Britons and Americans who were present as a silent but effective protest against indecency in the guise of amusement.

The woman whose singing had given offence was tried and fined twelve dollars. She pleaded in extenuation that she chose the song as one that would please and interest the patrons of the place, which is a condemning imputation that the love of uncleanness in art is a characteristic of the habitual frequenters of these places of amusement. It would be interesting to know whether, if the King had not been present, or had not thus protested, the men who were willing to follow his example would have been brave enough to have themselves set one as good.

THE BOTTOM BUREAU DRAWER.

Between the cut and dried arrangements made by old-fashioned parents for their children's marriages, with dowries, and settlements, and all the rest of it, and the careless haphazard lack of arrangement of these modern days there is a happy medium which is possible of attainment and much to be desired.

In Western Canada there isn't much talk of dowries and settlements. A young man, no matter how prosperous he may be, is considered lucky if he wins for his wife and home-mate a good sweet, wholesome Canadian girl even when she comes to her new home without a dollar and with the most modest of trousseaus. And he is lucky and knows it.

In the older lands from which our foremothers came, the end and aim of every right-minded girl's existence was to some day be the mistress in a home of her own, and, up to date, that ideal hasn't been improved upon in spite of the introduction of careers. That destiny lay before the maiden. She knew it, and the feminine part of the family was interested in the future event, not on the financial side—fathers and guardians and elder brothers looked after that—but in preparing the household stores of linen, etc., that would some day be needed.

Sometimes the origin of the collection dated back to the very day of the wee lassie's birth, when a grandmother or a godmother or a maiden-aunt bestowed a sheet or tablecloth, a piece of real lace or a solid silver spoon as a nucleus of what during the years grew to be a very valuable furnishing. The "chest" was a worthy institution and it is a pity that it should disappear.

It isn't the chest—solid, dignified without, and lined with cedar and redolent of sweet savors within—that has come to this country. The "bottom bureau drawer" is its equivalent here, but that drawer remains in emptiness until after the engagement is a settled thing. Then everybody hurries up and articles are piled in hastily without much thought for their suitability or durability. Many a young housekeeper goes to her new home with a superabundance of cushions and doilies and a painful scarcity of towels and sheets. Very often the bride's personal clothing use up all the money that can be spared and nothing is left for furnishing. I knew a girl once who had six dressing gowns but only one pair of sheets and two pairs of pillow cases, and she had more center pieces than table napkins.

When the little girl owns her first thimble and can hem neatly and evenly, it is not too soon to line the bottom bureau drawer, and let her begin the process of its filling. Perhaps it will be only a nicely hemmed linen towel for a beginning, but the pile will grow steadily and surely of things chosen without haste and made with care.

And if she has a sensible loving mother it will not fill "her head with sentimental nonsense," not half as much as silly talk of "fellows" and "beaus" and such rubbish, but it will only give hersweetly serious thoughts of the future as she puts in the tiny stitches, and smooths out lovingly the white folds as she lays her work away in the "bottom bureau drawer."

A CHAT ABOUT CHURCH-GOING.

And all the people came early in the morning to Him in the temple, for to hear him.—St. Luke xxi.: 38.

At Thy feet, O Christ, we lay
Thine own gift of this new day:
Doubt of what it holds in store
Makes us crave Thine aid the more:
Lest it prove a time of loss,
Mark it, Saviour, with Thy Cross."

Don't you think that Bishop Thomson may be fully justified in his statement that one might safely write over hundreds of graves this epitaph: "He kept no Sunday!" He says that strong men are cut down in their prime, and the doctors give a dozen names for the cause of their untimely death—softening of the brain, paralysis, heart disease, nervous exhaustion—but, sifted to the bottom, the real fact is that the men kill themselves by not keeping Sunday—"business men," statesmen, lawyers, students are all getting in the habit of going out at a moment's warning, dropping dead as they stand, in a way that has never been known before."

It would be rather interesting to make an investigation of a thousand cases of sudden death in order to find out whether there was any plain connection between the breach of the Fourth Commandment and a weakened heart.

But I am not trying to give direction about the best way to build up a strong constitution—except by the way, as health of body is effected by a healthy condition of the soul. I hardly think that many people would be induced to keep their Sunday holy, in the hope that their lives in this world might be lengthened thereby. But possibly many people are drifting almost imperceptibly into the lax observance of Sunday, which is now so prevalent, without intending to break God's laws or fully considering the great loss they are sustaining by neglecting to obey His command.

Our common sense may rebel at the trivialities of the Jewish Sabbath, and we may feel amused at the strict rules which many Jews obey so rigidly to this day. I know Jews who will not light a match on the Sabbath, nor tear a scrap of paper, nor cut a piece of string on that day. I know hundreds of Jews who will not write a word on Saturday—unless the demand of business makes it necessary. But, because some people go to one extreme, is no reason why other people should rush to the opposite extreme and ignore the Fourth Commandment altogether.

God did not make man for the Sabbath—he is not to be bound hand and foot in order to make one day in seven stand out for the rest of the week. But "the Sabbath day was made for man"—it is a direct loss to himself to neglect it. That might be reason enough for setting apart one day in seven as a rest-day—quite apart from religious motives—but let us take higher ground, as we should always do.

God has required of us one day in seven, as a token that all our days belong to Him, and should be consecrated to His service. It is the same with our money. We are required to pay tribute, not because only a tenth of our income belongs to God, but because it all belongs to Him, and we are only stewards, bound to lay it out to the best advantage, for His glory and the good of the world.

THE QUIET HOUR

All our days should be spent for God, all our days should be holy-days, but experience should have convinced us that we cannot satisfactorily carry the Sunday spirit into the week days, unless we make a point of devoting at least one day more particularly to the service of God. Those who deliberately cut themselves off from the public worship of God's House, for months at a time, need not be surprised if their faith grows weak and their spiritual sight grows dim. Perhaps they say, sadly: "I wish I had my childhood's faith back again!" and all the time they are letting their souls grow thin and weak for want of regular spiritual food, and for want of prayer, which is to the soul what fresh air is to the body.

Look at the text we begun with. Do you think any visitor to our churches, in city or country, would be apt to say the "all" the people are gathered in the House of God "early in the morning" to hear Him?

How many who get up early every other day, think it almost a virtue to be really lazy—on Sunday morning. They will go to church in the evening—if they feel like it—but Sunday is a day of rest, and going to church is "tiresome," and the preacher is "prosy," and they "don't feel any better for going." The old excuse that used to be made: "I can read my Bible as well at home," is dying out. People are rather ashamed of such an evasion, when everyone knows that those who stay away from Divine service without good and sufficient reason, very seldom read their Bibles at all.

But I think the root of this prevalent neglect of church-going is want of faith. If souls were not blind and deaf, there would be no room in our churches for the crowds that would flock there "early in the morning." If we have little faith, let us try to become like children again and make vivid use of our imagination. If we don't realize the living presence of our Lord, let us try to "imagine" that He is there. Let us confess our sins in real earnest, remembering that His ears are listening, that He is looking into our hearts to see if we really repent and really intend to fight against the old temptations during the coming week. Then let us drink in, with trembling gladness, His sweet and gracious words of absolution, addressed to all who truly repent and unfeignedly believe the glad tidings of forgiveness and sanctification. Let us sing our praises and thanksgivings heartily, not wondering whether the congregation is admiring the music, but trusting that God will find it sincere enough to be worth accepting. Let us listen to the words of prophet and apostle with respect and earnest attention, remembering that they are messages sent to us by God's ambassadors. And, when the wonderful words of Divine simplicity which are recorded in the gospels, fall on our ears, let us drink them in eagerly, knowing that He who spake as no other man has ever spoken is addressing them directly to us.

As for the sermon—what if the preacher is "prosy!" he does not stand

altogether on his own merits. Read the tenth chapter of St. Luke's gospel and you will find that not only apostles, but all ambassadors sent out by Christ, represent Him. Those who refuse to receive them are warned of certain punishment, because—as He says—"He that heareth you heareth Me; and he that despiseth you despiseth Me; and he that despiseth Me despiseth Him that sent Me."

The messengers sent by Christ are encouraged to speak with confidence because the words are not theirs but inspired by the spirit of God. "It is not ye that speak," He says, "but the Spirit of My Father speaking in you."

The Spirit of God can reach a soul through any words, spoken by any person. Listen for His voice, and you will surely get the special message He intends for you, no matter how dull and uninteresting the sermon may appear to be. What a pity it would be if you went home as poor as you came missing even the peace of Christ's own benediction on the kneeling congregation, went away "poor," when the treasury was wide open and you might have carried home rich jewels of pardon, strength, wisdom and peace, which would have transfigured every hour of the week. Our souls grow slowly, as our bodies do. Give them plenty of fresh air, good food, and the healthy exercise of loving acts of service, and they will grow stronger steadily, and develop a vigorous appetite for spiritual food. Then the bodies in which these healthy souls live will find their way to church "early in the morning," not only to "hear" Christ, but to receive Him in His wonderful sacrament, that He may abide in them and in their homes all the week, and they may abide in Him and in His House, while their bodies are busily attending to the ordinary work of everyday life.

When God speaks from Heaven, it is possible to hear the sound without perceiving the message, or knowing the source from whence it proceeds. When our Lord, a few days before His death, said: "Father, glorify Thy Name!" He heard the instant answer: "I have both glorified it, and will glorify it again." But, while some thought an angel had spoken, others, hearing the sound, said, carelessly, "it was only thunder."

So it is in our public worship of God. Some can only hear the voices of men and the sound of the organ and the choir, while others are listening to prophets and apostles, to the harps and voices of angels, and to One whose voice is sweet and thrilling "as the sound of many waters."

Some find that their words of prayer and praise are too weak and careless to be heard a yard away, while others know that each word goes straight to the heart of Him Who sits upon the Throne, blending not only with the angelic hymn of "HOLY, HOLY, HOLY," but with the wonderful intercession of our Great Elder Brother at the right hand of the Father.

Go to church with ears and eyes and hearts ready to drink in the love of the

Infinite God that is waiting to fill you with strength and gladness, and you will never find the church dull and the service long and tedious. But remember that "practice makes perfect." If you fail over and over again to realize the living, quickening Presence of God in His own House, don't imagine that He is necessarily absent. Others can find Him there, and so can you. Go regularly, go prayerfully, go hopefully, and you will some day find the great promise true:

"If two of you shall agree on earth as touching anything that they shall ask, it shall be done for them of My Father which is in Heaven. For where two or three are gathered together in My Name there am I in the midst of them."

"It is the house of prayer,
Wherein Thy servants meet;
And Thou, O Lord, art there
Thy chosen flock to greet."

Why should we any longer sit at the feet of Christ "unknowing, blind, and unconsolated?" when we need only put out a hand in faith to touch the hem of His garment and be healed of the sin within us, and gain new strength for our daily work and daily battle, from living union with the life of the world.

And may I ask one favor? When you kneel at the feet of Christ you will sometimes pray for me? I need your prayers, not only for myself, but for you. If this Quiet Hour is to be of any real value, it can only be because God may be willing to convey His messages through it. Surely the responsibility rests on you as well as on me. If it is failing in its object, may that net be partly your fault, because you never ask God's blessing on the words I am sending out each week? If "two of you" agree in making it helpful, we have the promise that the prayer will be answered; how much grander then will be the result if hundreds or even thousands "agree" in this petition.

"Ye also helping together by prayer for us, that the gift bestowed upon us by the means of many persons, thanks may be given by many on our behalf.—2 Cor. I.: 11.

HOPE.

GOD KNOWS THE BEST.

If we could push ajar the gates of life,
And stand within and all God's workings see,
We could interpret all this doubt and strife,
And for each mystery could find a key.

But not to-day. Then be content poor heart,
God's plans, like lillies, pure and white unfold;
We must not tear the close-shut leaves apart,
Time will reveal the calyxes of gold.

And if through patient toil we reach the land
Where tired feet with sandals loosed may rest,
When we shall clearly know and understand,
I think that we shall say, "God knew the best."

—Unidentified.



MRS. GRIPPENBERG

MISS HAGMAN

MRS. SILLANGVA

MRS. GEBHARD

MISS DAGMAR HERVING

Five of the First Women Members of Parliament in the World.

(From Literary Digest)

Blue Ribbon TEA

Never Varies in Flavor

The teas from which it is blended are not picked up here, there and everywhere, as so many teas are.

This is important as the same kind of tea varies greatly in flavor according to the soil, etc., of the plantation where it was grown.

The choice leaf from which Blue Ribbon Tea is blended, comes always from the same plantations—the finest in India and Ceylon.

So there is no danger of variation in the flavor of Blue Ribbon Tea.



Just get a pound and see yourself how good it is.

Insist on having Blue Ribbon Tea.

BLUE RIBBON TEA CO.
WINNIPEG

A Refreshing Drink at any Hour



Gold Standard
TEA

"GUARANTEED THE BEST."

is a tea that you will enjoy drinking. You will like the smooth, rich flavor, the delicate fragrance and aroma.

It's different from other teas, because it's better. Nearly all teas have a harsh or slightly bitter taste, which is due to imperfect blending and leaf that is not properly matured.

Gold Standard is entirely free from faults of this kind, because it is carefully selected and blended perfectly. It is a combination of the finest Assam and Ceylon Teas, blended so that you get the good qualities of both.

The flavor is smooth and rich, delicious to taste and refreshing.

The reason is—perfect blending.

We will send you a Cook Book

If your grocer does not have **Gold Standard Tea** send us his name and address and we will send you our new 80 page Cook Book free.

Codville Co. Ltd.

Dept. F. Winnipeg, Man.

OUR FASHIONS.

Notice to users of FARMER'S ADVOCATE Fashions:—

1. Do not send money for postage. Ten cents for each pattern is all that is required.
2. Notice particularly what sizes are offered in the illustrations. For instance, do not send for a dress for a one-year-old child when the patterns are only made for children from three to six years.
3. Be sure to state the size or age when ordering.
4. Allow from ten days to two weeks to fill the order. DAME DURDEN

The ordinary waste of food in an English middle-class family would be sufficient wholly to maintain a French family of similar station; and the waste of food is at least largely due to the ignorance of cookery which prevails among the classes from which English domestic servants are derived.

—London Lancet.

INGLE NOOK CHATS

HOLIDAYS.

Dear Chatterers:—

What about the young housewife's holidays? The children are let loose from school, and those who have sufficient of this world's goods can go to the Beach, but what about those of us who are left home?

When one toils ceaselessly through the long months of winter and spring, they feel, when the hot weather comes, that they would like at least, a change. That change can be affected very easily.

When the hot weather comes, our house-cleaning is done, our sewing is done, and very few care to visit during the extreme heat of the summer months.

With this done, we, at home, are in good shape for taking things easier. The garden, too, is past the troublesome stage of weeds and only needs a little exercise of the hoe now and then to retain moisture and hasten growth.

In the warm weather, too, one does not care so much for cakes and pastry, having had our fill of them during the cooler weather of spring when things are scarce and we are now quite content to live on our garden and fresh fruit if it is obtainable. The real preserving and pickling season is yet a great way off so that we need have no anxiety on that score.

Now comes the time of simple meals and simple dress, something easily prepared to eat and clean dark clothes to wear, to alleviate the washing.

In this way we can enjoy life and be the guests of honor in our own homes. We will feel refreshed and strengthened for work in the cool autumn days and will be obeying the command to the disciples of old, "Come ye yourselves apart and rest awhile."

"Do-Your-Best."

(We are so glad to have you come among us with your bright, practical letter and cheery pen name. Come and see us often. If every one followed your suggestion there would be more strength and courage to meet the harvest rush. D. D.)

INSTRUCTIONS FOR PASSEPARTOUT FRAMING.

Dear Dame Durden:—Could any of the readers of the Ingle Nook chats give me a recipe for sugar curing hams and bacon, or any good cure besides smoking? I always read the letters in Ingle Nook with interest and have found many useful hints and recipes. I would also like to know the directions and materials required for passepartouting small pictures. I have seen some done and think they make dainty pictures. Wishing you and your paper success.

MRS. Y. THORNE.

(One cure for hams, shoulders and bacon is made from the following ingredients:—one gallon water, one and three-quarters lbs. coarse salt, one-half ounce

saltpetre, one pint molasses or one pound brown sugar, one teaspoon baking soda. Bring the whole to a boil skimming just before it begins to boil. Let it cool and pour over the meat, which has been packed in a clean tight cask, until the meat is entirely covered. Let it remain in the pickle for six or seven weeks and do not attempt to put it in the brine for at least two days after killing, though it is better if lightly sprinkled with powdered saltpetre during that time.

A friend in a picture store gave me the following information in regard to passepartouting:—

1. If the pictures are already mounted you will need a roll of passepartout binding and glass cut the exact size of the picture to be framed. This binding can be bought in rolls of a dozen yards in several colors, blue bright and dark red, grey, brown, green, black and white at fifteen cents per roll, and gold and silver at twenty-five cents. This binding is sticky on one side and about three-quarters of an inch wide. Lay together in right order the glass, the picture, and a piece of stiff cardboard for a back if extra thickness or strength is required. Then take the binding and cut it into strips the right length for each side of the picture separately. Decide how wide you wish the frame to appear on the front and make a crease in the binding of that width and stick it on to the glass side first, then fold the remainder carefully over the edge and on to the back.

2. If the pictures are unmounted you can buy a thin cardboard of the same color as the binding upon which to mount them before framing. A large piece can be bought for a dime. Besides you will need the little rings attached to stickers for the back to hang the picture, or there is a stronger fastening if the picture is heavy. If I haven't made this clear please feel at liberty to ask questions. D. D.)

A QUERY ABOUT PORK.

Dear Dame Durden:—I hope you will excuse me for calling so soon, but as you placed my chat on the Ingle Nook page so early—I thought I would venture in again and thank you for the reply about the care of seed onions.

Can you, or any of the Chatterers, give a reason why pork, after cooking becomes quite hard and of a dark red in color in the lean parts. When the meat was cured two teaspoons of salt petre was put in a large barrel of the pork which was covered with brine.

I will send a few recipes which I hope will be useful to the readers.

A WESTERN MAIDEN.

THE FARMER'S ADVOCATE FASHIONS.

N.B.—Order by number and send 10 cents for each pattern to "Fashion Department, Farmer's Advocate, Winnipeg, Man."



4165.—Little Boys' Suit, 5 sizes, 3 to 7 years.



4152.—Little Girls' Pinafore, or Apron, 4 sizes, 2 to 9 years.



6904.—Ladies' Kimono, 4 sizes, 32 to 44 inches bust.

SELECTED RECIPES.

BAKED CUCUMBER:—Peel medium sized cucumbers and bake them in the same pan with the roast, putting them in an hour before the meat is done and basting them with the gravy.

PRESERVED GREEN TOMATO:—To each pound of tomato (sliced) put three-quarters of a pound of sugar and one lemon. Cook gently until the tomato is transparent.

CANNED RIPE TOMATOES:—Remove the skins and hard portions, and cut in slices. Bring to the boiling point in a granite saucepan. Add a teaspoonful of salt to each quart of fruit. Fill the jars, put on the rubbers and covers, and cook in the steam kettle about half an hour. Fill from one of the jars, if needed, and make the covers tight. If a steam kettle be not at hand, let the tomatoes cook in the saucepan, covered ten or fifteen minutes. Have the cans and covers standing in boiling water. Fill the cans to overflow, then adjust the rubbers and covers and set aside. Tighten the covers, when the jars are cold.

COOKIES WITH CONDENSED MILK:—Beat half a cup of butter to a cream; gradually beat it into a cup of sugar, then add a well-beaten egg, one-fourth a cup of condensed milk, diluted with one-fourth a cup of cold water, and about two cups of sifted flour, sifted again with two level teaspoonfuls of baking powder and a grating of nutmeg. Do not use too much flour. The dough should be mixed as soft as possible. Take a little on to the board, gather it together and pat it into a sheet half an inch thick. Cut into shapes with a cutter. Dip the cutter into flour before cutting each cake. Remove with a spatula to a buttered baking sheet, dredge the tops with granulated sugar and bake in a moderate oven.

—The Cooking School Magazine.

CHOCOLATE CAKE:—2 cups sugar; the yolks of five eggs; 1 teaspoon vanilla; 1-half cup butter; 2 heaping teaspoons baking powder; 3/4 cups flour.

This will make a very large cake and is to be baked in 3 layers. I generally make two cakes of it, three layers in each.

Filling and icing for chocolate cake, take one-half cup chocolate, grated fine; and 2 cups sugar. Put the sugar on the stove and boil in a thick syrup, then add chocolate, also the whites of the eggs which should be beaten to a thick froth. Stir until cool, then spread between and over the cake.

(Sent by BROWN EYES.)

CHOCOLATE ICING:—1/2 cake of unsweetened chocolate, grated fine; 3/4 of a cup of sugar; 1/2 cup of milk or cream. Boil until it strings, then stir to a paste.

(Sent by WESTERN MAIDEN.)

WHITE COOKIES:—2 eggs; 2 cups of light brown sugar; 1/2 cup of lard and 1/2 cup of butter. Grate in a little nutmeg, add a teaspoon of soda and a teaspoon of baking powder, stirred in a cup of sweet milk. Mix all together, then add flour enough to roll soft.

(Sent by MOTHER OF FIVE.)

SAUERKRAUT.

Slice the cabbage as thin as possible. In a better firkin or barrel place a thin layer of salt, and alternate cabbage and salt at each layer. Slightly pound with a maul until the firkin is full. Have salt for last layer. Put in a warm place, cover with cloth and put a large plate, if a jar; a small barrel head if a barrel, over the cloth and a weight on that. Remove the cloth every few days and rinse it to remove the scum. Keep in a warm place until it ceases to ferment or work. A great quantity of foam will rise to the top while this process is going on. Dip this off. After the fermentation is complete remove to a cold place. Never attempt to use sour kraut until it stops foaming. Add caraway seeds for flavor if liked.

(Sent by "LONELY ONE.")

PRAISE GRATEFULLY RECEIVED.

Dear Dame Durden:—I enjoy your Ingle Nook Chats immensely, for the busy mother, the troubled housewife and the inexperienced bachelor all find their needs supplied in the helps and suggestions found in your cosy corner, and now the new addition, the "pattern corner," fills a long-felt want, and already I am availing myself of it.

The Quiet Hour, is an instructive and encouraging page and leads me out of self "to think of higher and better things," so altogether, to my mind the FARMER'S ADVOCATE is the paper for the farmer, his wife and little ones.

Now I want to ask you if you can tell me of anything that will remove old tea-stains, also fruit and ink stains from table linen. I should be so grateful for the remedy. Thanking you in advance.

ORPHANT ANNIE.

(Many thanks for your kind words about the Ingle Nook and the Quiet Hour. We are trying to make the FARMER'S ADVOCATE what you say it is, and think that, little by little, we are growing up to it, helped very greatly by the encouragement, appreciation and assistance of our friends.

Those stains are troublesome things, aren't they? For ink stains, if fresh, a soaking in warm milk and several rinsings will usually prove effectual. If old stains the milk may have to be renewed a good many times. A generous application of powdered salts of lemon (oxalic acid) to the stain which has been slightly moistened with clean water will sometimes remove it. This is good also for fruit stains, and for these a sprinkling of borax followed by soaking in cold water is recommended. Tea stains when old are pretty hard to move but moistening the spot covering it with powdered borax and after letting it stand a few moments pouring boiling water through is said to be successful if repeated several times. I hope these hints will prove helpful.—D. D.)

(P. S. Just before giving this to the printer I read in a daily that tea stains can be removed if the cloth is moistened with cold water, the spot covered with glycerine and let stand for three hours, then washed in cold water and soap.—D. D.)

SUBSTITUTES FOR WINDOWS.

In building shacks, hen houses of logs, one frequently requires a little light where it might weaken the walls were another window added. To meet this requirement I have recently seen two plans adopted. One was the insertion of a row of glass bottles instead of chinking between the logs which gave a mild light in what would otherwise have been a dark closet. The other method was similar but small squares of glass were fitted between the logs, these squares being cleaned photograph negatives. One of these squares in anotherwise blind wall is scarcely noticed from the inside while at night the tiny ray of light shining from within may save some lost traveller from wandering all night on the prairie as one often passes within a few rods of a shack unaware of its existence though there may be a bright light shining from windows on the opposite side of the building.

M. E. G.

BROWN-EYED NINETEEN.

Dear Dame Durden:—May I enter your circle also? I take a great interest in reading your letters, which I find very useful. I am just nineteen years old, live at home and have one sister married, two years older than I, and a brother seventeen. I have a very happy home and do not care to leave it. Mother and father are both very kind to me. So why should I run off and get married, like so many young girls? I take charge of a great part of the housework; always wash and do the scrubbing. I also do the greatest part of the baking so your recipes are of great benefit to me. Some time ago some one sent in a recipe for cookies, I have forgotten her name, but the cookies were very nice.

As this is my first letter I will make it rather short. I will close by sending

Standard Time everywhere is **ELGIN** Time

In every time belt between New York and San Francisco—Eastern, Central, Western and Pacific—the Elgin Watch is the standard timekeeper.

Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. An interesting, illustrated booklet about watches, sent free on request to **ELGIN NATIONAL WATCH CO., Elgin, Ill.**

CONSIGN YOUR GRAIN TO

DONALD MORRISON & Co.

414 Grain Exchange, WINNIPEG, Man.

Grain Commission Over 23 years' experience in Grain Commission business. Prompt reliable work at all times. Wheat, Oats, Barley, Flax.

a recipe for a chocolate cake which I think just splendid.

BROWN EYES.

(A happy, busy girl in a pleasant home does not need to be in a hurry to marry, if only for the reason that, once married, the girlhood's home is never quite the same again. Enjoy your girlhood, Brown Eyes, and let matrimony stay in the background for another four or five years. Write to us often. D. D.)

TOUCHED WITH FROST.

Dear Dame Durden:—Well, am I not a nuisance? I can't let you and your corner alone, although it is up-to-date with the latest styles in it, and I only a farmer's wife, with our crop almost all frozen. We had such a lot of wheat, and so thick and nice that we were going to have taken a trip to my husband's people in the States this winter. But now, he says if we can raise enough wheat for seed next year we will be doing well. The frost was a week ago to-night and lots of farmers' crops are so badly frozen in this district that they are cutting them for feed instead of hay. I guess that is what we will have to do as soon as we get time to get at it. It might turn out not to be bad if we had some nice warm weather, but it seems very dull out and not much sunshine the last few days. I am sorry to say I need not worry about my peas, a lot of them are frozen and the corn, what bit I had, is all gone. I was over at my father's to-day and his garden isn't frozen nearly as bad as mine. He gave me a beautiful big cauliflower and two big cabbages. He always has such a good garden as its in a nice place with bush on three sides of it.

Well, to whom is this interesting? I started out to tell you I had heard from two of the members and I see two more would like to write, and if Dame Durden will only send me their addresses I shall be very pleased to hear from them, and to write to them. The more the merrier. Advice is what I like, especially about babies and such like, as I don't know so much as I would like about them. I am so glad Dr. Allen-Davidson is so kind to keep on giving us lectures and such like good advice. I like very much the way she writes and get so interested in reading her letters. I wish I could only have things as she advises, but its a hard job when you have only one room for doing things in, as house and kitchen too. Well, it is a good thing that we can

talk and write of what we like to the Ingle Nook, or my letter would not be much good. Another good thing is that Dame Durden prints our letters and corrects our mistakes or I should be afraid to write. I have to set bread to-night, and I am sure you are not sorry when I say I must close my letter and go to do it.

AHTREB.

(I am sorry about your garden. It is so disappointing after one has done the work. But how fortunate that your father's plot escaped and that he is near enough to be able to share up. I hope your fears about the grain have not been realized and that you may get your trip across the line after all. If the good wishes of the Ingle Nook have any power you will be sure to get it. Dr. Allen-Davidson's articles are worthy of every one's interest and appreciation. Even if you cannot carry out all the suggestions she gives it is a great help to know the right things to do, and to carry them out little by little as opportunity offers. I am sending you the addresses for which you asked. D. D.)

RETURNS.

At morning when I'm just awake, Nurse says to me, "For Pity's sake, You lazy child, you're very late! Here is one stocking—where's its mate?" And then I just turn 'round and say, "I know it isn't time for day."

At night when nurse says to me, "The clock strikes seven, do you see? And now, my dear, you go to bed," I turn to her, and shake my head, "See, nurse, it is very light— I know it isn't time for night."

—KATHARINE R. NEUMANN, in St. Nicholas League.

THE SWEETEST PLACE.

A meadow for the little lambs;
A honey hive for bees;
And pretty nests for singing birds,
Among the leafy trees.
There's rest for all the little ones,
In one place or another;
But who has half so sweet a place
As baby with her mother?
The little chickens huddle close,
Beneath the old hen's wing;
"Peep! Peep!" they say; "we're not afraid
Of dark or anything."
So, safe and sound, they nestle there,
The one beside the other;
But safer, happier, by far,
Is baby with her mother.

—Mary F. Butt.

One of Kootenay's Choicest Fruit Farms

It contains 54 acres and is situated on the north side of Kootenay Lake, 5 miles east of Nelson. This farm is located in the midst of several fine improved fruit farms, has telephone line from Nelson within a few feet of the residence, is within three-quarters of a mile of the post office and is half mile distant from railroad station. Seven acres of the farm has been thoroughly cleared and are all under cultivation. Two acres slashed. Twenty-six cords of wood piled on the property for future use. The list of improvements are as follows.

Two acres in strawberries of the very finest varieties.
Large quantity of small fruits such as red, and black raspberries, gooseberries, red and black currants.
200 bearing dwarf apple trees, comprising as follows:

50 Ribston Pippens
50 Pamues
50 Cox Orange
50 James Greeves
All these trees are true importations from England.

Also 25 Duchess of Oldenberg
25 Spitsenberg
10 Yellow Transparent
12 Wolf Rivers
25 Delewares
25 Red Astrachans
25 Ganos
100 Gravensteins
25 Tragedy Plums
12 Bradshaw Plums
5 Peaches
5 Nectarines
30 Cherries

There is a neat, comfortable cottage surrounded by a grove of trees. A cool spot in summer. Large double chicken house and runs, 2 small chicken houses and runs, a good Chinaman's house, built of solid cedar and cemented, large shed for storing merchandise, registered water right of 30 miner's inches taken from a nearby creek and water now flumed over the farm. This farm is situated about 200 yards from the shore of the lake, commands a magnificent view of the water and contains absolutely the very finest fruit soil. The products from this farm secured for its owner at the last Nelson Fruit Fair 6 first class prizes for different kinds of fruits and also took the first class prize against all comers for the best collection of vegetables. The strawberries from this farm have the best reputation of any berries shipped into Nelson. Included in this offer is a 16 foot gasoline launch in good running order, and a row boat. On account of its close proximity to the City of Nelson and the conveniences surrounding it, it is bound to rapidly increase in value and at its present price is certainly a good investment. All the different fruit trees and fruit bushes and strawberry plants are producing a good crop this season. We are positively sure that this place is one of the finest to be found along the west arm of Kootenay Lake. Price complete is \$7,300. Can arrange terms. For further particulars apply to,

TOYE & CO.
Fruit Lands, Nelson, B. C.

Burton City Fruit Lands

The Cream of the Kootenays
Don't Need Irrigation

We have just purchased and subdivided the **Sapandowski Farm** of 240 acres into 10 and 20 acre blocks. This farm is situated in the famous Burton Valley at Burton City, and has fully demonstrated the possibilities of fruit growing in this district. There is an orchard of 200 fruit trees of different varieties, 75 of which are now bearing and all in a healthy condition. 40 acres have been cleared and in crop. As high as 350 bushels of potatoes have been grown on this land and sold at from 75c. to 90c. per bushel. Fruits and garden truck do remarkably well here, and there is an unlimited market right at our doors.

The balance of this land is equally as good and in most cases better than that already cleared, being largely a leaf mould with a clay loam and clay sub-soil. Clearing can be done for from \$15 to \$35 per acre, and we will undertake to clear ready for the plough at these figures.

This land is being sold at from \$125 to \$300 per acre according to location. Clear title at once.

For full particulars, maps, photos, etc., apply to the owners:

A. H., 92 Sherbrook St., Winnipeg, Man.
OR
R. M. H., P. O. Box 354, Nelson, B. C.

CHILDREN'S CORNER

A NICE MAN TO WORK FOR.

Dear Cousin Dorothy:—I am going to write a letter to you and the Children's Corner. I am working for a man named Mr. Swanson. He is a nice man to work for. I herd his horses for him and ride a pinto mare whose name is Meadow. I have a dog named Prince. My father takes the FARMER'S ADVOCATE and says it is a good paper. I like to read the Children's Corner. I have two brothers, and one sister whose name is Ava. She is five years old, Roy is thirteen, Cyril is seven and I am twelve years old. Mother has a store here. Well, I will close, hoping the FARMER'S ADVOCATE will succeed forever. I am not a good writer but I hope this letter will do to print.

Alberta (b). CLAUDE WOOLLVEN.

BRUISED BY A HAIL STONE.

Dear Cousin Dorothy:—This is my first letter to the Children's Corner. I like reading the letters very much. I am at home for my holidays now. I go to a school about nine or ten miles from Wolsley. A few days ago we went to a picnic up at a lake near here. We had a lovely time bathing and playing lots of games. Coming back we got caught in a hail storm; some of the stones were over two inches across and one hit me on the head and made a bruise. The horses were very much afraid as the stones must have hurt them. But fortunately we got shelter before the worst came down. I am very fond of reading and Mrs. Molesworth is my favorite writer.

Hoping you will print this letter,
Sask. (a) MARJORIE MALTBY. (11)
(Read some of Louise Alcott's books. I am sure you will like them.—C. D.)

A DEER AND A BADGER.

Dear Cousin Dorothy:—This is my first letter to the Children's Corner and I hope it will be printed. I go to school in Winnipeg but am staying in Manor for my holidays. Last Saturday when I was out driving I saw a deer and a badger, and the horse shied at the badger's holes twice. There is a nice little lake near here and we often drive out to it for a picnic and we go in for a bathe. My uncles live on a farm close to here, they had several hail-storms which did quite a bit of damage to the crops. I must close now wishing the corner success.

Sask. (a) RONALD MALTBY. (13)

HOW TO PLAY MONEY.

Dear Cousin Dorothy:—I thought I would write to you as I never did before. I am writing this letter in school therefore it will not be very good.

I am going to describe a game called Money. Well, the first thing you do is to get two of the oldest ones to be captains and choose up sides. After they choose up sides each side takes five chips. Then there is a line drawn in the middle of the grounds, and then they start and play. The ones on the opposite side try to steal the other one's money and if they are caught before they reach the money then they are prisoners, and have to stay there until the ones on their side come and bring them back.

They play away like that until either one side or the other gets all the money, then they have the game, or get all the ones on the opposite side caught. I guess I will close wishing your paper much success.

Man. (a) ANNIE MAY WILSON. (12)
(Your name looks quite familiar to me. It is exactly the name of a very great friend of mine, who is a friend of the FARMER'S ADVOCATE, too.—C. D.)

A NEW GAME.

Dear Cousin Dorothy:—I saw my last letter in print and thought I would try again.

This time I am going to describe a game called Money. First you get two of the oldest children to choose up sides. Then you get a number of sticks and put an equal number at each end

of the grounds where they are playing. Then get a board or stick and divide off each other's side and put it equal distance between the money piles.

When the game starts the players try and get each other's money. When the one on the other side from the side you are on catches you, you are a prisoner, and the ones on your side come and bring you back but the other side tries not to let them. The game is to get all the money.

Man. (a) EDNA WHITE. (12)

GRANDFATHER AND GRANDCHILD LIKE IT.

Dear Cousin Dorothy:—I read the letter in the Children's Corner and thought I would like to write one too. We have only taken the FARMER'S ADVOCATE for three or four years and like it very much and especially the continued stories. Our Grandfather has taken it for over thirty-five years. We came to this part of the North West nearly seven years ago. There was scarcely any neighbors living around here but now we have plenty.

We have six horses and four cows, several pigs and a nice lot of hens. We have a nice flock of little turkeys and two goslings and two old geese.

We have a lot of grain and it was not as badly frozen as some of our neighbors were. I am in the second reader. We only have school here in the summer, and when one is little they generally forget a lot in the winter.

I must not forget to tell you about our dog Fossie and her five dear little puppies. They are not collies. They are black and white. Their mother is a setter. We have a collie. His name is Nero. I am nine years old. We have one colt his name is Dexter. I guess I will close wishing the Children's Corner every success.

Sask. (a) MARION SAUNDERSON. (9)

(This letter is printed without any corrections whatever being made after reaching this office. I think it very good. Though I can see a few mistakes.—C. D.)

PRETTY IS THAT PRETTY DOES.

The spider wears a plain brown dress
And she is a steady spinner,
To see her, quiet as a mouse,
Going about her silver house,
You would never, never, never guess
The way she gets her dinner.

She looks as if no thought of ill
In all her life had stirred her;
But while she moves with careful tread,
And while she spins her silked thread,
She is planning, planning, planning still
The way to do some murder.

My child, who reads this simple lay
With eyes down-dropped and tender,
Remember the old proverb says
That pretty is which pretty does,
And that worth does not go nor stay
For poverty nor splendor.

'Tis not the house, not the dress,
That makes the saint or sinner;
To see the spider sit and spin,
Shut with her webs of silver in,
You would never, never, never guess
The way she gets her dinner.
—ALICE CAREY.

AT THE END OF THE TRACK.

Dear Cousin Dorothy:—Pa takes your paper and I see lots of letters in its columns so I thought I would write you a letter too. I live near Stettler at the end of the track from Lacombe east. This is my first letter to the Children's Corner. I have three brothers and one sister. We go berry picking sometimes. There are lots of gooseberries, saskatoons, strawberries and raspberries. Pa has been in this country a long time and has hundreds of acres of land and cattle and horses. We have a horse to ride to school. At present we have no teacher but expect one soon. I have two miles and a half to go to school.

MARTIN-ORME PIANOS

The cases of Martin-Orme Pianos are finished very carefully. The varnish is allowed to dry thoroughly between each coat, so that when the final finish is put on it is very lasting and beautiful.

Surely it is worth your while to find out more about this instrument when we are willing to send free a beautiful booklet voicing the opinions of Canada's prominent musicians regarding the Martin-Orme!

Where the Martin-Orme is not represented, we ship direct and guarantee safe delivery to your nearest station.

Payments arranged to suit you.
ORME & SON, Limited
OTTAWA, ONT.

Agents:
Messrs. A. E. SOULIS & CO.,
Winnipeg - Man.

DOMINION EXPRESS

Money Orders and Foreign Cheques

The Best and Cheapest System of
Sending Money to any place
in the World

A receipt is given purchaser. If order or cheque is LOST or DESTROYED the amount will be promptly REFUNDED. No Red Tape. Full information from any local Agent Dom. Exp. Co. or C.P.R.

You

will find just the Underwear you want—right size and right weight—in

Stanfield's "Unshrinkable" Underwear



Made in sizes to perfectly fit every man—and in the right weights for every Canadian climate from Halifax to the Klondyke.

Guaranteed unshrinkable, too.

Ask your dealer for
STANFIELD'S.

I will close with a riddle:—
As round as an apple,
As deep as a cup,
And all the king's horses
Can't pull her up. Ans.—A well.
Alta (a). PEARL BARNETT (10)

THE GHOST CAT.

The day was dark and rainy, and accordingly, it was thought by the cats the proper thing to do was to retire to the attic over the wood shed, their favorite resort which their kind little mistress, Miss Rita Garcia, had made quite comfortable for them, for Miss Rita was very fond of her pets.

"I heard Miss Rita say we were to have another companion. She is supposed to be a most distinguished puss," said Juliet, a small, dainty, black cat, who was reclining on an old sofa, and who was known as Blackie, the celebrated hunter, rather than "Juliet."

"Oh, indeed. Did you hear anything else concerning her, mamma?" said her daughter, a silver grey beauty, with extremely large pretty eyes, and a pretty head.

"Miss Rita said she was very beautiful," said Juliet.

"Oh, indeed," said Hazel again, for that was the plump little beauty's name. She had been named Hazel because of the color of her eyes, and it was certainly appropriate, for she really had hazel eyes. Of all the sweetest pets Hazel was the favorite, and the thought of having "her nose broken," (as the common phrase goes) did not suit her. So when Hazel heard of the future new comer's beauty, she said sneeringly, "Oh, indeed!"

"When is our new companion expected?" said Sally, a fat, lazy tortoise-shell cat.

"To-morrow, I believe," replied Juliet.

"What is her name?" asked Hazel, "or is she named yet?"

"Miss Rita has decided to call her Mona," replied Juliet.

"Fancy enough," was Hazel's short comment.

