

Farmer's Advocate and Home Journal

WESTERN CANADA'S AGRICULTURAL WEEKLY

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Vol. XLVI

WINNIPEG, CANADA, FEBRUARY 2, 1910

No. 906



At your service "Sir-Anywhere"



YOU must analyze the parts of our No. 1317 Telephone Set to fully appreciate its superiority. For example, a farm phone demands an extra loud gong—you're liable to be quite a piece away when it rings and it's of little use unless you always hear it. The gong we use is made of brass—a big one—and produces fully 50% more noise than any other gong for farm use. The gong posts are mounted directly on the ringer frame so that even the warping of the instrument cannot change the adjustment.

THAT'S what a telephone says to every man on whose wall it hangs. It's a good servant—is a telephone—a mighty good servant and always ready and waiting for you the moment you want it. And not only is it there for business, but it stands for pleasure as well. Think what a convenience, —what a deal of comfort—it would be for you in the long, lonesome winter evenings, when the snow is piled mountain-high in every path and road. Or suppose you needed a doctor on one of those evenings—just suppose. Well, if you have a telephone—but you know the story. There's only one way for a story like that to end if your telephone's a good instrument—if it does not get out of order—if it doesn't fail you at the critical moment—in short, if it's a "Northern Electric." You save a trip to town—a long wait—a never-ending journey back—and—perhaps—a life. Who knows!

No. 1317 is equipped with our new No. 48-A generator—a generator whose efficiency is greater, and which will ring a greater number of telephones on a longer line than any generator on the market. Thousands of these generators are operating on lines more than 30 miles long with as many as 40 telephones on the same line. Indeed, in one case, on a line approximately 75 miles long, there are 75 sets. While this is, of course, really too great a load, it is of interest as indicating the wonderful strength of this generator. Consider this

Our Newly Designed No. 1317 Type Telephone Set

is also equipped with our new type No. 38 ringer—a very sensitive and efficient ringer operating with only one-third to one-fourth the current required for other ringers in use on farm phones. The cabinet, or wooden part of this telephone is, the very finest quality and finish of quartered-sawed oak—in point of mere appearance this instrument is an ornament to any wall. Of course this means nothing, unless the service it gives is of the very best; but, consistent with satisfactory service and good appearance is always desirable.



And Some Of Its Principal Exclusive Features

such as the fact that the armature is normally short circuited so as to give it complete protection against damage by lightning. The act of turning the crank, automatically connects the generator to the line—and this circuit is again broken as soon as the crank is released. All magnets are made of a special steel so as to insure their retaining their strength indefinitely. Remember this is a five bar generator and fully fifteen percent more efficient than any other generator on the market—specially adapted for use on long, heavily loaded rural lines.

Write for Our Free Book

The whole story of rural telephones is yours or the asking. Simply tell us that you want it

Ask us to send you Bulletin No. 1416, and let it tell you not only all about our telephones for farm use, but also of the steps it is necessary to take in the formation of a rural phone company. This book tells how simple it is—how very little money is required and places you in a position where you can go right ahead yourself in your own community

and organize among your own neighbors. After you get the book, if there is other information you want, all you have to do is to ask for it—tell us what you want, and we will supply you with every detail. Why should you not be the man to promote a telephone company in your own neighborhood? Write us today—remember, the story is yours for the asking



THE NORTHERN ELECTRIC AND MANUFACTURING CO. LIMITED

Manufacturers and suppliers of all apparatus and equipment used in the construction, operation and maintenance of Telephone and Power Plants. Address your nearest office.

MONTREAL
Cor. Notre Dame and Guy Sts.

TORONTO
60 Front St. W.

REGINA
CALGARY

VANCOUVER
918 Pender St. W.

WINNIPEG
399 Henry Ave.



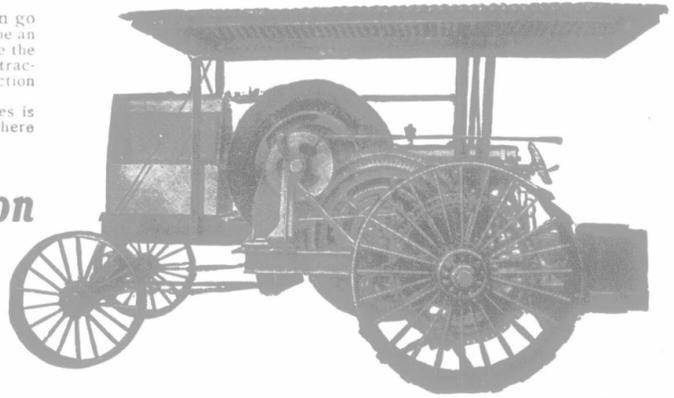
International Gasoline Tractors

AND QUICK ACTION

READINESS for work is just one advantage which International gasoline tractors have over steam tractors. There are plenty of others, but readiness for work is worth thinking about. You don't have to wait to get up steam. There's no time wasted in building the fire. There's no coal or wood or water to haul and no need of a tending wagon. It's a "touch-and-go" matter with the International gasoline tractor. It is ready whenever you are; and when you shut off the power you shut off all fuel consumption that same instant.

The International gasoline tractor is adapted for all work. It can go anywhere and do anything that the steam tractor can. You don't need to be an engineer to run it. You don't need a fireman. It is worth something not to have the flying sparks around. It's light weight, compared with the corresponding steam tractor, is a big point when you consider that you must frequently take your traction engine over insecure bridges and rotten culverts.

That the International gasoline tractor is well adapted to all farm uses is shown by the outcome of the agricultural motor contest at Winnipeg last July, where steam and gasoline tractors were in competition.



The Gasoline Tractor That Won the Winnipeg Gold Medals

- GOLD MEDAL IN CLASS A
- GOLD MEDAL IN CLASS B
- GOLD MEDAL IN SWEEPSTAKES

The traction engine is to play too important a part in the agricultural development of Canada for you to make a mistake in your purchase. You are invited to look into the merits of International tractors. The International local agent will be glad to furnish you with catalogue and particulars. If none in your town, write to the nearest branch house.

Western Canadian Branch Houses.—Brandon, Calgary, Edmonton, Regina, Saskatoon, Winnipeg, Yorkton

International Harvester Company of America
(Incorporated)
Chicago, U. S. A.

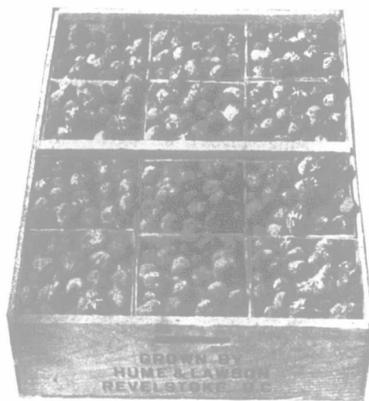
Look for the I. H. C. Trade-Mark. It is a Seal of Excellence and a Guarantee of Quality



In a grand climate within four miles of the city of Revelstoke, B. C., a beautiful 160 acres of land for sale containing 1,800 fruit trees, made up of apple, pear, plum and cherries. The cut gives you a view of the place



There is three-quarters of an acre of strawberries from which the yield of the past season was \$550.

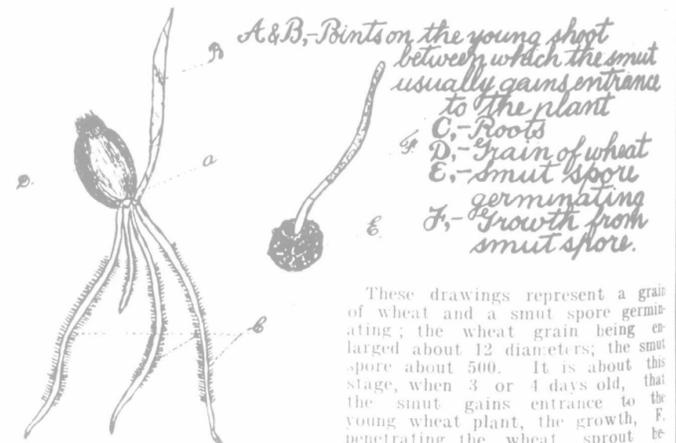


**PROFIT
NET
PER ACRE
\$400.00**

This shows a crate of them.
This is for sale at \$125 per acre, which is a bargain to anyone wanting a fruit farm which produces more to the acre than 10 acres will in grain. Other lands on Arrow Lakes good for fruit.
REVELSTOKE GENERAL AGENCIES Ltd.
REVELSTOKE, B.C.

SMUT

and its attack upon grain



These drawings represent a grain of wheat and a smut spore germinating; the wheat grain being enlarged about 12 diameters; the smut spore about 500. It is about this stage, when 3 or 4 days old, that the smut gains entrance to the young wheat plant, the growth, F, penetrating the wheat sprout between A and B. After it enters the wheat plant the smut plant depends no longer on the spore for nourishment, but feeds entirely on the wheat plant. The next drawing will show how the smut grows in the wheat stem.

Formaldehyde KILLS the Smut Spore

WATCH FOR THE NEXT DRAWINGS
PAMPHLET REGARDING SMUT MAILED FREE ON REQUEST TO

The Standard Chemical Co.
of Toronto, Limited

Box 151, Winnipeg

Manufacturers

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WESTERN EXCURSIONS

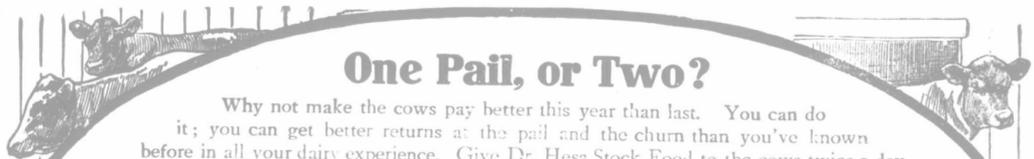
Single Fare
Plus \$2.00 for the Round Trip

From all stations in Ontario, Port Arthur and West, Manitoba, Saskatchewan and Alberta, to

VANCOUVER VICTORIA and WESTMINSTER

Also to OKANAGAN VALLEY and KOOTENAY POINTS

Tickets on sale December 16, 17, 18, 1909; January 21, 22, 23 and 24; February 15, 16, 17, 1910; good to return within three months.

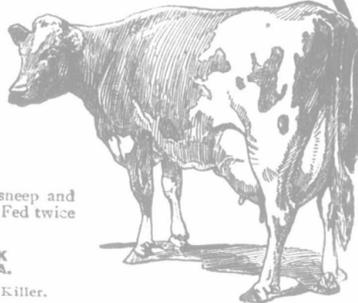


One Pail, or Two?

Why not make the cows pay better this year than last. You can do it; you can get better returns at the pail and the churn than you've known before in all your dairy experience. Give Dr. Hess Stock Food to the cows twice a day in their grain. No need to increase grain or fodder—it's simply a matter of making the grain and fodder you do give *digest more perfectly*, and of turning a larger per cent of it into rich, foamy milk.

DR. HESS STOCK FOOD

will do this—*is* doing it wherever given, because it makes grain, hay, roughage—whatever the cow eats—at once available to pass into the blood as the basis of a larger milk secretion. This attention to *animal digestion*, rather than to quantity of ration, is known among stock raisers as "THE DR. HESS IDEA" and is practical for all farm animals. Horses work better, steers fat quicker, and sneep and hogs show greater development when they receive Dr. Hess Stock Food Daily. Fed twice a day in small doses. Sold on a written guarantee.



100 lbs. \$7.00; 25 lb. pail \$2.00. Smaller quantities at a slight advance. Duty paid. DR. HESS & CLARK, Ashland, Ohio, U.S.A.

Also manufacturers of Dr. Hess Poultry Pan-a-ce-a and Instant Louse Killer.

Free from the 1st to the 10th of each month—Dr. Hess (M. D., D. V. S.) will prescribe for your ailing animals. You can have his 96-page Veterinary Book free any time. Send 2c stamp and mention this paper.

DR. HESS POULTRY PAN-A-CE-A

must not be confounded with so-called "poultry foods." It is not a food—its sole reason for being is that *all fowls need a digestive tonic* so that what they eat will make the most in eggs and flesh. Dr. Hess Poultry Pan-a-ce-a *strengthens the digestive organs* of the laying hen and growing chick, and thus there is *less food waste and more production and growth*. It also cures Caper, Roup, Cholera, etc. A penny's worth feeds 50 fowls one day. Sold on a written guarantee.

1 1/2 lbs. 25c.; 5 lbs. 55c.; 12 lbs. \$1.75; 25 lb. pail \$3.50. Duty paid.

Send 2c for Dr. Hess 48-page Poultry Book, free.

INSTANT LOUSE KILLER KILLS LICE

SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS

ANY person who is sole head of a family or any male over eighteen years old, may homestead a quarter-section of available land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-agency for the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties.—Six months' residence upon, and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts a homesteader in good standing may pre-empt a quarter-section along side of his homestead. Price \$3.00 per acre. Duties.—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may take a purchased homestead in certain districts. Price \$3.00 per acre. Duties.—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

W. W. CORY,

Deputy of the Minister of the Interior. N. B.—Unauthorized publication of this advertisement will not be paid for.

HUDSON'S BAY COMPANY

LEASING OF LANDS

The company is prepared to lease for hay and grazing purposes all reserved quarters or half sections. For particulars apply the Land Department, Hudson's Bay Company, Winnipeg.



MOVING PICTURES OF DAN PATCH 1:55

ABSOLUTELY FREE POSTAGE PAID

If you are a Farmer, Stockman or Poultry Raiser and correctly answer, in your postal card or letter reply, the specified questions.

THIS IS THE LATEST SENSATION AND GREATEST TRIUMPH IN THE GREAT MOVING PICTURE ART.

It is a *New Invention* that you can carry in your pocket and show your friends instantly, day or night, either once or a hundred times, and without a machine, curtain or light. It is the first successful moving picture ever taken of a World Champion Horse in his wonderful burst of speed. The original film contains

2400 INSTANTANEOUS PICTURES OF DAN PATCH

and every picture shows the King of all Horse Creation as plainly as if you stood on the track and actually saw Dan Patch 1:55 in one of his thrilling speed exhibitions for a full mile, 2400 distinct moving pictures taken of Dan in one minute and fifty-five seconds means twenty-one pictures taken every second all of the way around the entire mile track from the back seat of a high power automobile. You can see Dan shake his head to let his driver know that he is ready for a supreme effort and then you can watch every movement of his legs as he flies through the air with his tremendous stride of 29 feet. You can see his thrilling finish as he strains every nerve to reach the wire, you can see his driver dismount and look at his watch while thousands of people crowd around, you can see his caretaker force his way through the crowd and throw a beautiful woolen blanket over Dan to prevent his catching cold and then you can follow him up the track before the madly cheering multitudes. As a study of horse motion it is better than the actual speed mile because you can see Dan right before you for every foot of the entire mile. When first shown to the public this marvellous picture caused people to stand up all over the theatre calling "Come on Dan"—"Come on Dan."