A few more moments elapsed, ere all the pussies were asleep. The next morning all the cats were assembled in the attic, ready for their breakfast. In a few minutes Miss Rita appeared with hot milk and best of all, some delicious boiled fish. Just as they were enjoying themselves a large white cat appeared on the scene. She marched straight up to a saucer of milk, around which all the cats were gathered and appeared very hungry. Every pussy drew away instantly, and surveyed the new-comer, who, of course, was Mona. For a moment Hazel seemed dazed, but the next she fled with a wild cry of terror. A white cat! Why she had never heard of such a thing! She must be a "ghost cat"! Sally, after giving Mona a curious, condescending stare, curled her lips angrily and left. And Juliet, after looking at the mysterious stranger some minutes, also left.

"Well, what do you think of the lovely Mona?" said Hazel, as Juliet joined her and Sally, who were in the stable loft, preparing to take a nap on the sweet-smelling new hay.

"She is extraordinarily handsome," returned Juliet.

That evening the cats went to the attic as usual for their supper, and they again met the "ghost cat". With a dismal howl, Hazel turned and fled, only to be followed by the "ghost cat," and as she was in the act of disappearing, through a hole, which led to a little balcony, a needle-like claw was driven into her. This was too much. Juliet and Sally also fled, to return no more. After that eventful day Hazel, Juliet, and Sally would not be enticed nor induced into the attic. One day they were all in the stable, drinking a saucer of milk in peace, but their peace was of short duration, for soon a warlike white cat came in, with a warlike expression. She drove out everyone, with a "dig" of her paw to hurry them, and they all dispersed in different directions, so she could not chase them all, but the last one she pursued, till Hazel hid herself in some hiding place, as yet unknown to Mona. Safe in his hiding place, Tom Blackdale, who had just returned from a hunting expedition, and who had for the first time ever seen the "ghost

cat", and also for the first time felt that needle-like claw, sharp as a needle, though incased in her velvety paw, one would never dream a cat possessed such dangerous weapons, fell to solving the mighty problem of whether Mona was a "ghost cat" or a real cat. She certainly was too substantial and her claws were too sharp, he thought, as he recollected that piercing "dig" he had just received. After this Tom Blackdale and Hazel dared not venture near Mona, and Sally and Juliet kept at a discreet distance. One day, however, Tom was standing on the porch sunning himself, when around the corner came Mona, at a romping gallop, and before she could stop herself, she had run into Tom, which insult to his dignity, caused him to defend himself with unusual courage. So out went paws and claws like lightning, but Mona "gained the day," and as he ran for his life, she pursued him some distance.

Several weeks elapsed, and then to the consternation and wonderment of Miss Rita Garcia, Tom and Mona became good friends, while Juliet and Mona became bosom chums. Sally keeps out of Mona's way, and when they accidentally meet, they often come to words, blows and scratches. Hazel merely tolerated Mona, and Mona took a malicious pleasure in chasing Hazel all over, for the mere fun of it. Mona was a large, beautiful white cat, with long hair and a long bushy tail. Hazel's "nose" is certainly "broken" for Mona at once became Miss Garcia's favorite.

AMY LAWRENCE.

(This story is printed exactly as written by the young authoress, no correction of any kind having been made in it. We consider it a very creditable composition.—C. D.)

IN LITTLE BOY LAND.

Oh green are the meadows in Little Boy Land,

And blue are the skies bending over,

And golden the butterflies flitting about

To visit the pink and white clover.

There are cool, running brooks where

the cows like to stand,

And milky-white lambkins in Little Boy Land.

Oh! Down at the corner in Little Boy Land

Is the prettiest shop full of candy,

And a dear little woman to give it away—

It's ever and ever so handy.

There are chocolate creams which the

boys say are "grand."

And nothing costs money in Little Boy Land.

Oh! Strange as it seems, there are no

chores to do,

No errands to run for the mother

And nothing to do but for ever to play,

First one jolly game, then another,

There's a beautiful circus and a lovely

brass band

And everything's free in Little Boy Land.

Oh! They say they do nothing in Little Boy Land,

But play through the warm sunny

weather,

And play through the winter;—Oh!

then it is fun

To slide down the long hills together

There's no school to go to,—now, please

understand,

It's all play and laughter in Little Boy Land.

Oh! There's bicycles, tricycles, wagons

and sleds,

And donkeys and ponies by dozens;

So each little fellow can ride if he will—

Each one of the brothers and cousins,

There's fun and there's frolic in every

hand—

Oh! Who wouldn't like it in Little Boy Land.

Oh! Who wouldn't long for this Little Boy Land,

Where there's fun going on every

minute

And candy for nothing, and peanuts

the same.

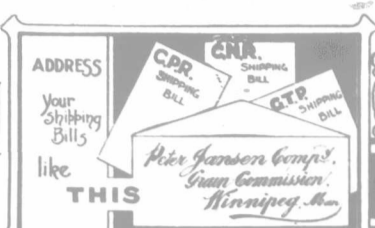
And a good time with every one in it?

Oh! Grown-ups, with trials and hardships to stand,

Let's journey together to Little Boy Land!

—Harriet Francene Crocker.

When Shipping WHEAT



We are members of the GRAIN EXCHANGE

GRAIN CONSIGNED TO US ENSURES SPEEDY CASH RETURNS

PETER JANSEN COMPANY.
GRAIN COMMISSION WINNIPEG MAN.

Write for our book "Every Farmer's Form Filler," which we will send free if you state that you saw our Advertisement in the "Farmer's Advocate."

BRITISH COLUMBIA

The Beautiful Western Province

No extremes, no early or late frosts, no malaria.

For particulars of Farm and Fruit Lands write to

JOHN STEWART Land Agent

Ladysmith, Vancouver Island, British Columbia

Reference: Canadian Bank of Commerce, Winnipeg

PIANOS and ORGANS

Highest grades only.

Prices reasonable and easy.

J. MURPHY & COMPANY

CORNWALL ST. REGINA.

WORKERS wanted in every district of the Canadian West to take subscriptions for Western Canada's greatest farm paper. Only "live wires" needed. This is a splendid opportunity for the right man.

Farmer's Advocate, Winnipeg, Man.

Stain the Shingles

With Stephens Shingle Stain



Made in black and 13 tints, all rich and striking and appropriate for shingles.

With Stephens' Shingle Stains you can get artistic and finished effects in reds, browns and greens, and also PRESERVE THE SHINGLES.

Stephens' Shingle Stains protect and effectually retard wear and decay.

There is both pleasure and profit in using Stephens Shingle Stains.

Ask your dealer to give you set of colored shingles showing these stains.

G. F. STEPHENS & CO. Ltd.

PAINT MAKERS

WINNIPEG, CANADA

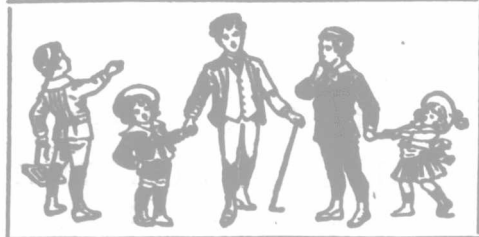
Kidney Disease And Its Danger.

Kidney disease comes on quietly—may have been in the system for years, before you suspected the real cause of your trouble. There may have been backaches, neuralgia, sciatica, rheumatism, etc. Perhaps you did not know these were symptoms of kidney disease, so the trouble kept on growing worse, until disturbances of the water appeared, or there was gravel or retention of urine, or some such sign of kidney trouble.

Doan's Kidney Pills should be taken at the first sign of anything wrong; they strengthen the kidneys and help them to filter the blood properly—help them to flush off, and carry away with the surplus water, all those impurities which the blood gathers up in its circuit of the body.

Mrs. Alfred LeBlanc, Black Cape, Que., writes: "I feel it my duty to say a word about DOAN'S KIDNEY PILLS. I suffered dreadful pains across my back—so bad I could not stoop or bend. After having used two boxes I now feel most completely cured. I highly recommend DOAN'S KIDNEY PILLS."

Childrens Suits Made New At a Cost of 10 Cents.



"I have a family of young children and find it to my advantage to frequently use Diamond Dyes to brighten up and renew little suits and articles of clothing when they get discolored and faded. For this work alone Diamond Dyes have proved of great value and saved me much money. After an experience of many years, I must say that Diamond Dyes are the best and safest dyes to use in the home."

Mrs. S. F. Mavor, Winnipeg, Man.

DIAMOND DYES WILL DO IT

A New Color means practically a New Garment. Nine times in ten the cloth is as good as new, while the color has become too familiar to you and to your friends. To change the color is easy, delightful and certain, if you use Diamond Dyes. At a cost of a few cents they will double or quadruple your wardrobe.

PLEASE BEAR IN MIND that Diamond Dyes will insure your success because they are the only dyes which put home dyeing on a scientific basis by furnishing one class of dyes for Wool, Silk, and combinations of Wool and Silk; and another class of dyes for Cotton, Linen, and those combinations in which cotton or Linen generally predominates.

— SENT FREE OF COST —

Send us your name and address (be sure to mention your merchant's name and tell us whether he sells Diamond Dyes), and we will mail you free of cost our new Direction Book and 50 samples of dyed cloth.

WELLS & RICHARDSON Co., LIMITED
MONTREAL, P.Q.



LADIES

Send for a FREE Sample
of ORANGE LILY

If you suffer from any disease of the organs that make of you a woman, write me at once for ten days treatment of ORANGE LILY, which I will send to every lady enclosing 3 cent stamps. This wonderful Applied remedy cures tumors, leucorrhoea, lacerations, painful periods, pains in the back, sides and abdomen, falling, irregularities, etc. like magic.

You can use it and cure yourself in the privacy of your own home for a trifle, no physician being necessary. Don't fail to write to-day for the FREE TRIAL TREATMENT. This will convince you that you will get well if you continue the treatment a reasonable time. Address

MRS. F. V. CURRAH, Windsor, Ont.

ADVERTISE IN THE ADVOCATE

GOSSIP

Mr. R. W. Bradshaw of Rosedale Farm, Magrath, Alta., writes us that he has sold the two-year-old champion Percheron stallion Nicol to the McIntyre ranch, and Social a second prize two-year-old to B. Morchesseault, Taber, Alta.

Altogether, about 850 Clydesdales have been exported from Scotland since January 1st, 1907, being about 200 more than were exported in the same period of 1906. Canada has again, so far, been decidedly the best customer.

At an auction sale on August 1st of Berkshires from the herd of W. H. Coffman, Bluefield, Virginia, an average price, for 38 head, of \$131 is reported, the top price, \$1,000, being paid by W. S. Corsa, Whitehall, Ill., for the boar Bacon Premier 8th.

At the sale of a selection of Hackneys from the stud of Mr. R. Whitworth, Market Weighton, England, on August 6th, fifty head, old and young, brought an average price of £80 13s., the highest price being 600 guineas for the mare, Lady Seaton, by Edemynag. The mare, Commodory, sold for 300 guineas, and a yearling colt, by Edemynag, for 100 guineas.

At the dispersal sale, on July 19th, of the famous Water Place Hampshire Down flock of Mr. Buxton, in England, the average price realized for 58 ram lambs was £20 8s., the highest price being 105 guineas. The average for 16 older rams was £24 17s., the highest price being 90 guineas. The average for 160 yearling ewes was within a fraction of 5, and for 130 two-year-old ewes, the average was £5 2s.

At the annual sale of Hampshires from the Tring Park flock of Lord Rothschild, on July 22nd, the best price for a ram lamb let for the season was £47 5s. (\$235), and 63 ram lambs sold for an average of £11 5s., the highest price being 31 guineas.

Four exceptionally strong shipments of horses have arrived in Canada the past month. These are Graham Bros' Claremont; Smith and Richardson's, Columbus; Graham and Renfrew's, Bedford Park, and J. B. Holgate's Weston and Brandon. In Graham Bros' lot the stallions are Royal Choice, by Everlasting; Buchlyvie Life Guard, by Prince Thomas; Boreland Chief, by Baron's Chief; Electricity, by Silver Light; Prince of Orange, by Sir Humphrey; Free Mason, Lord Montague, Baron Milton, King o' the Barons, and King Easy.

Some of Smith and Richardson's are President Roosevelt, by Prince of Carruchan; Keystone, by Baron's Pride; Duke of Malton, by Sir Everest; a three-year-old by Everlasting; Douglas Pride, by Hillhead Chief; Knight of Merryfield by Prince Thomas; Wealthy Baron and Baron Curzon, by Baron's Pride; Baron Livian, Inheritor, Rob Ranter and Lord Daniere.

Graham and Renfrew's stallions are Sir Marquis, by St. Simon; Sir Evera by Sir Hugo; Craig Nor, by Lothian Again; Draw Dyke Baron, by Baron's Pride; Baron Howes, by Baron Hood; Top Spot, by Baron Hood; and Gay Sprague, by Refiner.

All the above are Clydesdales, but Mr. Holgate also brought shires, Hackneys and Percherons. His Clydesdales are Gay Edward, by Gay Everard, Mark Twain by Hiawatha, Watchman by Prince of London, Wigton Hero by Top Knot II, Prince of the East by Montrave Mac, Knight of Airies by Airies Prince, and Golden Promise by Golden City. All comments about these horses emphasize the fact that they are all big so that importers seem to be determined that admirers of other breeds shall not have the opportunity of disparaging the Clydesdale for want of size.

TRADE RELATIONSHIP.

The question of tariff reform in Canada and the states is a constantly enlarging one hence it is appropriate to read what the ex-secretary of the U. S. Treasury has to say upon the subject, when speaking before the Canadian club of New York, on Reciprocity.

A BROAD VIEW OF RECIPROCITY.

The subject assigned to me is Reciprocity. By this assignment I assume that the committee intended to throw wide the ever open door and to make appropriate the discussion of every phase of commercial relations which may exist between friendly powers.

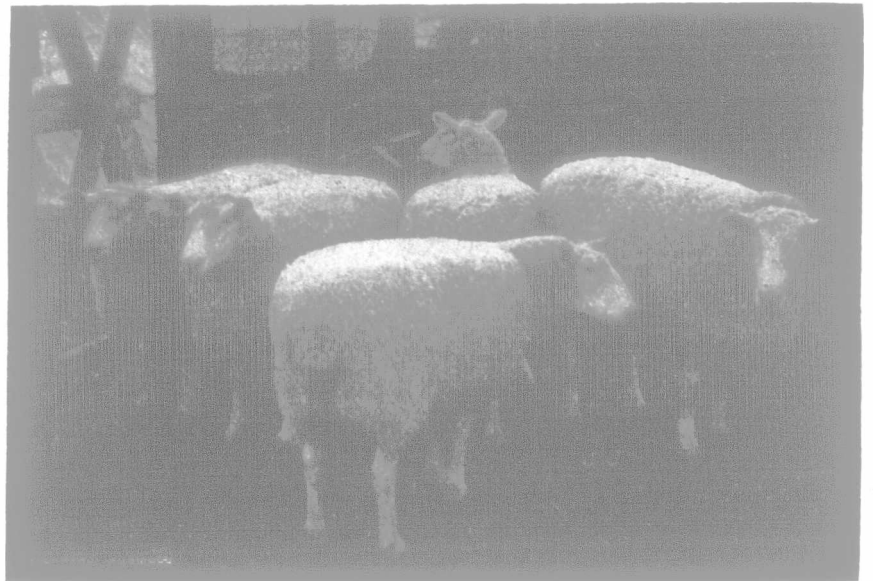
There are two distinct policies which countries may adopt: They may enact Tariffs for revenue only or Tariffs for revenue and for Protection. England levies Tariff duties, but they are levied solely for revenue, and therefore England stands as the one and only Free-Trade country. To avoid giving her own producers an advantage within the home market over foreign competitors she matches her revenue Tariffs on competitive articles with an equal internal revenue tax upon like domestic products. Thus she puts the resultants of English labor and of foreign labor on the market for domestic consumption, taxed the same.

all other nations alike by imposing the same duties upon the products of each and all, or they can discriminate. This they can do in either of two ways: They can grant special and specific concessions to such countries as in return grant special and specific concessions, or they can impose special retaliatory Tariffs against such countries as set the example of adverse discrimination. I suppose there is yet another possible course to pursue, and there are some in this country who favor it. A country might grant special favors to such countries as impose special burdens. This, however, is an exemplification of the Christian spirit which I think would prove unpopular at the polls.

UNITED STATES AND CANADA.

I am free to express the opinion that both the United States and Canada will settle down to the policy of maintaining one priced markets. They will, in my judgment, perhaps not immediately but ultimately, say to all the world:

"We levy such Tariffs as we think will best conserve our own interests. We are selfish, and while we wish every country well, we legislate solely for our own. But, when we have given our own laborers that degree of Protection which we think appropriate, we have no pets and no distinctions as between commercial competitors. The French producer of knit goods, and other textiles, cutlery and other hardware, china and glass, will ever now enter the United States markets on exactly the same terms as the producers of like articles in other countries."



THE LEICESTER SHOW FLOCK.

Owned by A. McKay, "Wa Wa-Dell" Farm, MacDonald, Man.

Germany, France, the United States and Canada, and for that matter all other commercial countries, levy Tariffs for revenue and for Protection. In all Protection countries the products of foreign labor are taxed sufficiently to give an advantage to the home producer. The greatest example in the world of Protective Tariffs in the interest of domestic labor is Germany. A Philadelphia friend of mine, while paying the duty on a pair of flannel trousers which he had forwarded to him in Germany, asked: "What does this mean?" The reply of the customs officer was: "It means, sir, that Germany works for all the world, but no one works for Germany but Germans."

WHAT ENGLAND MAY BE DRIVEN TO.

Since England gives her domestic producer no advantage over her foreign competitor, naturally there are no concessions she can grant in consideration of similar concessions by other countries. Having imposed no Protective Tariff, she has none to release. She may, however, levy discriminating duties against such countries as discriminate against her, and doubtless would, should any country give to her commercial competitors more favorable terms than to the people of England.

There are three policies possible for Protection countries. They can Protect their own labor in such degree as is deemed wise and appropriate, and treat

Great Britain consumes one-third of all American exports, and she does this without imposing a penny more in taxes upon American products than she imposes in internal taxes upon like domestic articles. In the face of this I submit it would be an outrage to admit to our ports the products of Germany, France, or Italy, on more favorable terms than the products of England.

Naturally the United States will grant special advantages to her insular possessions, and she will very likely continue her special favors to her ward, Cuba. To such a course no one will object, but as between all other nations I believe the United States should have no pets and make no discriminations.

IS RECIPROCITY WITH CANADA FEASIBLE?

I have frequently listened to elaborate discussions of Canadian reciprocity by those who have thought the United States could get special concessions from Canada on manufactured products by granting like concessions, but I have ever wondered what England would say if Canada were to admit textiles and hardware, china and glass from the United States taxed somewhat less than like products coming from the mother country. If England will consent, then I am in favor of commercial union, coupled with the same Tariff laws and the same labor and immigration laws for both countries.

The insuperable obstacle to reciprocity as popularly understood is the impossibility of finding articles appro-

appropriate to be sacrificed in the interests of others.

My home is west of the Mississippi River, and I am prepared to say that quite a respectable per cent. of the people of that locality would consent to the admission of every manufactured article which is produced only in New England, on condition that the countries from which they were received should admit corn and cattle, wheat and dairy products free of tax.

I was born, however, in New England and having inherited somewhat of the New England character I feel justified in saying that the sturdy sons of those sturdy States would never consent to a penny reduction on their products, though perhaps five out of the six New England States would be willing to admit hides and wool, wheat and dairy products free, on condition that the country from which they were received should increase the demand for the manufactured products of New England.

WAS WILLING TO BE THE GOAT.

The story is told that once upon a time a man somewhat under the influence of liquor suddenly awoke from his nap in the pew just as the revivalist was urging those to stand up who were willing ultimately to be counted among the goats. Our friend sprang to his feet and exclaimed: "Well, Parson, rather than have the show stop, I'll be a goat." Unfortunately for our dream of reciprocity no industry in the United States stands ready at present to sacrifice itself even for the sake of continuing prosperity to others.

And it must be borne in mind that reciprocity is bottomed on sacrifice. No country will accept a reduction of duty as a basis of reciprocity that does not fix the rate low enough to insure the importation of articles now produced by American labor, and whenever goods are imported which our people now produce, the men who produce them must seek other employment. A reduction in Tariff where unnecessarily high is not sufficient, from a reciprocity point of view, for so long as a Tariff protects the American industry, the reduction is of no advantage to the people of other countries. The reduction must be material in order to count, and nothing is material from the foreign standpoint that does not result in importation of the things we now produce.

I recognize that there are some people in this country (and they are not confined to any one political party) who favor showing special favors to those who seek to impose special burdens upon American products, and they call this reciprocity. I belong to that quite numerous class who would levy retaliatory duties against the products of any country that seeks to impose heavier burdens upon the products of American labor than upon like articles produced by our commercial competitors. This is the only type of reciprocity we will ever be able to consummate. We can, of course, talk about something more ethical.

ONLY FAIR TREATMENT ASKED.

The people of the United States have no right to complain so long as they are treated as well as others. Let the people of Canada pursue such policy as the people of Canada deem wise, and the United States will take such per cent. of her remaining trade as we can appropriately get in competition with the world. But we will have a right to complain should Canada tax American textiles higher than she taxes the same articles if produced on German looms.

I would not adopt the David Harum policy of "doing it first," but I would impose retaliatory duties against any country and every country that serves notice that the products of American labor are less welcome than like articles produced elsewhere. If our food products are unwholesome, or if our manufactures are worthless, bar them, but if admitted at all let them compete upon their merits. Anything else is unjustifiable discrimination, which the American sense of justice, as well as the American sense of honor, will not brook.

I am disposed to think that an agreement of commercial unity between the United States and Canada would be mutually advantageous if combined with uniformity in Tariff, immigration and labor laws. I grant it might, at first, slightly affect our food producing States, but it would very soon result in

an increased market for American labor products sufficient to offset it.

It would work to the very great advantage of Canadian agriculture, though it would probably retard the development of Canadian manufactures. Our interests are so identical, our futures so full of joint hope and promise, that I think it would be of great advantage to insure the greatest possible commercial intimacy. I confess, however, that this is a consummation for which I have little hope. As I have intimated, I fear Great Britain would seriously object to the admission into Canada of American manufactures free of duty and the imposition of Protective Tariffs against similar products coming from the mother country.

DIFFICULTIES IN THE WAY.

The Canadian farmer, I doubt not, would be willing to exchange food products, wool and hides free of duty, but our farmers would object. The reason is manifest. Such an arrangement would result in large importation of agricultural products from Canada and no exports to Canada. American manufacturers would be willing to exchange manufactures for manufactures free of duty, but the Canadian factory man would surely object, for he, in turn, would lose much and gain little. If the United States shall hereafter adopt a policy of preserving our forests, as well as that of restoring them after depletion, she will make the business of the Canadian lumbermen somewhat more profitable. I wish I could think of some appropriate concession for Canadians to make in consideration of free lumber. Something may yet be discovered. I do not believe, however, we will again turn our coal miners of the Northwest into the streets by the admission of free coal, though we may admit it free for use in the production of goods for export.

CAUSES FOR COMPLAINT.

The United States has nothing of which it can complain, however high Canada may place her Tariff duties, but when Canada has determined a measure of Protection for her own people, then the United States has a right to ask the privilege of sharing the surplus Canadian market on as favorable terms as is extended to others. Canada has no right to complain of the American Tariff, enacted as it is in the interests of American labor. But when the United States has determined a measure of Protection for her own citizens, Canada would have right to complain and should resent any attempt on the part of the United States to give other countries more favorable terms than are conceded to Canada. Canada now buys more than half her imports in the United States. Certainly Canada must not be discriminated against by giving a country that buys one-seventh of her imports of us special and exclusive concessions.

The only way by which a Tariff war can be precipitated is through the imposition of discriminating duties, and any country that treats all the outside world alike will be safe from Tariff wars, except those against which she will be abundantly able to protect herself by returning discrimination for discrimination. A maximum and minimum Tariff, the maximum prohibitive and enforceable without executive or administrative discretion against every article produced in any country that refuses the square deal, is a sure defence. Such a law promptly and courageously enacted will effectually silence all threats. I have little patience with any country that proposes to impose higher Tariff rates against the merchandise of one country than those applicable to any and all others, unless it can enjoy the benefits of rates lower than all others. Few countries are of sufficient commercial importance to enforce such a demand.

In the face of these self-evident facts I return to my original suggestion that these two great American republics (and I use the term advisedly rather than technically) continue to live each in admiration of the other, each proud of the achievements of the other, and each pursuing such a policy as it believes best calculated to further the interests of its own, without especial regard to their effect upon the interests of the other. But, having done this, let each ever extend the glad hand and the good wish.

SHIP YOUR GRAIN through us

We will look after your **GRADES**

References any Bank or Commercial Agency

The Canadian Elevator Co. Ltd.

WINNIPEG, MAN.

KOOTENAY FRUIT LANDS

Highest Grade

FOR SALE BOTH WHOLESALE AND RETAIL

J. LAING STOCKS

BOX 23, NELSON, B.C.

ANCHOR INVESTMENT CO. LTD.



If you are interested in British Columbia land call or write us. We have a proposition to offer you in first-class land at a very low price. All this land has been personally inspected by us; no irrigation necessary. It will pay you to look us up.

Suite 206-208 Somerset Block, Portage Ave., Winnipeg, Man. Phone 4811

Earn \$75 to \$150 per month as Brakeman or Fireman.

Just study an hour a day for 8 or 10 weeks and we guarantee to assist you to a position on any railway in Canada. Hundreds of men wanted in the next few months. If you want the above salary, ask for our booklet **The Dominion Railway Correspondence School** Dept. F WINNIPEG, MANITOBA.

THE MONARCH LIFE IS A GOOD COMPANY

Capital - - \$2,000,000

OFFICERS and BOARD of DIRECTORS

- PRESIDENT:**
J. T. GORDON - Winnipeg
President. Gordon, Ironside & Fares;
President Standard Trusts Co.
1st VICE-PRESIDENT:
HON. R. ROGERS - Winnipeg
Minister of Public Works (Manitoba)
2nd VICE-PRESIDENT:
E. L. TAYLOR - Winnipeg
Director Great West Permanent Loan and Savings Co.

- A. Carruthers, Winnipeg.
D. E. Sprague, Winnipeg.
Nicholas Bawlf, Winnipeg.
Dr. E. S. Popham, Winnipeg.
Capt. G. F. Carruthers, Winnipeg.
Hugh Armstrong, M.P.P., Portage La Prairie.
R. G. Macdonald, Brandon.
Dr. G. A. Charlton, Regina.
Geo. Lane, Calgary.
P. Burns, Calgary.
D. A. Gordon, Wallaceburg.
Col. S. S. Lazier, Belleville.
A. J. H. St. Denis, Montreal.

General Manager: J. W. W. STEWART
Head Office, Winnipeg, Canada.
Always room for Good, Reliable Representatives



Terms Open Sept. 3, Oct. 14, Nov. 26, 1907, and Jan. 6, 1908.
THE FOLLOWING REGULAR COURSES MAINTAINED

1 Classics	11 Pharmacy
2 Scientific	12 Music
3 Normal	13 Oratory
4 Primary Training	14 Business
5 Civil Engineering	15 Shorthand
6 Electrical Engineering	16 Telegraphy
7 Steam Engineering	17 Pen Art and Drawing
8 Mechanical Engineering	18 Railway Mail Service
9 Bookbinders' Course	19 Summer School
10 Telephone Engineering	20 Home Study

Instructions given in all branches by correspondence. Board \$1.50, \$2.00 and \$2.50 per week. Tuition in College Normal, and Commercial Courses, \$15.00 a quarter. All expenses three months \$48.40; six months \$97.11, nine months \$132.40. School all year. Enter anytime. 300 students annually. Catalog free. Mention course you are interested in and state whether you wish resident or correspondence work.
Highland Park College, Des Moines, Iowa.

T. Mayne Daly, K.C. Roland W. McClure
W. Madeley Crichton E. A. Cohen

Daly, Crichton & McClure
Barristers & Solicitors
Office—Canada Life Building,
WINNIPEG, Man.

We Edit, Compile and Print Live Stock Catalogs

WRITE FOR PARTICULARS

The Farmer's Advocate of Winnipeg, Limited, Winnipeg, Manitoba

WANTS & FOR SALE

Advertisement will be inserted under this heading such as Farm Property, Help and Situations Wanted, and miscellaneous advertising.

TERMS—Two cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

FOR SALE—Italian Pees. L. J. Crowder. Portage La Prairie, Man. 18-12

WANTED—Three hundred ewe lambs or two-year-old ewes. Apply, stating price. Alex. Castel, Lloydminster, Sask. 4-9

FARM FOR SALE—All of 16-19-24, north half of 9-12-24; all fenced, 300 acres broken, good house, stables and granary. Good well and creek on the place. Terms easy. For particulars apply to A. Cumming, Rosburn P.O., Man. 20-11

FOR SALE—British Columbia. Ranches, farms and fruit lands adjoining city of Kamloops; blocks of 10 acres up; river frontage; produces peaches, apricots, plums, grapes, melons, tomatoes which never fail to ripen; unlimited markets; terms easy. Apply Strutt & Nash, Kamloops, B.C. 6-11

FOR SALE—Twenty-three yearling steers and heifers. High-grade shorthorn, large sized and in good condition. David Jackson, Newdale, Man. 18-9

SITUATION wanted as Engineer for traction during harvesting. Three years experience. Address Box A, Farmer's Advocate. 18-9

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

FARM FOR SALE, 424 acres; 5 miles to town of Morris. All under good cultivation. 200 acres fenced; good farm house, barn 70 x 28, lean on one side 14 x 70, hog house and hog pasture. Windmill and grinder; good granary, good well. One mile to siding, one mile to school. A reasonable offer will not be refused if a sale can be made at once. Apply to Box 143, Morris, Man. 11-9

FOR SALE, Farm Creamery Plant, consisting of about fifty good milk cows; one churn, hundred gallon capacity, power attachments; one cream separator, power attachments; two butter workers (one has power attachments); one automatic butter printer and weigher; one Babcock milk tester, four bottles; one portable refrigerator, ice capacity four hundred pounds, butter capacity four thousand pounds; two transportation butter boxes with ice closets; and all the paraphernalia required in a first-class farm creamery. Terms, H. Hassard, Josephburg, Alta. 11-9

FOR SALE, 240 acres, splendid for mixed farming, 60 miles west from Winnipeg. 60 acres broken, 80 acres fenced for pasture. 4 miles from station, 1 mile from school. Good buildings, good water. Also one team big horses, two colts, complete set of new machinery. \$3,800 cash. Apply A. Levadoux, St. Claude, Man. E.O.T. 9-10

A HUNDRED Firemen and Brakemen wanted on railroads in Winnipeg vicinity, to fill vacancies caused by promotions. Experience unnecessary. State age, height, weight. Firemen, \$100 monthly, become Engineers and earn \$200. Brakemen, \$75, become Conductors earn \$150. Name position preferred. Railway Association, Room 163, 222 1/2 Monroe Street, Brooklyn, N.Y. Distance no bar. Positions guaranteed competent men.

POULTRY and EGGS

Rates—Two cents per word each insertion. Cash with order. No advertisement taken under fifty cents.

H. E. WABY, Holmfild, Man., will sell to make both choice Barred Rock and S. C. Brown Leghorn Cockerels at \$1.00 to \$3.00. Buy now and save express on fullgrown birds. T.F.

AT MAW'S Poultry Farm, Parkdale Post Office near Winnipeg. Acclimatized utility breeds, turkeys, geese, ducks, chickens, incubators and poultry supplies. Large catalog mailed free. 5-2

W. F. SCARTH & SON'S S. C. Buff Orpingtons. Eggs from carefully selected hens mated with first prize cock, Manitoba Poultry Show, 1907, \$2.00 per 13. Box 706, Virden. T.F.

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

BARRED ROCK Eggs from carefully selected pens of choicest matings. Leading strains of America. Selected for their choice barring and heavy laying of large brown eggs, and headed by cockerels, vigorous, blocky, and beautifully barred. I expect grand results from my Barred Rocks this season. Testimonials report excellent hatches. Eggs carefully selected from choicest matings reduced to \$1 per setting or \$1.50 per two settings. Good hatch guaranteed. Orders filled promptly. Honest dealings. G. Norman Shields, 29 Close Ave., Toronto, Ont. t 22-9

C. W. ROBBINS, Chilliwack, B. C., breeder of laying strain Buff Orpingtons. 18-9

CHOICE SINGLE COMB Snow-white Leghorn eggs from carefully selected pens of choicest matings. Bred for heavy layers and typical beauty. Testimonials report excellent hatches. Selected eggs reduced to \$1.50 per setting. Good hatch guaranteed. Orders filled promptly. Honest dealings. G. Norman Shields, 29 Close Ave., Toronto, Ont. 22-9

FOR SALE—Barred Rocks, Leghorns, Geese, Turkeys Indian Runner Ducks, Rabbits, Pigeons; also improved Ranch. Geo. D. J. Perceval, Priddis, Alberta. 18-9

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

Lost, Strayed or Impounded

This department is for the benefit of paid-up subscribers to the FARMER'S ADVOCATE, each of whom is entitled to one free insertion of a notice not exceeding five lines. Notices exceeding five lines will be charged two cents per word for each additional word, payable in advance.

STRAYED—from five miles North of Ponoka. Iron Grey Horse, branded H on left shoulder; Black mare, indistinct brand; Dapple Grey mare. All unbroken and heavy weight. \$25 reward. F. D. Warren, Ponoka, Alberta. T. F.

STRAYED five weeks ago, bay mare, 12-years old, short tail. Good reward assured. J. A. Chmelnitsky, 74 Derby St., Winnipeg, Man. 11-9

\$10.00 Reward, for information leading to recovery of one grey gelding, aged 12, and one bay mare, branded C Y on thigh. Geo. Williams, Brookdale, Man. 11-9

STRAYED on my property about first of July, one red and white heifer. H. S. Gold, Woody River, Alberta. 11-9

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

Breeders' Directory

Breeder's name, post-office address, class of stock kept, will be inserted under this heading at \$4.00 per line per year. Terms cash strictly in advance. No card to be less than two lines or more than three lines.

POPLAR GROVE HEREFORDS, A number of young cows, heifers, and bulls now for sale from this famous herd at low prices. J. E. Marples, Deleau, Man. Buff Orpington Eggs. T.F.

A. & J. MORRISON, Glen Ross Farm, Homewood, Man., Clydesdales and Shorthorns. 13-11

JAMES WILSON, Grand View Stock Farm, Innisfail, Alta.,—Breeder of Shorthorns. 13-6

A. J. MACKAY, Wa-Wa-Dell Farm, Macdonald, Man., breeder of Shorthorn Cattle and Leicester sheep. 7-8

MERRYFIELD FARM, Fairview, Thos. Brooks, breeder of Clydesdales and Shorthorns. Box 134, Pense, Sask. 30-10

CLYDESDALES, Shorthorns and Tamworths, T. E. M. Banting & Sons, Banting P. O., Man. Phone 85, Wanwanesa. Exchange. 30-1

STRONSA STOCK FARM—Well-bred and carefully selected Shorthorns and Berkshires David Allison, Roland, Man. 13-11

SHEPHERD PONIES and Hereford Cattle, finest in Canada. Write or come and see them. J. E. Marples, Poplar Grove Farm, Deleau, Man. T.F.

JOHN GARDHOUSE & SONS, Highfield P.O., Ont.—Breeders of Scotch and Scotch-topped Shorthorns, Lincoln and Leicester sheep and Shire horses. T.F.

R. A. & J. A. WATT, Salem, Elora Station, G.T. and C. N. R. R.—Champion herd of Toronto and New York State Fairs, 1905, also Grand Champion females, including both Senior and Junior Honors at both fairs. Write your wants. 31-12

BROWNE BROS., Ellisboro, Assa.—Breeders of Polled Angus cattle and Berkshire swine. Stock of both for sale. 13-3

BERKSHIRES,—Gold Medal Herd, Neepawa, Manitoba. Address, J. A. McGill. 24-4

WOODMERE FARM,—Clydesdales, Shorthorns and Yorkshires. Pigs at 8 weeks, f. o. b. Neepawa, \$8 apiece. S. Benson. 24-4

IF YOU ARE in need of anything, search the advertising columns. You will find it in the FARMER'S ADVOCATE.

GEORGE LITTLE, Neepawa, Man.—Shorthorns of best Scotch type. 24-4

CLYDESDALES,—a choice collection of breeding stock always available. Jas. Burnett, Napinka, Man. 30-1

ASHCROFT, W. H. NESBITT, Roland, Man. Clyde and Hackney mares and Stallions, work horses in car-lots, Ayrshires. Our motto, Live and let Live. 6-2

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

Trade Notes

IN THE INTEREST OF HEALTH every village, and if possible every farm home, should make strenuous effort to have the purest water that is obtainable. A deep well which is bored through the solid rock is the surest means of attaining the desired end. Every community should have some people who make a business of boring deep wells and wherever there is any interest in this question it is wise to communicate with The American Well Works, Aurora, Ill.

Gossip

The demand for feeding lambs in the Chicago Stock-yards, says the Live-stock Report, is intense. Competition last week pushed prices up to \$7.75 which is the highest price ever paid for lambs to take out and feed. A year ago this month, the top was \$6.85, and that was so high that everybody predicted dire things for the man who bought them. While conditions are favorable to a continuation of a strong demand for mutton, it is obvious that the man who has the nerve to pay \$7.25 for feeding lambs will have to get a very high price for the finished product to let him out. He may win; who can tell? However, the chances are against him, and it takes a man who likes speculation to pay these figures. The fact is, many farmers have an abundance of feed which they do not know how to utilize. Many are afraid of cattle, and of the two, prefer to tackle the sheep proposition. Last year some who bought lambs at \$6.50 and under were sorry, for the market at the time the stuff was finished did not behave very satisfactorily. Lambs have to bring better than \$8 to let present buyers out of the woods.

SOME MILKING RECORDS OF SHORTHORNS.

The Shorthorn cow, Florence Airdrie VI., owned by the Nebraska Experiment Station, produced, between April 7th, 1905, and April 7th, 1906, a total of 10,487 pounds of milk, 413.01 pounds of butter-fat, and 481.84 pounds of butter. Her average test was 3.94. The Taylor herd of Shorthorns at Shelburne, Mass., established in 1848, has produced many individuals, with record of from 1,200 to 1,500 pounds of milk in thirty days. A Shorthorn cow, weighing some 1,600 pounds, in the herd of Edward S. Ellis, at East Longmeadow, Mass., has a record of fifty-two pounds of milk per day and about 11,000 pounds per year, besides breeding a calf. A herd of forty Shorthorns in Western Massachusetts, supplying milk for fancy trade in New York City, makes an average test of 4.4 per cent. butter-fat. Kitty Clay IV., a

HAMMOND'S FURS



We manufacture our own furs, in our own factory—therefore we are in an exclusive style—with practically no competition.

Send for our Style Book and Price List
HAMMOND, Winnipeg



MANGE

NOTICE is hereby given that, by Order in Council dated August 21st, 1907, the period during which cattle are required to be dipped within the area set forth in the Order in Council of June 10th, 1907, has been extended to the 15th September, 1907, and that in case of any owner failing to treat, or to make satisfactory preparation for treatment of his cattle on or before first September, 1907, the provisions regarding compulsory treatment shall go into force and effect.

J. G. RUTHERFORD,
Veterinary Director General.
Ottawa, August 22nd, 1907.

Shorthorn cow bred in New York State, in a thirty-day trial yielded 1,593 pounds of milk, which made sixty-two and one-fourth pounds of butter. Two years later, she gave almost 5,000 pounds of milk in three months, her best day being sixty-five pounds. Thirty-eight cows in the Glenside herd at Granville Center, Pa., have made an average yearly record of 9,031.7 pounds of milk. Mamie Clay II., a Shorthorn cow, has a record of 10,189.1 pounds of milk at two years, 3,232.1 pounds at four years, and 47,048.1 pounds, an average of 11,762 pounds with her four calves.

TELLING THE AGE OF SHEEP.

Probably the best way to tell a sheep's age is to look at its teeth, says an old flockmaster in a sheep journal. Conditions surrounding the sheep while it is young will make some unnatural changes in the teeth oft-times, either making them develop more rapidly than usual or they may be retarded in growth. A yearling sheep has its first pair of wide incisors; at two years old, two pair; three-year-old, three pair, and at four years old, four pair, or a 'full mouth,' but the teeth are all white and fresh. Heavy feeding, such as is the case with show sheep of lambs fed for the market, will sometimes cause the teeth to indicate that the sheep is older than it really is.

The sheep in such a case, would be nearly matured at an earlier date than common, and the teeth would be advanced in growth in accordance with the rest of the body. Early lambs that have been 'pushed' will oft-times show yearling teeth when they are not yet twelve months old. English sheep sometimes when eighteen months old will show 'two-year-old teeth.' This is due to the fact that they have been fed heavily since birth, and are really as well matured as two-year-old sheep under ordinary conditions.

However, the rule given is a good one and can, in most cases, be relied upon. After a sheep is four or five years old, it becomes hard for one to tell their exact age. Some teeth will grow apart with age. Age makes irregularity in the mouth, and after five years of age has to be reckoned by the wear of the teeth.

A Horse with a Strained Shoulder

is sound as a dollar in 24 hours after you rub the sore spot with Fellows' Leeming's Essence.

It gives instant relief in all cases of Strains, Bruises and Swellings — draws the pain right out — strengthens the weak back, shoulder or knee.

Whether you have one horse or twenty, accidents are liable to happen any time. Keep a bottle of

Fellows' Leeming's Essence

handy so you can have it when needed.

50c. a bottle. At dealers.

NATIONAL DRUG & CHEMICAL CO., LIMITED, MONTREAL.

INSTANT COLIC CURE

For Colic, Inflammation or Scouring in Horses or Cattle.

GUARANTEED to relieve the worst cases in from 2 to 5 MINUTES.

\$1 per bottle, or 6 bottles for \$5 prepaid.

CLEMENTS' Drug Store, BRANDON

Seldom See

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

ABSORBINE

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

W. F. YOUNG, P.D.F., 46 Monmouth St., Springfield, Mass. LYMAN SONS & CO., Montreal, Canadian Agents. Also furnished by Martin Bala & Wynne Co., Winnipeg, The National Drug & Chemical Co., Winnipeg and Calgary and Henderson Bros. Co. Ltd., Vancouver.

Glydesdale Fillies and Colts FOR SALE

A large shipment, direct from Scotland, of 2 and 3-year-old Fillies and two 1-year-old Colts, by Hiawatha and Imperialist. British and Canadian pedigrees furnished. Give me a call, or write for particulars.

JOHN HORN

Home Farm, Regina, P.O.



CLUB STABLES

12th STREET, (Box 483) BRANDON

MacMillan, Colquhoun & Beattie

Importers and Breeders of

Clydesdale, Percheron and Hackney Stallions

THE MOST FASHIONABLE STRAINS OF BREEDING ALWAYS ON HAND

GLYDESDALE STALLIONS and MARES

Out of a carefully bred and selected lot I am offering a five-year-old stallion, a three-year-old, a two-year-old, two yearlings, and several mares and fillies. Will sell quick before seeding. Farm (Meadow Lawn) convenient to Regina. Full details given on application. Address

D. TRAYNOR

Condie P. O., Sask.



WASH DAY IS CHILD'S PLAY WITH THE NEW CENTURY WASHING MACHINE.

It means cleaner, whiter clothes — no backache — no chapped hands — no torn garments — no shrunken fabrics. It means a tubful of clothes washed every five minutes, with less trouble and exertion than running a sewing machine.

SOLD BY MOST DEALERS AT \$8.50

Write for free catalogue that tells the whole story.

The Downwell Mfg. Co., Limited, Hamilton, Canada



TROUSERS

To Order \$3.50 By Mail

We guarantee a perfect fit, good materials, proper workmanship.

Patterns to please all tastes in Worsted, Tweeds, Serges or Homespun.

With our self-measurement forms any one can take correct measures.

You couldn't duplicate these Trousers elsewhere under \$5.00.

Send for samples. Satisfaction or money back. We deliver FREE anywhere in Canada.

MEN'S WEAR Limited

475 St. Catherine St. East MONTREAL

Refer to any Bank or Mercantile Agency.

A Good Offer

We have a large list of Kootenay Fruit Lands for sale, from which the following is quoted, but the prices and terms are made special for immediate sale:

11 acres, close to city, excellent location, \$55.00 per acre.

80 acres, in finest fruit valley in Kootenay, \$20.00 per acre.

160 acres, choice, daily steamer service, \$17.50 per acre.

Note particularly the terms of this special offer, viz.: Twenty per cent. cash, balance in one, two and three years; small rate of interest. Write quick for full description of block required.

Kootenay Land and Investment Co.

Fruit Land and Real Estate P.O. Box 443 NELSON, B.C.

REVIVAL AT MEDICINE HAT.

Mr. S. Baker, one of the Medicine Hat district's progressive farmers, sends us the following clipping from his local paper:

From all over the district comes the same tale. Owing to climatic conditions the grain crops will be taken off summer fallowed land. This is proof of a direct kind that Prof. Campbell's theories are right when put into practice.

Now, if in unfavorable seasons, scientific, intelligent farming will produce good crops, what can we see before this district.

It is true that so far as length of season free from frost counts, we have all other portions of the West discounted. We have a season of sufficient length that the frost danger is never thought of. The danger of successful farming has always been that of drouth. If this danger can be overcome by conserving in the soil by a proper system of cultivation, the moisture provided by nature, then it means much for this district. The slipshod, tickle-the-top class of farming will give way before the men who follow Professor Campbell's ideas, and put both labor, time and intelligence into their agricultural work.

In our district there are men who will gather good crops this year because they have summer fallowed and prepared their ground, and there are men who have crops that are hardly fit to put a mower into, because they have not taken the trouble or time to fit their land to meet the climatic conditions as we have them.

If we had a couple of thousand farmers around Medicine Hat with crops like Messrs. Rogers, Baker, McGilivray, Corbett, Pettibone, Brier, and others we might mention, it would be as valuable to us as if we had half a dozen manufacturers going.

If it can be demonstrated in such a season as this that we can wrestle something good from the soil by using a certain line of cultivation, is it not a lesson which should be followed in the future? If it can be demonstrated that there is an almost positive assurance of a crop by following a proper system of tillage, is it not wisdom to depart from old methods, stop gambling with Nature, stop expecting a rainfall just at the right time, stop scraping the surface and spoiling the grass crop.

The Medicine Hat Agricultural Society is doing a good work in trying to create an interest in the establishment of an experimental station for this class of crop culture at Medicine Hat. Such a farm, demonstrating the dry farming theory will do much for the up-building of this district. The Society will have the assistance of the Alberta Department of Agriculture, and it is also encouraging to note that Mr. Wm. Whyte has promised the interest of the C. P. R. in the experiments.

Take a trip into the country and see what the summer-fallowed fields mean to their owners this season.

QUESTIONS AND ANSWERS.

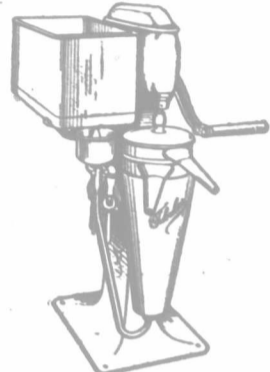
ACTINOMYCOSIS—LUMP JAW.

Two-year-old bull has two large, hard lumps, as large as a man's fist, just behind the jaw. It is not lump jaw, as they are not attached to the bone. Cow, six years old, has one lump of a similar nature and position. Is it contagious? How is it caused? S. J. W.

Ans.—Actinomycotic tumors are not always attached to the bones. I am of the opinion your cattle both have the disease. The tumors can be dissected out by a veterinarian, or, in all probability, reduced by the iodide of potassium treatment. This consists in giving the drug three times daily, commencing with dram doses and increasing the dose daily, by, say, 20 grains, until desire for

Because You Need The Money

It's your business and if you don't attend to it, who will? You cannot afford to keep cows for fun. That isn't business, and, furthermore, it isn't necessary. There is money in cow keeping if you go at it right, and besides there is more fun in going at it right than there is in staying wrong.



You need a Tubular Cream Separator because it will make money for you; because it saves labor; because it saves time; because it means all the difference between cow profits and cow losses.

Look into this matter; see what a Tubular will do for you and buy one because you need it.

How would you like our book "Business Dairying" and our catalog B. 188 both free. Write for them.

The Sharples Separator Co. West Chester, Pa. Toronto, Can. Chicago, Ill.



ROOFS That Stay Roofed

The strongest wind that ever blew can't rip away a roof covered with self-locking "OSHAWA" GALVANIZED STEEL SHINGLES

Rain can't get through it in 25 years (guaranteed in writing for that long—good for a century, really)—fire can't bother such a roof—proof against all the elements—the cheapest GOOD roof there is. Write us and we'll show you why it costs least to roof right. Just address

The PEDLAR People (Est'd 1861). Oshawa Montreal Ottawa Toronto London Winnipeg



Steedman's SOOTHING Powders

Relieves FEVERISH HEAT. Prevents FITS, CONVULSIONS, etc. Preserves a healthy state of the constitution during the period of

TEETHING. Place always the EE in STEEDMAN.

CONTAIN NO POISON

ADVERTISE IN THE ADVOCATE

Purity and fine quality are the strong points in

COWAN'S COCOA, CHOCOLATE

Cream Bars, etc.

Milk Chocolate Sticks, Croquettes,
Medallions, etc. are very delicious.

THE COWAN CO., LTD., TORONTO

SPEND A CENT

on postage and ask us for a mailing box for your watch. We will report cost of repairs and upon your instructions will repair and return to you, guaranteed for one year.

A. BRUCE POWLEY

524 JASPER AVENUE
EDMONTON

Official Time Inspector for the C. N. R.



THE RIESBERRY PUMP CO., LTD.

Manufacturers of
High-class
Wood and
Iron Pumps

We make only the best. Some of our pumps have been in use twenty years, and are still working. Ask your dealer for Riesberry Pumps, or write direct to us for catalogue.

Box 544, BRANDON, Man.

FACTORY:

Cor. 6th St. & Pacific Ave.

food and water fail, tears run from eyes and saliva from mouth, and skin becomes scruffy. When any of these symptoms appear, cease giving the drug. Treatment can be repeated, if necessary, in two months. In addition to this, it would act well to rub the tumors well, once daily, with an ointment composed of 2 drams each of iodine and iodide of potassium, mixed with two ounces vaseline. I would not consider it wise to keep this bull for cock purposes. The disease is caused by the spores of the disease, which often exists on the food, gaining the circulation through an

abrasion in mouth, tongue, etc., and it is possible for one animal to contract it from another by eating the saliva or discharge from suppurating tumors. V.

HORSE RUBS HIS TAIL.

1. What will stop a stallion from rubbing his tail?
2. What will make hair grow on a tail where it has been rubbed out? What will take itchiness out of stallion's legs?

3. Could you recommend anything to help a stallion that teeters in front knees a little?

4. Is Epsom salts good to feed to stallion in his oats? Will it cool his blood? If so, how much a feed would you recommend?

OLD SUBSCRIBER.

Ans.—1. First wash well with warm soft water and soap; rub dry. Then dissolve one dram of corrosive sublimate in a quart of water, part the hair, and rub a little well into the skin once daily, till itchiness ceases. Also give, internally, one ounce of Fowler's solution of arsenic in feed, or as a drench in a pint of water, night and morning for ten days.

2. After itchiness ceases, rub in lard or sweet oil every day or two. The corrosive-sublimate solution, applied in same way to the legs, will cure the itchiness.

3. See that the floor he stands on is level; shoe with a flat shoe; feed off the floor, and blister the back cords, tying for a few hours so he cannot bite parts. After three days, grease the parts. Repeat blister in a month.

4. Yes, a closed handful of Epsom salts given twice a day for a week, in feed, will cool the blood, and may answer the purpose instead of the arsenic solution. Remember that both corrosive sublimate and arsenic are rank poisons.

ALLOWANCE FOR OPENINGS IN MASONWORK.

Is a mason allowed all the openings, such as doors and windows, in laying brick? The mason laid by the thousand.

D. K. M.

Ans.—Not when he is laying by the thousand. He is only entitled to payment for the number of bricks he lays.

BRONCHOCELE.

Horse has a firm swelling about the size of a man's fist in neck, directly behind the jaw. It is not sore, is movable, and does not cause inconvenience.

A. S. D.

Ans.—This is an enlarged thyroid gland, and is called bronchocele, or goitre. It is supposed to be caused by animals drinking water largely impregnated with lime. Some horses appear particularly predisposed to the condition. The glands can generally be reduced to their normal size by the daily application of an ointment made of 2 drams each of iodine and iodide of potassium, mixed with 2 ounces vaseline. If this fails to reduce it, and it grows so large that it causes distress, or inconvenience, an operation by a veterinarian will be necessary. V.

MUD FEVER—CRIBBER.

1. Have had mud fever in my stable for a year. First one and then another is affected.

2. Two-year-old is a cribber.

J. J. E.

Ans.—1. Mud fever is not a disease that exists in stables. Of course, poor ventilation, dampness, etc., predisposes to it. Keep stables clean, dry and well ventilated, and it would be good practice to give a good coat of hot lime wash, with five per cent. carbolic acid. Give the patient a purgative of eight drams aloes and 2 drams ginger. Follow up with 1½ ounces Fowler's solution of arsenic, twice daily every alternate week for six weeks. To the eruptions, apply, three times daily, a lotion made of 2 ounces each sulphate of zinc and acetate of lead, and ½ ounce carbolic acid to a quart of water. Do not wash the legs.

2. A tendency to cribbing may be checked by feeding the colt from the floor, removing the manger from his stall. A strap buckled tolerably tight around the neck, close to the head, acts as a preventive of the habit. V.

CEMENT CRIB FOR A SPRING.

I have a spring which runs all the time and the water cannot be lowered. I wish to put in a cement crib, not more than four feet deep.



Warranted
to give satisfaction.

GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and
positive cure for

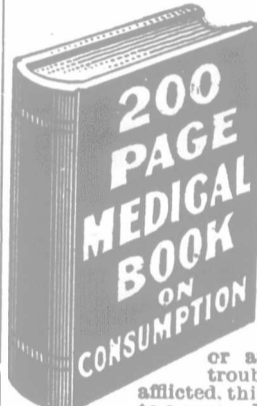
Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable.

Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

Consumption Book FREE



This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma

or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case hopeless.

Write at once to the Yonkerman Consumption Remedy Co., 276 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.



Comfort In Working Boots

A man cannot work when his shoes pinch—when a seam rubs against his toes until it makes a corn—when a wrinkle chafes his foot constantly. With the end in view of getting away from these defects so common in many working boots we have produced the Amherst. This boot is Blucher made, of soft grain leather, on the roomy, comfortable last shown above, with even seams.—Entirely made of solid leather, it guarantees durability, stability and long service—at \$3.00 a more economical working boot cannot be made. We deliver them to you prepaid for \$3.00 Send to-day.

Geo. H. Anderson & Co.,

Port Arthur, - Ontario

**CHEW
PAY
ROLL
BRIGHT PLUG
TOBACCO**

1. What proportions of cement to sand and gravel will I have to use?

2. Please give general information about building same. W. G.

Ans.—1. About 3 or 4 of sand to one of cement.

2. (a) Build a double crib of plank, allowing eight or ten inches between for cement, and set them in place in the water, with some device for holding them down in position.

(b) Mix the sand and cement dry, and then add enough water to moisten them, but not to make a mortar.

(c) Put the mixture in the mould, and tamp it down well.

(d) When the cement is well set, the planks may be removed.

If a cement bottom is required, a tile or iron pie to admit the water may be put in one side, or in the bottom, and the bottom cemented. An overflow pipe, or, at least, a depression in one wall, should be provided.

BLUESTONE FOR KILLING SOW THISTLE.

I think I saw something in the FARMER'S ADVOCATE about a year ago, on the use of bluestone for killing sow thistle. Will you please tell me how the solution is made for this purpose, how many gallons of water should be used for one pound of bluestone, as I would like to try this treatment?

Ans.—The question of eradicating

breeding was given correctly enough, as he paid five dollars for service, but, later when the man who owned the boar could not buy the boar pigs back at his own price, he refused to fill out certificate of service to this boar, and filled it out to another boar he had, not as noted prizewinner, nor as good a boar, which breeder No. 1 accepted and registered his stock as given above, which pedigree I have, and which is not correct nor worth the paper it is printed on. I, in my turn, before I received the registered pedigree, described the breeding of sow and her litter, and have sold some of her pigs, before I knew of this tangle. As a result, party is holding money till furnished with pedigree which I cannot give. Give instructions as to what I should do.

FARMER.

Ans.—You ought first to take return of the pigs you sold, and then make return of sow to the breeder, and demand a refund of the money you paid him, following such demand up, if necessary, by suit in Court.

STALLION FEES.

Will you please let me know what the law is in reference to notes given for service fees for insuring mares in foal. If the mares do not prove in foal and the stallion is not now travelling am I liable for the fees. The last round the groom in charge said that the mares were not in season.

Man. J. T.



SHORTHORN COW, "ROAN URY."

One of the best specimens of a farmers' Shorthorn cow seen at our fairs this year. Owned by P. M. Brett, Regina.

sow thistle was taken up pretty fully in a recent issue. Bluestone has not been recommended through these columns within our recollection for the killing of sow thistle—certainly not editorially. A spray solution of 10 pounds bluestone in 40 gallons of water will destroy wild mustard without seriously injuring the grain among which it grows; but bluestone is not an effective means of combating sow thistle. It is true that the annual sow thistle is more or less sensitive to the bluestone solution, but, to be effective, the solution would require to be so strong as to injure the foliage of other plants, and, even then, it is by no means certain that the annual sow thistle would be killed outright. For the perennial sow thistle (the more pernicious kind) attempts to eradicate by spraying with bluestone solution would certainly be a waste of time and material. Thorough, persistent cultivation is necessary to cope with it.

PEDIGREE OF PIGS.

In the early spring I bought a pig (sow) from a breeder, he, in his description, stating that sows were sired by a noted show boar, and also from a prize-winning sow, giving, in his description, the name of boar. Lately, I received pedigree of sow, but found that, according to name, she was sired by a different boar than was named in description. I immediately wrote for an explanation, and the breeder wrote that the sow

MANITOBA COLLEGE COURSE.

Whenever I want a pointer on farm work, horses, etc., I carefully watch the ADVOCATE, and as a rule sooner or later I come across an article that throws some light on the subject. I have read with interest the letters from young farmers who took the Winter course at the M. A. C., but I did not learn from them all I should like to

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's

Fistula and Poll Evil Cure

even had old cases that skilled doctors have abandoned. Easy and simple to apply; just a little attention every sixth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and sound. All particulars given in Fleming's Vast-Practical Veterinary Advice.

Write us for a free copy. Illustrated paper, covering more than a hundred veterinary subjects. Durable bound, in cloth and illustrated.

FLEMING BROS., Chemists,
45 Church Street, Toronto, Ontario.

If you want feeders that will graze you must have with the best. **HEREFORD** blood in them. I can supply you with the best. Shetlands and White Leghorns for sale. **JAS. BRAY, Portage la Prairie**

NEEPAWA STOCK FARM

FOR SALE—Shorthorns, combining milk and beef, and prize winning Tamworths, pigs of both sexes. Write me, **A. W. Gaswell, Neepawa, Man.**

SHORTHORNS

Ranchers and farmers need the reds, whites and roans, if you wish to breed the best and most profitable cattle. Can supply you with tip-top stuff. Am offering one three-year-old, six two-year-old and six yearling Shorthorn Bulls; also ten Cows and Heifers. **JOHN RAMSAY, - Priddis, Alta.**

OUR SHORTHORNS & YORKSHIRES

Will be seen at the leading Western Fairs this year. **W. H. ENGLISH & SONS, HARDING.**

SHEEP FOR SALE

We are offering for sale for October delivery 500 Cross-bred Lincoln-Merino and Oxford Down-Merino Yearling Ewes at \$6.00 per head at Walsh station. Would sell in carload lots to suit purchasers. We have also for sale a number of Lincoln, Oxford-Down, and Cross-bred Oxford Down-Rambouillet Merino Rams. Prices according to quality. **The Sarnia Ranching Co. Ltd., Walsh, Alberta**

MAPLE SHADE

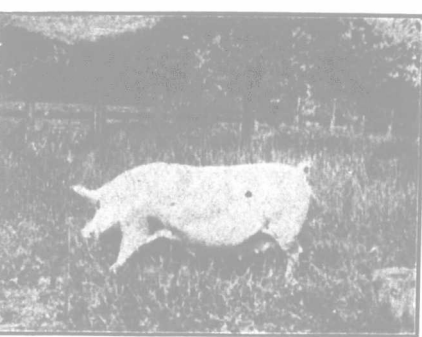
SHORTHORNS One yearling "Lavender" bull for sale

SHROPSHIRE Younger bulls growing

All shearing rams and ewes sold

Will sell a few good ram lambs

JOHN DRYDEN & SON Brooklin, Ont.
Stations: Brooklin, G.T.R. Myrtle, C.P.R.



Glencorse Herd of Improved Yorkshires

Is comprised of stock from the leading Prize Winning Herds of Great Britain and Canada.

Young stock of both sexes for sale. Prices very reasonable.

GLEN BROS., Didsbury, Alta.

ISLAND PARK HEREFORDS

The Champion Herd at Winnipeg and Brandon for three years. This year won nine first prizes out of ten competed for. At Winnipeg, three championships and one grand championship. A few good young females for sale.

Address: **J. A. CHAPMAN, ISLAND PARK FARM, BERESFORD, MAN.**

Bellevue Herd of Yorkshires

FOR SALE at present, the champion boar (1906) "Cherry Grove Leader," winner of first prize at Winnipeg and Brandon Fairs 1907. "Prince II," champion boar at Brandon 1907. Both these boars got by the champion boar "Summer Hill Oak 17th," at Winnipeg 1905 and Brandon 1905-6. What better record do you want? Boars and sows, all ages, at reasonable prices. Order early if you want any. The best herd west of the Lakes in Yorkshire and Tamworth Swine.

OLIVER KING, WAWANESA, MAN.

It pays to patronize Advocate advertisers

SHORTHORNS and YORKSHIRES

We have ready for shipment now, a number of Bulls and Heifers of various ages and of good quality. These will be sold cheap, as we are overcrowded.

In Yorkshires we will be able to ship by the end of June a grand lot of young pigs, of either sex. Also a few good Berkshire Boars. These are mostly from imported or prizewinning stock.

For particulars write to **WALTER JAMES & SONS, Rosser, Man.**

WOOL

Write for our prices **E. T. CARTER & CO., TORONTO**

CLENDENING BROS. Harding, Man.

RED POLLED CATTLE

The Grain Grower's Cow

A few Bull Calves for Sale

YORKSHIRE HOGS

There is money in Hogs if you have the right kind. Our breeding insures both quality and quantity. Spring Pigs of both sexes for sale.

SPECIAL OFFERING OF 8 Good Young Bulls

FIT FOR SERVICE

Geo. Rankin & Sons, NAMIOTA, Man.

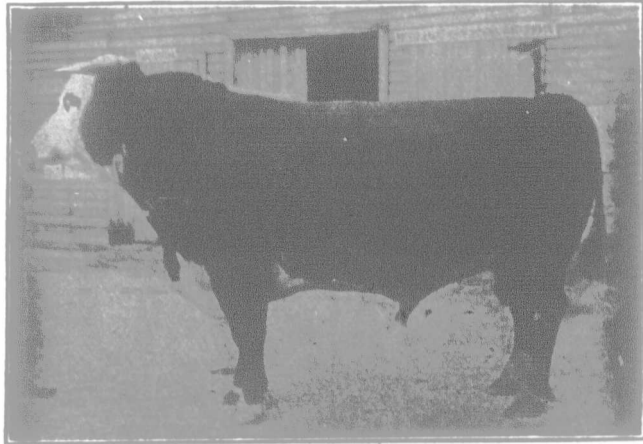
Terra Nova Stock Farm

HERD OF **ABERDEEN-ANGUS CATTLE**

All the best families represented. Some fine young bulls for sale from both imported and home bred cows. Prices reasonable. **S. MARTIN, Rounthwaite, Man.**

Sittyton Shorthorns

The Champion Herd at Regina and Calgary, 1906. At present all my bulls are sold but I can supply a number of first-class females of all ages and of most approved breeding. My old stock bull, Sittyton Hero 7th, has left a good mark. Get my prices for females before closing elsewhere. **GEO. KINNON, COTTONWOOD, Sask.** Lumsden or Pense stations.



AT PRIVATE SALE Imported Hereford Cattle

At Lilydale Stock Farm, Halbrite, Sask.

51 head of Females, all ages

20 Bulls, consisting of yearlings and two-year-olds

This Stock was selected from choicest American herds. Have a few Cows and Heifers bred to such noted prize-winning Bulls as Right Lad and Diplomacy.

Diplomacy is the sire of the Second Prize Steer at the International Live Stock Show at Chicago of last year, shown by F. A. Nave, of Attica, Indiana. The noted bull Beau Nash is now at the head of the herd.

Correspondence solicited. Address:

W. W. SMUTZ,
Halbrite, Sask.

Haslam Land Co., Prop.

JOHN A. TURNER, BALGREGGAN STOCK FARM, CALGARY, P. O. Box 472. 'Phone 221A
Importer and Breeder of Clydesdales, Hackneys, Shorthorns and
Shropshire Sheep.

Will import another shipment of Clydesdale Stallions and Fillies as well as a few Hackneys in October. Orders carefully filled and satisfaction guaranteed. At prices defying competition, as sales speak for themselves. 37 Stallions Sold Since Jan. 1907; also 25 females (registered). Look for Exhibit at the Fairs. Business conducted personally. Anyone wanting a show Stallion or a Filly, can have a greater choice than in any other breeding establishment in Canada. Everyone welcome. Yearly home-bred stallions on hand at present as well as a few older ones.

GOLDEN WEST STOCK FARM

Clydesdales and Shorthorns

Stallions and mares of excellent breeding, of all ages, for sale

Also some choice young bulls fit for service and a number of cows and heifers of noted Scotch strains.

Many of them Leading Prize Winners at the big Western Fairs.

P. M. BREDT

Regina, Sask.



AT PRIVATE SALE 26 Head of Hereford Cattle



Including SAMPSON, 3074, Champion at Brandon 1904 as yearling; and Females of various ages. Also

50 Head of Grade Herefords

A first-class lot for rancher or mixed farmer.

Will make easy terms or give liberal discount for cash.

H. BING, Glenella, Man.

Brampton Jerseys Canada's Premier Herd

Strengthened regularly by importations from United States, England and the Island of Jersey.

We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from.

Write for prices and particulars.

Long-distance 'phone at farm.

B. H. BULL & SON, Brampton, Ont.

know about the College. So if you could give an article in your paper describing the winter term at the College (not omitting the following items), I am sure it would be appreciated by many of your young readers.

1. What date the winter term begins?

2. Cost of term.

3. Whether students live altogether in the college or board and lodge out?

4. What instructions the term includes?

5. Whether a man of 36 or 37 would find men of like age there?

Sask.

A. E. G.

Ans.—The Manitoba Agriculture College will open for its second term on Tuesday, Oct. 29th.

In estimating the cost per year to a resident of Manitoba, board and lodgings at the College may be placed at \$70.00; necessary books, \$5.00; to \$10.00; laundry bill, from \$5.00 to \$10.00; tuition, \$10.00, making a total of about \$100.00, or possibly more if the student lived out. When the advantages of the course are considered, it will be realized that the cost is comparatively very low.

With but few exceptions, students prefer to reside at the institution. Last year accommodation was provided in the Main building for about seventy students in residence, the third floor

the practice is as old as civilization. It has always been regarded primarily as a sport, and it is generally so looked upon to-day. But in America the laws that have been enacted to regulate it put the question of sport in the background, and declare that its encouragement is "for the purpose of raising and breeding and improving the breed of horses." Without such a legal paradox there could be no book-making on the race-courses; without book-making, which enables those who attend the races to bet on the results, the breeder of horses, the owners of racing stables, and the proprietors of race courses, are all agreed that the sport, as conducted at present and for many years past, could not exist. Granting this fact, the easy conclusion is that horse-racing is conducted for the sake of the gambling, and that the horses are used merely as part of the gambling machinery—as a roulette wheel, for instance. The daily newspapers, which give columns and pages day in and day out to the reports of the races, strengthen this easy conclusion. Much more space is given and much more emphasis laid upon the doings of the "betting ring" than upon the performance of the horses that furnish the sport. The reporters, with great industry and immense exaggeration, tell of the great wagers won and lost; and the conversion of a "shoe-string into a bank-roll" is evidently



ROAN PANSY

Two-year-old Shorthorn Heifer, First at Bath and West Show, 1907.

being divided into rooms providing accommodation for two to three students. This year a new dormitory building is in course of erection, and it is hoped will be completed before Jan. 1st. This building will contain one hundred rooms for students and provide accommodation for at least two hundred young men. In the same building there is being erected a large dining-room and kitchen, so that those who desire may have living and boarding accommodation without leaving the College campus. Those who prefer to room in the city will be at perfect liberty to do so. More complete information, however, may be obtained in regard to these matters by applying to the Principal for a copy of the College calendar.

In reference to the ages of students last year, the average was twenty-one, ranging from sixteen to thirty-seven. There is no reason why a man of even forty years should not feel perfectly at home taking the course.

regarded as a greater achievement than breeding or training a staunch race-horse or riding it to a well-earned victory. This conclusion is easy, but it is not fair.

Gambling is the great handicap to racing—indeed, it is not too strong to say that gambling is the curse of racing; but racing is a cause of gambling rather than the desire to gamble is the cause of racing. The men who are the most noted breeders, as well as those who maintain the most formidable racing stables, are not in the least prominent in the "betting-rings," either personally or through agents. So far as they are influenced at all by business considerations, they race for the stakes and purses, and for the increased value that success brings to the stallions and mares of their breeding farms; but primarily, and as a general thing, the best of them race for the sport, much in the same way that they build yachts, play polo, or run automobiles. The money won by them is of secondary consideration, though I am far from suggesting that any of them despise the intrinsic value of their winnings. On the contrary, they think rather more of the money value of winnings than is good for the sport. A man does not expect his yacht to pay, or his game-preserves or his country-place, but he does look to the debit and credit side of his racing accounts with a keenness which gives a color at least to the frequently made charge that racing is not a sport, but a business venture. If the owning of a racing-stable is a busi-

GOSSIP.

RACING IN ITS RELATION TO HORSE-BREEDING.

The interest in horse-racing is felt by a great variety of people, while

ness venture, I am inclined to the belief that it is a very poor one, and quite unworthy of the business acumen of the shrewd men of affairs who have acquired the wealth that enables them to participate in such enterprises. It is not at all fair to say that racing is only a business venture or merely a gambling game, though there is enough of both features to detract seriously from the purely sporting side of it.

Horse-racing in America has become institutional in its character, and if it were not conducted in a businesslike way, the results would be confusing and disastrous. The men who, as proprietors of race-courses, have taken the purely business side, must conduct their affairs in a coldly business way. That in many instances they happen also to be the owners of racing-stables is an inevitable corollary. Not many other capitalists would care to risk money in such hazardous ventures. Those who do make such risks are usually possessed of what we call "sporting-blood." A man may have this, and still not be what is called a sporting man. A sporting man is one who lives by sport and is a kind of professional. So we designate promoters of the prize-ring, race-course book-makers, and even common gamblers. A sportsman, however, is of a different kind. He is an amateur, a lover of sport, presumably a gentleman. The sporting men would be only too glad to conduct the business side of racing. Wherever they have succeeded in getting control, they have quickly killed every vestige of sport, and placed racing under a legal ban. They killed it effectually in New Jersey, Arkansas, and other States. The sportsmen, however, are in full control in New York and in all other places in America where racing is in a healthy condition.

Racing is not entirely a business; it is not merely a gambling game; it is not purely a sport; nor is it conducted simply to improve the breed of horses. But it partakes of all of these at once, and the only evil that those in control do not seem able to eliminate is gambling. That feature of it I shall leave to other moralists to discuss. The sporting side needs no more discussion than the business side. Without sport, life would be dull for many people in this world; and without business control, not one in a hundred of those who now participate and enjoy the sport of racing could do so. But how does racing improve the breed of horses, and is the improvement worth what it costs? These are the questions that seem to me of the greatest importance.

The creation of the race-horse, the English thoroughbred, from the Oriental stock taken to Europe from Arabia, Barbary, and Turkey, is the greatest achievement in horse-breeding that the modern world has seen. This has been done in answer to the demand that horses should run faster and faster. To enable them to do this, the horses had to be larger, or, rather, taller. The Arabs a century and a half ago were about fourteen hands high, as they are to-day. The thoroughbred, in the form that is now fashionable, will average quite sixteen hands, so that in the two centuries of careful breeding he has grown eight inches in height measured over the withers. Whether he has also increased in his other dimensions in the same proportion is another matter. The average thoroughbred, I am sure, has not so increased, but the best specimens of the type are pretty nearly perfect in symmetry. They are not, however, particularly useful except as runners on the race-course. They excel in only one gait, the gallop, and they therefore are not particularly adapted to harness. The trot of the thoroughbreds is not fast, and the action is too low to make them very desirable driving horses. This is a general rule, and does not take into account a few exceptional thoroughbreds that have trotted with some, if not with great, speed.

The important thing to decide in discussing the relation of racing to horse-breeding is whether an infusion of thoroughbred blood is valuable in the creation and maintenance of other types. The race-horse in himself—that is, in his own individual work—is only valuable as a race-horse. Except as a racer, he never would have been developed in his present form and condition. Unless his blood improves the common run of

horses by mixing in with other breeds, the thoroughbred serves only one purpose. But his blood has proved to be valuable in every country where it has been used. The American harness horses trace back to Messenger, an English thoroughbred, and in their development there have been other infusions of thoroughbred blood. The Russian Orloff has infusions of thoroughbred blood, and the Austrians, Germans, French, and Italians, in their efforts to breed horses for cavalry and general utility purposes, buy in England thoroughbred stallions and mares to assist in keeping up the standard as to speed and stamina.

As to the value of the thoroughbred blood there can be little doubt, though breeders and students have long debated as to how it was best to get the infusions and what were the right proportions. Where there is little continuity of breeding, and the plans depend on the life and fortune of the breeder, the inexact science of breeding does not improve as rapidly as it might under more favorable conditions. Many of the European governments recognize this, and keep governmental breeding establishments, which go on from generation to generation in uninterrupted continuity of effort to perpetuate desirable horse types. The Russians have taken the valuable and interesting plant of Count Orloff; the Germans, for much more than a century, have maintained extensive breeding farms; the Austrians have in Austria, and also in Hungary, several large horse-breeding establishments; the French supply stallions to owners of mares at nominal fees, as is also the practice in Great Britain.

In the United States the Federal Government has done next to nothing in the way of horse-breeding, though two small plants are now in operation—one in Colorado for coach horses, and one in Vermont for Morgans. The efforts that the various governments sanction and assist are always toward the creation and maintenance of valuable types. In all of these countries where the efforts are to secure horses for military use, the English thoroughbred blood has the first place. It serves to quicken the blood of other breeds, and though it is an axiom of breeding that nature abhors great contrasts, the thoroughbred blood seems to mix and mingle harmoniously with any other with which it is crossed, no matter how "cold"—with the plow-horses of the farms, for instance, or with the bronchos of the Western plains.

Now why is this? The thoroughbred is of Oriental origin. He is created in England by the mixture of various horses—Arabs, Barbs, Turks, and so on. As has been said before, he was then a small horse, and very much the same as the Arab of to-day. But by selection in breeding and by some mixture with the blood that was in England before the advent of the Orientals, he has grown larger, fleet, and in many regards finer. He is still, however, a transformed Oriental. The Oriental blood—Arab, if you choose—is at the base of all reproducing horse types, and therefore when remingled with any of these even though it comes in thoroughbred guise, it is not entirely heterogeneous, and therefore the crossings generally tend to improve the less refined blood that is met. The question naturally arises, Why use transformed Oriental blood instead of the genuine? The answer to that is twofold. The thoroughbred blood, or transformed Oriental, is at hand and easily accessible, while the Arab, or genuine Oriental, blood is hard to come at. But the second reason is the stronger; there is a prejudice in America against Arab blood that no reasoning seems able to move. This prejudice is due to the fact that too much was expected in immediate improvement by mixing Arab blood with that already here and a consequent failure and disappointment. Had the experiments been continued several generations the result would probably have been different. This feeling may wear away in time, but its present existence must be counted with. Meantime we have the thoroughbred, and we should be unwise not to use the blood.

We have seen that the modern thoroughbred has been created by the demand for race-horses. But is racing at present improving the thoroughbred in such a way that the thoroughbred is

A Woman's Remedy

There are times when a woman feels nervous, irritable, and blue. These symptoms are the result of peculiar conditions which indicate the need of a safe and dependable remedy to assist Nature in her efforts to establish healthy action to the organs which directly affect woman's health.

Beecham's Pills

may be safely employed whenever backache, weakness, a feeling of nausea, faintness, nervousness, lassitude or other disagreeable sensations foretell derangements that need righting and regulating.

Beecham's Pills improve the digestion, bring back the appetite, purify the blood and clear the complexion. They have been used by women of every land, with uniform success for nearly sixty years. They are universally recommended as a mild laxative, an ideal conditioner and

A Safe Corrective

In Boxes with full Directions,

25c.



I.H.C. GASOLINE ENGINE

A Money Making Power for Farmers

DOING a job with an engine in less than one-half the time and with less than one-half the labor required to do it without the use of gasoline engine power, is making money for the farmer.

There are plenty of such jobs on the farm.

And while you are making money this way you are saving your strength and lengthening your days; another reason for making the investment.

Powers for the farmers' use have come to be a necessity. Think of the uses you can put a gasoline engine to: sawing wood, pumping water, churning or operating the cream separator, running feed mill, threshing, and numerous other jobs of this nature.

They enable farmers to do their work faster, do it better, do it easier and accomplish more than farmers have ever been able to accomplish before in the history of the world.

I. H. C. engines have done much to bring all this about.

They are the one line of engines that have been perfected and are manufactured specially for farmers' use. The company that builds the I. H. C.

engines also makes an extensive line of unexcelled harvesting machines.

It can no more afford to let an inefficient gasoline engine go out from its shops than it can afford to send out a poorly built or poor working binder or mower.

If you will investigate the I. H. C. engines you will find that they are engines you can depend upon always. You must have dependability.

You will find them economical in operation.

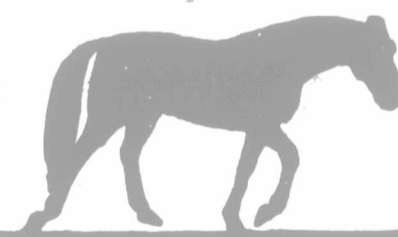
You will find them simple and easy to understand. That is all-important to the man who is not an expert mechanic.

You will always be able to get from them their full rating of power, and more. You will have a choice of varied styles and sizes, so that your exact needs will be fully met. Vertical, in 2 and 3-H. P.

Horizontal (including portable and stationary), in 4, 6, 8, 10, 12, 15 and 20-H. P.

If you want to be fully advised on superior farm powers, call and take the matter up with our local agents. They will give you all particulars, or write or call for catalog and colored hanger illustrating and describing these engines.

Call on our Local Agent or write nearest branch house for catalog.
 CANADIAN BRANCHES: Calgary, London, Montreal, Ottawa, Regina, St. John, Toronto, Winnipeg
 INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.
 (Incorporated)



Where all else fails

USE

Kendall's Spavin Cure

Bone Spavin, Ringbone, Splint, Blood and Bog Spavin, Thoroughpin, Curb, Capped Hock, especially if of long standing and obstinate—will not yield to ordinary liniments or blisters.

KENDALL'S SPAVIN CURE is an extraordinary remedy that gives extraordinary results. It cures old, stubborn cases that many times veterinarians have given up—takes away every sign of lameness—does not scar or kill the hair—and leaves the horse sound and smooth.

BENNETT, Man., Sept. '06

"I have used Kendall's Spavin Cure for 20 years—and it never failed me once." JOHN MCKENNA.

Write for noted book "Treatise On The Horse"—something worth knowing on every page. Sent free. Kendall's Spavin Cure is sold by dealers everywhere at \$1. a bottle—6 for \$5.

DR. B. J. KENDALL CO., - - ENOSBURG FALLS, VERMONT, U. S. A.

Was Weak and Run Down WOULD VERY OFTEN FAINT AWAY

Mrs. J. H. Armstrong, Port Elmsley, Ont., tells of her experience with

MILBURN'S HEART AND NERVE PILLS.

She writes: "It is with gratitude I tell how your Heart and Nerve Pills benefitted me."

"I was very weak and run down, had headaches nearly every day and very often would faint away, in fact, my doctor said that sometime I would never come out of the faint. It was through one of your travelling agents that I was induced to try Milburn's Heart and Nerve Pills and after taking three boxes I am glad to relate it has been a number of years since I had a fainting spell and scarcely ever have a headache. Too much cannot be said in praise of Milburn's Heart and Nerve Pills, for in me they have effected a perfect cure."