This remarkable moving picture is the most realistic and the most thrilling ever presented to the public.

We have taken a part of these 2400 wonderful and sensational pictures and made them into a *Newly Invented Moving Picture* that you can carry in your pocket and show to your friends at any time, day or night. It does not need a machine, it does not need a curtain and it does not need a light. It is already to show instantly either once or a hundred times and creates a sensation wherever shown.

THIS MOVING PICTURE WILL BE MAILED TO YOU ABSOLUTELY FREE, WITH POSTAGE PREPAID, IF YOU ARE A FARMER, STOCKMAN OR POULTRY RAISER, AND CORRECTLY ANSWER THE THREE QUESTIONS.

YOU MUST ANSWER THESE 3 QUESTIONS IF YOU WANT THE MOVING PICTURES FREE

1st. In what paper did you see my Moving Picture Offer? 2nd. How many head each of Horses, Cattle, Sheep, Hogs and Poultry do you own? 3rd. How many acres of land do you own or how many acres of land do you rent?

I will not mail this wonderful moving picture of Dan Patch 1:55 free unless you are a Farmer, Stockowner or Poultry Raiser and unless you correctly and honestly answer the three questions.

IF YOU ARE NOT A STOCKOWNER AND WANT THE MOVING PICTURES SEND ME 25 CENTS. In silver or stamps to pay postage, etc., on Moving Pictures. I will mail this wonderful Moving Picture of Dan Patch 1:55, the fastest harness horse the world has ever seen—to you if you send me Twenty-five Cents in silver or stamps even if you do not own any stock or land. It costs about \$2700.00 cash to have one of the original pictures taken and reproduced. Write me to-day so that you will be sure to secure one before my supply is exhausted.

Address **E. B. SAVAGE, Proprietor of**

INTERNATIONAL STOCK FOOD CO., TORONTO, CAN.

Largest Stock Food Factories in the Entire World
Cash Capital Paid in \$2,000,000

48

British Columbia NELSON The Capital of KOOTENAY

The centre of the Fruit Growing, Mining and Lumbering Interests of Southern British Columbia

Beautiful Scenery, Mild and Equable Climate, Excellent Boating, Fishing and Shooting, Good Hotels and Schools. Excellent Opportunities for Investors of Capital and Home-seekers.

In Competition with the World Kootenay Fruit has obtained First Prizes

Write to Publicity Bureau, Board of Trade, P. O. Box 1078, Nelson, B. C. Canada

THERE'S NOT A FLAW

In a Pail or Tub made of

EDDY'S FIBREWARE

Each one is a Solid, Hardened, Lasting Mass without a Hoop or Seam. Positively Persist in getting EDDY'S

Always Everywhere in Canada Ask for EDDY'S MATCHES

New Amberol Records by Slezak



Leo Slezak, the great tenor, now sings for you in the Edison Phonograph the same famous arias from the Grand Operas that the New York audiences pay \$5.00 a seat to hear. Just how great a singer Slezak is, is told in the following remark, quoted from the New York World the morning after a recent appearance of Slezak at the Metropolitan Opera House: "Caruso now has a rival."

Slezak has made ten records for the Edison, comprising the principal tenor songs from the more prominent roles of his repertoire—so that, while the New York opera goer pays \$5.00 a seat to hear Slezak in one opera, with the Edison Phonograph and Amberol Records you get Slezak at his best in his ten best roles, including Otello, Lohengrin, Tannhauser, Rhadames in Aida and Rodolfo in La Boheme.

Only on Amberol Records can you get a full length rendering of these great arias—and only on the Edison Phonograph do you get Amberol Records. Hear these great Slezak Records at any Edison dealer's today.

Edison Phonographs \$16.50 to \$240.00 Edison Amberol Records (play twice as long) \$1.50
Edison Standard Records40 Edison Grand Opera Records85 and 1.25

There are Edison dealers everywhere. Go to the nearest and hear the Edison Phonograph play both Edison Standard and Amberol Records. Get complete catalogs from your dealer or from us

National Phonograph Co., 100 Lakeside Avenue, Orange, N. J., U. S. A.

WALL PLASTER

THE EMPIRE BRANDS
The most reliable wall plaster on the market.
Manufactured only by
MANITOBA GYPSUM CO., Limited
WINNIPEG, MAN.



Are yours, Mr. Reader? Sometimes your whole fortune is stored in those buildings. Fire and Lightning are no respecters of persons.

"Galt" Galvanized Steel Roofing and Siding are the best Fire Insurance Policy ever issued. A prevention is better than a cure—don't forget that.

The new "Galt" Shingle with its patented Gale-proof Closed-end, side-lock and continuous interlocking and overlapping bottom lock, absolutely defies wind, rain or snow to penetrate or injure it.

Covered nailing flanges at both top and sides insure a tenacious grip of the sheathing which no gale can loosen.

The handsome Gothic Tile pattern warrants their use on the best buildings.

"Galt" Corrugated Steel Sheets are the best made. Straight, true, close-fitting corrugations make a weather-tight roof—fire and lightning proof at the cost of a wood roof.

All "Galt" Galvanized products are made from the Best British Galvanized Steel Sheets which will last a lifetime.

Don't accept inferior coats—the "Galt" kind cost no more than the others.

Our free Catalog "B-2" tells about these goods.

THIS IS THE SHEET METAL AGE

THE GALT ART METAL CO., LIMITED, GALT, ONT.
Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.
"Galt" Shingles

ROBIN HOOD FLOUR IS DIFFERENT

IMPRESS UPON YOUR MIND THESE TWO SPECIAL FACTS

Robin Hood Flour must satisfy you in two fair trials or you can have your money back—it is the guaranteed flour.

Robin Hood Flour absorbs more moisture than other flours—therefore add more water when you use it and get a larger, whiter loaf.

Saskatchewan Flour Mills Co.
Lim. ted
MOOSE JAW, SASK.

The Berlin Footfelt Shoe For 41 years the leader

Famed the country over for style, quality and comfort. Over 250 different styles in Shoes and Slippers.

FOR SALE BY ALL DEALERS.
More of them sold than all other Felts combined.
Manufactured by The Berlin Felt Boot Co. Limited, Berlin, Ontario.

The Merchants' Bank OF CANADA

ESTABLISHED 1864

Paid up Capital, \$6,000,000 Total Deposits (Nov. 30) \$49,471,894
Reserve and Undivided Profits, \$4,602,157 Total Assets (Nov. 30) \$66,800,181

BRANCHES IN WESTERN CANADA

MANITOBA	Brandon Carberry Glasstone Griswold Manitowish Morris Nepawa	Botha (Sub.) Calgary Camrose Carstairs Caston Dassland Edmonton Edson Killam Lacombe Leduc Lethbridge Wolf Creek (Edson)	Okotoks Oils Red Deer Sealewick Stettler Strome (Sub.) Togo Vegreville Viking (Meighen) Wainwright Warminster
SASKATCHEWAN	Arcola Carleton Place Glenora Moose Creek Nepawa	Melville Oxton Wainwright Weyburn	
ALBERTA	Brooks Calgary Edmonton Lethbridge Medicine Hat Newell Saskatoon Wainwright		
BRITISH COLUMBIA		Vancouver Sidney Victoria Nanaimo New Westminster	

SAVINGS DEPARTMENT AT ALL BRANCHES
Special attention to the business of Farmers and New Settlers

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The letter H. Bradshaw every man in the future man should when he sow manner as num labor. is an inexhaustible suitable for been exploded in time depletion. This being Bradshaw's satisfactory soil by judicious return of plant to a worn-out frequent summer yields for a the virgin crop maximum crop to return the within a very first cropped. this point in a Furthermore prairie provinces of pr as a serious n be eradicated and intelligent not adopt m these pests from Mr. Bradshaw's consideration. ly was a weedy districts and enable him to

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Vol. XLVI.