Price 50 cents per box or 3 boxes for \$1.25, at all dealers, or The T. Milburn Co., Limited, Toronto, Ont.

B. P. RICHARDSON
BARRISTER, SOLICITOR
NOTARY PUBLIC
Solicitor for the FARMER'S ADVOCATE for
Alberta and Saskatchewan.
GRENFELL, SASK.
LANDS FOR SALE

PEACH'S LACE CURTAINS

Let us send you FREE our Mail Order Catalogues.
Curtains, Linens, Hosiery, Blouses, Gents Tailoring Catalogue, Ladies Fashion Booklet, Boot and Shoe List.
Buy British-made Goods. Sturdy, Reliable makes.
BENEFIT BY THE PREFERENTIAL TARIFF.

POPULAR CANADIAN PARCEL
5 pairs Lace \$6.30 postage free.
Curtains (White or Ecru.)
Contains—2 pairs superb Diningroom Curtains, 3 yds. long, 60 ins. wide.
1 pair exquisite Drawingroom Curtains, 4 yds. long, 2 yds. wide.
2 pairs choice Bedroom Curtains, 3 yds. long, 43 ins. wide.

Merit, Taste and Value have increased the sales every year. Free to your home, \$6.30 Letter orders have thoughtful attention. We are here in contact with the markets and supply at lowest rates, have been in business 30 years, and only transmit Reliable Goods. Direct from the Looms at makers prices.
We can help you. Write for our Catalogues. FREE. FREE. Price List may be obtained at the office of this Paper
SAML. PEACH & SONS, The Looms, Box 665 NOTTINGHAM, Eng. Est. 1887.

We Own 30,000 Acres of the Best Wheat Land in Western Canada.

Prices from \$7.00 per Acre up.
We can sell you a farm cheaper than any real estate firm in the West, simply because the land we sell is our own; you do not need much cash to buy from us; write for particulars

FARMER'S COLONIZATION AND SUPPLY COMPANY
6 Stanley Block, Winnipeg, Man.

SUNNYSIDE

is an orchard land sub-division in the famous South Thompson River Valley, 24 miles from Kamloops, British Columbia, and on the main line of the C. P. R.

SUNNYSIDE

has river, rail and road transportation facilities. The best soil in B.C. Plenty of water for irrigation purposes. A southern exposure and beautiful surroundings.

SUNNYSIDE

Will grow anything grown in the North Temperate Zone, from apples to apricots. No late or early frosts. The finest climate in B.C. Land all cleared, free from stones and ready to plant your trees on now. We run no excursions, but you can come any time after your seeding is done, and we will pay your fare both ways if you purchase. Write for information to

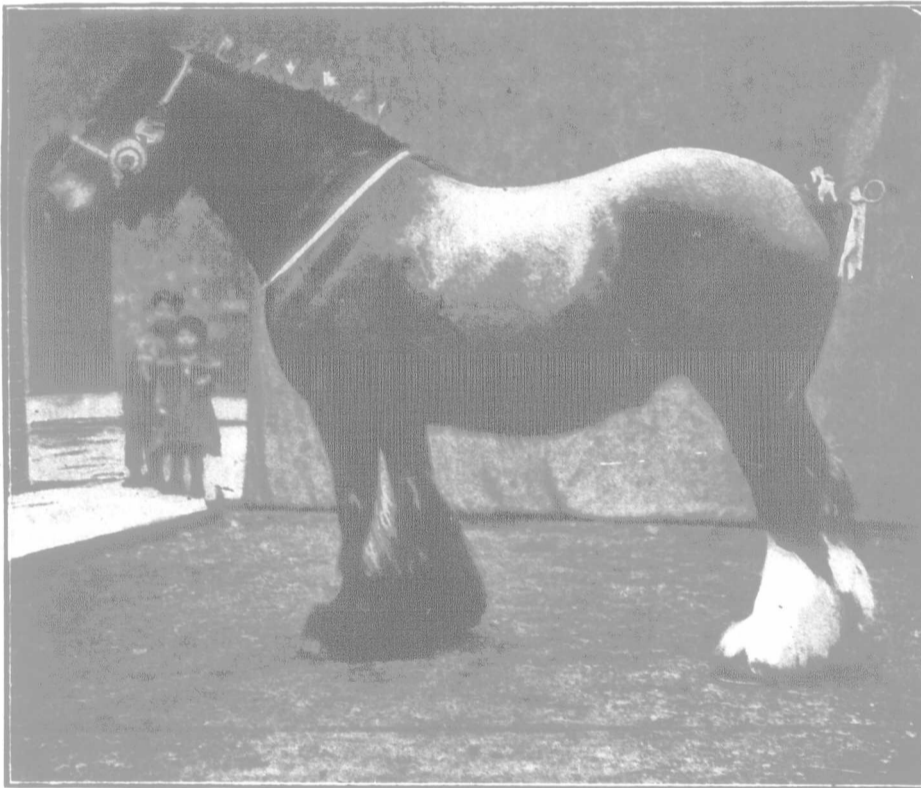
J. T. ROBINSON,
Manager B.C. Orchard Lands Ltd., Kamloops, B.C.

made more valuable in the improvement of other types of horses? That is a hard question; but I am inclined to believe that the kind of racing that now prevails in America hurts rather than helps the thoroughbred as such a means of improvement. Short races and races for two-year-olds are the order of the day. This necessitates two efforts on the part of the breeders and trainers—one to get very fast horses for short distances, and the other to develop very young horses to do work that should be reserved for their elders. In a race program we will find most of the races at distances less than a mile, while very many of the most valuable stakes are for two-year-olds. These things have come about on the demand of the breeders and owners. A breeder can get a better price for his yearlings if the purchasers have chances to make winnings and repay themselves within a twelve-month. And the owners and trainers are only too anxious that the youngsters in their stables should become bread-winners at the earliest possible moment. These features of present-day racing are, in my opinion, hurtful to the horse interests of the country, and are in response to what is a purely commercial demand on the part of breeders and owners. The spirit of commercialism which is so all pervasive in America is not more baneful anywhere than in what we call sport.

Then again, these short races—sprinting contests—and races between

dash—that is, one trial—was looked upon as a poor test of a horse's speed and courage, and was regarded as only a little better than the quarter-mile races of the cross-road country gamblers. Heat races are now quite out of fashion, and the few distance races we have are not popular with owners, as they secure few candidates. Two miles and a half is considered a very long journey, and I fail to recall a four-mile race in many years. I am not pretending to say that some of the star performers of to-day, if specially prepared for long-distance races, would not equal, if not surpass, the performances of Lexington, Fellowcraft, and Ten Broeck, but I do say that the breeders are not seeking primarily for horses to go long journeys and carry heavy-weights, but for very fast horses at comparatively short distances. The result is that the thoroughbred of to-day is becoming more and more unlike the common or basic stock of the country, and departing further and further from that parent stock from which he sprung—that parent stock which has been the potential yeast that has quickened the blood of all the valuable equine types in the civilized world, and at the same time given to these types the reproducing quality without which no type can be truly called fixed and established.

The race-horse as such is most interesting, but it can scarcely be said that as such he is economically valuable in any comprehensive sense. Unless the improvement and perpetuation of the



STOLEN DUCHESS
Champion Female, Shire Show, London, 1907. Foaled 1901, sire, Southgate Honest Tom.

two-year-olds, have a tendency to give most of the mounts to very light-weight riders, with the consequence that the majority of jockeys are mere children, who really ought to be at ordinary common schools instead of in the place of star actors in this severe and strenuous game of sport. When a youth gets old enough to ride,—that is, when he is approaching manhood, or has reached it, he is nearly always too heavy to "make the weights" that prevail at American meetings. He is forced, therefore, to retire or to go abroad, where the standard of weights is heavier. A horse that cannot carry at full speed the weight of a light-weight man is not likely to be valuable in improving the breed of general-utility horses; for in such horses stamina and stoutness are required above all else. If the racing authorities are in earnest in their desire to improve the breed of horses, they should increase the weights, lengthen the distances, and decrease very considerably the number and the value of the two-year-old stakes. One mile should be the shortest race permitted, one hundred and twenty pounds the lightest weight allowed, and two-year-olds should not be asked to run until in August or September of the two-year-old form.

In the time of our fathers in this country, one-mile, two-mile, three-mile, and four-mile heats were common. A mere

racehorse works a value to the common stock of the country, there is no reason why the public should concern itself to preserve a sport which carries so many ills in its train. Let us glance a moment at the life-work of the most famous racehorse we have had in America during the past decade. I refer to Mr. Keene's Melton colt, Sysonby. This colt ran only in his two-and three-year-old forms and died without starting as a four-year-old. He started fifteen times, and won all except one of his races. His winnings in two years aggregated \$178,190, and as Mr. Keene does not bet on the races, this aggregate represents a total of the owner's winnings. The shortest race in which he started was five-eighths of a mile, the longest two and a quarter miles. The aggregate length of all the races Sysonby ran was twelve and one-half miles. This, then, represents the life-work of the greatest horse of his day, probably the greatest of this generation. That he did only this much does not in the least prove that he might not have done ten times as much; but this was, presumably, all that his owner thought it wise to ask him to do. Now he was the best—incontestably the best—at a time when there were many that were considered first-class. What should we expect from a merely average racer, what from one that was only fairly good? Such facts do not inspire

British Columbia Fruit Lands In the Famous Kootenay Valley

WE have, without doubt, the finest Fruit Lands in the Kootenay Valley, known as the Waterloo Lands, which are situated about 22 miles southeast of Nelson at the junction of the Columbia and the Kootenay rivers, three and a half miles from Castlegar station, only half a mile from Waterloo siding. This land has a frontage on the Columbia river of two and a half miles. Soil A 1 for fruit and vegetable raising, and requires no irrigation.

For further information write or phone

Willoughby & Maurer
Real Estate Brokers
Room 1st. John's Block, 984 1/2 Main St.
Phone 6296 Winnipeg, Man.

VANCOUVER

British Columbia

Where there is practically no winter.



ROYAL BUSINESS EXCHANGE, LTD.
450 HASTINGS STREET, VANCOUVER.

Bog Spavin

Once the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be limited. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser

describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.
FLEMING BROS., Chemists,
45 Church Street, Toronto, Ontario

The Best in the KOOTENAY

52 acres of splendid fruit land only 20 minutes from the center of the City of Nelson. First-class wagon road through property.

5 acres under the very best of cultivation and 13 acres almost ready for planting.

1 of an acre bearing strawberries.

500 raspberry bushes. 150 apple trees. 50 cherry trees. All the very best varieties.

Last year 4 1/2 TONS of finest tomatoes were raised from half an acre of new ground on this sunny property and marketed at good prices.

Small frame house and good frame barn.

\$100 per acre on easy terms.

Wolverton & Co.
NELSON, B.C.

the homespun folk of the farms, who, after all, are the horse-breeders of the country, to place much faith in the value that is to be expected from the modern thoroughbred in the desired improvement of the common stock.

And this common stock must be gradually but radically improved to make it profitable to those who breed and raise it. The agencies that are competing with the horse are always being improved, and will surely become permanent. None but a good horse pays now, and good horses are not so numerous as is the demand for them, while the price for high grade horses for saddle and harness is greater than ever before in the history of the country. This increase in price is due, on the one hand, to the scarcity of good horses, and, on the other, to the increased demand for them, and not a little, no doubt, to the rise in prices of every kind. It is an interesting period, therefore, in which to reform the racing methods so that the thoroughbred may be more valuable in assisting the farmers to breed the kinds of horses that are in demand in the markets.

The use of the thoroughbreds to improve other American types is not an experiment the result of which is doubtful. We have two distinctly reproducing types in this country, and one type that is recognized as a type by the very great majority of Americans. The unquestioned types are the Morgans of Vermont and the Denmarks of Kentucky. The quasi type is the standard-bred trotter. All three of these types owe very much, if not all, of their merit and prepotency of reproductive capacity to the thoroughbred, or to the Oriental blood that came through the thoroughbred. The founder of the Morgans of Vermont was Justin Morgan, who is said to have been sired by Colonel DeLancey's thoroughbred True Briton (also called Beautiful Bay and Traveler) out of a mare called Diamond, also a thoroughbred. If this pedigree be correct,—and though I do not believe it, I cannot disprove it,—Justin Morgan was rich in the potential blood of the Darley Arabian and the Godolphin Barb. Pedigree or no pedigree, Justin Morgan certainly had a large quantity of the prepotent Arab blood, whether he got it from horses more recently from the desert or by means of the thoroughbred ancestry that was recorded half a century after his death. He looked like an Arab, acted like one, and bred like one. But whatever be the truth, whether Arab or thoroughbred, he established a great type—a type that has always been improved by some thoroughbred out-crosses and marred by most others. This fact is conclusive evidence to practical breeders who believe in the axiom, that "like beget like," that there was thoroughbred or Arab blood in the founder.

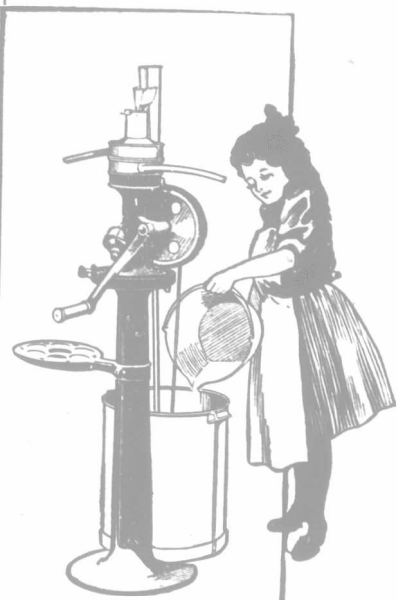
The famous Kentucky saddle-horse is of thoroughbred origin, Denmark the founder having been a successful race-horse that won at four-mile heats. He was begotten by imported Hedgeford out of Betsy Harrison by Aratus. This is the most useful and symmetrical saddle-horse in the world, and the breeders of this type are constantly putting in fresh infusions of thoroughbred blood. The utility of the race-horse in creating and improving this breed is so well known that it need not be discussed.

The standard-bred trotter, which I call a "quasi type," in fear and trembling of the wrath I am sure to provoke, traces back through Hambletonian, Abdallah, and Mambrino to the imported thoroughbred Messenger. In every one of the trotters so descended that has gone phenomenally fast there have been one or two or more infusions of thoroughbred blood since that which came from Messenger.

The same has been proved abroad. In every one of the great governmental studs, new thoroughbreds from England are being constantly introduced, and when one of these Continental countries, even Italy, desires a stallion, the best specimen available is bought, regardless of the price that has to be paid. That policy is in striking contrast to that being pursued by the United States Government in its efforts to create one type of horse and revive another. Until recently this Government has never done a thing to encourage horse-breeding. As a purchaser of horses for the army it has always been niggardly. The specifications issued for cavalry and artillery

DOUBLE YOUR DAIRYING PROFITS WITHOUT BUYING A COW

SUPPOSE somebody offered to swap a blue-ribbon, prize-winning milker for any cow in your dairy-herd,—without a cent to boot? Wouldn't you jump at the chance?



The Capital Cream Separator

I will do as well as that for you. I will show you how to get as much real money out of an ordinary herd of dairy cows as you'd get by your present methods out of a herd of prize-milkers. I will prove to you there's twice the money in dairy-farming you've been getting,—and you needn't spend any money to get the difference. I will do this just as soon as you write me and say: "I keep so many cows. I get such-and-such a price for my milk—or cream—or butter" (whichever end of the dairy business you follow).

I am not setting any traps for your dollars or your brains. The more skeptical you are, the harder I'll convince you. The best friends I've got among my customers are the men who didn't believe any cream separator amounted to much.

They found out different after they got a Capital Separator and put it to work getting back the money they'd been feeding the pigs and vealing the calves. They found out that the Capital Separator adds over thirty dollars a year to the actual net earnings of every cow they keep. So will you find that out, if you'll write to me and ask for the plain truth about this whole separator idea.

Thirty dollars a year more profits out of every cow you keep for profit's sake,—whether you keep four cows or forty! That is what I promise you. That is what the Capital Separator will get for you—and it is the only thing that will get it. Yes, indeed, I CAN prove it, right up to the handle. Ask me and see.

And I will not only show you why, and where and how the Capital gets that extra profit for you, but—I will show you in plain word how you can make that profit with a fraction of the work you have to do to-day to get half as much. That is where my plan for SELLING butter and cream comes in,—my plan specially devised for your special case and your special locality, and

The National Manufacturing Co., Limited

123 Mail and Empire Building, TORONTO, ONT.

which you can work yourself without sharing the profits with anybody.

Maybe you don't need the plan; but I know you do need the separator, and I can prove to you why and where and how you need it, and what it will pay you if you get it.

Half the work you have to do now to make any money out of dairy-farming,—that's another thing the Capital Separator means to you. Half the work, every day in the week; and thirty dollars more a year from every cow

Half the work,—much less than half the work, maybe, but half at least,—simply because the Capital Separator is the machine that runs with the least elbow-grease and makes by far the least work for everybody who has anything to do with the dairy side of your farm. That's due to three things: the Capital bowl, the Capital gears and the Capital really-low-down whole-milk tank.

The Capital bowl gets all the cream possible out of the milk because it is the bowl that weighs least of any and sends the milk through a wing-cylinder that simply can't let any cream stay in the skim milk. The Capital bowl is as easy to clean as a lamp-chimney—doesn't take five minutes to cleanse it perfectly.

The Capital gears run so easily that a ten-year-old boy can handle the milk of eight cows in twenty minutes, and not be out of breath when the run is over. The mechanism is so perfectly balanced, so nearly automatic, that the whole work of perfect cream separating, twice a day, won't use up as much energy as it takes to carry a bucket of water fifty yards.

The Capital whole-milk tank is the only really low-down tank there is—because it's just as low-down as a tank can be put,—it stands on the floor! That one thing does away with more waste effort, banishes more bother, abolishes more muss and slop, than you'll ever think possible until you've seen and used the Capital.

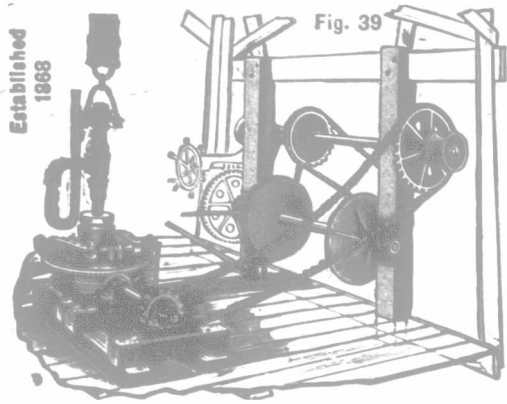
But all these things, and many more, are things you ought to know about in detail. I can't tell you about them here,—no room to. But if you will simply write to me and ask for the facts, I will show you why the Capital Separator is the one thing your farm needs right NOW,—and I will show you that you CAN afford to get it right now. Doesn't matter if money's a little tight with you,—I can fix it so the Capital will buy itself before you have to pay a cent for it. Write to me and hear the whole story,—it's worth while.

horses describe animals of superlative excellence and symmetry—horses worth at this time in any market six or seven hundred dollars a head. Then the contracts are awarded to men who agree to supply the horses at from \$150 to \$180 a head, and who also expect to make money. And very likely they do. But the Government does not get the horses contracted for as described in the specifications. Recently, however, a few mares and a stallion have been established in Colorado with the idea of creating a reproducing type of coach horse. This is what we have never had in America; our coach horses have rarely been the result of design—they have merely happened. And in Vermont a few Morgan mares have been established with the idea of reviving this very useful

and beautiful breed. But the policy of the Government has been so niggardly that the officers in charge of these experiments have never been able to buy what they wanted, but have had to be content with what the small appropriations enabled them to pay for. The idea of the great, rich American republic, when conducting an experiment for the benefit of the people, buying second and third-rate material instead of the very best would be laughably absurd were it not humiliating. This cheap policy has been due to the timidity of the Department of Agriculture and the hostility of the Chairman of the House Committee on Agriculture. The Department may gain in courage; the Chairman has been defeated for reelection. So we need not despair of the

experiments so meagerly begun. Now in these horses that are being experimented with it is the thoroughbred blood that gives them their quality. If it were not for this consideration we might just as well foster the importation of foreign types and stimulate their multiplication in this country. With these types—the hackney, the French coach horse, and so on—Americans will never be content. They want better-bred horses,—horses that find no road too long, no pace too fast. Such we can get only by using our own basic stock, reinforced from time to time by thoroughbred or some other equivalent infusion.

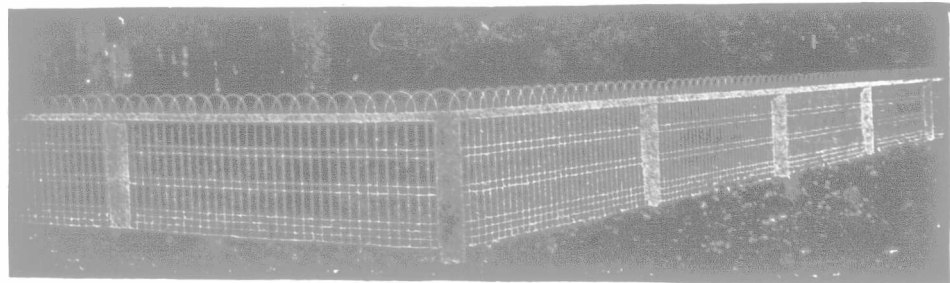
And without racing the thoroughbred in this country would soon become a rarity.



LIGHTNING WELL MACHINERY,

Rotary, Coring or Rock Drilling,
Any Diameter, Any Depth, for
Water, Oil, Coal or Mineral
Prospecting,

Descriptive Catalog on request.
The American Well Works,
Aurora, Illinois, U. S. A.
CHICAGO, ILL. DALLAS, TEX.



PAGE WHITE FENCES

The Acme style you see above costs only from 16 cents a linear foot. Handsome and durable for lawns, parks, cemeteries, etc. Any height or length. Gates to match from \$2.25. Write for catalog, or inspect this ideal fence. From us direct or any Page dealer.
The PAGE Wire Fence Co., Limited Walkerville Toronto Montreal St. John Winnipeg

Catalogs and Booklets

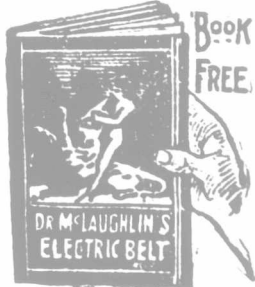
MUST HAVE STYLE AND DRESS

You may want something of this nature. Let us build it for you. You will find our prices as reasonable as our service is excellent.

FARMER'S ADVOCATE OF WINNIPEG, LIMITED

MEN, IT'S FREE!

SEND FOR IT NOW.



ASK ME TO SEND YOU, SEALED, FREE, a book just completed, which will inspire any man to be bigger, stronger, younger (if he is old), and more vigorous than he ever felt. I am a builder of men.
I can take any weak, puny man and make him feel like a Sandow. Of course I can't make a Hercules of a man who was never intended by Nature to be strong and husky. I don't mean that.
But I can take a man who started with a fair constitution and before it got fully developed began tearing it down. That fellow is weak-nerved, slow, poky, lacking in vim, ambition and self-confidence. I can make a man of him in three months, so that his own friends won't know him.
Every man who is weak and "going back," knows that there ought to be something which will restore that old "steam" to his physical body. He has tried the usual drug method and found that a fizzle, and yet he knows there must be something.
I know it, too, and I've got it. It's Electricity. You can't name anything more likely to have that force which a weak man lacks. It's a natural power. I can pump it into a weak man while he sleeps and make him feel like a Sandow in no time. It's the spice of life.
So get the book if you want to be stronger.

FOUND MY CLAIMS FOR MY BELT TO BE TRUE.

Dr. McLaughlin: Nipissing, Ont.
Dear Sir,—I have worn your Belt for two months steady, and must say that it has done me an awful lot of good. I am well satisfied with the Belt, and I have found what you said about your Belt to be true. I will give your Belt all the praise that it deserves. Wishing you every success, I remain, yours very truly,
WILLIAM BYERS.

If you are sceptical, all I ask is reasonable security for the price of the Belt, and you can use it and

Dr. M. B. McLaughlin

112 Yonge St., Toronto, Can.

Please send me your book, free

Name

Address

PAY ONLY WHEN CURED

CALL TO-DAY — FREE BOOK—Free Test and Consultation. If you can't call, write for beautifully illustrated 80-page book.

Wit and Humor.

HE CALLED HER "DEAREST."

Shortly after Mrs. Frances Hodgson Burnett's book, "Little Lord Fauntleroy" appeared she went with her two little boys to a seaside hotel. The story had made a great sensation, and there had ensued a regular epidemic of Fauntleroy curls, Fauntleroy suits, and Fauntleroy youngsters. In the room next to that occupied by Mrs. Burnett was a dashing, rather overdressed widow, with a red-haired, bullet-headed son, of about seven, who was the terror of the hotel. Anticipating the arrival of the famous author, his mother had purchased a complete and elaborate Fauntleroy outfit, with which she proceeded to deck out her unappreciative and rebellious offspring.

Not content with this outward seeming, the woman desired to complete the caricature by compelling her precious child to address her as "dearest," after the manner of the hero of the book, instead of "mommer," or, more frequently, merely, "say," as he been his previous custom.

Mrs. Burnett arrived no sooner than she had been expected, but apparently before little Johnny had entirely completed his course of instruction in filial courtesy, as was evident by the sounds which penetrated the thin lath and plaster partition between the rooms. This was what Mrs. Burnett heard:

"Johnny!"
Silence.
"Johnny, do you hear me?"
Silence.
"Call me 'Dearest!'"
Silence.
"Will you call me 'Dearest,' or shall I make you?"
"Yer can't make me."
"Yes, I can. Call me 'Dearest!'"
"Go terblazes!"
"That's no way to speak to me."
"It's a good sight better'n what you want me ter say."
"It isn't. Call me 'Dearest!'"
Silence.
"Do you want me to use the trunk strap? Call me 'Dearest!'"
Silence.
"Call me 'Dearest!'"
Silence.
"Biff-biff-biff-biff! Call me 'Dearest!'"
"I won't!" Biff "I won't!" Biff-biff! "Ouch, you hurt!"
"Then call me 'Dearest!'"
"Oh, all right, then, Dearest."
"Now, see here. If you don't remember to call me 'Dearest' at dinner to-night, I'll wallop you within an inch of your life, you ungrateful thing!"

Sydney Rosenfeld, addressing the American Dramatists' Club at the dinner given by Charles Klein in honor of Henry Arthur Jones, told of his experiences while trying to find a manager who would produce his play, "The Optimist."

"I don't think much of the title," was the first manager's protest.

"Do you know what it means?" asked Rosenfeld.

"Certainly," was the impatient answer. "An optimist is a man who looks after the eyes and a pessimist is one who attends to the feet."

This recalls Wilton Lackaye's remark when asked if he had found a manager to produce "Les Miserables."

"Found one to produce it?" he answered. "Why, I haven't even found one who could pronounce it."

DIDN'T LIKE THE TASTE.—He found his hair was leaving the top of his head, and took his barber to task about it.
"You sold me two bottles of stuff to make this hair grow."

"It is very strange it won't grow again," interrupted the barber. "I can't understand it."

"Well look here," said the man. "I don't mind drinking another bottle, but this must be the last." *Atlanta Christian Advocate.*

COULD USE THE OTHER KIND, TOO.

"Here," said the salesman, "I have something we call the lovers clock. You can set it so it will take it two hours to run one hour."

"I'll take that," said Miss Jones with a bright blush. "And now, do you have one that can be set so as to run two hours in one hour's time or less. I think I'd like one of that kind too."

Crazy people never act together, declares the superintendent of a large asylum for the insane, quoted in the *Medical Times* (New York, April). "If one inmate attacks an attendant, as sometimes happens, the others would look upon it as no affair of theirs, and simply watch it out. The moment we discover two or more inmates working together we would know they were on the road to recovery." It is on this account that there are so few concerted mutinies in insane asylums; so that the number of attendants does not have to be large.

The annual fair season was at hand, and the neighbors for miles around were preparing to attend.

"Well, Sam," said the wife of a prosperous landowner to her rustic protegee "your master and I are going up to town for the Cattle Show."

"Oh," replied the boy, "I'm sure I hope you'll take the first prize, 'm—that I dew."—*Ladies' Home Journal.*

The ready wit of a true-born Irishman, however humble his station, is exceeded only by his gallantry. A gust of wind took a parasol out of the hands of its owner. An Irishman dropped his hod of bricks, caught the parachute in the midst of its ascent, and presented it to the owner with a bow.

"Faith, ma'am," as he did so, "If you were so strong as you are handsome it wouldn't have got away from you."

"Which shall I thank you for first," asked the lady, "the service or your compliment?"

"Troth ma'am," said Pat again, touching a place where once stood the brim of a hat, "that look of your beautiful eyes thanked me for both."

WHY HE DOESN'T.

I so admire fair Phyllis
My love I would rehearse,
And ask her if she'd take me
For better or for worse.

But when I read the papers
I'm scared almost to death,
(For butter's thirty-three now)
It takes away my breath.

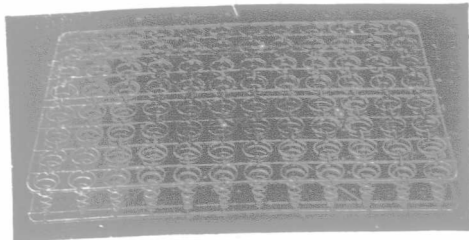
I'd like to ask fair Phyllis
To share my humble lot,
But eggs are thirty-five now,
I'd really better not.

I wish to wed sweet Phyllis,
But then there is the rent,
I know I can't afford yet
A handsome fire-proof tent.

So I refrain from asking,
And merely sigh and sigh;
I'd like to marry Phyllis,
But prices are so high.

J. G.

A man running toward the Reading Railway station, in Germantown, on Saturday, as if in great haste to make the train, was the cause of enlivening the gait of a number of other pedestrians bent on that purpose, among whom were several women who fancied they were late for the train. As the latter wore shoes of the cramped pattern, known as pumps, their discomfort in running may be imagined. When, breathless, they reached the station, they found the fast runner sitting comfortably and reading a paper, with ten minutes margin before train time. One of the women, made bold by indignation, advanced upon the cause of her anger with the query: "What were you running for?" The answer was "For my health." *Phyllis, 274 Record.*



WHY NOT ? Sleep on a Cornelius Spring

They are clean—no place for the lodgment of dust. They are sanitary and vermin-proof. If your dealer does not handle the "Cornelius" let us know and we will arrange it for you.

We guarantee the "Cornelius" to be as represented, and if not entirely satisfactory after 30 days' trial the purchase price will be refunded.

CORNELIUS BROS.
485 Sherbrook St., Winnipeg

British Columbia Irrigated Fruit Lands with Water Free

Several hundred acres of the finest fruit lands have been put on the market for sale in the Kettle Valley, which have been subdivided into lots of various sizes; many of these front along the river and are beautifully situated. Soil a rich sandy loam, which produces the most magnificent apples, small fruit and vegetables. Very valuable local market only a few miles away in the flourishing mining district of the boundary, where the monthly pay roll is \$250,000. Splendid climate. About 30 miles east of Okanagan Valley. Excellent railway facilities. Prices only \$100 to \$150 per acre. Abundant supply of the finest water and NO RENT to pay for it. Apply to

W. O. WRIGHT, Managing Director
Kettle Valley Irrigated Fruit Lands Co.
MIDWAY, B. C.

Winnipeg Agents:
B. M. Tomlinson & Co., Edward Building
opp. Eaton's, Winnipeg, Man.

You must act at once

in order to secure one of our

Orchard and Garden Homes at Fruitvale

In the center of the Southernmost and warmest valley in Southern B. C., West Kootenay, for \$10 down and \$10 per month for 10 acres.

WE GUARANTEE

to pay all your expenses and refund

YOUR MONEY

If our land and whole proposition is not exactly as we represent it. You can make from \$400 to \$700 per acre annually growing fruits and market gardening. Every tract is either level or gently sloping. The soil is loam with clay subsoil. Free from rock. Ample rainfall. Fine healthy climate. Cool in summer. Zero weather in winter practically unknown. No early or late frost danger. Plenty of timber on each tract for buildings, fences and fuel. Each tract fronts on a road, and every tract within half a mile of main line of R.R. Title is perfect. We own one-fifth of the good land in the whole Kootenay and make these terms so that you will be able to use your surplus funds improving your land. We refer to three of the strongest Banks in Canada. Write quick for prospectus and testimonials of settlers at Fruitvale.

**KOOTENAY
ORCHARD ASSOCIATION**
Nelson, British Columbia

McKILLIP Veterinary College

Chicago—Chartered 1892
AFFORDS UNLIMITED CLINICAL ADVANTAGES
New building containing every modern
equipment. Sessions begin Oct. 1, 1907. The new
and Pure Food laws require large
number of Veterinary Inspectors.
and other information.
Chicago, Ill., Sec. 6, West 4th St. Chicago

ALBERTA AT THE NATIONAL.

The "Globe" in the course of its reviews of the displays at the Canadian National Exhibition has the following to say of the Alberta showing.

The Province of Alberta is one of the interesting places of the world, and the eyes of all Canada is on this lusty young child of the west. The exhibit of the Alberta Government in the Railways building at the Canadian National Exhibition is a center of attraction to every visitor, and the arrangement of the various grains, grasses, coal and other products of the "last west" has been made with a view to satisfying the public that Alberta is all she claims to be, a great and progressive Province. Among the exhibits are grains, grasses, clovers, coal, brick, stone, sugar, etc. The bulk of the grain exhibit and all the grasses are this year's growth. Samples of oats are shown that have run as high as 110 bushels to the acre, and some wheat 60 bushels to the acre. The sheaves of grain and imitation wheat fields are specially pleasing to the farmers, who like to see the wheat and oats in the sheaf, just as they appear on their native soil. Flax is shown that ran seventeen bushels to the acre and some Brome grass is six and one-half feet high. Fully forty varieties of native and tame grasses are in the exhibit. These and the splendid alfalfa is proving of wonderful interest to the visitors, and every interested person given a sample of Alberta grain in an envelope, also a private picture post-card showing the exhibits.

Alberta is great, not only in its grain-producing qualities, but in coal, coal oil, marl for cement, natural gas, etc., and soft coal is so abundant there that it practically lies under every foot of land in the whole Province. In many cases all that a farmer who lives near a river has to do when his coal supply runs short is to step to the river bank and help himself to coal from the surface. This is one of the splendid features of Alberta, and the immense coal beds in that Province will be made more and more productive as the country continues to fill up. The natural gas is another fine advertisement for Alberta. The gas can be used for heating, lighting and manufacturing purposes, and at Medicine Hat natural gas has been used, for several years. Calgary is now boring for gas, and it has already been found north of Edmonton. Coal oil also has been discovered in Alberta, and wells are now being operated in Southern Alberta, near Pincher Creek, as well as in the north of Edmonton.

Mr. E. L. Richardson is in charge of the Government exhibit and is assisted by Mr. Frank Peterson. Any Secretary of a Board of Trade in Alberta as well as the Deputy Minister of Agriculture will be pleased to send literature relating to the Province on application.

SOME "HOWLERS."

In the February number of "Past and Present," a journal for old and young scholars of Friends' Schools, there is a long and "absolutely genuine" collection of "howlers." We quote a few specimens:

A long time ago England was once a foreign country.

The Britons painted themselves with wood, and son etimes came out green.

Clive had to blow himself out in India, but, fortunately for England, it didn't explode.

The Anglo-Saxons had no drains, and so used to disperse their broken vitals into the middle of the road.

The Spartans had to get their living at the age of five by shooting at it on a piece of string.

Southampton is noted for exporting people to South Africa.

England has much coal beds. When the coal is finished we shall have to use our brains for fuel, and it will be scarce.

The potato is not only used for feeding pheasants, but goes to more important things, such as whiskey.

The easiest way to cross a range of mountains is to go round them.

We ate our dinner sitting on tombstones which consisted of a pork pie and ginger beer.

A tramp is a being who goes about in search of work; when there is a chance of work he goes elsewhere.

AGRICULTURAL LEGISLATION FOR B. C.

Veterinary Association Incorporated. —Among other legislation of importance to the farmers of British Columbia, passed at the 1907 session of the Provincial Legislature, was an act incorporating the B. C. Veterinary Association. The incorporation of this society enables the authorized and qualified veterinarians of the Province to protect themselves from the competition and incompetent services rendered by quacks and other unqualified persons claiming to be veterinary surgeons. In order, now, to practice in British Columbia as a veterinary surgeon, it is necessary to register, and in order to register it is necessary to be a graduate of a recognized veterinary school or college, where the regular curriculum is not less than three sessions of six months each, or, in lieu of this, they must have been in regular practice in the Province for five years prior to the passing of this act. These regulations will protect the farmer against the fraudulent or unqualified services of the so-called veterinarians who have gained their knowledge and experience by taking a six-months' course at a correspondence school, or at some college where degrees are obtainable in exchange for a small sum of money.

An Act to Protect Horse-breeders.—Legislation was enacted at the last session making it necessary for the owner of any stallion standing for profit or gain to post up copies of certificate of such stallion issued by the Provincial Department of Agriculture. The certificate above referred to will state whether the stallion is pure-bred, and registered. If not registered, whether one of its parents is pure-bred, or whether from pure-bred parents of different breeds. This act also allows the owner of a stallion to register a lien against the offspring of said stallion, any time within 12 months after the service of such stallion, and the same will constitute a first claim on said offspring. If payment of the service fee is not made before the first day of January in the year following the year in which the colt is born, the owner of said stallion or his agent, may at any time before the first day of May following, take possession of said colt or filly, and sell same at public auction, after ten days' notice has been given to the person in whose possession the said colt is found. This act comes into force on the first day of January, 1908. The question of examining stallions for hereditary unsoundness, and issuing certificates accordingly, was considered, but was not adopted, although it will doubtless come into effect before many years.

An Act to Aid the Establishment of a Provincial University.—The Legislature, in its wisdom, decided, at its last session, to set aside two million acres of land for the endowment and support of a university. The act states that this university shall be non-sectarian, and strictly secular. It authorizes the maintenance of Faculties, including Arts and Science, Medicine, Law, Applied Science, and such other degrees as may be determined by said university. If the land is selected in some locality where it is likely to increase in value, the revenue from this land should go a long way towards the maintenance of such an institution.

The foregoing acts were probably the most important from an agricultural standpoint. Beside these, however, were several amendments to agricultural acts, of more or less interest to farmers, such as: Amendments to the Dyking Act; Line Fences and Watercourses; the Land Laws, etc. An appropriation was made for the employment of experts to investigate the irrigation question and report. This is an important matter, as a large part of the tillable land located in the mountain districts depend entirely upon irrigation for the successful growing of crops.

Mr. Tyte-Phist—More money? What have you done with that dollar I gave you last week?

Mrs. Tyte-Phist—That's in the savings bank, but I can't draw the interest on it till next January. I want another dollar to run the house on in the meantime. Chicago Tribune.



Mr. Farmer

This means YOU. Your family NEED a Red Cross Sanitary Closet this winter, and it is up to you to write us for full particulars.

Any house can have one, and we know you want to be comfortable.

"Nuf said"

Write for Catalogue

**Red Cross Sanitary
Appliance Co.**
Winnipeg, Man.



SYNOPSIS OF CANADIAN NORTH-WEST HOMESTEAD REGULATIONS

ANY even numbered section of Dominion Lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 26, not reserved, may be homesteaded by any person who is the sole head of a family, or any male over 18 years of age, to the extent of one-quarter section of 160 acres, more or less.

Entry must be made personally at the local land office for the district in which the land is situated.

The homesteader is required to perform the conditions connected therewith under one of the following plans:

(1) At least six months' residence upon and cultivation of the land in each year for three years.

(2) If the father (or mother if the father is deceased) of the homesteader resides upon a farm in the vicinity of the land entered for, the requirements as to residence may be satisfied by such person residing with the father or mother.

(3) If the settler has his permanent residence upon farming land owned by him in the vicinity of his homestead, the requirements as to residence may be satisfied by residence upon the said land.

Six months' notice in writing should be given to the Commissioner of Dominion Lands at Ottawa of intention to apply for patent.

W. W. CORY,
Deputy of the Minister of the Interior.

N. B.—Unauthorized publication of this advertisement will not be paid for.

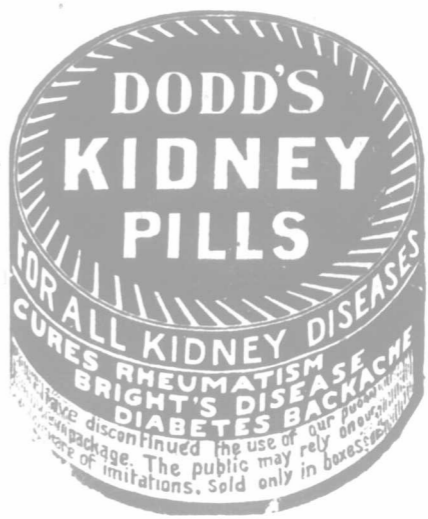
RECEIVED A BIG FEE.

"How was it Dr. Knowit got such a big fee from Talkative?"

"Because when he was called to attend Mrs. Talkative for a slight nervous trouble, he told her she had an acute attack of inflammatory verbosity."

"Well?"

"And recommended absolute quiet as the only means of averting paroxysms of cacothic loquendi. She's scared dumb."—Baltimore American.



**Cover Your Houses, Barns and Stables
With Ruberoid Roofing**

Unlike metal, tin, asphalt, shingles, or slate, Ruberoid Roofing is not affected by heat or cold.

Ruberoid is the original smooth surface elastic, weather-proof and fire-resisting roofing—the standard for 15 years.

Being a non-conductor of

electricity, it protects your buildings against lightning

Ruberoid reaches you in rolls and requires no skill to apply, we furnish nails, tin caps and cement for seams.

Write us for booklet and samples of Ruberoid and we will send you the address of your nearest dealer.

The Standard Paint Company of Canada, Limited.

Board of Trade Building, Montreal, P. Q.
Factories at Lachine Canal, P. Q.



POTATOES

and consignments of EGGS, BUTTER, GRAIN, on commission. We are open for car lots of POTATOES. If you are going to load a car write or wire us, or ship it in our car. References—Bank of Hamilton (Grain Exchange Branch, Winnipeg); Bradstreet's or R. G. Dunn & Co

LAING BROS., 234 & 236 KING ST., WINNIPEG

Central Business College
WINNIPEG, MAN.

For full particulars get our new Catalogue "H."
F. A. WOOD W.M. HAWKINS
Principals



It dries them up.

**COMMON SENSE
EXTERMINATOR**

Kills Roaches, Bed-bugs, Rats and Mice

All Dealers and 377 Queen St. W., Toronto, Ontario.

Write for Testimonials

Kootenay Fruit Lands

Located at Yasodhara, Kootenay Lake, B.C.

A Profitable Investment is offered in the following described lands in the famous Kootenay district of British Columbia. The property lies on the east side of the main lake, opposite the town of Ainsworth, and contains 661.62 acres, convenient for sub-division into 10 or 20 acre blocks, with a guaranteed supply of running water which can be conveyed to every block. The lake front is 1 1/2 miles, making it possible to give a water front with every block. Fully 75% of the land is arable, and of this over one half has been burned and can be easily cleared. There are about 200 acres of virgin forest, containing several millions of feet of mill timber, besides large quantities of tie timber and cedar poles. The timber, which will more than pay the price of the land, is convenient for marketing, being mostly in the center of the block and close to the water edge. The price for this block is \$20,000; the terms of payment being \$3,000 cash, balance in one, two and three years at 6% interest. A clear title given. Further information on application to

McMORRIS & HORSTEAD

P. O. Box 95

NELSON, B. C.

The Settlers' Association of B. C.

NEW WESTMINSTER, BRITISH COLUMBIA

Have for sale choice locations in various sections of the Province. Improved and unimproved lands particularly adapted for Fruit, Poultry, Sheep, Stock and Dairy or General Farming.

We have been engaged in the fruit growing and general farming business here for many years and are still operating our own farms, hence are in a position, as practical farmers, to afford intending Settlers information of a character that may mean a great deal to YOU, all of which is freely at your disposal.

A post-card will bring to you our land list, maps, etc.

The Settlers' Association of B.C.

Box 556, NEW WESTMINSTER, B.C.

Three Splendid Offers

The big weekly Farmer's Advocate and Home Journal from now

Until Dec. 31st, '08
\$1.50

Every old Subscriber
or member of his family who persuades one of his neighbors to accept the above offer and sends name and money to us will be presented with one of the handsome
**Farmer's Advocate
Knives**

These knives are worth \$1.00

Address—

Until Dec. 31st, '08
\$1.50

Are you a Subscriber ?

If not you should be.

THE FARMER'S ADVOCATE is full of interesting and reliable reading matter. There is a department for every member of the family.

It will be useful to you in a thousand different ways.

Subscribe To-day

Until Dec. 31st, '07
50 cents

Give it a Trial

If you don't wish to take the yearly offer try it for the balance of the year. Remember, you get our **Big Christmas Number**, which is handsomely illustrated. It alone is worth the price of subscription.

Let us have your name

THE FARMER'S ADVOCATE, Winnipeg, Man.

FOUNDED 1866

FARMER'S ADVOCATE

AND HOME JOURNAL

THE ONLY WEEKLY AGRICULTURAL PAPER IN WESTERN CANADA

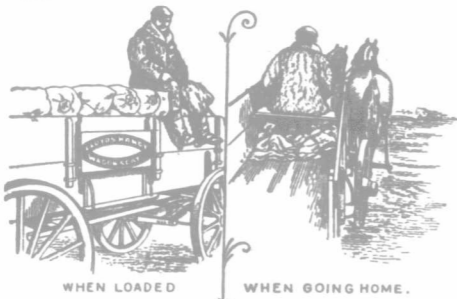
REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

SEPTEMBER 11, 1907

WINNIPEG MANITOBA

VOL. XLII, NO. 781

LLOYD'S HANDY WAGON SEAT



FARMERS This is just what you want it is lighter, handier, easier riding, more durable and safer than any other seat on the market. If your Implement dealer or hardware merchant does not handle them write direct to us, and upon receipt of \$3.50 we will send you one, express prepaid to any express office in Manitoba; and for \$4 to any part of Saskatchewan or Alberta.

Wawanesa Wagon Seat Company,
Wawanesa : Man.

POTATOES

We are now ready to contract for potatoes in carload lots. Correspondence solicited.

WILTON BROS.

1427 Erin Street, Winnipeg
Licensed and Bonded Grain Buyers

Give Your Watch a Chance

You will double the life of your watch if you let us make any needed repairs on it and give it a thorough cleaning every year. We are fully equipped to do every kind of repair work and our workmen take special pride in repairing watches. When they finish a job of this kind everything has been done that should be done. This kind of watch repairing is worth more but costs no more than makeshift repairing. Send your name and address for mailing box.

D. A. REESOR

"The Jeweler"
Issuer of Marriage Licenses
Official Watch Inspector C.P.R. & C.N.R.
BRANDON, Man.

GRAIN CONSIGNMENTS

Grain Growers **Frank G. Simpson**
A.T. Hepworth.

Mark You This
WE ARE
Far better able to get top prices for Grain than
YOU ARE
Mail us your Shipping Bills marked **ADVISE**
SIMPSON-HEPWORTH Co. Ltd., BOX 470
Strictly Commission Men Large Advances

Send us your shipments of
HIDES, WOOL,
SENEGA-ROOT, &c.



and receive
Highest Market Prices and Prompt Returns
Liberal Advances made on Consignments.

Write or wire us before selling

The Lightcap Hide & Fur Co. Ltd.

P.O. Box 484 172 to 176 King St., WINNIPEG, Man.

ALEX. NAISMITH, President. WM. PATERSON, Vice-President. C. D. KERR, Treasurer

The Wawanesa Mutual Insurance Co.

HEAD OFFICE: WAWANESA, MAN.
A. F. KEMPTON, SECRETARY-MANAGER

Amount of insurance in force Dec. 31st, 1906 - - - - \$17,447,679.00
Assets over Liabilities - - - - - 224,096.56

The Number of Farmers Insured December 31st, 1906, over 15,248
Over 15,248 farmers Insured. The largest agricultural Fire Insurance Company west of Lake Superior. Agents wanted in unrepresented districts.

GASOLINE TRACTIIONS

WE HAVE THEM
8, 12, 16, 20 and 25 HORSE POWER
WRITE
The Portage Iron & Machine Co. Ltd.
Portage la Prairie, Man.
Founders Machinists Boilermakers

CORRUGATED METALLIC ROOFING CO. LIMITED WINNIPEG IRON

We Want Your Watch

A post card will bring a small box for mailing; then we will report cost of repairs and if satisfactory to you we will repair it and return to you post paid. Your watch will receive very careful attention. All work guaranteed.

D. E. BLACK,
Expert Watchmaker
and Manufacturing Jeweler,
The largest Repair Trade in Alberta.
130 8th Ave. East, Calgary, Alta.

FIRES ARE NUMEROUS

DELAYS are DANGEROUS

Losses promptly adjusted if you are Insured in the
Hudson Bay Insurance Co. Ltd.

Address P.O. Box 1069, MOOSE JAW, Sask.
Live Agents wanted in unrepresented districts

Corrugated Iron

Just the thing for your Barns and Granaries

We have a large quantity of Galvanized Corrugated Sheets (No. 28 and No. 26 gauge) that are slightly discolored by water, that we are selling at a great bargain. If you cannot purchase this from your dealer, write us.

WINNIPEG CEILING AND ROOFING CO.,
Winnipeg, Manitoba
Dept. A.

Thompson, Sons & Co. to the Grain Growers.

All grain markets are strong, especially the wheat markets. In order to realize highest prices, grain growers need to ship their grain to Fort William or Port Arthur and employ an experienced and reliable commission house to handle for them. We are such and respectfully ask you to employ us. We have the very best facilities for disposing of Wheat Oats, Barley, Flax. Write to us for shipping instructions and market information.

THOMPSON, SONS & CO. Grain Commission Merchants, P.O. Box 77 B, Winnipeg

Chicago Live Stock
World said "192 Ex-
hibitors at the Interna-
tional, Chicago, are
Users of Famous
ZENOLEUM.
That tells
the story."

es
er
sum
and
a and
M

oes a
bet-
well.

64
Page
Booklet
Veterinary Ad-
by Agricultural
Positively Free
postal quick.
Sectant Co.
tor, Ontario

ters
Circulars,
books.

◆◆◆
◆◆◆
◆◆◆
◆◆◆
◆◆◆

from
ibers;

... \$1 05
... 1 05

... 2 05

... 1 10
... 55

... 45

80

30

55

1 05

2 15

50

1 00

1 10

1 10

We are still offering

A Free Trip TO NELSON, B.C.

to any purchaser of a block of our Fruit Land.

We have a splendid list of improved and unimproved, large and small tracts, which we want you to inspect. We believe that an inspection of the land, together with the general inducements of the Kootenay district, such as unexcelled scenery, a faultless climate, an abundance of water, good transportation and a ready market will guarantee a sale, and so we make this offer of a Free Trip.

Here is a couple of properties on our list:

320 ACRES of finest land, level, free of stone, well watered, 14 acres cleared and cropped, small bearing orchard, good house and outbuildings. Price only \$14 per acre. Cash and terms.

60 ACRES splendid lake front location. Best fruit soil, small clearing and orchard, balance easiest clearing. Fine running stream. An ideal home farm. Price \$75 per acre on easy terms

Clayton & Clayton

FRUIT LANDS Box 104 REAL ESTATE Nelson, B.C.

KOOTENAY LAKE Fruit Lands

CHOICE fruit lands in blocks of 5, 10, 15 or 20 acres, conveniently situated near the city of Kaslo, B.C., with all conveniences of a good town, daily transportation, mail, etc.

Fruit growing is a very profitable industry, and the finest fruit is grown at and near Kaslo. Our fruit took district prize in 1906.

Ideal situation, with fine climate, boating fishing and hunting.

We will make selections for you, if desired, and if you are not satisfied after examination of the land, we will refund your money.

We have large blocks suitable for colonization purposes.

A. J. CURLE
KASLO, B.C.

An Okanagan Snap

160 acres 4 miles from town; 50 acres bottom land cultivated, 3 acres bearing orchard. Splendid buildings; 18 head cattle, 5 head horses and all the implements. Price only \$8500. Terms Apply to

Armstrong Realty Co., Armstrong, B. C.
Send for List

FOR SALE

120 ACRES of FRUIT and HAY LAND in British Columbia. Railway and wagon road through property. Well watered. Good fishing. Local market at highest prices for everything that can be raised. Price \$4,000. Half cash, balance on mortgage at 8%. Address E. C. Arthur, Box 63, Nelson, B. C.

ALL ADVERTISING CONTRACTS ARE MADE SUBJECT TO A GUARANTEE OF 20,500 SWORN CIRCULATION

Farmer's Advocate and Home Journal

The Only Weekly Farm Journal in Western Canada.

PUBLISHED EVERY WEDNESDAY BY THE
FARMER'S ADVOCATE OF WINNIPEG, LIMITED.

GENERAL OFFICES:

14 and 16 Princess Street, Winnipeg, Man.

Branches at London, Ont. and Calgary, Alta.

BRITISH AGENCY—W. W. CHAPMAN, Mowbray House, Norfolk Street, W. C., London, Eng.

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, 12s.

ADVERTISING RATES—Single insertion, 15 cents per line, agate. Contract rates furnished on application.

REMITTANCES should be made direct to this office, either by Express or P. O. Money Order or Registered letter, which will be at our risk. When made otherwise we will not be responsible.

THE DATE ON YOUR LABEL shows to what time your subscription is paid.

CHANGE OF ADDRESS—Subscribers when ordering a change of address should give the old as well as the new P. O. address.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned if accompanied by postage.

ANONYMOUS communications will receive no attention.

LETTERS intended for publication should be written on one side of the paper only

THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.

Address all communications to

FARMER'S ADVOCATE OF WINNIPEG, LIMITED,
WINNIPEG, MAN.

McTaggart - Wright Co. Ltd.

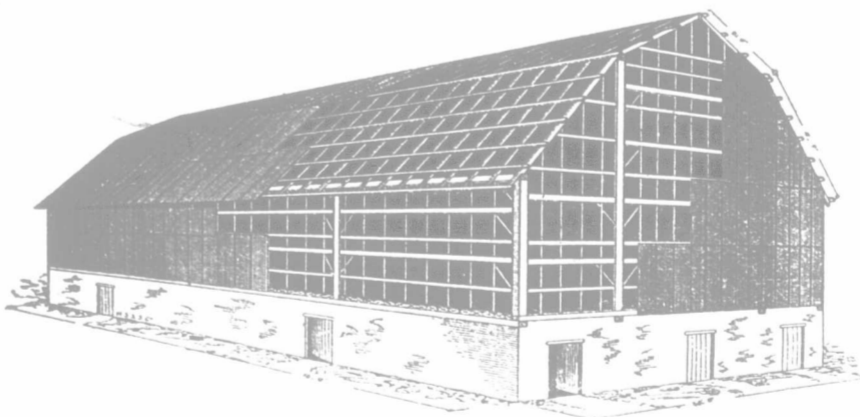
Hardware and Harness Mail Order House

We issue a Hardware and Harness Catalogue, and sell our goods direct to the consumer.

Send for our Catalogue. Mailed free to any address.

McTaggart - Wright Co. Ltd.

253 Main Street, Winnipeg, Manitoba



This cut shows an up-to-date Barn Construction, 40 feet x 70 feet, and the method of covering with Corrugated Sheets. The framework is light, as the corrugated sheets, when nailed in place, make the building very rigid. This drawing is made from actual plans and the barn has been built many times with splendid results.

The saving of wood sheeting, as compared with the ordinary barn construction, will cover the difference in cost between wooden shingles and our "Acorn Quality" Corrugated Galvanized Sheets.

This galvanized covering protects your building from lightning, prevents fires from the outside, is easily and cheaply applied, and OUTLASTS A GENERATION.

Do not make a mistake and put up an old style barn, when you can secure a better and more durable construction for less money.

See the page of barn illustrations in our new catalogue, and write for our book of testimonials with list of users.

CLARE & BROCKEST
WINNIPEG.

Provincial Exhibition

Victoria, B.C.

September 24 to 28, 1907

The Greatest Exhibition
Of Live Stock
In the Province

Parading at 2 p.m. daily

Flowers, Fruit
Art, Manufactures

4—DAYS HORSE RACING—4

Trotting & Running Events

Special Excursion Rates from
Calgary West

J. E. SMART, Sec.-Treas.

P.O. Drawer 761, Victoria, B.C.

Select Farms

IN LOWER FRASER VALLEY

British
Columbia's
Richest
Farming
District

Our new Real Estate List giving description and prices of farm lands is now ready. Send for one—it will be of value to anyone interested in this country.

Dominion Trust Co. Ltd.

T. R. PEARSON
MANAGER

NEW WESTMINSTER
B. C.

Kelowna's Famous Fruit Lands

ARE YOU GOING TO B. C. ?

Take the trip down the beautiful Okanagan Lake and stop at Kelowna, the Orchard City.

Our Fruit Lands are level, no scrub, no rocks, no stumps, and within 3 1/2 miles of town—(population 1,200). Beautiful Orchards adjoining property. Schools and churches convenient.

First-class market and packing houses.

Those who came on our excursion in June returned delighted, and will move out at once.

We have no rocky mountain sides to sell. A perfect climate, easy life, beautiful surroundings.

Write for booklet and all information to

**Central Okanagan
Land and Orchard Co.**
KELOWNA, B. C.

Representatives:

Brown & Carscallen, Calgary, Alta.

W. A. Knight, Regina, Sask.

E. Bray, Wolseley, Sask.

Kootenay Fruit Lands!

Best in the World!

Write me for information. I know all about the land situation here, having been in business in Nelson twelve years.

S. M. BRYDGES, Nelson, B. C.
Brydges, Blakemore & Cameron, Ltd



Have You Found the Answer to the Ever-recurring PIANO QUESTION ?

Every excellence in design, construction and tone is embodied in the highest degree attainable in the

Gourelay Pianos

Are you a Home-lover, a Virtuoso, a Vocalist, or a Teacher of music? A Gourelay Piano will delight the eye with a beauty unexcelled in art design, ravish the ear with the purest "grand" quality of tone, enhance the natural quality of the voice, and aid the concert pianist in artistic performance.

Gourelay Pianos satisfy every test of time and use.

High priced but worth the price | Special Payment Plans

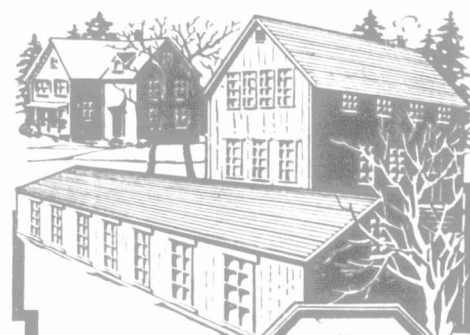
Shipped anywhere in Canada on approval. Write your needs to

GOURLAY, WINTER & LEEMING

Head Office—189 Yonge St., Toronto.

MANUFACTURERS OF THE SUPERB

Gourelay Pianos



When You Go to Bed at Night



you needn't worry about the condition of your poultry, stock or crops if they are housed under

REX FLINTKOTE ROOFING

Costs less than shingles, protects better than tin or slate. Made of wool felt rendered absolutely proof against water by our saturating materials, and so resistant against fire that you can place a live coal on its surface without danger

SEND FOR FREE SAMPLES

and our valuable booklet on roofing. Make the fire test, try its strength, note its pliability; and if you go to your dealer's, be sure you are given the "Look for the Boy" trade-mark kind.

J. A. & W. BIRD & CO.

21 India Street, Boston, Mass.

Agents: MacKenzie Bros. Winnipeg and Calgary

Frank O. Fowler President | Angus McDonald Vice-President | Jos. Cornell Manager

The Central Canada Insurance Co.

HEAD OFFICE: BRANDON, MANITOBA

Licensed under "The Manitoba Insurance Act." Full Government Deposit Registered in Saskatchewan and Alberta

The Saskatchewan Insurance Co.

HEAD OFFICE: REGINA, SASKATCHEWAN | J. F. Bole, President | G. T. Marsh, Vice-President
Full Government Deposit. Registered in the Province of Alberta

THE ALBERTA-CANADIAN INSURANCE CO.

HEAD OFFICE, EDMONTON, ALBERTA

Full Government Deposit Registered in the Province of Saskatchewan
H. C. Taylor President | J. H. Gariepy Vice-President | Edgar A. Brown Secretary

FIRE INSURANCE

PUREBRED REGISTERED LIVE STOCK INSURANCE
HAIL INSURANCE (in Manitoba)

Our premium rates are as low as is consistent with fair and liberal treatment of our patrons. Our loss claims are adjusted and paid promptly.

Enquiries addressed to Brandon, Regina or Edmonton for information regarding these lines of Insurance will receive prompt attention

We want energetic agents in districts where we are not represented, but only those who can and will get business for home companies need apply.

KINGSTON | TORONTO | WINNIPEG

Jas. Richardson & Sons

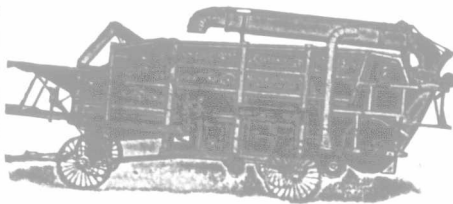
GRAIN Highest prices paid for all kinds of in carload lots. Special attention paid to low grade samples WHEAT, OATS, BARLEY FLAX. Write for shipping instructions and price circulars.

Genuine Smith Stump Puller on FREE Trial

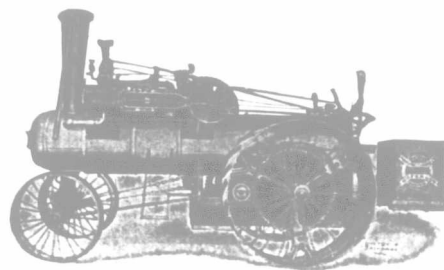
Built low-down for strength and power. One man with horse pulls biggest stumps—*Prove it Free*. Positively the only practical machine. 45 years in use. Simple, strong, easy to move, durable. Write at once for Free Catalogue b22 and test offer.

W. SMITH GRUBBER CO., La Crosse, Wis.

Waterloo Threshers and Engines



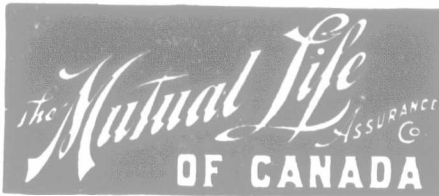
Superior quality Engines 16 to 25 h.p. Heavy Gear Plowing Engines. Separators — "Champion" and "Manitoba Champion" — Sizes 33-42 to 40-62.



Head Office and Factory: WATERLOO, ONTARIO, CANADA. Branch Office and Warehouse: WINNIPEG, MAN., and REGINA, SASK. Write for Catalog and mention this paper. Address:

Waterloo M'f'g Co. Limited

If you are doing an Agricultural, Ranching or Commercial business, advertise in the Farmer's Advocate.



Is The Fastest Growing Company In Canada

Over \$2,700,000.00 MORE insurance was written by this company last year, than in any previous year.

The expenses were \$10,224 LESS than in 1905, while the volume of business on its books was much larger.

Is it any wonder then that the whole Canadian people have confidence in the wise, conservative business management?

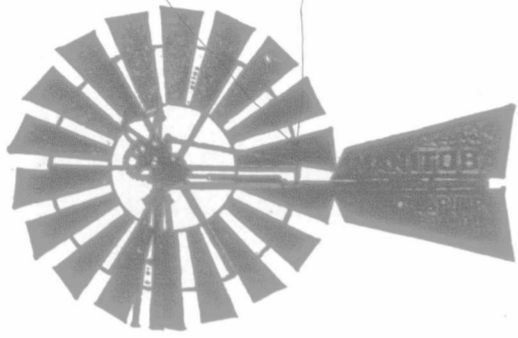
And they show their confidence by taking out enough insurance in The Mutual Life to make it the fastest growing company in the Dominion.

Write Head Office, Waterloo, Ont., or call on

P. D. McKINNON, Provincial Manager, Winnipeg
THOS. JONES, Superintendent for Manitoba,

De Laval Separators
Highest Award St. Louis 1904
 "DE LAVAL" on a cream separator is the stamp of quality and recognized in the dairy world as synonymous with THE BEST. Get one.
The De Laval Separator Co.
 MONTREAL WINNIPEG VANCOUVER
 Representatives everywhere

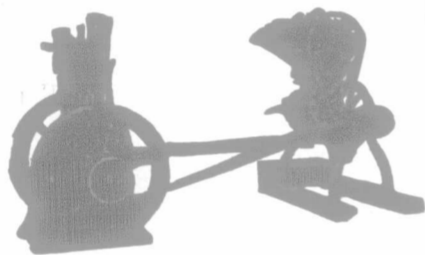
A MANITOBA WINDMILL



Will Pump Water
 Grind Feed
 etc., etc.
 and do good service
 to your entire satisfaction.

It's up to you to purchase one
 Write for Catalog

MANITOBA WINDMILL & PUMP CO. Limited
 Box 301, BRANDON, Man.



The Farmer's Friend
 For Grinding, Pumping, Churning, and
 General Farm or Machine Shop Work, the
Fairbanks-Morse Gasoline Engine
 holds the lead. It will do more work than any other
 Gasoline Engine of same horse power
 For Sale by Dealers Everywhere.

Or cut out complete advertisement and send to
THE CANADIAN FAIRBANKS COMPANY, LTD. 92-94 Arthur St., Winnipeg.

Please send me illustrated Catalogue No. Gasoline Engines. I may want.....H. P.
 Engine to run
 Name
 Town Province

**SHIP YOUR GRAIN TO THE
 Grain Growers' Grain Co.
 LIMITED**

The Farmers' Own Company
 Send for Prospectus, Shipping Instructions,
 etc. Take a share or shares in the Company
 and take them now. Two thousand farmers
 have preceded you. Don't wait to be can-
 vassed or coaxed into it. Come in on your
 own accord and bring others with you.
 Be a leader rather than a follower in this
 movement, which is designed to help the
 whole farm population to help themselves.
 Send us your grain and get other farmers to do
 the same

**RESULTS
 ACTUALLY
 ACCOMPLISHED**

The value of the Policies issued by The Great-West Life Assurance Company is proved by the results already accomplished for Policyholders.

Every estimate of profit made to Policyholders has been realized or exceeded. Under the first declaration of profits, in 1897, the full estimated dividend was paid. Under the second dividend 50% over the estimate was paid; while this year Policyholders are receiving a third dividend of just double the first dividend and estimate.

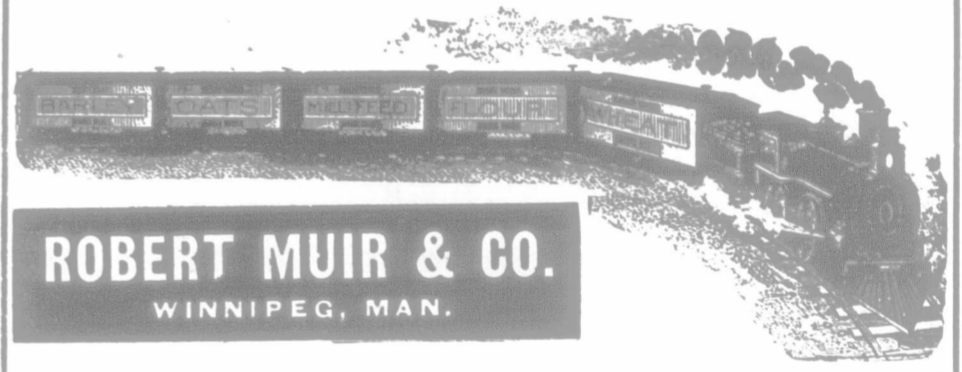
Full information on request. State age next birthday.

**THE GREAT-WEST LIFE
 ASSURANCE CO.**

Head Office - - WINNIPEG

Ask for the leaflet "HOW TO INVEST INSURANCE PREMIUMS TO THE BEST ADVANTAGE."

SHIP YOUR GRAIN TO US



ROBERT MUIR & CO.
 WINNIPEG, MAN.

**Martinson & Co. Agents for
 Southern Okanagan
 Farm and Fruit Lands.**

I have for sale 320 acres, 4 miles South of Swan Lake, Man., N. E. 1/4 of 31 & N. W. 1/4 of 32; Township 4, Range 10. Cheap at \$4000.
 Make us an offer.

Martinson & Co., Penticton, B.C.

The Cause and the Effect

As the making of good bread depends as much upon the flour you use as the ability of the cook to bake; so does the manufacture of telephone apparatus depend for perfection as much on the quality of machinery as the competency of our workman.

Our machines are of the most improved and up-to-date type, and they are looked after and made to do their work by the most able machinists Canada can produce, which is saying a great deal.

The natural result is that we put out only such apparatus as the strictest inspection can find absolutely no fault with.

You will need a telephonic communication in your locality very shortly and it will be profitable for you to write or call immediately. "Do not put off till to-morrow what you can do to-day."

Northern Electric & Manufacturing Co. Ltd.

181 Bannatyne Ave., WINNIPEG
 Cor. Guy & Notre Dame Sts., MONTREAL

Your silent salesman—an Advocate Advt.

FOUNDED 1866

Farmer's Advocate

and Home Journal

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Sept. 11, 1907

WINNIPEG, MANITOBA.

Vol. XLII. No. 781

EDITORIAL

Knowing How and Doing It.

There is many an industrial institution that goes down because it is not able to get enough capital to just pull it through a crisis. The man who is always just a little behind with his work is quite familiar to us and we have all of us wondered that if we turned in and helped him to catch up, how long he would be apace with his work. It is a safe guess that the next day even if it were Sunday would find him in the same hurry. All of us at times are rushed a little beyond our pace, but the average man usually manages to keep his work in line. These remarks are in answer to the point raised by our correspondent from whose letter we quote.

EDITOR FARMER'S ADVOCATE:

"I see an article in your issue of August 14th headed 'The Eternal Bugbear.' Now I am afraid you have not quite grasped the situation. The trouble is not so much that farmers do not understand the necessity of getting rid of weeds, as it is owing to the small profits in farming. We often have fields of grain we know should be plowed up but we have payments to meet and we must get what we can out of the crop to meet them, although we know it is not good farming.

"The so-called business men of this country and Eastern Canada seem to think the farmers of the West are making large profits, a great mistake, which I know from twenty-six years' experience.

"The cost of humble farm implements and all other manufactured goods and labor have got to such an enormous price that farmers have a hard time to make a living except on new land, so you will find thousands of farms in good localities for sale because the owners know they cannot clear them and make a living. I have been discussing this weed question with quite a number of our best farmers and they seem to think the same."

We think we understand that there are a lot of men who do not believe that "whatever is worth doing is worth doing well," but we disagree with them. At the same time we understand that it is an easy matter in these days of high priced labor to do a thing so well that the extra time spent upon it makes away with the profit that should result from the work. These days are testing men's ability to farm and those who know just when enough work has been spent upon a certain job, or a given piece of land to make it yield the maximum profit overwork performed at the present cost of work, are the men who will be and are marked as the "successful" farmers. In fact, it is in their ability to tell how much is enough and what too little work upon their land that the secret of their success lies. There is in the management of every farm a certain imaginary limit of expenditure of time and labor below which if a man stops the returns for his crop will not pay for the little work he has already done, and above which up to another certain point the extra work done represents varying degrees of clear profit. Nor does this success depend solely upon the bulk of work done. The doing of work just at the right time, and that by the way is generally just before the average man does it, often effects more good than considerably more work done at another time.

Luckily this is not simply theory. We have the "successful" farmer in every community. His farm is the most free from weeds, his crops the largest, his stock are generally just a little above the average, his fences in repair, his buildings neat and trim and everything about the place reflects the presence of a directing mind.

If we were to be asked why there are not more of the "successful" type of farmers in the country, we would say that the habit of compromise becomes too prevalent and the art of good farming has not yet become an imperative necessity. Men are too ready to say "good

enough" because of the extreme generosity of the soil in the past, and of the tendency upon the buyers of stock to discriminate against the man who raises the best, but this policy is responsible for the unfarmlike condition of many of our farms. There may be a deal of truth in what our correspondent says, that farmers are not lacking in knowledge of what should be done, but we are certain that there is not an over supply of natural knack for farm management.

Making a Choice.

The enquiry of one of our readers, in another column, as to the nature of the course at the Manitoba Agricultural College, is no doubt identical with that being asked by many other young men. The complexity of the problems of life always impress a man as he gets on in years and comes in contact with them. Few men there are who have not wished that they had a larger theoretical knowledge of their work and the man who has not expressed such a wish is nursing in his system a most colossal self-satisfaction that is not of any use to himself and an annoyance to his friends.

There are many young men who have asked themselves the question: will it pay me to take a course at an agricultural college? Will I be better off financially and socially if I spend two winters and probably three hundred dollars at the college than if I stayed at home and work and save money? The writer well remembers when some twelve years ago, he analysed the situation with relation to his own prospects and decided then that for the man who had a living to make with his hands that a better use could be made of his strength if his brain were able to lend more help. The conclusion has proved to be sound from the standpoint of a hired man, from that of an actual owner and manager of a farm it is doubly true.

For the average bright, level-headed Canadian farmer's son, equipped with a fair public-school education—all the better if he has spent a year or two in High School as well—we believe the questions asked may be answered without hesitation in the affirmative. However, no worthy ex-student would think of gauging the benefit merely by the extra money his college education enables him to make. The courses are and should be practical, for only a practical curriculum can sufficiently attract and effectually uplift the farm boys of the country. The worth and dignity of practical knowledge is very properly exalted, but the greatest benefit from a useful education is not the dollars and cents there may be in it, but the mental and manual discipline developed in the student, the intelligent interest aroused in his life-work, and the opening of his eyes to the vast field of knowledge about him—a field which his course, so far from exhausting, merely qualifies him to enter and explore in after life. It gives him a key to unlock the mysteries of agricultural science, which rivals astronomy in its fascinating interest, and is fraught with far more real, substantial benefits to mankind. We once heard a farm boy say that if he were going to be a farmer he would want to take a course in astronomy or theology, so that he might have an interesting hobby to enliven his life-work. If that lad would take a course in an agricultural college, he would change his mind on that score. He would make a hobby of his occupation. His problem would be how to master the intricacies of soil chemistry, manures, fertilizers, the life-histories and means of combating weeds, insects and fungous pests, plant breeding, selecting seed, farm forestry, and a thousand and one other lines of practical research, now so generally neglected. It would tend to keep him out of ruts of practice, make him a progressive, thinking farmer, and stimulate a joy and interest in his work. Work would become a pleasure; and when work is a pleasure, life is a pleasure.

But why multiply arguments? Surely most of the farm boys of Canada who expect to engage in the noblest and one of the most difficult of all callings have seen enough and heard enough to convince them of the wisdom of taking a two-years' course in a good agricultural college. Two or three hundred dollars will defray the necessary expenses, and seven months for each of two winters is a short time to spend, considering the advantages to be gained. In the American Republic the attendance at these courses is increasing by leaps and bounds. Will Canada lag behind? Where hundreds now attend these institutions, we should have thousands. Sit down, young man, and think it over, and then send in your application early and secure admission. You will never regret it. The college course and college life will enlighten, inform and broaden you out. It will make you a better farmer, a better husband and father, and a better citizen of the neighborhood and of the nation at large. It will lift you out of the neighborhood groove and introduce you to the larger agricultural outlook of the world at large. Will it pay? Ask those who have been there.

Meat Inspection.

On the first of this month the Dominion Meat Inspection Act came into force by the provisions of which expert meat inspectors are placed by the Dominion Government in every abattoir throughout the country. The Meat Inspection Act was framed to prevent in Canada a repetition of the abuses that were charged against the Chicago packers, and the arrangement is welcomed alike by public and packers. The latter can now put their product out with the enhanced value and prestige that "government inspection" gives to it and the public feel more secure from danger of contamination through diseased meats.

The Season's Compensations.

The dampness of the season is not without its compensations. In Alberta where often crops are short and grass dry for need of rain they are reaping a large harvest and cattle were never seen to do better. Further east one of the chief causes of fear is that the grain will ripen too fast for the want of a few showers. This year moisture has not been lacking. In Manitoba the rains of late July and August saved most of the crop on the southern side of the province from a total failure, and put in the fields a promise of from ten to fifteen bushels to the acre. On the ranches the cattle needed just such a season as we have been having. There was a lot of depleted vitality to be regained and the rains kept the grass green and abundant, long after it usually has become brown, yet not so soft that stock would not ripen up. The range cattle have made up more than could have been expected of the weight, numbers and vitality that they lost last winter, and the dairy farmers of foothill province have benefited by the persistent springing of new grass. This condition prevails all over the stock raising country north and south and already the cattle trade is beginning to feel an easy tone. People are heard to remark that there will be cheap beef to make up for dear wheat and while the numbers of cattle that will come off our Canadian ranges is fully fifty per cent. short of what it was in 1906, still the ranges and feed belts to the south are turning off large consignments.

But while the season illustrates the law of compensations it also emphasizes the wisdom of diversity in farming. The man who has been less worried about the drouth first, the rain next, and the frost last, ruining his crops, is the man who is not a specialist in any one line. Land that is given a chance to do several of the things it is capable of doing, and also permitted to do these things in turn will give a better account of itself than if it is kept doing one thing under all conditions of climate and this not forgetting the greater amount of work involved in so handling land.

st Life
ready

been
profits,
for the
while
end of

by.

G

PRE-



tanagan

N. E. 40

B.C.

the flour
e manu-
much on
in.

ype, and
most able

al.

s as the
ity very
mmedi-
day."

Ltd.

dvt.

HORSE

Lameness in Horses.

(Continued.)

A SPRAIN OR STRAIN.

A sprain or strain may be defined as violence inflicted upon a soft structure, with extension and often rupture of its fibres. A sprain may be suddenly caused by violent extension or stretching of soft structures, or by repeated slight stretching without a rupture of fibres, in which case the repeated tension produces an altered nutrition, which results in inflammation of the part, and finally to a softening of some portion of the fibres, by which they lose their toughness and become practically broken across. A slight sprain may be practically merely a bruise, while violent and excessive extension may rupture the whole structure of the part. Extension is not always the cause of a sprain; a muscle may be sprained by the opposite condition, viz., violent contraction, by which the fibres may be broken across or the tendinous fibres torn, from their attachments at either end of the muscle. Sprains produced in this way are sometimes noticed as the result of the violent contractions of the muscles we notice when a horse is being thrown with hobbles or side lines, or by violent efforts to loosen himself when down; in vain efforts to regain his feet when halter cast, etc., etc. Sprain may be confined to the sheaths or fibrous coverings of the muscles (each individual muscle having a separate fibrous covering called a sheath), but these are of minor importance compared with sprain of muscular fibre tendons or ligaments. Sprain of muscles or tendons are found in various parts of the body or limbs. A horse may sprain the muscles of his neck by falling on his head. If the fall be severe, the sprain may be complicated by injury or even fracture of some of the bones of the vertebra, and this may cause sudden death. The muscles of the back may be sprained by the hind feet slipping forward. When a muscle is sprained, the accident is succeeded by pain, swelling, heat, and loss of function. An inflamed muscle cannot contract properly, the loss of contractile power being in proportion to the severity of the sprain; hence, in some cases the symptoms simulate those of paralysis. The swelling of an inflamed muscle is very often succeeded by a loss of substance, a wasting away, called atrophy; and sometimes by fatty degeneration of its fibres, whereby they lose their red, fleshy appearance and assume that of whitish threads of fat. When examined by a microscope, the contractile tissue, called the sarcous elements, is seen to have been replaced by glistening oil particles, so that the function of the muscle is temporarily completely destroyed. If the whole muscle is involved, its contractile power no longer exists. This loss of power will, of course vary according to the extent of the muscular structure involved in the primary lesion.