Winnipeg, Canada, February 2, 1910

No. 906

FARMER'S ADVOCATE AND HOME JOURNAL

ESTABLISHED 1866

Canada's Foremost Agricultural Journal
Published Every Wednesday.

SUBSCRIPTION PRICE

Canada and Great Britain, per annum, in advance \$1.50
(if in arrears) .. 2.00
United States and Foreign countries, in advance . 2.50
Date on label shows time subscription expires.

In accordance with the law, the FARMER'S ADVOCATE is sent to all subscribers until an explicit order is received for its discontinuance, accompanied by payment of all arrears.

British Agency, W. W. Chapman, Mowbray House,
Norfolk St., London W. C., England.

Specimen copies mailed free. Agents wanted.
Address all communications to the firm, not to any individual.

FARMER'S ADVOCATE

OF WINNIPEG, LIMITED,

14-16 PRINCESS ST., WINNIPEG, MAN.

EDITORIAL

Husbanding vs. Restoring

The letter in this issue written by Geo. H. Bradshaw should be studied carefully by every man in Western Canada who is interested in the future of farming on the prairies. No man should consider that he is doing his duty when he sows seed and reaps a harvest in such manner as gives an annual crop with minimum labor. The old claim that prairie soil is an inexhaustible storehouse of plant food suitable for cereal production has long since been exploded. Our soil is rich, but a continual drain without returning anything will in time deplete the richest soil.

This being granted why not act on Mr. Bradshaw's suggestion? It is much more satisfactory to husband the resources of the soil by judicious cropping and reasonable return of plant food than to restore fertility to a worn-out soil. Thorough cultivation and frequent summer fallowing will ensure good yields for a number of years—depending on the virgin condition—but to maintain the maximum crop producing power it is necessary to return the important elements and humus within a very few years from the time it is first cropped. Experience has demonstrated this point in all agricultural lands.

Furthermore the newer districts of the prairie provinces should profit by the experiences of pioneers. Weeds are recognized as a serious menace to crops. They cannot be eradicated except by persistent, expensive and intelligent cultural methods. Then why not adopt measures designed to prevent these pests from getting a foothold?

Mr. Bradshaw's letter is worthy of serious consideration. His operations on what formerly was a weedy farm in one of Manitoba's oldest districts and his observations during 1909 enable him to speak with authority.

The Home Beautiful

The thought of spring should engender in every farmer's heart the desire to do something that will make his home surroundings more attractive. The chief essentials are trees and shrubs, flowers and vegetables. No longer does the intelligent westerner believe that climatic conditions will not permit the growing of a reasonable variety of horticultural products.

In order to guard against disappointment, however, it is well to exercise good judgment in the purchase of ornamental and fruit trees and bushes. Southern growers who establish a local agency, as a rule, supply stock that is worthless. It seldom survives one winter. Nurserymen who are established in the north have made such selection that the general rule is for a very high percentage of stock to give entire satisfaction.

Of course, methods of planting frequently result in the loss of good stock. It is essential that the soil be thoroughly prepared, and that reasonable care be taken in the setting out as well as in attention until the roots have developed sufficiently to feed the part above ground and produce increase in stem and leaf.

The effort is well worth while. The net result is an improvement in the home. When a well kept vegetable and small fruit garden accompanies trees and shrubs the farm home is made one that city folk envy.

Works, Not Prophecy, Required

Pat Burns, meat packer, Calgary, in an unpublished interview, is said to have voiced the prophecy that Manitoba in a few years will be buying much of her beef in Ontario, and that the West ere long will be a "has been," so far as beef production is concerned. Sydney Fisher, minister of agriculture, Ottawa, in a speech in that city sketched for his audience a West that in a few years will be producing a billion bushels of wheat a year, one and one-half times as much as the United States produced last year. Both probably may be prognosticating aright, or probably they may be both wrong. We find it necessary now to buy a good deal of our mutton and lamb in Ontario and Australia; sometimes we bring in hogs from the East when our hog raisers are out of business temporarily, and it may be that we shall find it convenient some time to buy our beef in the same quarter, but we cannot see it that way just yet. Live stock raising is not developing with us as rapidly as grain growing, for the reason that grain growing offers the larger money making possibilities. But it is holding its own. The cattle we exported last season would beef quite an army of grain growers, and probably by the time we are consuming at home all the cattle we produce, some of the disadvantages

under which the cattle raiser now labors will be removed. After all it is not the farmer's fault that live stock raising is not progressing as Mr. Burns and his friends and business competitors would like to see it progress. The average farmer doesn't object to stock raising, but he has serious objections to certain phases of the conditions under which live stock are at present marketed. Probably attention from the right quarter towards the improvement of these would stimulate interest in live stock more quickly than anything else, prophecy not excepted.

Conserving Our Resources

Canada's conservation of national resources commission met last week at Ottawa and spent some time discussing the conservation of forests, mines, fisheries, soil fertility and a few other things. Incidentally they recommended that legislation be enacted, holding railways responsible for forest fires started by locomotives or by careless employees along the railways' right of way. Action in other matters was deferred, the members of the commission deeming it expedient to first gather as much information as possible on the various questions that are due to be dealt with by the commission. Canada's national resources have not all been squandered yet, politicians of both parties to the contrary notwithstanding. We have some good sized belts of timber standing still; we have some rich fishing waters, some mineral lands yet unexploited, and the largest known area of unoccupied agricultural land in the world. But there is need for conserving all of them, our agricultural resources not the least. It is worth this country's while to support generously the efforts of the commission for the conservation of resources. We are starting this work here in good time, not too early, but in good time as compared with the United States, and we need to stay with it. Our resources are sufficient for all time if we look after them, or they may be squandered in a quarter of a century if we do not.

Showing it to the Packers

The United Farmers of Alberta and the government of the province seem to have reached an understanding in regard to the establishment by the government of pork packing plants. For some time this question has been hanging fire. The United Farmers' Association, as representing the agriculturists of the province, desired the government to undertake pork curing, to erect factories and look after the sale of the products, but the government, fearing probably that farmers—even with government owned packing plants, and all the advantages which the existence of such are supposed to imply—could not be depended on for a supply of hogs sufficient to

keep the plant running. So they required that before plants were erected and public money sunk in the enterprise that the farmers guarantee certain deliveries, that they sell to no other packing house other than the government owned establishment they have contracted with, and that if they do sell to a nother factory they shall forfeit a certain fine for each hog so sold.