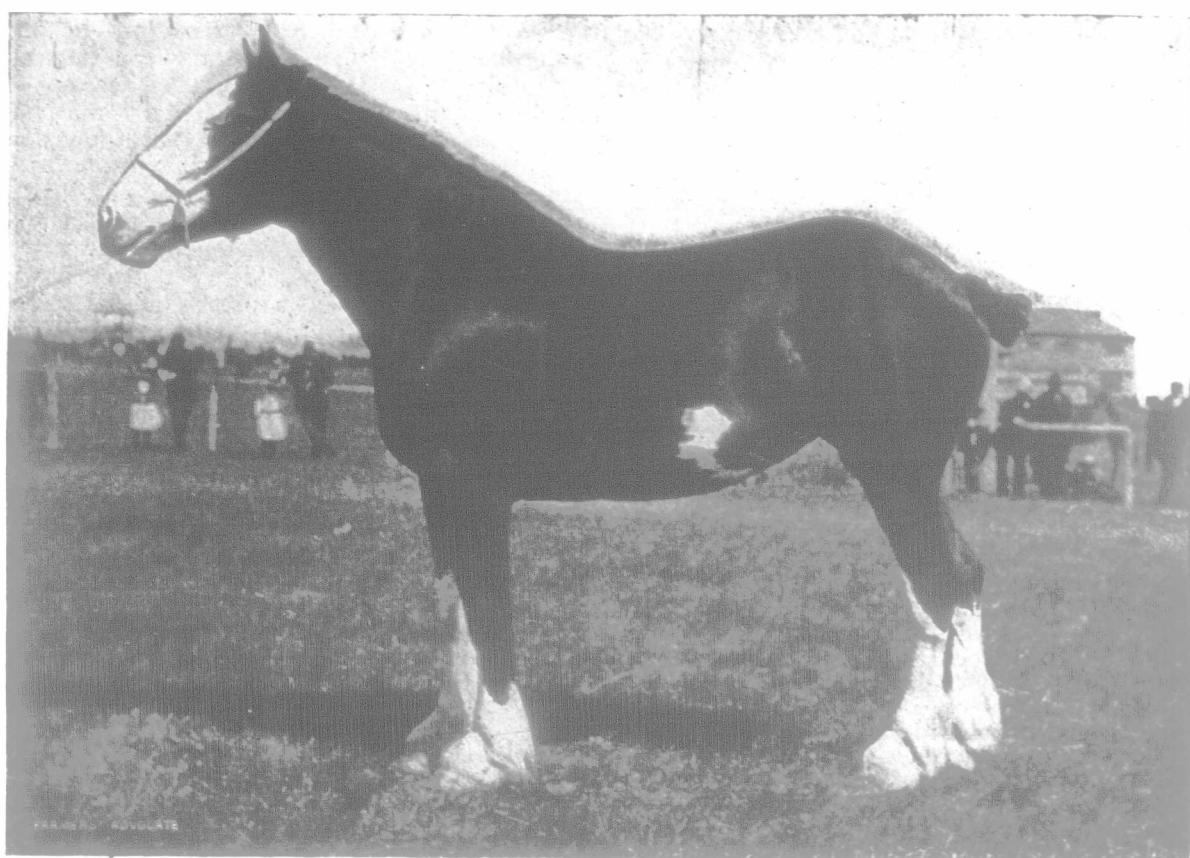
Atrophy of muscular fibre, and consequent fatty degeneration of its contents (probably better noticed in cases of sweeny than in other sprains), is often due to pressure by an inflammatory exudate (which occurs to a greater or less extent in all sprains), formed in the spaces of the connecting tissue. It is well to remember this, as it teaches us that the sooner an exudate can be removed, the less probability there is of degenerative changes taking place in the true muscular elements. The changes taking place in inflammation of muscular tissue, whether arising from sprain or other causes, are: First, swelling, caused by congestion of the vessels and the exudate that is thrown out into the tissues as a result of the same. Second, atrophy, or a wasting away of muscular tissue, from the pressure of this exudate upon the muscular fibres, and from loss of function. It is a well-known fact that if, from any cause, a muscle does not perform its functions, it will gradually become smaller from inactivity. If this want of function be accompanied by the pressure noted, the atrophy will be more speedy and better marked. Third, fatty degeneration of the sarcous elements, and permanent loss of contractility.

Treatment for sprain depends to some extent upon the seat of the accident and the tissues involved, but the general treatment may be said to be: First, locate the lesion, give rest, make comfortable in a box stall, if possible; give a slight purgative, as 6 drams aloes and 2 drams ginger,

and feed lightly. If the sprain be very severe causing complete loss of power of a limb or limbs, it is well to place in slings. Bathe the affected parts long and often with hot water, and, after bathing, apply an anodyne lotion, as 1 ounce laudanum and 4 drams acetate of lead to 8 ounces water, until the acute inflammation and soreness has disappeared, then change to cold water and camphorated liniment. If the lameness is persistent, apply a smart blister, as 2 drams each biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off the parts, tie so that the patient cannot bite them, rub the blister well in daily for two days; on the third day wash off and apply sweet oil; let patient loose now, and oil every day. It may be necessary to repeat the blister every month for a few times. The blistering not only has a tendency to cure the lameness, but, by stimulating absorption, tends to reduce any chronic swelling that may remain from organization of the exudate that was thrown out during the inflammatory stage of the lesion.

like Bakewell, followed it up, and many pedigrees can be traced back nearly one hundred years. Still it was not until 1883 that the Shire horses had their own classes at the Royal Show, but a band of enthusiasts were working for the breed, and in 1877 the Shire Horse Society was established, and in 1880 the first London Show was held. The entries on that occasion numbered 110, and they have since reached 860; but, to prove the carelessness as to soundness which existed in those days, it is only necessary to say that a considerable number of those examined were cast by the veterinary surgeons, chiefly for sidebone. The growth of Shire-horse breeding was, however, phenomenal from the outset. He is above everything, a cart horse, which will do the work of the farm for three or four years and then make a good price; therefore, it is not surprising that twenty years should see a great improvement in the breed and hundreds of tenant farmers breeding and exhibiting high-class specimens of it, and only last autumn the foals of farmers made as much as 150 gs. by auction. The value of Shires for draught purposes was

"Whip."



FOUR-YEAR-OLD CLYDESDALE MARE, IRENE, (IMP.)
First in her class and champion at Regina Exhibition, owned by P. M. Bredt, Regina,
imported by John A. Turner, Calgary. Sire, La'ori.

Progress in Horse-Breeding.

It is only since the formation of Studbooks and Breed Societies, and the growth of the show system, says a writer in the London Live-stock Journal, that the rank and file of English horse breeders have seriously attempted to improve their own stock.

It was during the eighties that Britons woke up to the fact that they possessed several kinds of horses which were the best in the world, and that by keeping the breeds pure and recording the pedigrees much benefit would accrue to those who bred them and cared to take the trouble in the selection of parents and the keeping of records. The Thoroughbred had long been looked upon as the horse for speed, and the doings of the celebrated Eclipse had proved the worth of this breed for riding purposes. The General Studbook (Weatherby's) had then been in existence for many years. Another light legged breed which could in those days claim to be an old-established one was the Hackney, noted for its knee action—"trotting of its own courage," as an ancient writer called it. The Royal Agricultural Society instituted a class for them at its 1848 show, but it was not till 1883 that the Hackney Horse Society was founded, and it is during the twenty-four years that an annual show of the breed has been held in London that the type has been fixed and the commercial value of prizewinners discovered.

During the past twenty years, the most popular breed of horses in England has unquestionably been the Shire (or old English cart horse), so named in the reign of Henry VIII, when the improvement of the breed really began. Others,

quickly recognized by American and other foreign buyers, and about twenty years ago a large export trade in them developed, the number of export certificates granted in 1889 being 1,264, which was a capital performance for an eleven-year-old society. Since that time farmers from every English county have joined the ranks of breeders, and as they naturally want to participate in the honors obtainable for those who breed winning animals at the London and Provincial Shows, and as no unsound one is awarded a medal, it follows that sound parents have to be used to obtain the desired results.

Although twenty years of improvement may be claimed by all the leading British breeds of horses, none can equal the heaviest draft horse for making headway and finding supporters.

Registry of Imported Clydesdales.

The representatives of the Clydesdale Horse Association of Canada are certainly entitled to congratulation and commendation on their success in inducing the council of the Scottish Association to give registration numbers with the export certificate in case of animals coming to this country. It was a good deal to expect from a people so generally considered conservative of their institutions, but their proverbial frugality evidently proved their vulnerable point in this emergency, as they could not well afford to continue a course which, in view of the action of the Canadian Association, would have seriously checked the trade of importation which is bringing so much "siller" to the coffers of their Association and the pockets of the breeders. And it

any pedigrees
ndred years.
Shire horses
Show, but a
or the breed,
y was estab-
n Show was
n numbered
860; but, to
dness which
ssary to say
se examined
s, chiefly for
se breeding
the outset.
e, which will
ur years and
t is not sur-
see a great
eds of tenant
-class speci-
the foals of
by auction.
urposes was

was an act of diplomacy on the part of the Canadian contingent in taking advantage of the circumstances to raise the standard of registration, which was certainly desirable. While in point of economy, and for other reasons, there is much to be said in favor of the principle of delaying the granting of registration numbers until the animals have proved breeders, there is certainly more general satisfaction to all concerned in having permanent numbers assigned at the time of registration, and it is just a question whether the system adopted by some breed societies of requiring the registration at or under the age of two years is not the wiser and safer plan. There was surely need of a shaking of the dry bones of the Scottish breeders in the matter of registration, and the new order of things should greatly strengthen the financial condition of both associations and place the directorate in a better position to advance the interests of the breed by offering special prizes and by other means which may in their wisdom be devised.

to say, from their reports, Montana was freer from Glanders than any state with which he was acquainted. On the other hand Montana has well based complaint against Canada."

This statement of the diagnosis being confirmed was corrected in our August 28th issue, and as for the other assertions the experience of the Montana veterinarians is quite unique. The assertions that not a single reactor has been noted is so sweeping as to discredit the work done for in the course of properly conducted mallein tests. Veterinarians find that an average of five per cent. of healthy horses will react due to some other constitutional disturbances or local conditions. In fact, we know of a certainty of a horse having been tested and turned back at the border to Montana within the past month. Canadian farmers do not require the recital of specific instances of glanders being introduced from Montana, nearly every one can cite a case from his own observation or to his positive knowledge. As for the outbreak of mal du coit in southern

yet not thoroughly organized. At the same time we do not deny that mange is carried by Canadian cattle across the line, but in the matter of diseases there should be no free exchange. A high fence along the international boundary, across the prairie country, would be most useful, in preventing the too free interchange of animals that may be infected with mange, glanders, mal du coit or other serious diseases. By all means let there be as much liberty of trade as possible between the two countries, but each owes it to herself to guard against importations of disease.

Peculiar Births.

EDITOR FARMER'S ADVOCATE:

We read some weeks ago in your paper of a strange case, that of a mare slipping a foal and some months later having another colt which lived. You asked at the same time if anyone had experienced a similar case. Several years ago when we were in Manitoba we had a mare that slipped her foal. Naturally we thought no more about it, until, when, driving through a slough some months later, the ice broke beneath the mare and the sudden shock of the cold water showed unmistakably that there was another colt which came three weeks after, alive and bright and healthy.

R. WALTON.

Mr. R. W. Stephens, Lambeth, Ont., during a call on the FARMER'S ADVOCATE a few days ago, cited a case, coming under his own observation, of a mare, bred in the spring months, slipping in the fall a foal about the size of a cat, and May 24th, following, producing a living foal that grew into a useful horse. Also, a case where a mare was bred to two horses in same heat, one a light horse, the other a heavy-draft, and produced twins, one plainly the get of the light horse, the other of the heavy horse.

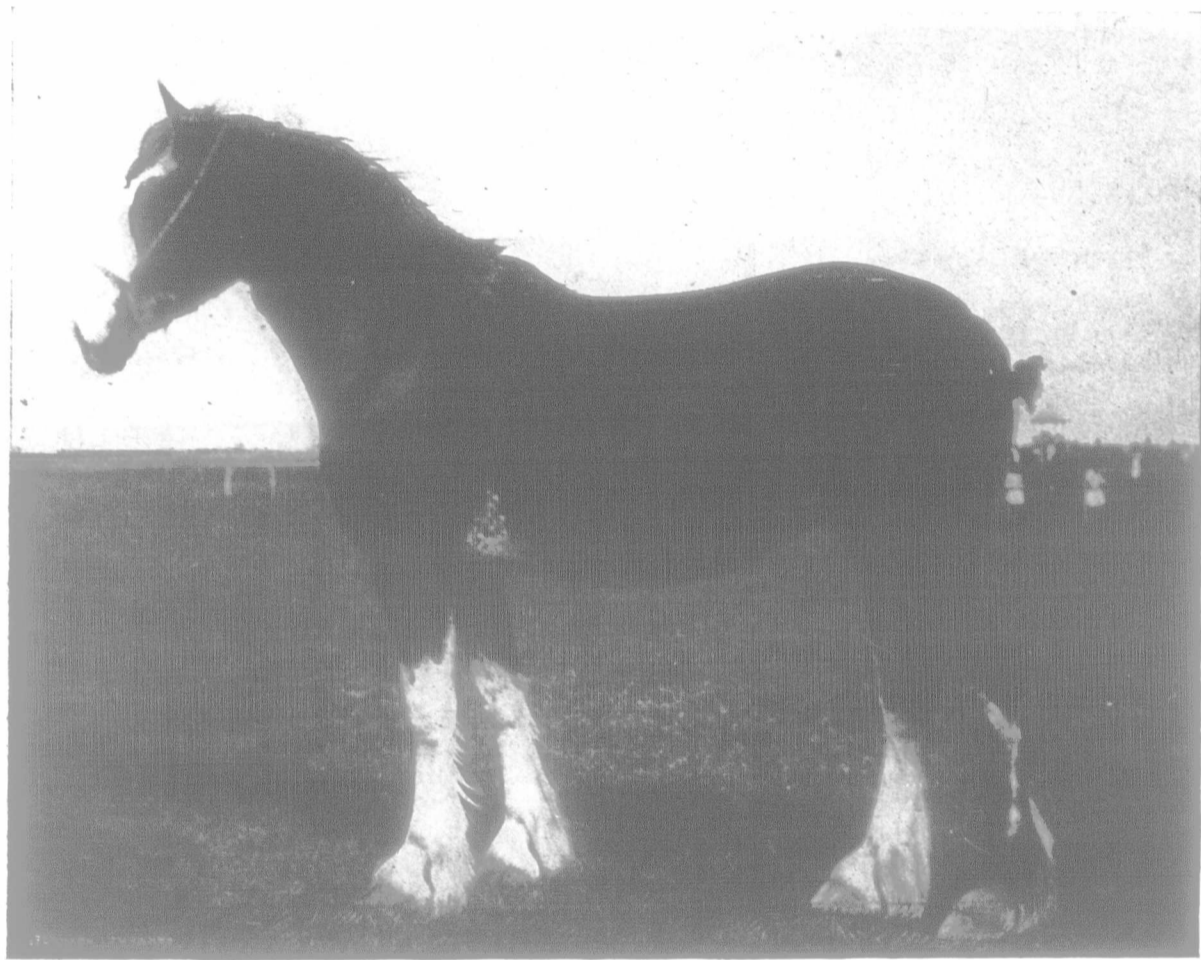
STOCK

What the Beef Commission Should Find.

An interview is reported from Edmonton that the Beef Commission will visit the British markets for Canadian stock with the object of getting a fuller insight into the cattle trade, so that the reports to the provincial government may be more comprehensive. Should the Commission finally decide to go and should they watch the cattle which go from Canada and other countries to that great meat market of the world, they will be convinced of one thing, and that is that in the ultimate market there is no partiality shown to cattle from any particular country, and that every animal brings just what he is worth. They will find, too, that there are many cattle worth more than those which Canada sends, that in fact Canadian cattle are not by any means the best that England receives, even with the liberal supplies of grain fed stock that go from Eastern Canada to raise the average. This fact is known to shippers and others that have investigated the trade on their own account, but if the Commission bring in the same findings it will help to emphasize an unwelcome truth and may do much to remedy the real cause of the unsatisfactory state of the stock trade.

They will also find that the cattle raised in other countries such as the United States and the Argentine are culled much closer than they are in Canada; that the canneries take a lot of the cheapest stuff, and the refrigerators much of the stuff of a class that in Canada pulls down the average. And this only indicates that Canada needs the operation of freezers and canneries to make a profitable use of her stock.

Whatever we may say about the trade and however we may rant about Gordon & Ironsides and Pat Burns, we have to admit that our cheapest cattle are not worth much more than they bring upon the market. But another thing that the Beef Commission should embody in its report and place a lot of emphasis upon is the discouragement to producers in the lack of discrimination upon the part of the buyers. Just as long as the market takes our cattle without putting a larger premium upon the best and maintaining a firm discrimination against the poorest, so long will real improvement in our cattle be delayed and so long the unsatisfactory



BARON'S LASSIE

Winner of first in the three year old Clydesdale filly section at Regina, 1907. Sire, Baron's Gem, bred by A. & G. Mutch, Lumsden, Sask., owned by R. H. Taber, Condie, Sask.

The Interchange of Disease.

Our readers will remember the article in our June 12th number, upon the work of the Dominion Department of Agriculture with mal du coit at Lethbridge, Alta. In the article the statement was made that no other veterinarian had confirmed Dr. Burnett's diagnosis of mal du coit that the disease was traced to Montana from which state Canada had received several seedings with glanders.

Lately, we have received a letter from the state veterinarian of Montana in which he takes exceptions to these statements and alleges that Canadians are wilfully malicious in making statements about the health of animals in Montana, and claim that "During the past year Dr. Melvin, at my request, stationed Dr. Davidson in Helena, for the special purpose of determining whether or not the allegations of the Canadian authorities were true relative to the existence of this disease in Montana. Up until this time (with seven men under him, constantly making investigations, since early spring) Dr. Davidson, or his assistants have been unable to find even the slightest suspicion of Dourine in this state. Of the several hundred horses tested by Federal and Deputy State Veterinarians, intended for Canadian export this year, not one reactor has been found. Dr. Treacy, Federal Inspector, in charge of this district, made the statement to the writer on Wednesday last, that, although his inspectors (seven of whom have been working in Montana) had been instructed to look carefully for all infectious diseases, he was able

Alberta, Dr. Rutherford in his evidence before the committee of the House of Agriculture and Colonization, said in discussing the origin of the disease in western horses;

"Of the other outbreaks, one is traceable to horses brought from Utah, another to an importation from Oregon, while in the third case a strong suspicion attaches to a band of mares purchased in Montana. It is only fair to say that the United States authorities, as well as those of the individual states, have reported after investigation that they have been unable to find the disease in any of the districts where the suspected animals originated. The evidence in our possession, however, has an entirely contrary bearing on the case, and when one remembers the remarkably insidious nature of the disease and the fact which is undeniable, that it has existed to a greater or less extent on the open range in several of the western states for an indefinite period, the reasonable inference is that the presence of maladie du coit in Alberta is due to infected mares or stallions imported by persons, let us hope, ignorant of the terrible scourge which they were introducing among Canadian horse breeders."

In publishing statements to the effect that contagious disease outbreaks are traceable to the states we do not do so with the object of maligning the stock of our neighbor's, (we do not favor protection of either the American or British types) but we do wish to emphasize the necessity of more strict inspection than the country was provided with a few years ago, and also for improvement in our present system which is as

er foreign
a large
umber of
ng 1,264,
n eleven
ers from
ranks of
o partici-
ho breed
rovincial
a medal,
used to

ent may
reeds of
horse for

e Horse
titled to
success
Associa-
export
to this
from a
tive of
regality
in this
to con-
of the
riously
bring-
r Asso-
And it

conditions will exist, the farmer raising lanky, ill-bred, ill-fed steers because they bring just about as much as something better and the buyers keeping the prices down because the quality is low. A discriminating market will save the situation. Chicago and other American markets went through the same experience as Winnipeg is going through now, but when S. & S. began specializing in the cheap stuff and others in the better stock then the producer began to reap the benefit of raising high quality stuff. In Western Canada producer, drover, exporter and packer should work together toward this end. The only apparent detriment appears to be that no one interest will start. In this case it is the duty of capital to manage to avoid waste.

Heifer vs. Steer Beef.

With the object of finding out something about the relative value of bullocks and heifers for feeding purposes, experiments were carried out by the United States Department of Agriculture. The experiments have been carried out for some years and the results should prove interesting. In the first trial, five animals were used in each lot; one lot being steers, another spayed heifers, and a third open heifers. They were Shorthorns of like breeding, and treated alike previous to tests. In this case several of the heifers calved and interfered with the trial, and too much importance must not be attached to the results. The steers made the larger gain, and sold at $\frac{1}{4}$ d. per lb. more than the heifers. The steers made an average gain in eleven months of 806 lbs., and one heifer clear of calf made 775 lbs. When slaughtered the carcasses were examined by an expert, and the heifers were found to give a larger percentage of prime cuts than the steers, so that on the basis of meat and by-products obtained, the heifers were worth fully $\frac{1}{4}$ d. per lb. more than was paid for them. Crediting each lot with the actual value of the different cuts and the by-products, and not including the expense of killing and handling, it was calculated that the butcher made about three times as much out of the heifers as out of the bullocks.

The second trials were made with fifteen pure-bred Herefords. The animals were proportioned as before. In this case the gain by the open heifers was 1.86 lbs. per day, being greater than either of the other lots, and that too with less food and at less cost. There was very little difference between the other two lots, either as regards gain per day or cost of the gain, though the heifers had the advantage. Carefully conducted slaughter and block tests failed to show any difference in the quality of the meat, although the percentage of high-priced cuts, ribs, and loins was greater in both lots of heifers than in the case of the steers. It has been claimed that in heifer carcasses there is a greater percentage of fat, thereby rendering them of less value to the consumer. The report concludes:—"It was observed in this and other investigations that under similar conditions heifers are inclined to take on flesh a little more readily than bullocks. Larger gains by the heifers may not be shown, but there is a tendency to finish at a little earlier stage in the process of fattening. The difference between bullocks and heifers in this respect, when fed under the same conditions, has also been noted by practical stockmen feeding on an extensive scale.

"The fact is emphasized that heifer beef has been much under-estimated, since in both trials the heifers have returned a higher net profit on the block than the steers, notwithstanding the fact that the steer beef was rated higher than the heifer beef. So far as could be learned from these experiments, spaying had no particular influence on the gains made."

These tests are in conflict with the American belief, but from the number of animals used the trials cannot be said to be quite reliable. On the other hand, however, the fact must be taken into account that the results are in accordance with what has appeared to many breeders to be the case.

A Few Problems in Cattle Breeding.

In a letter to the FARMER'S ADVOCATE of London, Ont., Prof. G. E. Day, who as an authority upon live stock is known from coast to coast, outlines some of the objects which cattle breeders should have in mind in pursuing their work. These are so universal in their application that we publish them here.

Many and varied are the problems facing the breeder of live stock. It is not the intention of this article to attempt a solution of any of these problems, but rather to call attention to a few which face the cattle breeder, with a view to aiding the beginner to understand more clearly what confronts him, and perhaps stir up some veterans to give the public the benefit of their experience.

One of the perplexing problems facing the breeder of cattle is the question of fashion in pedigrees, and he may find himself sometimes driven to follow a course which his reason tells him is not

development of milk production among beef cattle. All are agreed that the ability to give a large flow of milk is a valuable accomplishment on the part of any cow, and it is a very common thing to find the best milkers the best breeders in the herd. But how is the milk-producing propensity to be developed? How much depends upon breeding, and how much upon management? If it is mainly a question of breeding, where are the bulls to be obtained to assist with the work? It is hard enough as it is for the breeder of beef animals to secure a bull good enough to head his herd, without having to restrict his selection to



JUNIOR FIRST PRIZE HERD OF WESTERN CANADA.
Property of J. G. Barron, Carberry, Man.

the best. Fashion has its sway among horses, cattle, sheep, and swine, and while it has had a more powerful influence in some breeds than in others, there are few breeds which have not, at one time or another, come more or less under its spell. At the present time there is a tendency in some quarters to rebel against the decrees of fashion, and a good deal of discussion regarding the matter has occurred of late, especially among American Shorthorn breeders. Just what will be the outcome, it is hard to say, but it is useless for the small breeder to attempt to overthrow the established customs or prejudices. If anything is accomplished in gaining recognition for what are commonly called "plainly-bred" cattle, it must be through the concerted action of some of the most influential breeders. It will not do to be too radical in such matters, and it must be remembered that the fashions of to-day are usually based upon a pretty sound foundation, namely, actual merit. It does seem too bad, however, that so many really excellent cattle should be slightly passed over and dubbed "plainly-bred," no matter how many sires of unsurpassed breeding and excellence appear in the pedigree, merely because the nearest imported cow appears a long way from the top of the pedigree, and does not boast any of the blood which is most popular to-day. Surely the crosses subsequently introduced have long since obliterated any trace of the original blood; and if the sires have been wisely chosen, why should such an animal be discounted? When we learn to study the law of heredity intelligently, and are able to understand clearly just what a tabulated pedigree means, we shall be apt to lose a good deal of respect for the average breeder's method of deciding upon the merits of a pedigree. We sometimes forget that, no matter how "blue" may be the blood employed, there can be no sound work done in animal breeding which is not based upon utility. We are also apt to deal too much in names, and lose sight of the merit which made those names famous. If the merit has come down with the names, then we certainly have something to be proud of; but if much if not all the merit has been lost in transit, of what value to us are the names, so far as improving our stock is concerned? So long as certain families of cattle show superior merit to all others it is only right that they should meet with popular favor; but when another family demonstrates its ability to produce equally good animals, why should it not be accorded equal favor? In the face of these problems, experiment stations stand helpless, for it is only the breeders themselves who can work out the solution.

Another problem of great importance is the

milking strains. If, in developing the milking qualities of our beef cattle, we lose much of that tendency to fatten, which has taken generations to develop, would such a result be a really desirable attainment? These are problems which are worrying many thoughtful breeders, and which are frequently lightly discussed by people who fail to look at all sides of the question. There is room here for research work on the part of experiment stations, and work in connection with some phases of the problem has been planned for immediate undertaking at Guelph. It is a large order, and means years of patient work, and probably more space than we can afford, to carry out the work thoroughly. The public need not look for results for some years to come, and it is quite possible that the main issues may never be settled. At the same time, there are many minor points of interest upon which some light may be thrown, and thus make the enterprise worth while.

Closely associated with the problem just mentioned, comes the question of the dual-purpose cow. We know that such cows exist, but are they more desirable or less desirable than the special dairy cow? Also, what about the man carrying on mixed farming under conditions not the most suitable for making the largest profits out of dairying? There are also many varying conditions, and, as in all other live-stock investigations, so many variations arising from the individuality of the animals employed, that it seems almost hopeless to attempt anything like systematic investigation. But, possibly a little light is better than no light, and there are probably enough side issues to make the undertaking worth while. Be that as it may, we think we can safely promise the public some work along this line, though, as in the other case, years will be required to get results.

Space will not admit of the introduction of further cattle-breeding problems in this article, but the ones mentioned are sufficiently serious to furnish food for thought for some time, and we would like to hear from anyone who has worked out even a partial solution of any one of them.

Weights Should Be More Just.

EDITOR FARMER'S ADVOCATE:

In discussing the general subject of stock-raising and stock selling with a go-ahead American farmer the other day several matters cropped up which I would like to have your opinion and that of others upon. I would like also to have them brought under the notice of the Beef Commission

FARM

Fall Treatment of Stubble; Corn Land.

Which is the better way to treat stubble this fall, to burn stubble or plow it down? The land is not heavy neither is it very light. It was broken and backset last year. I broke a piece of land in the spring and seeded it to flax. If I manure it this fall and plow it, would it be good for corn next year?

J. J.

There is nothing much lost and very much time gained in burning stubble when the land does not need cultivating nor the addition of vegetable matter to make it more capable of holding moisture. The practice of burning stubble after the first crop is quite common, as new land is not in very great need of further cultivation and time is saved for other work, of course, the land should be well cultivated in the spring to prepare a seed bed. This is assuming that the soil is the average prairie loam. If it were either heavy or light the plowing in of the stubble would help it and burning the stubble would be a positive loss. Decaying stubble makes heavy clay less liable to bake or harden and more easy for plant roots to penetrate and in sandy soils it tends to make them more drouth resistant. We would not advise the general practice of burning stubble for the reason that most soils are the better for vegetable matter being added and cultivation invariably results in better crops, through improvement in the texture of the soil and the liberation of plant food. That is the plowing deepens the seed bed and brings fresh soil to the surface. Most soils also require a system of cultivation that will keep weeds in check, and while burning the stubble and spring cultivation will destroy many seeds, it is not an unqualified success since so many seeds escape the fire and remain dormant until after cultivation next spring.

By manuring and plowing the flax land this fall and working it well, next spring it should be in good form for corn. If the manure is charged with weed seeds it will be necessary to kill as many as possible before planting the corn, and to do this effectively it may be that the land will have to be plowed again. Generally speaking, if the land is harrowed after the fall plowing the weed seeds will germinate in the early spring and the weeds can be killed with the disc and cultivator or by light plowing.

The Instalment Plan.

EDITOR FARMER'S ADVOCATE:

I was approached the other day by an agent who wished to make a sale. "You need not worry about paying," he said. "Will give you easy terms, whereby you can make us monthly returns. Your credit is good, and you can make the terms as small as you like." I was not keen to purchase, and dismissed the agent in order to have time for a little figuring. The result was that I discovered that it would pay me

for I do not remember reading anywhere of any one else raising these points.

The first of these comes under the head of weighing. As things now are I sell to a buyer, either in the country or from Winnipeg, and he immediately deducts five per cent. for shrinkage. This I maintain is unfair since the stock may have come in by road only a very short distance and it is all treated, in the matter of five per cent. reduction, alike whether the road travel was one or twenty miles. There is no weighing facilities at these little stations up and down the line and the first time the stock is weighed after leaving the farmer's hands is after the journey of forty or fifty hours without being fed or watered. I think that the railway companies should be compelled to furnish better stock yards at their small stations and a proper weighing scales at each yard. The installation of scales at each yard would doubtless entail a large outlay on the part of the railroads but they could recoup this and make a handsome profit in the long run by making a small charge per head for the use of the machine. Any farmer in this way could know, and the buyer could know, just the exact weight shipped. Now, again at the Winnipeg end surely the American plan of having every animal fed and watered on arrival and before being weighed is more fair than the present grab plan of the big buyers? In Chicago the cost of feed to the animal is paid by the purchaser and deducted by him from the amount paid to the seller.

The farmers are, beyond dispute, the backbone of Canada to-day and will be for many years to come and it seems but wise policy for the railroads to treat the farmers fairly and if they will not do so, then the government ought to step in and take a hand for the welfare of the country they are sent to Ottawa to look after.

There is one more matter I would like to have ventilated and that is the elevator charges at shipping points. Last year a farmer near here escaped a charge of six cents a bushel by loading straight into cars—had the grain passed from his wagons, through the elevator and so on to the cars he would have been mulcted in some six cents a bushel. Surely the operation of passing the grain along in this way is not worth that much however a man may figure out insurances, risks and so on?

Thanking you for your space and trusting that others will give their views on these points.

PRAIRIE CHICKEN

British System of Land Tenure, a Curse.

The British land system—namely, that of landlord, farmer, and laborer—which meant three separate castes, had broken down in every other country in Europe, had broken down in Ireland, and was breaking down in England. To it was mainly due the startling rural depopulation, said Jesse Collings in an address before the British Association for the Advancement of Science, as reported in the London Times. The conclusions at which he had arrived were: (1) That the policy of placing trade and manufacturers above agriculture was a wrong one; (2) that an amount of capital (including the personal labor of the cultivating owner and his family) properly invested in land yielded a far greater return to the community than a similar amount invested in commerce and manufactures; (3) that, if health, physical strength and an increase of the population were to be reckoned as natural assets, agriculture enriched the nation far more than manufactures possibly could; and (4) that the home-trade, resulting from the development of agriculture, was larger, more certain, less fickle, and more valuable than the foreign trade. Agriculture must not be regarded simply as any other trade, but as the basis of all trades. Leaving the larger branches of agriculture—the raising of corn, cattle, etc.—and turning to "small cultivation," it was to be observed that we annually imported some sixty million pounds' worth of smaller articles of food, such as butter, cheese, bacon, eggs, poultry, fruit, vegetables, etc., and that those articles might be wholly or mainly produced at home if our land system were what it ought to be. We had the land, and we had the men standing idle or only partially employed. Many country-bred men now employed in towns would gladly return to the villages (for which they were better fitted) if adequate and reasonable facilities were offered to them. "Occupying ownerships" ought to be the governing principle of our land system instead of being a mere incident in it. To facilitate the carrying out of

the suggested scheme of small occupying ownerships, the author strongly advocated (1) a better system of rural education, and (2) the establishment of co-operation among the cultivators both for the purposes of buying and selling. But co-operation was the natural outcome of small ownerships, but was not readily adopted by yearly tenants, who were often here to-day and gone to-morrow.

Range Cattle Doing Well

EDITOR FARMER'S ADVOCATE:

In this section cattle have done fairly well this season but on account of being very thin last spring when going out to grass they have had a hard pull uphill as there was a depleted frame to start work on. The Heel fly has also been very hard on them making feeding in the middle of the day an impossibility. As the day got warmer the cattle would simply get into shade until evening.

Farther east of here where the range is more extensive reports are quite favorable.

The cattle are doing well and steers will be ready for shipment about the middle of September. The grass has been fairly good this year as we have had an abundant rainfall.

Men who fed their cattle in the sharp times of last winter will be able to sell their stock quite a little earlier and that should be quite an advantage.

Everyone is of the opinion that there wont be as many cattle shipped this year as in general.

Butchers claim that this time last year the cattle were all fat but there isn't the number to choose from this year and consequently the shipments will be smaller.

Lacombe, Alta.

"OBSERVER."

The same report as the above came from the south eastern part of Alberta. Ranchers in that district inform us that the grass has grown well but has ripened off in spite of the plentiful rainfall and that the cattle are about ready to go out. The general impression among the ranchers is that there will not be more than 30,000 cattle marketed from the ranges this year as against 90,000 last year. There is a lot of talk about shipping to Chicago but according to several cattlemen whom we have met there does not appear to be many steers going that way.

Hogs in Clover.

Upon the question of pasturing hogs upon alfalfa, comes the following conclusions:

The number of hogs that may be pastured profitably on an acre depends very largely on the amount of grain fed. Probably from six to eight hogs, under ordinary conditions, would be about the right number. This would allow enough alfalfa to grow to make three fair crops per year. The fields should be small rather than large, so that the part nearest the water and sheds will not be kept too close to the ground and that at the farther end of the field be left untouched.

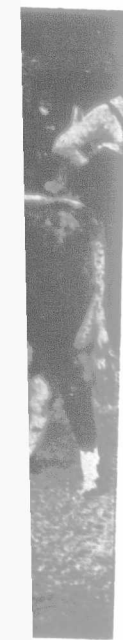
We have not observed satisfactory results with sows run on alfalfa without grain during the pregnant period, although very little grain is necessary for pregnant sows which are to farrow in the fall.



Photo The Compliments of Prince Albert Board of Trade.

FOUNDED 1866

among beef
ity to give a
omplishment
ery common
t breeders in
ducing pro-
ach depends
management?
g, where are
h the work?
eder of beef
to head his
selection to



milking
h of that
nerations
lly desir-
which are
id which
ple who
There is
ith some
med for
s a large
rk, and
to carry
eed not
nd it is
y never
e many
ne light
terprise

n just
ial-pur-
but are
an the
e man
ons not
profits
rying
vesti-
m the
hat it
g like
little
e pro-
aking
e can
g this
will

on of
ticle,
rious
d we
rked
.

ock-
ican
I up
that
hem
sion

twice over to purchase on a cash basis rather than accept the agent's enticing terms. The terms he offered, while they looked easy, were really terms demanding a high rate of interest. Further, on making some inquiry I found out that many who had tried the monthly instalment method of payment had come to realize that they were paying dearly for any seeming advantage, and that they felt themselves continually reminded that they were in debt. In not a few cases people had become discouraged, and had abandoned payment altogether, much to their loss.

The best thing for one to do is to keep out of debt, and to buy and sell on a cash basis. It will mean self-denial, but it is astonishing what a little ingenuity and economy will do for one. Indeed, the average farmer will do well to remember and to act upon the advice given by the Old Country agriculturist to his son: "Jock, gang in debt for but ae thing—dung." No one can afford to go into debt for anything that does not give a reasonable assurance of a fair return. Food, land, clothing and implements must be had, of course, but a little consideration and contriving will reduce one's actual necessities to an astonishingly small minimum. Paying in cold cash is better for both buyer and seller, and waiting till one can do so will save many an anxious hour, and many a disappointment; whereas the easy payment system usually means either the purchase of something one does not want, or paying too much for one's purchase. It is better to get on in what the Scotch call a canny way than to invest readily and extensively in things that are handy in their way, but which are not really necessary. It is wonderful how far brains and patience can make things go. The newest thing is not always the best. Let others do the experimenting. It is the agent's business to sell goods, but it is the farmer's business to buy only what he puts to a paying use, and on terms that are the most reasonable. It is so easy for one to sign his name to a contract; pay day looks far off, but it is sure to come, and with it has come in many instances a deal of tears and heartbreak.

O. C.

The Restless Country Boy.

EDITOR FARMER'S ADVOCATE:

Restlessness is a characteristic of all healthy boys, and should never be a source of worry. A young colt may be perfectly happy if only he have plenty of grass and shade and water and liberty. But a boy with forming hands and a contriving mind is restless because he finds stirring in him the possibilities of the infinite. It need not be wondered at, then, if the country father finds himself wrestling with a very live problem when he undertakes to guide his growing boy.

There are various things that contribute to the restlessness of the country boy. In the first place, his familiarity with country life has dulled his senses to its charm. The delights of rural surroundings, by reason of his daily contact with them, have become mere commonplaces. On the other hand, he sees the town only occasionally, and knows professional life only from the outside. The preacher, to his way of thinking, works only half an hour a week; the doctor does little but drive behind a brisk-stepping horse; while the clerk has a delightful time handling light goods, sheltered from the hot sun and the storm.

Further, the boy is exposed to the mischievous effect of the class of literature that belittles country life. In too many of our papers and books for young people the hero is represented as one who finds no scope for his talents amid farm surroundings, and who comes to his own only upon leaving the old home for a life of adventure. The country boy feeds on this, and soon comes to believe it.

Again, as the FARMER'S ADVOCATE has been reminding its readers, our school system does not foster a love for farm life. However we account for it, our schools do not encourage our boys to make their living from the soil. Our high schools and universities point the way to the surgery, to the chemist's laboratory, to the mine, to the pulpit, to the bar, or to the legislative hall, but in how many cases is there a serious effort made to teach the students the wealth of the sun-swept valley and prairie, and the satisfaction that comes to mind and heart and fortune by a pursuit of agriculture, the most ancient as it remains the most honorable of the arts? A father need not be surprised to find his son ill disposed to follow in his footsteps if he allows him to be taught for six hours in the day, and for five days in the week, that farming is a poor, sordid and unremunerative occupation.

The cure for this restlessness cannot be wrought in a day. A permanent change in conditions is brought about very slowly, but the farmer must make it his business to see that the change is being brought about. In the meantime let him use all the tact, born of his love and good sense, to show his son the advantages amid which he has been reared. As best he can, let him make his home and work attractive. A little money spent in music and pictures and magazines, and in encouraging his children in carrying out experiments in poultry, in roots, in dairying, or in any farm work in which they take an interest, will be an investment that will yield a tenfold return. A house full of laughter of young friends brought in occasionally may rob the farmer of some hours of needed rest, but they will do not a little to relieve country life of its monotony, and do a great deal in the way of preserving for the farmer what is worth more to him a thousand times over than any bank account in the world, the love and service of his boys and girls.

O. C.

Handling a Traction Engine.

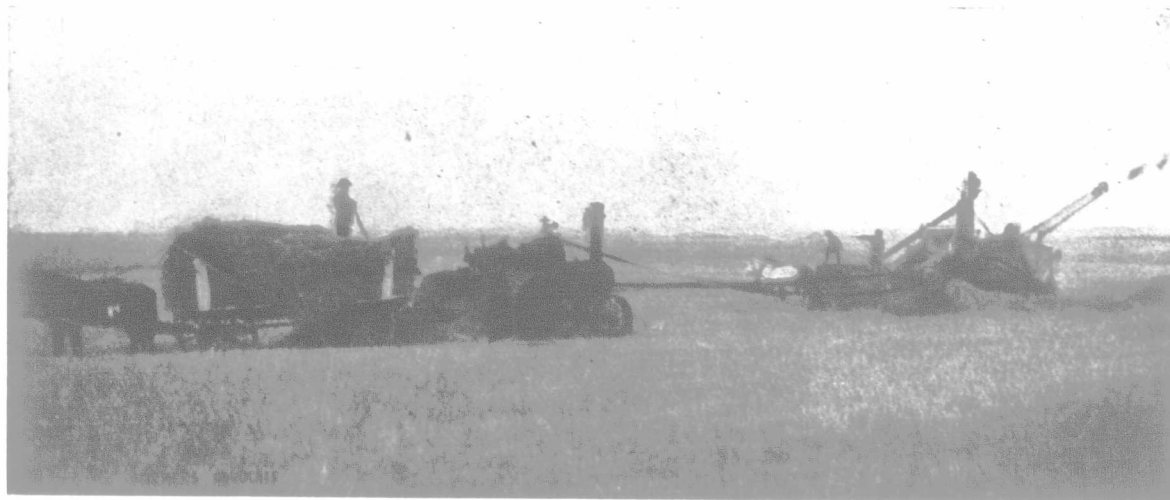
EDITOR FARMER'S ADVOCATE:

In your issue of Aug. 14th you print an article on traction engine boilers and the hardships they have to contend with. The effects of dirty water might be largely avoided. It is an every day occurrence to see a tank of water pulled in alongside of an engine, then the fireman or engineer as the case may be, plunk in the hose and turn on the injector, never taking into consideration that all the mud, sand and filth that the average threshing tank contains is all mixed through the water by the jolting of the wagon. I have seen this done when the boiler would probably contain half a gage of water and when there was sufficient water in the boiler to allow time for that in the tank to settle twice over.

Second, was the unevenness of ground, boilers travelled over. I would judge such as going down hill and causing the crown shut to become exposed. This can be overcome by turning the engine and backing down hill. The sudden

Lightning, and Some Means of Protecting Our Buildings and Live Stock From It.

The alarming frequency with which in the past few months we have read of property destruction by fire, due primarily to lightning, has set people thinking. It is no uncommon thing to read, after a severe storm, of farm buildings burned, houses damaged, stock killed or human lives sacrificed. It is only a few weeks since a Southern Saskatchewan town was partially destroyed by fire originating from a lightning bolt. It is an every day occurrence during the summer for houses to be damaged and their inmates injured from this cause. The financial loss during a season must be enormous. It is generally, though by no means always the case, that towering structures are most frequently hit, thus in cities and towns churches with lofty spires are damaged oftener than other buildings. Barns and houses on the open prairie for the same reason seem to be struck more frequently than objects closer to the surface of the earth.



THRESHING ON THE FARM OF THOS. NELSON, MOFFAT, SASK.

changes of temperature caused by in-rushes of cold air may be avoided also. If you see the steam is going to rise too high, plug the shutter tightly with straw and close the damper. If there is a clinker to remove from the bottom of the fire box, it is up to the engineer to fire while the fireman removes it, thus keeping the fire in its ordinary condition.

As to employing ignorant fireman, it is the engineers duty to put him wise, as it will be of great service to himself and also to the life of the boiler.

There need be very little trouble over the internal conditions of the boiler if some of those so-called engineers would follow my method of caring for the boiler they may have in charge. Blow off the boiler every Saturday night and clean the mud out every other Saturday night. Some districts where the water is not so good, it is necessary to blow out twice a week, and remove the mud once a week. I have been operating engines in Saskatchewan for the last ten years and have had two engines in that time, but have never had an occasion to caulk a joint or roll a flue. I did not dispose of my first rig because it was worn out at all, but because I got the big head and had to have a big out-fit.

If the writer of the above mentioned article would tell us how to avoid these troubles it would be of a great deal more value to the public in general in place of telling us of our everyday troubles, occupying valuable space in the paper which is of no profit to anyone, as there are so many owners of threshing machines who have no knowledge as to how a boiler should be cared for, and that about fifty per cent. of the value of their outfit is in their boilers. Time and again I have seen men going through the country looking for an engine to run, when probably they had only fired the fall before, looking for the big money.

If you are approached by a stranger with recommendations dated 1903 and 1904, get leary of him at once as you can't afford to take chances on a man who gets his experience two or three years ago. The man with these old recommendations is capable of twisting off all the set screws, and of cutting out all the brasses, valves and gears. "RUSTY."

Scientists account for this fact by assuming that the discharge of lightning from cloud to earth, is for the purpose of establishing an equal balance between the quantity of electricity stored in or developed by the cloud, and the quantity that exists in the earth, and that in its passage from one body to the other it takes the shortest possible course that can be found. This, as between cloud and earth, would be from the lowest strata of the former to the nearest point on the surface of the later. This point may be only a portion of the surface of the soil, it may be a tree or it may be a building. It is common observation that lightning prefers almost any other conducting medium than the atmosphere. It will jump through several miles of space to the earth and then when within a few feet of its goal will deflect its course and take to anything denser than air that comes in its way. The atmosphere, seemingly, is not a very satisfactory conducting medium. It is for this reason that barns and other out buildings in the country are so frequently hit. They are the loftiest structures that can exert attraction on the descending electric current, they will be, when the storm is passing directly over head, the closest point between the cloud and earth. Barns, too, seem more frequently hit than houses, at least statistics show this to be the case, the reason may be that they are higher on the average than dwelling houses. The fact is, however, that between unfilled barns and houses there is little difference in the relative frequency with which each is struck. Filled barns, though, seem of all buildings the most susceptible to damage from lightning stroke. The reason is not difficult to discern. In a barn recently filled heat is generated. The air within and surrounding such a barn becomes perceptibly warmer and moister. It decreases in weight and is forced upward until a column of warm moist air will be ascending from the roof in the same manner as smoke rises from a chimney, diffusing itself outward in all directions as it ascends. If such a phenomena as this occurs, as it very naturally may, and at the very moment when a cloud heavily charged with electricity is hanging overhead, the discharge from that cloud will encounter when far above the earth, the widened column

of warm air ascending from the barn. Now lightning seems to prefer any medium of conduction rather than the motionless atmosphere. It is common observance that it follows air currents readily. Hence if a bolt is descending in the close vicinity of an ascending air column, no matter how slow such a column may be moving, it will deflect that bolt from its course and the electric current carried downward by the rising air, reaches the barn and through it the earth. This, is at least a theoretical explanation of the frequency with which filled barns are damaged by lightning.

It is an old saying that lightning never strikes twice in the same place. There is no foundation either in science or fact for any such statement. We have known three barns erected on the same site to be burned successively by lightning. Any particular site that offers a path to a lightning flash, is just as likely and in some cases more likely to offer a path to a second stroke. There may have been something in the geological structure immediately beneath the barn in this case that offered a path of least resistance to the current, or the barn may have been more elevated than surrounding objects. In any event it is very unwise to build a third barn on the same site where two have been struck by lightning. The first stroke may have been of accidental occurrence; but where two strokes have been received on exactly the same site it occurs very likely from some peculiar formation of the ground.

Of the means of protecting buildings from lightning strokes the natural ones are the most efficient, and trees are the most efficient of natural protective agents. Buildings with tall trees growing near them are seldom struck. A clump of trees seems to draw the lightning to it. In this country, however, it is unpracticable or impossible to grow trees to a sufficient height to have much protective influence. It is necessary therefore to resort to other means, and the only other means of protection is by metal rods on the roof or the highest point of the building, extending down into the moist earth, to convey the thunder bolt harmlessly away. Opinions differ of course as to the efficiency of rods for this purpose, but authorities generally agree that relatively few buildings thus protected are damaged by lightning stroke. While it cannot be denied that some buildings equipped with rods have been destroyed by lightning, yet the number has been so very limited as not to break the rule that rods are a real protection.

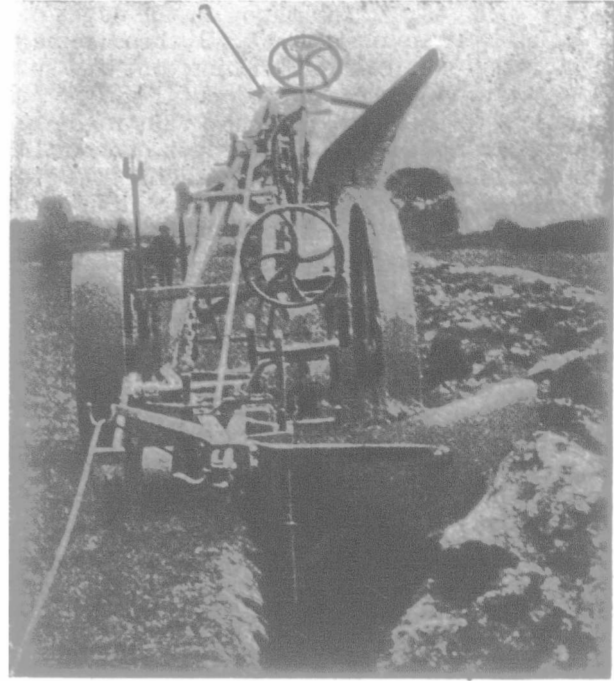
A good many farmers, however, seem prejudiced against rodding their buildings. This prejudice arises not so much from the belief that lightning rods are without merit as protective agents, as it does from the fact that the lightning rod swindle was perhaps the greatest ever perpetrated upon the agriculturists of this country. This is the chief reason why there are not a greater proportion of buildings rodded to-day. Nowadays, however, it is not necessary to call the services of these gentry in putting up rods. The work can be done by any man sufficiently intelligent to build a wire fence.

In constructing a rod the first thing to do is to find the length of cable needed as for an ordinary barn, the full length may as well be made at one operation. Liberal allowance should be made for grounded ends, as a connection with damp earth at a sufficient number of places is of first importance. If a small well augur can be got and

hole bored to a depth of seven feet it will be all right. If not then a hole four or five feet deep can be dug and the end of the rod curled into a flat spiral. Highest lines and projecting points should be specially guarded, and it is, therefore, well to have rods on all ridgeboards. For plain barns, with one ridge and two gable ends the rod can be run the whole length of the ridge descending and entering the ground at both ends. Sometimes barns are built T shaped in which case an addition to the rod with the two grounded ends already mentioned, another with its end in the earth at the outer end of the addition, should be run up the gable end to the ridge, then along the whole length of ridge, and connecting with rod on the main building. There would thus be three earth terminals, and all ridges protected. Upright points may be added afterwards. They should be five feet high and not more than twenty feet apart. To make these, lengths of six and a half feet can be cut off, and a sharp bend made a foot and a half from one end, this extra length to be opened up and wrapped around the rod where it is attached. This makes all solid and gives good electrical connection. At the upper end of the points the wires may be spread out in all directions. Total up all these lengths and you have the full length of rod required. You can now begin manufacturing it. Use soft galvanized, number nine wire, nine strands. A wagon wheel answers very well for twisting. Set the wagon in a convenient place, and raise the wheel as if for greasing. Measure out the needed length and drive a stake with a hole bored in it, through which the ends of the wire can be passed, and bent round. The other ends of the wire can be hooked, each around a spoke of the wheel close to the hub. In measuring the wires care should be taken to have them of equal length, and an allowance made of one foot in 200 for shrink in twisting. Now, having the nine wires stretched out and fastened securely before beginning to twist, brace well both the wagon and stake, for there will be a considerable draw. It is well, also, to throw some poles or boards across under the wires to keep them out of the grass and mud. Turn the wheel until the cable is sufficiently twisted to hold together, and the job is done. The rod can be stapled close to the building, as the old idea of the necessity of insulation seems entirely abandoned. To hold the points upright get the blacksmith to make you an iron tripod for each. Have the rods run direct as possible with few sharp turns. Such a rod will weigh one half pound per foot, and the cost of the entire material, fittings included for a barn seventy feet long and forty feet high, will be less than \$5.00.

In this country, too, considerable loss results every year from stock being killed by lightning in the field. Invariably such stock is huddled against a wire fence. The fence at some point may receive an electric charge and the wire conveys it along until it diffuses itself into the earth. Each post conducts a portion of the charge away, and any objects close to or in contact with the wires likewise will receive a portion of the current. The remedy in this case is to have the fence wires grounded, to have, at frequent intervals, say every 100 feet or less a wire leading down into the soil, giving direct connection between the fence and earth, and furnishing means whereby the electric current is conveyed harmlessly away. Such a connection could be readily and cheaply made, and there is little

doubt but that it would provide stock in the fields with a very large degree of immunity from lightning stroke.



PLOWING 30 INCHES DEEP.

Showing the possibilities of deep cultivation to increase the moisture-holding area of the soil.

Making Cement Walks.

What is the right way to construct cement walks? Would you advise putting them down on the farm between the house and outbuildings?

Replying to this enquiry for information on cement walk construction we can do no better than give the following plan, which if carefully followed will be found productive of highly satisfactory results: Prepare the foundation by making an excavation from 2 to 8 inches deep, the depth depending on the character of the soil,—and a few inches wider than you intend the finished walk to be. Fill this excavation in to the level of the ground with gravel, broken stone or cinders, and ram it down solid. When the foundation is ready, place boards along each side of the walk to hold the mortar in place while it is setting, also to give a nicely finished edge on the concrete. These boards would be the better of having their inner sides planned. They should be 4 inches wide, or wider or narrower, proportionately, as you intend making your walk thicker or lighter than the one here described. Four inches is, however, a fair thickness and we would not advise making it any less. These out-boards should be fastened to stakes and the stakes should not protrude above their upper edge as the most convenient way to level the concrete when finishing is by running a straight edge along the top of the boards.

It is always necessary to lay the concrete off into blocks, to prevent injury from heat and frost. There are two ways recommended for doing this. The first is to cut through the concrete after the top surface has been laid, and before the mass hardens, with a trowel or spade, going right through the foundation from edge to edge of the walk. The second plan is to lay off the walk into sections by means of cross pieces placed four or five feet apart. This is the most satisfactory method. To do it properly get slats an inch thick and 4 inches wide. Their length should be exactly the width of the walk. Place them in at about 4 feet intervals, and peg down securely. You are now ready to put in the mortar. For the base coat prepare a mixture of one part Portland cement and 8 parts gravel or broken stone. Mix it thoroughly both wet and dry and ram it down well on the foundation. This layer should be 3 inches in thickness. It is best not to have too much base mortar down in advance for unless plenty of help is at hand the foundation may get set before the surface is laid, in which case the bond between it and the base layer will be imperfect. Mix the finishing coat one part cement to two parts fine gravel or, preferably, clean, rather coarse sand. Spread it out and level quickly with a straight run over the top of the outside boards, finishing the surface up with a wooden float. Bevel off the edges on all four sides and the block is complete.

In building in blocks after this method, it is always necessary to put in the blocks alternately,



CUTTING FALL WHEAT ON MR. GEO. BUCHANAN'S FARM, PINCHER CREEK, ALTA.

Protecting Our From It.

rich in the past ty destruction has set people hing to read, dings burned. human lives since a South- ally destroyed g bolt. It is e summer for mates injured oss during a is generally, e, that tower- hit, thus in ty spires are lings. Barns e same reason than objects

assuming cloud to g an equal electricity, and the that in its takes the be found. d be from ie nearest point may be soil, it ng. It is rs almost e atmos- miles of in a few l take to its way. ry satis- is reason e country loftiest on the oe, when ead, the l earth. i houses, ase, the average owever, there is cy with h, seem damage difficult heat is ounding er and forced will be nner as elf out- such a turally cloud g over- ounter column

in order to get the wooden crosspieces out and provide for a proper joint when building. Leave each alternate space as you go along, and when the mortar in the sections filled has hardened sufficiently, remove the cross pieces, place a three inch strip of tar paper on the edges of the blocks, thus exposed and fill these remaining spaces as before. In finishing off the surface layer always be careful to cut a groove right through to the joint you have thus made in the lower strata. If the cross edges of each block, as it is laid, is bevelled off only slightly the groove, of course, will be made as you go along. Cover each section as it is completed, with boards, straw or sawdust, and protect it from dust, dirt, currents of air and the sun for a few days while it is setting. Sprinkling occasionally will help the setting process and make a harder finish.

A walk thus constructed will prove satisfactory for a good many years. Nowadays when lumber prices are prohibitive to the use of that material for purposes such as this, cement has come into general use on the farm and in addition to being used as a foundation and building material seems now coming into use for nearly everything else as well, hog troughs, water troughs fence posts, etc. It is of exceptional value for building walks and our correspondent need not hesitate long about using it for this purpose.

DAIRY

The Great Milker Petered Out.

EDITOR FARMER'S ADVOCATE:

I believe there is nothing that will so help a man to get the best results as the milk-record system. One can so easily detect the results of any change in feed or otherwise, and remedy it, perhaps not so much on the whole herd, but individually, for I have found from experience that it pays well to cater to the likes and dislikes of different cows. The ration fed to one cow profitably might be far out for another. Some claim to be able to tell how much a cow gives merely by guess, but to me they are far out. It is very easy to remember the two or three months in the flow when the cow is giving, say, forty pounds per day, and forget all the rest of the year when she has dropped down to less than half that amount. I once bought a cow for a good price that was noted as a great milker, and she started out to lead, and did so for about two months, and finished second to last, with a small two-year-old behind her. There is no other correct way but to keep a record of milk, both as to quantity and quality. Form and appearance count for a great deal, but often fail, but performance always counts.

Of course it takes some time to do the figuring, but so very little that the interested man will enjoy, and, indeed, should be anxious to get at and work out his operations on business principles. Dairying for profit, like many other things, lies behind so much fine figuring that the majority never get at the real truth, thereby making their work a drudgery in place of pleasure.

D. D. GRAY.

Central Experimental Farm, Ottawa.

In the article which Mrs. Tomes prepared for us upon her method of making butter for exhibition a fault of the printers made her say she had difficulty in getting a market for her product. This should have read "I have no difficulty in finding a market for my butter." The context doubtless indicated what the meaning was.

Wide-Awake Dairymen.

EDITOR FARMER'S ADVOCATE:

I have been keeping individual milk records for the last three years. I take records once and sometimes twice per week by the use of a forty pound steelyard, which I keep in the barn. As I know the weight of my pails, it takes but very little of my time to weigh. I have a little pass-book with the name of each cow, and I credit her with her milk. My cows are graded Short-horns. Before I commenced keeping records, I calculated so much to the cow per month, say, five dollars, for I heard it often mentioned that it was about the average; but when I kept records I found some of my cows were giving twenty pounds while others were giving as low as nine pounds

at a milking. Now, I consider if a cow does not give fifteen pounds of rich milk, it is better to let calves on her for veal, and get rid of her as soon as I can. I may say that I find in this part that the best dairymen are the men who keep a close record of the feed they feed their cows and the returns they get from each individual cow, and value a good cow very much above an inferior cow.

B. C.

FRANK MUNROE

Hints on Making Butter for Exhibition.

As a number of our correspondents have recently been asking for suggestions on the making of butter for exhibition purposes, we take it that there is more or less general demand for information on this question, hence these hints. It is taken for granted that those who read the article are familiar with the ordinary routine of buttermaking, thus it will not be necessary to go into details.

The first and most important thing necessary for a buttermaker to bear in mind is the basis or scale of points used for judging. What does the judge usually consider when he or she starts to work on fifty or two hundred lots of butter at an exhibition? The judge must have something definite in his or her mind as to what constitutes a standard of perfection. This standard usually consists of some scale of points, the total making one hundred for the sake of convenience. Even if the judge uses no set scale, he must have some definite ideal in his mind or his judgement is worthless. The standard of perfection is usually made up of: Flavor, Grain, Body, Color, Salting and Packing. As flavor is the most important quality in butter, the maker must ever bear in mind that the judge is likely to decide about one-half the merit of each lot of butter according to its flavor. Most judges now give preference to the mild, creamy flavor, rather than to the acid flavor of former times, hence the buttermakers should not ripen the cream so much as formerly. In no case should the cream have more than five (five-tenths) of one per cent. acid at the time of churning. Where no acidimeter is available, churn as soon as the cream thickens and has a mild, acid flavor. Having cream from perfect milk, or milk with an absence of any fodder or weed flavor, is a great help in getting fine-flavored butter. The use of a culture or good-flavored starter is also a help. If there is any objectionable flavor on the milk, the cream should be pasteurized when sweet; that is, be heated to 160° F. for about ten minutes, or 180° to 185° for two or three minutes. If a good culture is not available, this pasteurized cream may be cooled to about 50° and be churned without any ripening whatever, after standing one or two hours. Such butter has the nice creamy flavor liked by English people, and by a growing number of Canadians.

Don't forget that flavor is the most important point in exhibition butter.

The second point is the grain and body of the butter. A judge likes to have the butter "iron" nicely, i.e., when he pulls a sample out of the print, tub, box, or crock, it should leave the back of the trier clean—not greasy; should be close in body and texture, and not too hard and brittle, nor yet too soft. When the butter is of such consistency that it spreads nicely on bread, its grain and texture are considered perfect.

Temperature of the cream and butter at the time of churning and temperature of the butter at the time of judging are the two most important factors governing grain and body. The character of the fat which is influenced by the cow and her feed, is another factor. Method of working is another; some butter is spoiled by over-working. Work sufficiently to make the body firm, the color even, and the appearance waxy, but avoid too extremes of "over" or "under" working. The "end-point" is something which cannot be described and is learned only by experience. Working sufficiently to mix the salt well, then allowing the butter to stand for one to three hours before finishing the working, is a much safer plan than to depend upon one working. Once working is almost sure to produce butter more or less mottled.

As tastes vary with regard to color and salt in butter, it is very difficult to give general directions which cover all cases. It is better to err on the side of light color and light salting, than go to the other extreme. Up to the end of September it is hardly necessary to use any coloring. After a heavy frost or two a small amount of vegetable butter color added to the cream just

before churning is advisable in order to obtain the "June-grass tint." The main point is to have the color uniform. Mottles, streaks, waves, etc., are always scored down by a competent judge, as this indicates faulty workmanship. The preventives are: washing out the buttermilk with water or brine, even distribution of fine salt and working twice. If these points are noted there is little danger of mottled butter. "White specks" in butter are prevented by straining the cream into the churn, thus removing particles of curd, dried cream, etc., that produce "specks."

Salt at the rate of three-quarters to one ounce of salt per pound of butter for prints and one-half ounce for boxes. Tubs and crocks may usually be salted the same as for prints, because these are chiefly sold on local markets, where the demand is for higher salting than for the export trade.

The use of fine salt having sufficient moisture present in the butter to dissolve the salt, and twice working, will usually prevent grittiness which is the most common fault under this head after "too high" or "too low" salting. The tendency is for milder salt in butter, in order that the true creamy flavor of the butter, may be more apparent.

The oblong pound print, wrapped in plain parchment butter paper, is the best form. The print should not be too high and narrow, which gives the judge the impression that the butter cannot "stand-up." The top, bottom, sides and ends should be close and straight, or nearly so. Some prints look as if some one had sat down on one edge of them. This is caused by a faulty printer, or not removing the butter properly from the printer. By holding the ladle against one side of the print, the butter can usually be removed without trouble. The fifty-six-pound box is best for export. This should be neatly finished on the top. A fluted roller passed over the smoothed surface of the butter, relieves the top of that tendency to a greasy appearance. The box should be lined with heavy parchment paper. The butter should be packed in small lots so that if the judge "strips" the package it will present a close, uniform appearance on all sides and on the bottom. As a rule it is not necessary to put salt paste, or anything except the parchment paper, on the top of the butter. Tubs, crocks, etc., should be filled to within about half an inch of the top, then be covered with a parchment paper, or clean cloth circle, and nothing else except the cover. Fancy patterns or scrolls on top of the butter are usually disliked by the judge.

GENERAL DIRECTIONS.

1. Have the butter made at least three days before it is judged. This gives time for the grain to set and the color to become uniform. It is a mistake to send butter to an Exhibition the same day or the day after churning.

2. Ship in a clean case, preferably enclosed in another case, or in a canvas cover. In hot weather pack in ice before shipping or delivering. Pieces of ice in the basket or box containing the prints tend to keep the butter cool and firm. If the exhibition has a good refrigerator, ship in time to have the butter cool before judging day. Also ship or deliver in time. A judge is usually annoyed at having to go over another lot or two after he has finished a class, which possibly means that he may have to alter the score on several lots, in case of ties. The person who delivers late at an exhibition, seldom gets more than "cold justice."

3. Be not over-anxious with the exhibition butter. Many persons become so anxious about having their butter so much better than usual that they spoil it, and in many cases the lot sent to the exhibition is not equal to the average make.

4. Bear in mind that the judge will judge the butter chiefly on the question of flavor. He or she will not consider the grain, color, salt and package. These are the five main points to always keep in view when making butter for exhibitions, or at any other time.

O. A. C., Guelph.

H. H. DEAN.

Prize Butter Making.

EDITOR FARMER'S ADVOCATE:

We have been much interested in the articles that appear from time to time in this department on the subject of home butter making. The system outlined in last week's issue by Mrs. Tomes, of Plumus, seemed particularly valuable indeed. There were some points though in connection with her method, on which we are not quite clear. One of these is the washing of the butter. In our own experience we have always

found it best to wash the butter right out immediately the buttermilk is drawn, revolving the churn quite rapidly while the operation is going on, to prevent the butter forming into chunks. We have always found that when butter gets into lumps it is more difficult to get the buttermilk removed, also more troublesome to salt evenly. We cannot just see what merit there is leaving the butter in the churn for half an hour. We always like to get the churning done with as quickly as possible, and the utensils cleared from the kitchen. We always use a strainer too, when taking the buttermilk off, for when the butter granules are the size of wheat grains some of them are liable to escape through the outlet.

Then there is the matter of salting. In our own practice we have always guessed at the weight of salt used and generally came near enough the mark, though we believe it would be more accurate and better to use the scales. The trouble we always experience is this: We salt in the churn and unless the butter is taken out and weighed and put back in again, which is no small chore on our farm—where the nearest set of scales is in the barn, and they won't weigh in ounces,—we have no idea as to how much butter we have or how much salt we add. Of course, after a time, when one gets accustomed to guessing, fairly satisfactory results are attained. We don't like to work our butter too much, we have never used a Water's mixer preferring the ordinary lever worker, and turning it over about three times. The butter is then put up in rolls or prints. If we have any criticism to make of the methods employed by your correspondent it would be that she takes too much time in affecting the transformation from cream to butter. By her method an entire forenoon is required in the operation, altogether too much for the average housewife to devote to it.

Brandon.

Mrs. J. M. A.

APIARY

Honey Production In The Moose Mountain District.

EDITOR FARMER'S ADVOCATE:

The Moose Mountain country has, since its first settlement in the early eighties, been looked upon as an ideal mixed farming country—one producing some of the best cattle in the West, and wheat unsurpassed in both quality and average yield. But few of the residents of the Moose Mountain country, much less others, realize that another profitable industry can be successfully carried on despite the fact that the winter temperature occasionally reaches the forty below zero mark. The industry we have reference to is that of the production of honey, and Cooper Bros., a few miles north of Carlyle, Sask., have with an experience of ten years fully demonstrated the success of bee-keeping.

Chas. Cooper was born in India, and William in Somerset county, England, not far from Cannington, from which Cannington in the Moose

Mountain district gets its name. Charles attended Chard grammar school and William Cheltenham school, the former with the intention of entering the ministry, the latter the army.

But the call of far-off Canada was stronger than either ministry or army, and the former came to the Moose Mountain country in 1886, and the latter in 1892, for the purpose of farming. Charles homesteaded and afterwards bought a quarter section more. William spent some time in fruit farming in British Columbia, afterwards returning to the Cannington district of the Moose Mountain country and homesteaded.

"Try bees," was the suggestion of a Cannington lady and for once the bachelor brothers decided to take a lady—at her word—and they purchased their first colony at Portage la Prairie. The prospects the first year were not at all the brightest for the colony did not winter well and neither did the honey—the bees died and the honey got frozen.

However, another colony was purchased and increased with the years until to-day the Messrs. Cooper have sixty-eight colonies, which in the summer are located near their house and are practically surrounded by bluffs, thus being sheltered from the winds. In the winter the hives are stored in the cellar. The food supplied the colonies to tide them through until the blossoms come, is mostly old honey which may have become somewhat discolored or heated too much. To supply the nectar for summer patches of alsike clover are raised. White clover is also raised. In seeking its food the bee is a valuable assistant to the Messrs. Cooper who are extensive gardeners.

Aside from the above mentioned labor in connection with food supply, the only attention the bees require is during the summer to prevent too frequent swarming. This is done by cutting out the queen cells. This work and the extraction of honey is not fraught with the dangers which the uninitiated might imply. After being among the bees for some time their sting is scarcely noticeable.

In placing the colonies away for winter, care is taken that a sufficient supply of honey is in each colony—about fifty pounds. In some cases honey is taken from the stronger colony and given to the weaker.

Coming to the financial side of the bee industry, we may say that last year the Messrs. Cooper had a two-ton harvest which was disposed of locally at fifteen cents a pound. The honey harvest, like other harvest, may vary according to the season, showers and hot weather between, being the most favorable. A ready market is always found in the West, as much of the honey shipped from the East has been found to be adulterated.

Cooper Bro's. honey exhibit is always one of the interesting and attractive features of the Moose Mountain Agricultural fair held at Carlyle.

The Messrs. Cooper after ten years successful bee culture are fully convinced that the production of honey can easily be made a valuable adjunct to the industries of Western Canada, and particularly amidst the sheltered vales and bluffs of the beautiful Moose Mountains, so aptly described as the "Park Country." The long sunny days common to this country give

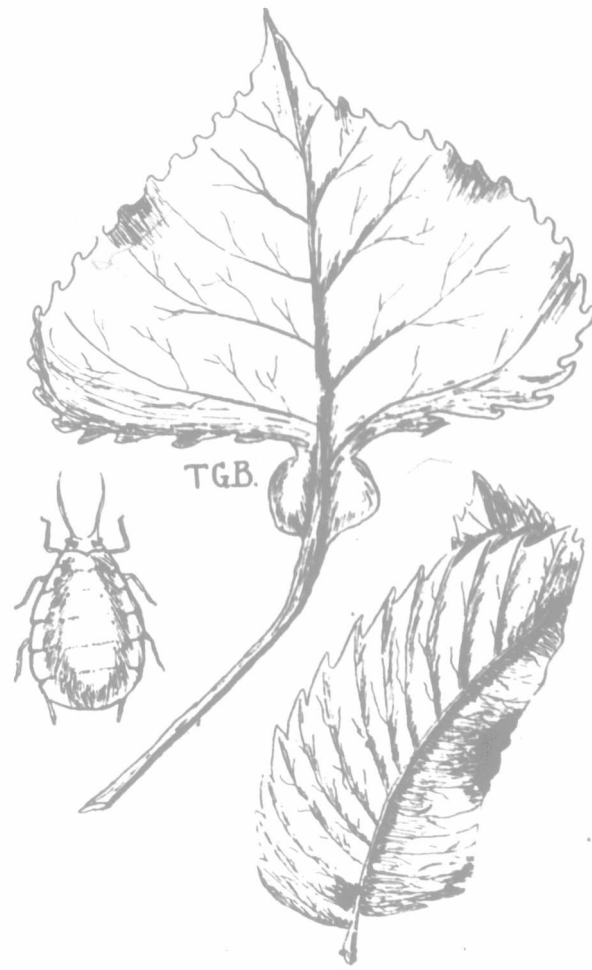
the busy bee every opportunity to work overtime and Cooper Bros. two-ton harvest last year is indisputable evidence that the opportunity is taken advantage of.

THOS. JARROTT.

Horticulture and Forestry

Plant Lice and Gall Lice: Some of the Species that Injure Shade and Forest Trees.

Considerable injury has been wrought in some localities this season by plant lice working on the leaves of the elm, maple, cottonwood, poplar and other trees. In Winnipeg the elm shade trees on the streets have been attacked, by an insect that causes a partial curling of the leaf, forming an enclosure within which the insects lay their eggs and hatch their broods. At this season they have nearly all disappeared. Their life cycle is completed and having laid the eggs to perpetuate their species next year, the brood of 1907 is no more. They have left, however, some very tangible evidence of their existence and some of the weaker trees have been checked in growth or permanently injured by their attacks. This species, or one very similar to it, seems also to infect the maple and poplar. Its ravages on them are, fortunately, however not so



WORK OF THE ELM LEAF LOUSE AND WILLOW GALL INSECT, WITH WINGLESS FORM OF ADULT.

serious as they are on the elm. Another species is at work on the poplar and cottonwood, but it is a gall former, that is to say forms galls, or unnatural growths on the twigs or leaves in which it passes its life and rears its young.

Plant lice are among the lowest forms of insect life. They are so common that a detailed description of them is unnecessary. Nor would such description serve any useful purpose here since they are so minute that the ordinary observer would gather little information concerning the species from a casual examination of the individual. The illustrations here given showing the manner in which they affect injury to their hosts, is a better means of guiding us to an understanding of their habits, their characteristics and their appearance. There are some points however, in respect to these insects that is of general interest, that applies to nearly all species and which is interesting enough to be taken up here. The first of these is their manner of reproduction. The rapidity with which these creatures multiply and reproduce themselves is simply marvellous. Huxley, the eminent English scientist estimated that ten generations of plant lice from a single ancestor would produce



COOPER BROS. APIARY IN THE MOOSE MOUNTAIN COUNTRY.

a mass of organic matter equivalent to the bulk of 500 million human beings, a mass equal to the whole Chinese population, and later investigators believe that if anything this is an underestimate. Fortunately, however, these insects have too many natural enemies to multiply with such stupendous rapidity as this. There are a number of predaceous and parasitic insects that prey upon or infest them at every stage of their existence, and are the means which nature provides of holding them in check. One of the most common of the predaceous forms is the lady beetles, an insect that feeds upon plant lice and such forms continually, and from these habits makes itself one of the most beneficial forms known.

The method of reproduction by which plant lice multiply themselves with such rapidity, is a method known to scientists as "parthenogenesis," which means virgin birth. That is to say individuals are born alive from a single female, and these in turn go on generation after generation, producing living young, not from the egg as insects are usually produced, but by actually giving birth to living individuals. This continues in most cases until well into August, when a generation is produced that contains both males and females, that is winged and that reproduces itself through the egg. This is the stage in which the winter is passed. In the spring the return of warmth hatches the egg which has been laid on some convenient twig, and the sexless "stem-mother" which it produces, brings forth her sexless generations of living lice, and these in their turn bring forth theirs in inestimable numbers until the return of fall brings round again the brood of sexed and winged forms by which perpetuation and dispersion of the species is ensured. The winged forms may appear once or twice during the summer but true males are produced but once. The fact too that this last generation has wings provides not only for the dispersal of the pest but for the return to some perennial plant of the summer broods that have been feeding upon grasses and other annual plants.

Another remarkably peculiar thing about insects of these species is the relationship that exists between some kinds of them and ants. Most of the plant lice excrete a honey like substance called "honey dew", which is greatly enjoyed by ants, and these creatures in a surprisingly intelligent way care for the plant lice, drive away their natural enemies carry them bodily to better feeding grounds and when necessity arises they assist in migrations from place to place and actually prepare locations in advance of transportation. To the ants these insects bear about the same relation as the milch cow does to man. In fact they are called "the milch cow of the ant."

The elm leaf louse, illustration of which is given, makes its appearance in July and the first signs of its presence is a slight curling up of the leaf edge. If this little fold is opened up a number of very small, wingless, greenish blue mites will be seen within. This is one of the sexless generations, it has been produced by a winged "stem-mother," and each individual of the brood is now producing sexless generations of its own. It is not an unusual thing to find from one to a dozen lady beetles within this enclosure too, as busily engaged in devouring the lice as the lice are in reproducing themselves. About the middle of August, males and winged females are produced. The males may or may not be winged, but the females are always thus provided. They emerge from the leaf and are

ready to migrate to other locations where the eggs are deposited and provision made for perpetuating the species over winter. This done the insect dies. There are two seasons at which this pest can be attacked and destroyed. It may be sprayed with some remedy that kills by contact as whale oil soap or Kerosene Emulsion during the summer season, or the trees may be treated with washes or solutions similar to the two named, in winter to destroy the eggs. Summer treatment is the most effective and kerosene the best remedy. Insects of the same species as this attack nearly all deciduous trees, maple, oak, cottonwood, poplar and willow. The treatment in all cases is the same.

The other figure in the illustration represents a very common pest of the poplar. This is a typical gall former. It differs from the species just described in that it causes the plant to throw out unnatural growths or galls, in which the lice develop and reproduce themselves. These galls form right at the base of the leaf, are found most abundantly on poplar, are generally spherical in shape and about half an inch in diameter. They are so common this year on the poplar that a casual observer might readily mistake them for a natural growth, nearly every leaf is infected. If one of them is cut open any time after mid-summer it will be found full of plant lice, the progeny of a single specimen that laid an egg here earlier in the season and with the egg excreted a minute drop of poison which irritated the plant and produced the gall. There are hardly any of these gall making species abundant enough to be seriously troublesome. Should they become so, however, the remedies advised will be found as effective as any.

POULTRY

The Fattening of Farm Chickens.

"Advanced Methods of Poultry Farming," by A. W. Foley, Poultry Superintendent in Alberta, the first poultry bulletin published by the Albertan Government, came to hand some little time ago. It takes up in a general way and with much detail the whole business of poultry farming. Attention is given to every phase of the industry from the building of a poultry house and establishing a flock to the fattening of the chickens and the marketing of them or their products at home or in the British market. The advice given all through is thoroughly practical in its nature, it is given by a practical man and is based largely on work actually done in the chicken business in Alberta. As such it appeals particularly to poultry men of the west. It is the first real authority, we have of our own, on the industry. The following is taken from this bulletin under the head, "Fattening":

"A visit to almost any store handling poultry will demonstrate that a large amount of the dressed poultry offered for sale is poorly fleshed and equally poorly dressed. This is not because the demand for poultry is small but through ignorance of the best method of fattening and dressing birds. The fact is that in but few cases have the birds received any particular attention in the way of preparing them for market. Of recent years it has been demonstrated that poultry should be specially fattened in much the same way as beef, mutton or pork, in order to produce the best results. It is just as reasonable to confine poultry when being fattened as the larger animals. The simplest method of doing this is by the crate feeding system outlined below, but many a farmer can obtain improved results if the birds intended for sale were only confined in a suitable shed with a clean floor, good ventilation, and such foods as would be fed were the birds being fattened in crates. The crate system is much the

better plan, however, and it is advisable to adopt it whenever possible.

The Crate Feeding System.—During the past few years the crate feeding of chickens for market has been introduced from England, and has made substantial progress in Canada, because it has proved to be the most satisfactory means of preparing poultry for market. The work of fattening is readily conducted in the crates. The gain in live weight made by the birds ranges from one to three pounds per chicken during the fattening period.

Crated chickens command an increased price per pound because they supply a much larger percentage of meat than when lean. The flesh is also more tender and palatable because it is produced by the wholesome food that is of necessity fed during the fattening period. The confining of birds in crates also tends to render the muscular tissue less tough, and in properly fattened birds there should be an almost entire absence of such tissue.

Cost of Food and Grain in Weight by Crate Feeding.—To illustrate the gains which can be obtained by crate feeding, the following figures taken from the results obtained at the Dominion Government Breeding Station, Bowmanville, Ontario, are given:

No. of Chickens	Weight of Chickens lbs.	Cost of		Total Cost	No. lbs. Grain	Dressed Weight lbs.	Amt't rec'd at 15c.	Profit over Cost
		Meat	Milk					
36	111	7.77	1.30	9.07	48	146	21.00	12.13
48	164	11.48	1.60	13.08	76	194	29.10	15.17
48	165	11.55	2.10	13.65	80	194	29.10	15.45
48	146	10.22	1.96	12.18	64	174	25.95	13.77
60	195	13.05	2.10	15.15	105	220	33.00	17.85
60	185	12.95	1.70	14.65	83	210	31.50	16.85
72	200	14.00	1.80	15.80	58	205	30.75	14.95
72	166	11.62	3.75	15.37	80	231	34.65	18.03
434	1332	93.24	16.31	109.55	594	1573	235.95	119.06

RECORD OF FATTENING RESULTS.

The birds fattened in this lot were of a desirable type and the results, as will be observed, were exceptionally good showing a profit of over 100 per cent, for three weeks of fattening. Some allowance must be made, however, for killing and dressing as these are not included in the above statement.

As stated elsewhere in this bulletin, the type of bird that is capable of producing the best results in egg production is also the best type of bird to produce flesh in the fattening crate.

In order to have the chickens plump and well fleshed for the market when they are at the most profitable age, they should be placed in the fattening crates when they are between three and four months old. It is not meant by this that the chickens cannot be fattened profitably when they are more than four months old. Suitable market chickens will show gains in the crate at any age, but the most profitable gains are made by birds weighing 3½ lbs. to 4 lbs.

Construction of Fattening Crates.—The fattening crates are 6 feet long, 16 inches wide and 20 inches high, inside measurements. Each crate is divided by two tight wooden partitions into three compartments, and each compartment holds four birds. The frame pieces are two inches wide and ¾ inches thick. This frame, see Fig. 38, is covered with slats placed lengthwise on three sides,—bottom, back and top,—and perpendicular in front. The slats for the bottom are ½ inches wide and ¾ inches thick; the back, top and front slats are the same width but only ¾ of an inch thick. The space between the slats in front are two inches wide to enable the chicken to feed from the trough. The bottom slats are 1½ inches apart, with the exception of the space at the back of the crate, which is 2¼ inches wide. The bottom slats are always placed upon the top of the cross pieces of the frame. This is done to prevent any injury to the chickens' feet should crate be moved and placed on the ground when full of birds. The back slats are placed lengthwise 1½ inches apart, and the top slats are also placed lengthwise 2 inches apart. Two strips should be nailed under the top slats near the ends of each division and hinged to



TOMATOES AND TOMATO VINES AT EDMONTON.

g the past few or market has has made sub- it has proved of preparing ning is readily in live weight three pounds

used price per per percentage so more tender by the whol- ing the fatten- in crates also ss tough, and be an almost

y Crate Feed- 1 be obtained aken from the nment Breed- e given:

119.00

235.95

1573

594

116.89

7.34

93.34

16.31

1332

434

116.89

7.34

93.34

16.31

1332

434

116.89

7.34

93.34

16.31

1332

434

116.89

7.34

93.34

16.31

1332

434

116.89

7.34

93.34

16.31

FIELD NOTES

Twenty-Ninth Canadian National Exhibition.

the frame work. When the slats are sawn above the partitions, doors are formed for putting in birds.