This plan is a modification of the system in operation in Denmark, a system which is always favorably spoken of whenever one essays to talk co-operation, and which seems to have built up the bacon industry in Denmark to its present generous dimensions. Whether it will be equally successful in Alberta remains to be seen. The farmers have shown their willingness to give government controlled co-operation an honest test, and seem ready to do their share. The croakers say it can't be done; that the Alberta farmer and the Danish are different individuals; that the conditions that have stimulated this demand in Alberta for government pork curing plants are different from those that started the Danes to building co-operative factories; that there are a thousand and one reasons why the scheme will never be successful. But wait. Alberta farmers are serious on this hog question. They have had their fill of hold up methods of selling hogs, and when you get men in that mood they're liable to stick. The Alberta experiment is more likely to turn out successful than any scheme designed for the same end yet tried in the Dominion, for it starts with most of the factors necessary for success provided for.

Barley for Export

Malting barley is quoted in British markets at present at from around 75 cents per bushel for grain of average malting quality to as high as \$1.10 per bushel for the superior grades. It averages 90 cents per bushel or better. Barley is quoted on the Winnipeg market at 48 cents. The transportation cost to Britain varies, but is rarely over 20 cents and seldom under 10 cents per bushel. It would average about 16 cents per bushel. At this difference a profitable export business in barley should be possible, but for this reason: we are not raising the type of barley calculated to sell to British buyers at the highest prices. We are producing feed barley almost entirely and the prices quoted above refer to barley for malting.

Would it pay to grow barley for export? At these prices it should undoubtedly pay as well as growing wheat for export. If the grain were worth from 60 cents to 80 cents per bushel at the head of the lakes, as it would be were we able to market malting barley in England, at average yields as compared with wheat there would be a balance of profit in favor of this cereal. This question is worth thinking about. Brewers in Western Canada profess to be willing to pay a premium on malting barley; exporters could handle barley as readily as they do wheat, if we had enough of it to make an export trade worth while; and from all accounts we can produce a superior quality of malting barley in this country if we set about doing it. It may take some little time to develop an export trade, but these prices seem to warrant that returns should make it worth while.

Sound Advice for Saskatchewan Farmers

Possibly the impressions formed by one, who having spent almost a score of years in Manitoba and engaged in agricultural pursuits during that time, and who had therefore witnessed many changes in conditions as the years have gone by, and who having had occasion to spend a couple of months travelling in Saskatchewan recently, may be of some interest to your readers in that province.

About the first thing that attracted my attention was the newness of the villages and the number of elevators at every little place, taking me back at once to conditions as they were on my first acquaintance with Manitoba. I might remark here that development is going on at a pace in Saskatchewan that I never witnessed in Manitoba. Land values have advanced there in five years to a point as high as they did in Manitoba in fifteen years. Railways are being built with a celerity that we never saw in Manitoba. There are at least three great systems of railways, all building lines and all eager to get their lines through the best territory. It would seem, therefore, that Saskatchewan will very soon be completely grid-ironed with railways.

This development of the railway system is one of the chief factors in the marvellous rate at which settlement has gone on during the past few years and which, if all signs do not fail, will go on at a still more rapid rate until all the good productive lands of Saskatchewan are occupied. Another factor which has contributed largely to the development of the province is the fine class of settlers that have gone in. Everywhere there is a good sprinkling of Americans who have come across the line equipped generally with the means of making a good start, and, what is of still greater importance, equipped with a knowledge of Western life and Western conditions. There are also many settlers from Manitoba who went there with all the experience they had gained in their pioneering days in that province. Undoubtedly Saskatchewan has a high average class of settlers and I am satisfied that though adverse conditions may at times be encountered, the average settler "having once put his hand to the plow will never turn back."

Naturally almost every settler is striving to get all the land he can broken up for the production of grain, and herein it seems to me the majority of the farmers in Saskatchewan are falling into the same mistake the settlers in Manitoba made in the early years of its settlement. Many of the early settlers in Manitoba thought the stores of fertility in their soil would not be affected in their life time, and refused to keep stock or to put manure on the land, or in fact do anything but grow grain. Many of the settlers in Saskatchewan hold the same view and follow the same practice. It proved an improvident system in Manitoba. It will prove equally so in Saskatchewan. I found men expressing themselves in the strongest terms against anything but grain growing. I even heard a man of more than ordinary intelligence declare that the man who talked stock raising, or, in fact, anything but growing grain in Saskatchewan was simply "batty." He contended that by a system of thorough summer fallowing there would be no lessening of yield and a farmer would simply be wasting his opportunities if he engaged in anything else but growing grain.

I am quite willing to admit that a system of thorough fallowing will maintain yields for a longer period than a more exhaustive system of continuous cropping. There are some men following such a system from the first, but the great majority, according to my observation, are taking as many crops as they possibly can from one plowing, generally discing the land and seeding it again. I observe in such cases the land is getting dirty, and, in fact, that is the inevitable result of such a system. The summer fallow system generally keeps the land clean, and for that reason, and for another very important reason, namely, conservation of moisture, is to be commended. I am inclined to think that thorough fallowing owing to climatic conditions, will be regarded as a permanent factor in successful farming in most portions of Saskatchewan.

But the following system alone, I am satisfied, is not going to measure up to the requirements of a permanently successful agriculture. Rich as the soil is in many portions of the province it is certain in due time to come under the same general laws of sound agricultural practice as other and older countries. The point I wish to

make here is that the wise farmer will not practice the continuous grain growing system until he has reached the point where reduced yields and poor samples compel him to do so. Rather he will start in before that stage is reached and work into the different branches of live stock raising and a system of crop rotation suitable to his farm and locality. He may take warning from the conditions now prevailing in many parts of the old settled districts of Manitoba, where the results of exclusive and continuous grain growing are plainly to be seen in weedy fields and dwindling yields of grain. Where this destructive system has been practiced too long the farmers find themselves in a most unfortunate position. They allowed the time when their land was producing good yields of grain and when they were in a good position financially, to pass by without getting their farms equipped with fences and suitable buildings. The time has come when their very existence depends on being able to keep stock, and they find the production of their farms has fallen off so seriously that no surplus revenue remains to put up fences and buildings and to buy stock to engage in a system of farming changed conditions imperatively demand. Twenty years ago in parts of the Red River Valley one could drive for miles through fields of beautiful clean grain where today one sees weeds in evidence everywhere and their stands of grain, except on such farms as have been worked on stock and rotation lines.

The summer fallow system will endure for a time but as the years go by the farmers of Saskatchewan will find, unless I greatly err, that their fields will work into a fine powdery soil that will grow great crops of straw but will not yield their old time bushels to the acre, nor their old time plumpness of grain. Good work on the land, good seed and the other requisites to successful grain growing will all help to defer the change, but, I am satisfied, it is bound to come.

I know it will be said that there are no satisfactory markets for other produce than grain. That is probably correct. For many years there were worse markets in Manitoba than there are in Saskatchewan today. Markets must be developed and will be developed. It seems to me markets will open up much more rapidly in Saskatchewan than they did in Manitoba, if for no other reason because of the great development in railway construction now going on. These railway systems will be interested in the development of all the resources of the country. In Manitoba many farmers in the old settled districts are working along the lines of restoring fertility to their lands. In Saskatchewan too many farmers are engaged in depleting their lands of fertility. Let me say, speaking from experience, that it is very much easier and vastly more profitable to husband fertility than to restore it; and the same observation may be made with equal force to weeds. It is easier to keep land clean than to eradicate weeds after they are established.

There is another matter it seems to me should be given special attention, and that is the setting out of tree plantations. One can travel great distances over the prairie sections of Saskatchewan, without seeing tree growth of any kind. There is no reason why any farmer should not have a grove of trees 5 or 10 acres in extent in a few years time, that would afford him excellent shelter for his buildings and stock. Trees can very readily be grown from seeds, cuttings and young stock, and planted in a well worked piece of ground will make wonderful growth in a few years, if given reasonable cultivation until fairly established. The time and labor expended would be many times recompensed in increased value to the farm, besides the advantages of shelter, adornment and even fuel. The first few years of the settler I know are busy years. There are so many things to do, prairie to be broken, wells to be dug, fences and buildings to be built, but just as soon as it is possible to do so time spent in setting out shelter belts will prove to be time exceedingly well spent.

Altogether I was very favorably impressed with Saskatchewan, its vast extent, its great stretches of wonderfully fertile soil, its capabilities for producing most of the staple farm products, and the excellent quality of those products. If her farmers but pursue an intelligent system of farming it would not be drawing on the imagination to picture Saskatchewan in the years to come as the home of a prosperous and contented people, a province of vast and varied resources and producing wealth in totals that will make present figures look small in comparison.

Morden District.

G. H. BRADSHAW.

EDITOR

Mr. Farnet about has any 1 to the fa two of t Mr. Farn That is a advice.

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Sask.

Winnipeg

The table awards at th published in t differ, so far that with whi past few year with a deal i the total nur prizes, the nu ber of prize a jority. Most duce have alr prize winners, aged stallion t the first-prize Northern, wh she was prefer most notable. comes second, noted represer. mares, Minnew ready referred outstanding re handsome tw (14826), which the Spring Sta. horse all the t Renwick's be Royal Review, Highland and Edinburgh, in the Strathmore had Royal Rev died.

Third place Baron of Buchi more rapid adva stallion than he fairly outdistan Pride, and he noted sires in Cly ners as Bonnie E fect Motion, Th mont, White Si credit, it is obv in the Clydesda Revelanta (1187

Aids to Produce Disposal

EDITOR FARMER'S ADVOCATE :

Mr. Farmer has been so long kicked and buffeted about that he has almost forgotten that he has any rights, but I think he is at last awakening to the fact that he has. I might mention one or two of the farmer's grievances: For instance, Mr. Farmer is told to farm along business lines. That is all right so far as it goes — it is sound advice. The difficulty comes when he tries to dispose of his produce. He wants to sell on business lines but, unfortunately for him, this is where the shoe pinches. Mr. Farmer has to take what price is offered or take the marketable commodity home again. He has no redress. Mr. Storekeeper and Mr. Manufacturer do not conduct the producing part of their business on business lines and then sell their goods on business lines as Mr. Farmer does. Not he, and Mr. Farmer knows that to his cost.

Then again, Mr. Farmer is under the thumb of the manufacturers in the purchasing of machinery, etc. Why is machinery so high priced? Because Mr. Manufacturer is protected by a tariff, whereby competition is nullified. He raises the price of his goods as high as the tariff-wall will permit and Mr. Farmer has to pay that price or do without. This applies to manufacturers other than machinery.

There is a remedy for these grievances, and the way lies through the Grain Growers' Associations. The latter, in my opinion, can and will fight successfully for the farmers' rights if — and herein lies failure or success — if, I say, every farmer becomes a member and uses every honorable means in his power to further the interests of this association. Therein lies success. At the same time, however, it is well to remember that in fighting for our own rights we should endeavor not to interfere with the rights of others. By so doing we are sure of public support, a power which the farmer should not overlook.

Sask. JAMES BARRIE.

follows in forth place; and then the Sir Everard succession is broken by the appearance of Peter Dewar's splendid breeding horse, Royal Favorite (10630), fifth. The most notable of his nine exhibits was Purdie Somerville's grand big horse, Scotland Yet (14829), which stood first at Kilmarnock, third at Ayr, and first at the Highland, in the three-year old class. This horse created quite a sensation on all his appearances. At the Highland he was an outstanding winner in his class. The best of the female produce was J. E. Kerr's Ferelith, the daughter of the celebrated Pyrene, which was first at Ayr, and H. B. Marshall's yearling from Rachan, which was first at Edinburgh. She was subsequently exported at a big price. Mr. Kilpatrick's young champion horse, Oyama (13118), takes a strong position as sixth in such a list, with twenty-one prizes won by seven of the produce got by him when a three-year-old. This, we suspect, is an unprecedented feat, and promises very well for the future of this celebrated horse. Everlasting (11331) comes well up with a return of eighteen prizes won by ten animals, and of these, one had a championship, already referred to.

Mr. Taylor's Sir Hugo (10924) brings in a new

grade of results with nine prizes won by six animals; while Veronique and Squire Ronald combine with two others to give Montrave Ronald (11121) a strong lead among the sevens. Count Victor (12108) takes first place among the fives and promises to be perhaps the best breeding horse among the sons of Hiawatha. His best representative was, of course, Alex. Simpson's fine big colt, High Degree (14703), which was first at the Spring Stallion Show, and second at the Glasgow Summer Show and the Highland. He also won other prizes locally, and bids fair to be one of the best and biggest stallions of his age. The fours are pretty evenly balanced; perhaps Royal Edward (11485) may be awarded the premier place. Of the threes, Up-to-Time (10475) clearly has it with his representative British time; and Rozelle's (10638) pre-eminence is equally assured among the twos. The place of pre-eminence among the sires which had each one representative at these eight shows is quite plainly that of Sir Humphrey (11942), whose honor is safe in the record of St. Clair (14347). The following tables speak for themselves, of the first fifteen sires, and every pains has been taken to make them correct:

Name of Sire.	Total Prizes.	Firsts.	Sec-onds.	Thirds.	Cham'n-ships.	No. of Animals.
Baron's Pride (9122)	53	23	8	8	8	25
Hiawatha (10067)	48	11	12	7	1	22
Baron of Buchlyvie (11263)	27	8	2	3	2	19
Revelanta (11876)	23	1	3	2		14
Royal Favorite (10630)	21	4	2	3		9
Oyama (13118)	21	2	7	4		7
Everlasting (11331)	18	1	4	7	1	10
Sir Hugo (10924)	9	1	1	2		6
Montrave Ronald (11121)	7	2	1	1	2	4
Marcellus (11110)	7	1	1			4
Marmion (11429)	7			1		5
Count Victor (12108)	5	1	2			3
Royal Chattan (11489)	5	1			1	4
Benedict (10315)	5			2		3
Royal Edward (11495)	4		1			3

Thoroughbreds, Racing and Gambling

EDITOR FARMER'S ADVOCATE :

The discussion which has arisen over the anti-gambling bill presented by H. H. Miller, to the House of Commons, at Ottawa, has revealed the opinions of some prominent men on the influences of racing and race track betting on the breeding of horses, more especially the Thoroughbred. From the King down all people of British origin or extraction take a lively interest in the Thoroughbred and such classic races as the Derby, St. Leger, The Guineas, Gold Cup, Caesarwitch and King's Plate made for the breed.

Further, all true well wishers of this equine patrician decry two great evils which have crept in to the racing of the Thoroughbred in America. These evils are: (a) the tendency to make races short sprints, as they are termed, and (b) the series of protracted race meetings, engineered solely for the sake of the betting fraternity, meetings similar to those pulled off at the coast last summer and fall.