The crates are placed on stands 16 inches from the ground and the droppings from the chickens received on sand or other absorbent material. A light "V" shaped trough 2 1/2 inches inside is placed in front of each crate, and is carried on two brackets nailed to the ends of the crate. The bottom of the trough should be 4 inches above the bottom of the crate and the upper inside edge 2 inches from the crate.

In fattening for the market it is always advisable to use the fattening crate described in this bulletin. If only a small number of chickens are to be fattened packing boxes of suitable dimensions can be adapted for the purpose. The open top of the box should become the bottom of the crate, and one side should be removed for the front. Laths should be nailed up and down the front and lengthwise on the bottom to form the floor. The laths should be placed the same distance apart as recommended in the construction of the regular fattening crate. A board should be loosened in the top of the box to remove the birds, and a feed trough arranged in front.

In warm weather the crate should be placed outdoors in a sheltered place.

In unsettled weather it is advisable to construct a rough board shelter above the crate so as to shed the rain; or the fattening should be carried on inside a shed or barn.

During cold weather the crates should be placed in a warm building. Abundant ventilation is required at all times.

Killing Lice.—Before the birds are put into crates they should be well dusted with sulphur, or any good louse killer, to kill any lice on them. They should be treated again three days before they are killed.

Feather Plucking.—Birds that are fattening in crates sometimes pluck the feathers from one another. This habit is caused by irritation at the roots of the feathers, and results either from over-heated blood or parasites. The remedy is to remove the chickens that do the plucking and feed the others more skim milk, or add animal food and vegetable matter to the fattening ration.

If the trouble is caused by parasites, they will be found in the white powdery matter at the base of the quill. A sulphur and lard ointment should be applied to the affected parts.

Feeding.—It is necessary to feed the birds lightly the first few days they are in crates, not feeding all they will consume. The food should be given twice a day, and after the birds have eaten what they require, the balance should be removed and the troughs turned over. Fresh water should be supplied daily, and grit two or three times a week.

Fattening Rations.—A satisfactory fattening ration is one that is palatable and that will produce a white-colored flesh. Oats, finely ground, or with the coarser hulls sifted out, have proved the best grain for fattening and should form the basis of all the grain mixtures. The most suitable meals for fattening are ground oats, buckwheat, barley and low grade flour.

Satisfactory mixtures of meal:

- (1) Ground Oats (course hulls removed).
- (2) Siftings from rolled oats (no hulling dust should be included).
- (3) Two parts ground oats, two parts ground buckwheat, one part corn.
- (4) Equal parts of ground oats, ground barley and ground buckwheat.
- (5) Two parts of ground barley, two parts of low grade flour and one part of wheat bran.

The meal should be mixed to a thin porridge with sour milk, skim milk, or buttermilk. On the average, 10 pounds of meal require from 12 to 15 pounds of milk.

When sufficient skim milk or buttermilk cannot be obtained for mixing the mash, a quantity of meat meal, blood meal, or beef scraps and raw vegetables should be added to the fattening ration. A good proportion is one part of the meat meal to fifteen of oatmeal.

The birds should remain in the fattening crates for a period not exceeding 24 days. Some birds will fatten more readily than others and should therefore, be removed from the crate and killed as soon as they are ready. During the last week it is well to feed a little beef tallow, shaved into the trough or melted and mixed in the mash. About one pound of tallow to 50 or 60 chickens per day is a fair allowance.

Marking Eggs.

The suggestion is made that poultry raisers or rather all those engaged in the production and sale of eggs, stamp each day's gathering with the date upon which they were laid. The suggestion is a good one. It would tend to add a greater value to fresh eggs and increase confidence in honest producers. In winter a fresh egg that is honestly stamped with its age would bring fifty per cent. more than if the consumer had to take the risk of its age. Stamps are easily procured and the egg producer who is anxious to develop and improve a first-class trade will adopt this as one of his business practices.

Three new buildings costing over \$400,000 are the past year's monument to the enterprise of the Canadian National Exhibition management and the municipal council of the city of Toronto. Last fall on Thanksgiving eve, the grand stand and main building on the exhibition grounds at Toronto went up in smoke. With push that would do credit to any Western city the directorate and the city council got to work, and today there stands on the scene of the conflagration a magnificent quarter-million-dollar grand stand, built of steel, brick and concrete, and provided with 15,000 chairs, also a superb architectural achievement in the form of an agricultural building, representing an outlay of nearly one hundred thousand dollars, and devoted to the housing and display of farm and garden products. It also is of steel, brick and concrete construction, dimensions 254 feet long by 58 wide, with three wings each 58 feet wide, and extending back 156 feet. In the basement is ample temperature, regulated storage for plants and shrubs. The other new structure is the railway exhibits' building, erected by the railway companies for the housing of their annual exhibits.

Toronto's exhibition is a wonder. Year by year it has grown vastly in excellence and popularity, and 1907 simply eclipsed all previous records. Conceived on broad lines, backed by the city of Toronto and its individual moneyed men, and pushed forward with bold and daring enterprise, begotten of civic pride and the stimulation of success, it has now in the eighth year of its majority attained proportions and been evolved to a perfection of organization and management, that fairly beggar superlatives. To these encomiums the attendance testifies. Though continuing for two whole weeks it drew this year day after day, crowds ranging from sixty to a hundred and twenty-five thousand people, and as for the grandstand it is already quite too small. Night after night it was packed long before the performance began and throngs of four, five and six thousand filled the space between the stand and the track rail. The evening attractions were hippodrome and pantomime followed by band music, tattoo and pyrotechnic exhibitions, all of a high order. The midway was relegated to a remote corner of the grounds and was unusually free from objectionable features. The display of manufactured goods was infinite and the process building afforded instructive entertainment for multitudes interested in seeing how the things we daily eat and wear and use are prepared.

But from an agricultural point of view the crownning glory of Toronto Exhibition is the live stock, and the usual high-class aggregation was on hand. In horses the most noteworthy and encouraging fact was the continued improvement in the class for Canadian-bred draft, (the Clydesdale or Shire). The open classes of Clydesdales as well as Hackneys, Thoroughbreds, Standardbreds and Roadsters were well up to the mark. Neither Percherons nor Coach horses were entered at all in the breeding classes. A departure this year was in judging all the horses, breeding classes as well as harness and saddle exhibits, in front of the grand stand. A few classes of every breed being pulled off each day. Formerly, it has been customary to show the breed-classes in a small separate ring where they could be watched by horsemen and others interested without any charge. The old plan is preferred by the horsemen, for under the present system, few farmers see the judging done, as to see at all would necessitate the payment of six admission fees and the spending of every afternoon for a week in the ring. On account of the way in which the judging was spun out it was inconvenient for some of the judges to be present long enough to dispose of their particular breeds, hence some substitution was resorted to. The following men decided the honors in the respective breeds. Thoroughbreds, Dr. J. G. Rutherford, Ottawa, and J. S. Bratton, St. Louis, Mo. Standardbreds and Roadsters, Dr. Rutledge, Lambeth, Ont. Hackneys, W. H. Gibson, Beaconsfield, Que., and J. S. Bratton, Clydesdales, Shires and Canadian Draught's, Capt. T. E. Robson, London, Ont., Alex. Russell, Corville, Ont., Alex. Galbraith, Janesville, Wis., and Prof. Curtis, Ames, Iowa. For the most part the work was well done, though there were cases of course, where the rail talent differed from the dispensations of the ermine wearers. One practice, however, that must not pass unmentioned was the disqualification, after they had been judged, of several horses previously passed by the vets who subsequently threw them out. The prevailing trouble or excuse appeared to be sidebones. This was about the only blot on the administration of the show.

Clydesdale awards.—Stallion 4 years or over, 1, Sir Marcus, Graham & Renfrew, Bedford Park; 2, Right Forward, Graham Bros. Claremont; 3, Adam Bede, Smith and Richardson, Columbus; 4, Baron Bean, Robt. Davies, Toronto; 5, Baron Silloth, Robt. Ness, Homick P. O.

Stallion, 4 years and over, importers excluded—1, Royal Baron, Hodgkinson & Tisdale, Beaverton; 2, Durbar, Orangeville Association; 3, Cairngaan, David Graham, Pickering; 4, Caleph, John Raymer Ringwood.

Stallion 3 years old—1, Buteman, Graham Renfrew; 2, Royal Choice, Graham Bros.; 3, Buchlyvie Laird, Smith & Richards; 4, Kilfillan Chief, Thos. Mercer, Markdale; 5, Vanderbilt, Robt. Ness.

Stallion 2 years old—1, Drawdykes Baron, Graham & Renfrew; 2, Boreland Chief, Graham Bros.; 3, Bullseye, Dalgety Bros., London; Baron Columbus, Smith & Richardson.

Stallion 1 year old—1, Royal Benedict, Robt. Ness; 2, King o' the Barons, Graham Bros.; 3, Gay Sprig, Graham & Renfrew.

Champion geld mare—1, Flora of Ardyne, Robt. Davis; 2, Pearl, Donald Gunn & Son, Beaverton; 3, Lady Macraith, Wm. Edwards, Claremont.

Filly 3 years old—1, Fifeshire Lass, Hodgkinson & Tisdale; 2, Thorncliffe Queen Alexandria, Robt. Davies; 3, Marietta, Robt. Davies.

Filly 2 years old—1, Margherita, Donald Gunn & Son; 2, Crissa Princess, Hodgkinson & Tisdale; 3, Strawberry Bloom, Robt. Ness.

Yearling filly—1, Hilda and, Graham Bros.; 2, Cragie Belle, Hodgkinson & Tisdale; 3, Belle of Dildawn, Robt. Ness.

Brood mare and foal—1, Dunrobin Mabel, Donald Gunn & Son; 2, Lady Lockfergus, Robt. Davies.

HACKNEYS.

Stallion, three years old—1, T. A. Cox, Brantford, Crayke Mikado; 2, A. E. Yeager, Nottingham Squire; 3, Graham & Renfrew Co., Bedford Park (imp.) Cliff Royalist.

Filly, one year old—1, H. J. Spencely, Boxgrove, Her Majesty; 2, T. A. C. x, Brantford; 3, Hodgkinson & Tisdale, Beaverton, Br. Cherry Blossom; 4, W. E. Butler, Ingersoll, Ch. Hollin Helen.

Brood mare, foal of the same breed by her side—1, Graham Bros., Claremont, Ch. Minerva; 2, Hodgkinson & Tisdale, Br. Wild Cherry; 3, H. J. Spencely Boxgrove, bay, Rosalee; 4, Graham Bros., Claremont, Misfire.

Foal of 1907—1, Graham Bros., Claremont, Gondolier; 2, Graham Bros., Toggeny; 3, Graham Bros., Madonna; 4, Hodgkinson & Tisdale, Beaverton, Dictator.

SHORT HORNS.

Bull, three years old and upwards—I. W. G. Pettit & Sons, Freeman, Prime Favorite; 2, J. A. Watt, Salem, Jilt Victor; 3, W. C. Edwards & Co., Rockland, Ont., Bertie's Hero; 4, Peter White, Pembroke, Marigold Sailor.

Bull, two years old and under three—1, A. E. Meadows, Port Hope, Challenge Plate; 2, John Guardhouse & Sons, Highfield, Prince of Archers; 3, John Miller, jun., Ashburn, Lancaster Champion; 4, James Cowan, Seaforth, Golden Emir.

Bull, senior yearlings, calved before January 1, 1906, and under two years—1, W. R. Elliot & Sons, Guelph, Rose Victor; 2, Geo. Amos & Son, Moffat, Bud's Emblem; 3, Hastings Bros., Crosshill, Snowball Hero.

Bull, junior yearlings, calved on or after January 1, 1906—1, Kyle Bros., Ayr, Clipper Chief; 2, J. A. Watt, The Dreamer; 3, W. R. Elliot & Son, Victor of Maple Hill; 4, John Guardhouse & Sons, Prince Victor.

Bull calf, senior, calved before January 1, 1907, and under one year—1, Thomas Redmond, Millbrook, Gallant Sailor; 2, Geo. Amos & Son, Lancaster Victor; 3, Daniel Talbot & Son, Everton, Hillcrest Granger; 4, John Miller, jun., Choice Merchantman; 5, John Fairbairn, Spring Creek Archer; 6, H. Smith, Exeter, Jealous Lord; 7, Daniel Talbot & Son, Pride of Hillcrest.

Bull calf, junior, calved on and after January 1, 1907—1, H. Smith, Baron's Pride; 2, Kyle Bros., Jessie's Chancellor; 3, Kyle Bros., Vice-Chancellor; 4, W. G. Pettit & Son, Tillboursies Favorite; 5, W. R. Elliot & Sons, Golden Star; 6, John Guardhouse & Sons, Scottish Knight.

Bull, senior champion, over two years—1, W. G. Pettit & Son, 2, R. A. E. Meadows.

Bull, junior champion, under two years—1, Kyle Bros., 2, R. W. R. Elliot & Son.

Bull, grand champion—1, W. G. Pettit & Son; 2, R. Kyle Bros.

Cow, three years old and over—1, W. C. Edwards, Pine Grove Clipper; 2, J. A. Watt, Tiny Maud; 3, J. A. Watt, Olga Samford; 4, W. G. Pettit & Sons, Warden Blossom.

Cow, under four years, in milk—1, H. Smith, Golden Lovely.

Heifer, two years old and under three—1, Geo. Amos & Son, Flora 90th; 2, W. C. Edwards, Butterfly Girl; 3, W. G. Pettit & Sons, Rosetta 12th; 4, J. A. Watt, Fanny B. 38th; 5, W. G. Pettit & Sons, Jilt's Lady; 6, John Guardhouse & Son.

Heifer, senior yearling, calved before January 1st, 1906, and under two years—1, Peter White, Pembroke, Mina Lass 14th; 2, W. C. Edwards, Pine Grove Mildred 13th; 3, John Dryden & Son, Brooklin, Golden Bracelet; 4, J. A. Watt, Stamford Queen.

5, Peter White, Gloucester Queen 5th; 6, H. Smith, Village Rose.
 Heifer, junior yearling, calved on or after January 1st, 1906—1, Peter White, Belvedere Lily 9th; 2, John Currie, Eramosa, Ont., Roan Beauty; 3, H. Smith, Beauty Rose; 4, Thos. Redmond, Marigold 44th; 5, Geo. Amos & Son, Lady Mysie; 6, Kyle Bros., Lady of the Valley.

Heifer calf, senior, calved before January 1st, 1907—1, John Dryden & Son, Golden Heroine; 2, J. A. Watt, Salem, Mildred 30th; 3, Peter White, Bedford Bessie; 4, Geo. Amos & Sons, Victoria 75th; 5, W. P. Pettit & Sons, Avenir 13th; 6, Goodfellow Bros.

Female Senior champion—Geo. Amos & Sons, Flora 9th, Reserve, W. C. Edwards, Pine Grove Clipper.

Junior female champion—Peter White, Mina Lass 14th.

Grand female champion—Geo. Amos & Sons.

Graded herd: bell, two years old and over, cow, three years or over; heifer, two years and under three heifer, one year and under two, and heifer under one year—1, W. C. Edwards; 2, J. A. Watt; 3, W. G. Pettit & Sons.

Exhibitor's herd: one bull under two years old, two heifers one year old and under two, and two heifers under one year—1, Peter White; 2, H. Smith; 3, Kyle Bros.; 4, J. A. Watt.

Breeder's herd: one bull under two years, two yearling heifers, and two heifer calves, all bred and owned by exhibitor—1, Jno. Dryden & Son; 2, H. Smith; 3, J. A. Watt; 4, Geo. Amos & Son.

JERSEYS (120 ENTRIES).

Bull, three years and upward—1, Wm. McKenzie, Kirkfield; 2, 3, and 4, R. H. Bull & Son; Brampton.

Bull, two years old—1 and 2, R. H. Bull & Son; 3, David Duncan, Don; 4, E. Wicks & Son, Bedford Park.

Bull, one year old—1, T. Porter, Carlton West; 2, David Duncan; 3, B. H. Bull & Son.

Bull calf, under one year—1 and 2, B. H. Bull & Son; 3, E. Wicks & Son; 4, E. P. Ball, Rock Island, Que.

Bull calf, calved since January 1st, 1907—1, David Duncan; 2, 3, 4, B. H. Bull & Sons.

Bull, senior champion—1, Wm. McKenzie, Pearl of Kirkfield.

Bull, junior Champion—T. Porter, Golden Fox of Dentonia.

Grand champion bull—1, Wm. McKenzie, Pearl of Kirkfield.

Cow, four years old and over—1 and 3, B. H. Bull & Son; 2 and 4, David Duncan.

Cow, three years old—1, B. H. Bull & Son; 2, Wm. McKenzie; 3, David Duncan; 4, E. Wicks & Son.

Cow of any age with two of her progeny—1 and 2, B. H. Bull & Sons.

Heifer, two years old—1, 3, 4, B. H. Bull & Son; 2, David Duncan.

Heifer, one year old—1, David Duncan; 2, 3, 4, B. H. Bull & Son.

Heifer, one year old, out of milk—1, 2, David Duncan; 3, B. H. Bull & Son; 4, T. Porter.

Heifer calf, under one year—1, 2, 4, B. H. Bull & Son; 3, David Duncan.

Heifer calf, calved since January 1st, 1907—1, T. Porter; 2, 3, 4, B. H. Bull.

Four animals, the progeny of one bull, all bred and owned by one exhibitor—1 and 3, David Duncan; 2, B. H. Bull & Son.

Herd, one bull and three heifers under two years old; heifers bred and owned by one exhibitor—1 and 3, David Duncan; 2, B. H. Bull & Son.

Graded herd, one bull any age; two females over three years, one female over two years and under three; one female over one and under two years; one female under one year, owned by exhibitor—1, 2, and 3, B. H. Bull & Sons.

Female senior champion—B. H. Bull & Sons, Sweet Eyes.

Female Junior champion—B. H. Bull & Son, Brampton Henrietta.

Grand Female champion—R. H. Bull & Son.

HOLSTEINS.

Bull, three years old and upwards—1, Logan Bros., Amherst Point, N. S.; 2, A. C. Hallman, Breslau; 3, G. W. Clemons, St. George.

Bull, two years old—1, Logan Bros., N. S.

Bull, one year old—1, Logan Bros., Jacob Clark; 2, G. W. Clemons; 3, J. W. Lee & Son, Simcoe.

Bull calf, under one year—1, C. H. Hallman; 2, Logan Bros.; 3, A. C. Hallman; 4, Logan Bros.; 5, G. W. Clemons, Count Posch de Boer.

Bull calf, calved after January 1, 1907—1, Logan Bros.; 2, Logan Bros.; 3, A. C. Hallman.

Bull, senior champion—Logan Bros.

Bull, junior champion—A. C. Hallman.

Bull, grand champion—Logan Bros.

Cow, four years old and upwards—1, Logan Bros.; 2, Logan Bros.; 3, G. W. Clemons, St. George, 3rd; 4, A. C. Hallman, 2nd; 5, A. C. Hallman.

Cow, three years old—1, G. W. Clemons; 2, A. C. Hallman; 3, J. W. Lee & Sons, 4th, Flower 2nd;

Heifer, two years old—1, G. W. Clemons; 2, L. W. Lee & Sons; 3, Logan Bros.; 4, Logan Bros.; 5, J. W. Lee & Sons.

Heifer, one year old, in milk—1, Logan Bros.; 2, G. W. Clemons.

Heifer, one year old, out of milk—1, Logan Bros.; 2, Logan Bros.; 3, A. C. Hallman; 4, G. W. Clemons; 5, A. C. Hallman.

Heifer calf, under one year—1, Logan Bros.; 2, Logan Bros.; 3, Logan Bros.; 4, Logan Bros.; 5, G. W. Clemons, Julia Arthur 3rd.

Heifer calf, calved after January 1, 1907—1, Logan Bros.; 2, G. W. Clemons; 3, G. W. Clemons; 4, J. W. Lee & Sons.

Four animals, the progeny of one bull, under two years, owned and bred by exhibitors—1, Logan Bros.; 2, A. C. Hallman; 3, G. W. Clemons; 4, Logan Bros.; 5, J. W. Lee & Son.

Herd of one bull and four females over one year old, owned by exhibitor—1, Logan Bros.; 2, G. W. Clemons; 3, A. C. Hallman; 4, J. W. Lee & Sons.

Young herd, consisting of one bull and four females, one year old and under three—1, Logan Bros.; 2, G. W. Clemons; 3, A. C. Hallman.

Female, junior champion—Logan Bros.

Female, grand champion—Logan Bros.

AYRSHIRES (109 ENTRIES).

Bull, three years old and upwards—1, R. R. Ness, Howick, Que.; 2, Wm. Stewart & Sons, Menie, Ont.; 3, P. H. Gouin, Three Rivers, Que.

Bull, two years old—1, Harold M. Morgan, St. Anne de Bellevue, Que.; 2, Alex Hume & Co.; 3, Hector Gordon, Howick, Que.; 4, Harold M. Morgan.

Bull, one year old—1, R. R. Ness; 2, Alex Hume & Co.; 3, Wm. Stewart & Son; 4, P. H. Gouin; 5, Alex Hume & Co.

Bull calf, under one year—1, Hector Gordon; 2, W. Stewart & Sons; 3, Alex Hume & Co.; 4, P. H. Gouin; 5, Harold M. Morgan.

Bull calf, calved after January 1st, 1907—1, Harold M. Morgan; 2, Wm. Stewart & Sons; 3, Alex Hume & Co.; 4, Wm. Stewart & Sons.

Bull, senior champion—R. R. Ness, Barcheski King's Own.

Bull, junior champion—R. R. Ness, Netherhall Goodtime.

Bull, grand champion—R. R. Ness, Barcheski King's Own.

Cow, four years old and upwards—1, Alex Hume & Co.; 2, R. R. Ness; 3, P. H. Gouin; 4, Wm. Stewart & Sons; 5, P. H. Gouin.

Cow, three years old—1, Alex Hume & Co.; 2, R. R. Ness; 3, P. H. Gouin; 4, R. R. Ness.

Cow, dry in calf—1, Harold M. Morgan; 2, Alex Hume & Co.; 3, Hector Gordon; 4, R. R. Ness.

Heifer, two years old—1, R. R. Ness; 2, Hector Gordon; 3, Wm. Stewart & Sons; 4, Hector Gordon.

Heifer, one year old out of milk—1, R. R. Ness; 2, Harold M. Morgan; 3, Wm. Stewart & Sons; 4, Alex Hume & Co.; 5, Hector Gordon.

Heifer calf, under one year old—1, 2, and 3, R. R. Ness; 4, Harold M. Morgan; 5, Wm. Stewart & Sons.

Heifer calf, calved since January 1st, 1907—1, Alex Hume & Co.; 2, Harold M. Morgan; 3, Wm. Stewart & Sons; 4, Alex Hume & Co.

Female senior champion, two years and over—1, Alex Hume & Co., Eva of Menie.

Female junior champion, under two years—R. R. Ness, Buchan Flora.

Grand female champion—Alex Hume & Co., Eva of Menie.

Graded herd: one bull, any age; two cows, over three years; two-year-old heifer; yearling heifer, and heifer calf—1, R. R. Ness, Howick, Que.

Events of the Week.

CANADIAN.

Agnus Grant of High Bluff, Man., finished cutting his wheat on Sept. 4th.

Five hundred miles of government telephone lines will be completed at Alberta by the end of the year.

The Winnipeg Maroons are Champions in the Northern Copper Country Baseball League, winning seventy games and losing twenty-seven.

F. Webster, an expert from Ohio, believes that Northern Alberta has a large store of natural gas, and that in two years Edmonton will be using it as fuel.

An excursion train from Markdale, Ont., to the Toronto exhibition, jumped the track when going round the horseshoe curve below Orangeville. Seven persons were killed and more than twenty injured.

The extensive barns of the Macdonald Agricultural College at Ste. Anne de Bellevue, P. Q., were struck by lightning and totally destroyed. The loss is about \$35,000 but is covered by insurance.

A new trade agreement between Canada and France allows certain French goods to enter this country at lower rates in return for the granting of the minimum tariff to a number of exclusively Canadian products.

The chief engineer of the Quebec bridge company gave evidence at the inquest that a flaw had been found in the construction. It was thought to be unimportant, but an inspector was sent to New York to discuss the question with the engineers of the company.

BRITISH AND FOREIGN.

Revolution is said to be imminent in the Argentine Republic.

The telegraphers' strike does not seem to be likely to end soon, for the operators in New York and Chicago are seeking other employment.

Louis Glass, vice-president of the Pacific States Telephone company, was sentenced in San Francisco to five years in San Quentin prison, for bribery.

A new law making it possible for a professional thief who has been convicted more than once, to be arrested when found loitering in a public place, or riding on a public vehicle, and who can be sentenced to six months in prison, has gone into effect.

A meeting of the presidents and managers of several elevator companies throughout Minnesota was held at Minneapolis for the purpose of forming a big merger of farmers' elevators. There are two hundred companies in the organization.

The Persian premier, who was also minister of the interior, was assassinated on the last day of August as he was leaving the national council in Teheran. The murder is thought to be the work of a secret society.

The dock laborers of Antwerp, Belgium went on strike and were locked out. In sympathy with them the porters went out and riots have occurred between them and the Englishmen who had been brought over to handle the cargoes. Buildings of great value have been fired by the mob.

Calgary Notes.

The Government Poultry Fattening Station sent 1900 pounds of dressed poultry to Calgary recently which fetched 20 cents per pound. The demand all round for good table poultry seems to be considerably in excess of the supply.

Cattle shipments will soon be in full swing now. Already a few consignments have left Medicine Hat. J. D. McGregor sent 220 head, A. Brown 3 car loads, P. Day 108 head, L. C. Brown 3 car loads. M. D. Mitchell of Medicine Hat will be shipping fifteen car loads to England on Sept. 20th.

The Direction of the Greatest Progress.

The direction in which the surest and most helpful progress lies for the betterment of mankind, is not in politics nor in religious faith, nor in what is usually meant when we say "education"—that is, the formal training of youth in a conventional set of studies. The most rapid and certain progress would be made by the application to daily life of the scientific knowledge that has been accumulated. Some discoveries and inventions do find practical application quickly and easily, such as electric lighting, the telephone, the gas-engine inoculation for diphtheria, and many more. Others, and many very much simpler, remain unapplied or are slow in finding practical use. We are beginning to apply the transmission of power by the rapid development of hitherto unused water-power. But we are yet very slow about it. We are strangely slow, too, in applying electricity to many household uses. In the great field of preserving health-preventive medicine, we sometimes call it—we are criminally slow. The quack and vendor of drugs, even of unknown drugs, do as thriving a business as they ever did. In those tasks that require more compact social and political organization, such as the conquest of tuberculosis, the prevention of diseases conveyed by milk and water, the extermination of mosquitoes and the like, we go forward hesitatingly. The adoption of healthful methods of eating, even the eating of less food in middle life, is a slow progress. Real health-resorts, or sanatoria places where men and women may learn before disease attacks how to live so as to avoid the ailments that wrong system of life will surely bring, ought to be within the reach of everybody and ought to be so conducted as to be free of "fads" and above the suspicion of mere private gain. Along with this conception of right living and of guarding against disease, we ought to develop practitioners of prevention, prescribers of modes of life according to individual needs.

Again, the application to agriculture of the facts that have been demonstrated over and over again, and that are not yet in general use would enable many men, perhaps most men, who now till the soil, to double their yields. Yet the teaching of the farmers who are themselves now tilling the earth has been hardly begun. These facts, for example,

i
t
t
t
i
a
t
it
p
n
t
p
(
s
in
b
t
of
sc
If
th
tic
ta

Ne
Vi
Ne

W
Ki
Gil
Pl
Me
Ma
Ber
Sel

Llo
Rac
Qui
Wa
N.
Duc
Kin
Tisc
Mell

Did:
Olds
Mag
Ray
Carc
Med
Verr
Lacc
Ponc
Wet
Nant
Pincl
Prid
Vikir
St. A

Oct
3th,
1
season
unfav
jumpe
report
that t
fering
qualit
for Al
local
all fut
ing v
unexp
for the
weathe
tinent
the gr
came
belt w
values
the ad
the clk
with n
than w
tricts i
caused
as they

have been proved time and again: By the expenditure of one per cent. more of \$101 where \$100 is now spent—the dairyman who has common cows could get a breed of cows that would yield from 10 per cent. to 25 per cent. more milk or butter. The same will hold good of wheat—common wheat as against wheat of a good variety. The labor is the same in each case.

Most of these tasks require community of action. They require a degree of co-operation that we have not developed yet. A sufficiently compact organization and co-operation of society would enable us to eliminate an enormous number of economic wastes that we endure only by reason of habit.

It will become one of the evidences of public spirit in men and in bodies of men that they turn their attention to such tasks. The Merchants' Association of New York had not the slightest idea, when it was organized, that it would ever consider it a part of its business to set about the possible extermination of house flies; and yet it would be hard to find a greater public service that it could do.

We have hitherto left comprehensive plans for the practical betterment of groups or communities of people either to the commercial interests of inventors (a perfectly good method as far as it goes) or to the impractical and badly managed experiments of the builders of Utopias or of "colonies," who have burdened the real work of betterment with a lot of theories and doctrines. There is an indefinite field of work in furthering the practical application of scientific knowledge for all sorts of organizations. If a great association of merchants in New York think it worth their while to attack flies, any practical organization of men or women may find similar tasks near at hand.—World's Work.

Things to Remember.

- Nelson Fair..... September 13-18
Victoria Exhibition..... September 24-28
New West Minster Exhibition. October 1, 2, 3, 4 and 5

MANITOBA FAIRS.

- Woodlands..... September 27
Kildonan..... September 25 and 26
Gilbert Plains..... October 1
Plumas..... October 2
Meadow Lea..... October 3
Macgregor..... October 4
Beausejour..... October 4 and 5
Selkirk..... October 9 and 10

SASKATCHEWAN FAIRS.

- Lloydminster..... September 19 and 20
Radisson..... September 24
Quill Lake..... September 26
Watson..... September 27
N. Battleford..... October 1 and 2
Duck Lake..... October 4
Kinistino..... October 8
Tisdale..... October 10
Melfort..... October 15 and 16

ALBERTA FAIRS.

- Didsbury..... September 13
Olds..... September 16 and 17
Magrath..... September 19 and 20
Raymond..... September 24 and 25
Cardston..... September 26 and 27
Medicine Hat..... October 1 and 2
Vermillion..... October 1 and 2
Lacrosse..... October 3 and 4
Vegreville..... October 3 and 4
Ponoka..... October 7 and 8
Wetaskiwin..... October 9 and 10
Nanton..... October 15
Pincher Creek..... October 16
Priddis..... October 18
Viking..... October 7 and 8
St. Albert..... October 8 and 9

MARKETS

October wheat reached the dollar mark on Sept. 3th, the highest point touched by this option this season. The advance came on the strength of unfavorable European reports. Wheat in Berlin jumped ten cents in less than two days. It was reported that stocks in that country were exhausted, that the continued unfavorable weather was interfering seriously with harvesting and injuring the quality of the crop as well. The demand abroad for American wheat became more active and the local market established new high price records in all futures, this too in the face of a continually increasing visible world's supply. The advance came unexpectedly. Wheat in every market in America for the past month has slumped or soared as the weather in the Northwestern portion of the continent was reported favorable to or likely to injure the growing crop. This time, however, the jump came when weather conditions all over the wheat belt were unusually propitious, but as the high values reached were largely speculative in character, the advance could not be maintained. Towards the close of the week there was a general desire among the larger operators to sell, and this coupled with reports that indicated a much greater yield than was anticipated a fortnight ago in many districts in Saskatchewan, Manitoba, and the Dakotas, caused prices to drop two or three cents as rapidly as they had advanced.

Export demand for western wheat shows some improvement but there is upwards of seven millions of old wheat to go out before navigation closes, and an average crop in addition is now safely in sight. The supply of old wheat seems to be holding out well, deliveries for the week averaging around forty cars per day, but shipments from Canadian and American ports despite the reported activity in European demand have not been as heavy as they should. Importers do not care to buy very heavily on prices so purely speculative as they have been in America of late. Hence, while a good many of these countries require wheat, or will require it as soon as their own short supplies are exhausted, importing in any volume will be delayed until values here right themselves more on the basis of supply and demand than they are at present. It is not probable that present prices will shade off considerably during the next three weeks. It is doubtful if any October wheat will be delivered at prices now current in this option. At the same time there is little likelihood of values going much below what they were a week ago. The shortage in the world's wheat supply is serious enough to keep prices up above the last few years' average no matter how bountiful the harvest is that is now being gathered in North-western America. Europe is going to import more largely in 1908 than she has for the past few years. Despite all rumors and reports to the contrary, in a good many European States, the wheat crop is far below normal. The feverish anxiety with which Germany snapped up American offerings early in the week goes to show that a serious shortage is anticipated in the supply there. It is just possible too, that the second half of the season of 1907-08, will be more sensational in the matter of prices than this. The play hinges to a large extent on the forthcoming Argentina crop and the available surplus for export from India. The later country has on former occasions made good deficiencies in supplies, but this year reports from there have so far been disappointing. As it stands at present it looks as if nearly all the available wheat of Canada, United States and Russia will be required in the season just opening, so that if Argentina should fail to reap in as great abundance as is now promised, wheat prices about next May will reach a point they haven't touched for some time. But this is largely speculative. With the advance in wheat, oats went up a cent and have maintained the higher level. The general prospects are for steady values for this cereal, though no one can foretell what will happen when the new crop comes in.

Prices are for grain in store at the lakes, wheat, No. 1 Hard, \$1.02, No. 1 Nor. \$1, No. 2 Nor. 98c. No. 3 Nor. 94c. Futures, Oct. 102c, Dec 102c., May 108c.

Oats per bushel, 43c. Futures, Oct. 42c, Dec. 40c., Barley 51 cents.

PRODUCE AND MILLFEED (WHOLESALE).

- Bran, per ton.....\$17.50
Shorts, per ton..... 18 50
Barley and Oat Chop, per ton..... 25 00
Oats, chopped, per ton..... 27 00
Barley, chopped, per ton..... 22 00
HAY, (baled) in car lots, per ton,
Prairie..... 11 00 @ 13 00
Timothy..... 13 00 @ 16 00
BUTTER—
Fancy, fresh made creamery prints..... 26
Creamery, 56 lb. boxes..... 24
Creamery, 14 and 28 lb. boxes..... 24
Dairy prints, extra fancy..... 22 @ 24
Dairy, in tubs..... 19 @ 20
CHEESE, Manitoban at Winnipeg..... 10
EGGS, fresh, f. o. b. Winnipeg subject to candling..... 17 @ 18

LIVE STOCK.

There is a good demand for export cattle and few of quality coming forward. Just at present ocean space is plentiful and cheap and shippers are anxious to take advantage of it, but export stuff seems hard to find just yet. A few train loads went East last week, large consignments being received from the Knight Sugar Company, Raymond, Alta., Eldridge Bros., and J. Peters, Carston. About 350 head of exporters came in on Friday, but the bulk of the stock coming in is poor quality, butchers' old bulls, fleshless cows and so on. The supply of this kind of stock is too heavy, demand has fallen off and offerings unless of pretty good quality go begging. Despite the activity of export demand prices for this class show little advance if any over a week ago. A few lots last week may have been handled at 4 1/2c or 4 3/4c, but the bulk went at around 4c with some less. These prices mean of course freight assumed. Sheep and lambs are scarce, and prices a little firmer. Hogs average around the same as a week ago with prices strong.

Export steers, off cars \$3.75 to \$4.50; butchers' cattle (choice), 1,000 to 1,100 lbs. \$3.50; 900 to 1,000 lbs. \$2.25 to \$3.00; common stuff \$2.00 to \$2.25; bulls and cows \$2.00 to \$3.00. Sheep \$6.00; lambs \$7.00. Bacon hogs 150 to 200 lbs. \$6.75; heavier \$6.25; roughs, stags and old sows \$4.00 to \$4.50.

TORONTO LIVE STOCK MARKET.

At the Junction stock yards this week an average

volume of business was done. The quality of the stock generally was below the average. Ontario pastures have suffered severely this past summer from prolonged droughts, and the scarcity of grass reflects itself too plainly in the live stock offerings. The better animals are quickly purchased at good prices, the sale of others is slow. The tendency is toward higher prices. One load of export steers sold this week at \$5.50. Export steers \$4.75 to \$5.25; bulls for export, \$3.50 to \$4.50; butchers' cattle \$4.25 to \$4.60; medium butchers' \$3.75 to \$4.10; common and scrubs \$2.50 to \$3.50; cows and second quality bulls \$2.00 to \$4.00. Sheep \$4.40; lambs \$5.85. Calves \$5.00 to \$6.00 per cwt. Bacon hogs \$6.25; fats and lights \$6.00.

CHICAGO LIVE STOCK MARKET.

Prime steers \$4.15 to \$7.30; cows and heifers \$1.20 to \$5.35; Texas steers \$3.50 to \$5.00; stockers and feeders \$2.60 to \$5.10; western \$4.20 to \$6.00. Sheep, natives \$3.00 to \$5.45; western \$3.00 to \$3.40; lamb \$5.00 to \$5.75; western \$5.00 to \$7.25. Hog, light \$6.00 to \$6.50; heavy \$5.35 to \$6.10; mixed \$5.60 to \$6.45; average hog price \$5.75.

Contents of this Issue.

ILLUSTRATIONS.

- Four-year-old Clydesdale Mare, Irene, (Imp.)... 1404
Baron's Lassie..... 1405
Junior First Prize Herd of Western Canada..... 1406
The Compliments of Prince Albert Board of Trade..... 1407
Threshing on the Farm of Thos. Nelson, Moffat, Sask..... 1408
Plowing 30 inches Deep..... 1409
Cutting Fall Wheat on Mr. Geo Buchanan's Farm, Pincher Creek, Alta..... 1409
Cooper Bros. Apiary in the Moose Mountain Country..... 1411
Work of the Elm Leaf Louse and Willow Gall Insect..... 1411
Tomatoes and Tomato Vines at Edmonton..... 1412
Five of the First Women Members of Parliament in the World..... 1417
The Leicester Show Flock..... 1422
Shorthorn Cow "Roan Ury"..... 1427
Roan Pansy..... 1428
Stolen Duchess..... 1430

EDITORIAL.

- Knowing How and Doing It..... 1403
Making a Choice..... 1403
Meat Inspection..... 1403
The Season's Compensations..... 1403

HORSE.

- Lameness in Horses..... 1404
Progress in Horse Breeding..... 1404
Registry of Imported Clydesdales..... 1404
The Interchange of Disease..... 1405
Peculiar Births..... 1405

STOCK.

- What the Beef Commission Should Find..... 1405
Heifer vs. Steer Beef..... 1406
A Few Problems in Cattle Breeding..... 1406
Weights Should Be More Just..... 1406
British System of Land Tenure, a Curse..... 1407
Range Cattle Doing Well..... 1407
Hogs in Clover..... 1407

FARM.

- Fall Treatment of Stubble Corn Land..... 1407
The Installment Plan..... 1407
The Restless Country Boy..... 1408
Handling a Traction Engine..... 1408
Lightning and Some Means of Protecting Our Buildings and Live Stock From It..... 1408
Making Cement Walks..... 1409

DAIRY.

- The Great Milker Petered Out..... 1410
Wide-Awake Dairymen..... 1410
Hints on Making Butter for Exhibition..... 1410
Prize Butter Making..... 1410

APIARY.

- Honey Production in the Moose Mountain District..... 1411

HORTICULTURE AND FORESTRY.

- Plant Lice and Gall Lice—Some of the Species That Injure Shade and Forest Trees..... 1411

POULTRY.

- The Fattening of Farm Chickens..... 1412
Marking Eggs..... 1413

FIELD NOTES.

- Twenty-Ninth Canadian National Exhibition... 1413
Calgary Notes..... 1414
The Direction of the Greatest Progress..... 1414
Events of the Week..... 1414
Things to Remember..... 1415
Markets..... 1415
Home Journal..... 1416
Gossip..... 1422
Questions and Answers..... 1425

END OF REEL