Aside from the damage done to the breed by some of pedigree-crazed adherents, it is apparent from the above, that many professed friends of the blood horse have by means of the sprint races done the breed incalculable injury, by lessening thereby the stamina and courage. The sprint tends to the retention of horses of inferior conformation, to the production of horses quicker to start and more unmanageable at the post, more nervous or highly strung (a quality now developed to the limit even to shading on a nuisance and deformity). The protracted race meetings (6) have turned a sport and recreation into a business, with the inevitable tendency to develop chicanery and crooked work up to the limit the public will stand for, without affecting injuriously the gate receipts.

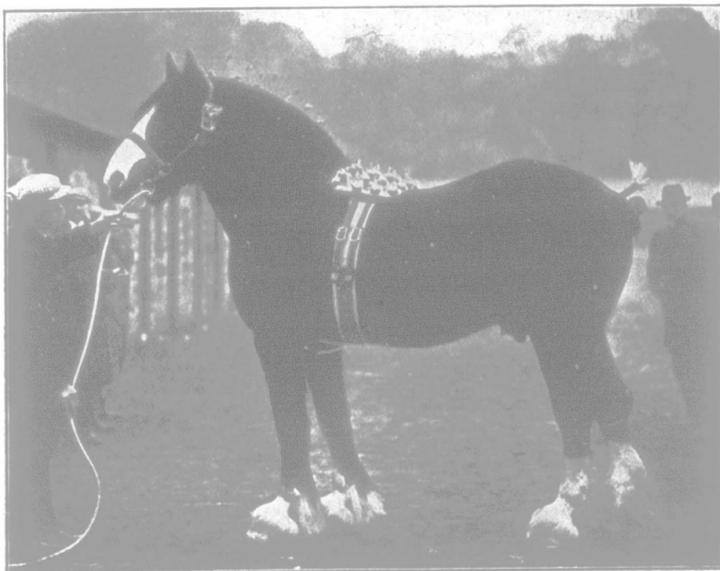
Racing is, however, if honestly conducted, essential to the production of the highest type of Thoroughbred, but the races must be of such length and under such conditions as to develop not only speed but endurance, and docility as well as quality, stamina and courage. As much

HORSE

Winning Clydesdale Sires in 1909

The table of winning sires, as decided by the awards at the eight principal British shows, as published in the Scottish Farmer Album, does not differ, so far as the first two are concerned, from that with which we have been familiar during the past few years. Baron's Pride (9122) still leads with a deal in hand. Whether the standard be the total number of prizes, the number of first prizes, the number of championships, or the number of prize animals, he leads with an easy majority. Most of the most successful of his produce have already been named. Of other first-prize winners, Gartly Pride (12997), the first-prize aged stallion at the Highland, and Lady Dukina, the first-prize three-year-old mare at the Royal Northern, where, to the surprise of most people, she was preferred to Boquhan Lady Peggy, are the most notable. Mr. Pollock's Hiawatha (10067) comes second, with a capital record. His most noted representatives were undoubtedly the two mares, Minnewawa and Boquhan Lady Peggy, already referred to. Amongst stallions, his most outstanding representative was Mr. Leckie's very handsome two-year-old horse, Royal Salute (14826), which was first at Ayr, and second at the Spring Stallion Show. This is a gentleman's horse all the time. He is own brother to Wm. Renwick's beautifully-moulded two-year-old, Royal Review, which won supreme honors at the Highland and Agricultural Society's show, at Edinburgh, in 1907, and he was hired at Ayr by the Strathmore Horse-breeding Association, who had Royal Review under engagement when he died.

Third place on the list is worthily filled by Baron of Buchlyvie (11263). No horse made a more rapid advance in public esteem as a breeding stallion than he. By the results of 1909 he has fairly outdistanced all the other sons of Baron's Pride, and he promises to be one of the most noted sires in Clydesdale history. With such winners as Bonnie Buchlyvie, Dunure Footprint, Perfect Motion, The Right Honorable, Baron Belmont, White Silk, Brenda of Montrave, to his credit, it is obvious that his must be a high place in the Clydesdale honor list. His half-brother, Revelanta (11876), a former Cawdor Cup winner,



MEMENTO, A FINE TYPE OF HEAVY DRAFT FOR BREEDING PURPOSES.

cannot be said for betting. I do not believe sane people believe gambling essential to the improvement of the Thoroughbred, people bet nowadays on stocks, cereals and produce, but no one will claim that the effect is beneficial either to producer or consumer. If betting on races is to be legitimized by governments, why not let the system be made to yield a tax, and be so conducted that races cannot be affected or jockeys or owners influenced to pull their horses? A system in vogue, I believe, in France and Australia, known as 'the pair mutuel,' might with profit be made to take the place of the bookmaker and betting as now carried on. Under the pair mutuel system a percentage is taken on all money bet and used to assist agricultural societies and kindred organizations in the improvement of live stock.

The blood of the Thoroughbred, if not too close up, is very valuable when judiciously used, although readers doubtless know cases of very poor stuff from the loins of blood stallions; and has given stamina, courage and quality, yet withal it is extremely doubtless if these attributes warrant the legitimizing by parliament of methods, which in plain English can only be dubbed crooked, schemes to pluck and rob the unsophisticated and incentives to filch an employer's cash.

Sask.

STOCKWELL.

The Thermometer in Health and Disease

DR. J. FIELDING COTTRILL.

To most people the thermometer is a mysterious instrument, which, in some peculiar way, tells the doctor all kinds of wonderful and curious things about the inside. What it tells they do not exactly know. How it tells they do not know. In fact it is to them the most mysterious thing we have. If the horse is sick the thermometer is used. If there is a bad wound the thermometer tells the doctor something about it. If the horse will not eat, again the thermometer is used. So it is, if the horse eats too much. It does not appear to make much difference whether the disease is in the head, the eye, the lungs, the body, or the limbs, because in every case, and in every place, the thermometer appears equally at home and ready at all times to divulge the innermost secrets. Such are probably the thoughts of the average stableman.

Many will not hesitate for a moment to ask me questions about drugs or medicines, but few will ask me about the thermometer. If, however, one filled with the courage of a Bayard, or some other hero, should ask me what is the normal temperature of a horse, the rest in the stable will listen with bated breath, and, as I unhesitatingly reply, will give a sigh of satisfaction, as though to say, "Oh! that's good! That's something worth knowing!" It therefore appeared to me that I might tell a few of the secrets concerning this instrument, and lift up the curtain just a little to show some of the wonderful things it betrays to us.

All thermometers are not the same in appearance. Our kind consists of a tube of mercury, or quicksilver, about $\frac{1}{2}$ inch long and roughly speaking about $\frac{1}{4}$ inch in diameter. From this runs a narrow tube from four to six inches long in the middle of a somewhat triangularly shaped glass rod. These triangularly shaped ones are so made that they may magnify the narrow tube inside. In the one before me now that internal tube has an apparent diameter of about one-sixteenth of an inch, but in reality it would barely admit a hair. In fact it is termed a capillary, or hair-like, tube.

There are many kinds of thermometers, but the one we use is known as the clinical thermometer, and differs from the rest, in that the mercury will readily rise when heat is applied, but will not fall when the heat is withdrawn, otherwise it would be of comparatively little use to us.

The first question which naturally arises is: "Why should the mercury keep up?" Well, look closely at a clinical thermometer and you will see just above the bulb a contraction. This is the cause. The mercury below this will sink, but that above will retain its place, because it cannot squeeze through the narrowed tube until we shake it more or less violently.

Most of these instruments are marked from 94 to 110 and each degree is again divided into fifths (or tenths) and usually there is an arrow

pointing to 98.5, which is regarded as the average temperature of man. I presume that everyone knows that ordinary heat is due to a gas known as oxygen and that the amount of heat given out bears a direct proportion to the amount of oxygen consumed.

Birds breathe very quickly, thus consuming much oxygen, and their temperature lies between 106 and 110. No others of our live stock reach these points. In fact, the average temperatures of our domestic animals may be taken to be: Horse, 99 $\frac{1}{2}$ to 101; dog, 100 $\frac{1}{2}$ to 101 $\frac{1}{2}$; ox, 101 to 102; pig, 103 to 104; sheep, 104 to 105. But these vary with a number of things, for example, climate, exposure, age, organs from which the temperature is taken, time of day, state of health, whether medicine has been given recently, etc. Exercise will increase it. At meal times it first goes down, and then is raised, and so on.

Now let us consider some of these things. CLIMATE.—During winter time breathing is more rapid, more heat is required, therefore more oxygen is consumed, and the temperature, registered by the thermometer, is higher than in the summer. (Please do not confound the higher temperature inside the body, with the greater cold outside.) Again, in winter, one horse outside in the cold will register higher than one in the stable. This may puzzle some readers unless they think. I am referring to the heat *inside* the body. Still this difference is of little practical value in a general way, because it is usually much less than one degree.

AGE.—The younger the animal the higher the temperature; in some cases quite a degree higher than the average is registered. Again, in the very old, it may be as much below the average.

ORGANS TESTED.—The rectum is the organ we generally use, because it is easy of access, and there is no danger of breaking our instruments, as there would be if the mouth were used. Probably this is the main reason why we select this organ.

It has been proved experimentally that the temperature of the heart and liver is from two to two and a half degrees higher than the rectum. The left side of the heart contains the purified or arterial blood and is a degree higher than the right side which contains the impure or venous blood. An organ when at work is higher in temperature than when at rest. All this, though interesting, does not concern us to any great extent, since we always use the same organ.

TIME OF DAY.—This is the most important part to us. Early in the morning and when every organ has been at rest during the night we find a low temperature, but in the evening after eating, digestion, physical and mental activity, and the thousand and one things, which effect us and our animals, the temperature will be higher than in the morning, and this variation is known as the daily or diurnal variation.

Here is the important point. Whenever this variation keeps within certain limits, no matter how sick the animal may be, there is comparatively little danger. But when these variations are excessive, when they are irregular, scarcely noticeable one day and perhaps four or five degrees the next, we may expect the worst; or in plain words, expect the animal to die.

STATE OF HEALTH.—The thermometer is certainly the most important instrument we have to assist us in finding if our animals are diseased. Here are a few temperatures taken at random recently: Pneumonia, 105, 106, 107; influenza, 104; laminitis, 103, 104, 106; Punctured wounds similar to preceding open joints, varied, but always a rise; kidney disease, often lower than normal, one went near to 98.

Suppose now, we have a horse sick from some non-contagious disease; a temperature of 102 to 104 would tell us that the fever was severe. If this was still rising there would be great danger, and if it went to 105 or 106 we might expect death. But even then if the temperature fell between evening and morning, the veterinarian would not give up hope. If, however, the temperature rose between evening and morning he would be justified in saying the animal was decidedly worse.

We can readily imagine that an elevation of temperature is due to some disease process, and, therefore, should regard it with suspicion. If it remains high there is a constant danger of some complications setting in.

If the morning temperature is higher than the evening, the danger is great. If there is a sudden

fall, we may expect either death or some complication. But if the fall is steady and regular, while every morning it is lower than the evening before, we may feel that it is a good sign and that our patient will soon be convalescent.

You will find, too, that when an animal is contracting a contagious disease it will show an increased temperature before he shows any external signs.

STOCK

The Health of Animals branch of the Dominion Department of Agriculture have issued in bulletin form the quarantine regulations authorized by the government November 30, 1909. The regulations published cover the importation of all classes of animals into Canada, the terms of inspection, the testing of suspected animals and the retention of such in quarantine. Anyone interested in importing and exporting live-stock should procure a copy of these regulations for his guidance.

Pays to Cut Feed

EDITOR FARMER'S ADVOCATE:

I am of opinion that it pays most decidedly to cut hay, sheaves or straw for winter feed, if the power is available to drive the cutting machine and necessary conveniences handy for elevating the cut fodder into the loft for feeding down into the stable. I believe the cut feed goes further, is more palatable, and there is practically no waste.

A neighbor of mine makes a practice of cutting his feed. The power is a steam traction engine. The elevator is a cheap home made affair that answers the purpose in every respect. The grain that is fed is mixed with the chopped feed and everything is eaten up clean. Every farmer knows there is considerable waste in feeding oat sheaves, especially at seeding and other busy seasons. Horses will pick the best of the sheaves and leave the rest, whereas if the sheaves are cut and a feed of oats or chop mixed with it, everything will be cleaned up and about one-half the quantity of sheaves only will be required.

With regard to the question of whether the refuse left, when used for litter will improve the quality of the manure, it certainly would cause the manure to rot more quickly than long straw manure. The manure would settle closer, but if the fodder is fed in the way suggested above, I don't think there will be any refuse left worth mentioning.

Man.

F. H. PHILLIPS.

Details of Pig Killing

EDITOR FARMER'S ADVOCATE:

I do not care to criticize any man's method of doing his work, nor yet his way of killing pigs, but on the majority of Canadian farms at pig killing time *cruelty* appears to be no object, and it is certainly practiced to perfection. The most brutal and inhuman method is the one in which the pig is stuck before being stunned, or otherwise rendered senseless, allowing the poor beast to welter and scream in its own blood for five or ten minutes, oftentimes longer, before death relieves it. This is certainly disgusting and cruel in the extreme. Perhaps if done by an experienced hand death might be quicker. But how often is it done by men who are not expert at the job? I have seen pigs chased around for half an hour until caught, and then stabbed. Then they were allowed to go again, but as very little bleeding followed this stab the pig was again caught and received another thrust from the long bladed knife. This was repeated about a dozen times, before death relieved the poor beast from its inhuman tormentors. The animal died from disgraceful abuse, rather than loss of blood.

I will give the method followed by us for many years, in killing, cutting up and curing meat. This method has proved highly satisfactory. Before commencing to kill we make a fire; over this we hang our 40 gallon pot by attaching a chain to the lug on each side. Then over a cross stick which passes over and above the pot and fire and supported at each end by a couple of boxes, we scald the pigs in a trough. This we find an excellent way. The trough is seven feet long and the bottom 18 inches wide tapering to 2 feet at the top, and 16 inches deep. It is

made of inch boards and watertight. Near the boiling pot and trough we provide a small platform 16 inches high on which to scrape the pigs.

We use a 22 rifle to kill the smaller pigs and for large hogs with thick skulls, a shot gun. There is no bustle or excitement. We simply go to the pig house where the pigs have been starved for 24 hours, quietly open the door, throw a little feed into the trough, and take the first pig that presents itself in good position by aiming at the center of the forehead about four inches above level of the eyes. Then we roll the pig on its back, and push the knife into the neck about 3 inches in front of breast bone and square in the middle of the neck. Keep the knife in perfect line with the body, inclining the point a little downwards, pushing it in about eight inches. Let the pig roll on its side, and the job is done. There is no chasing or tearing around, catching and frightening all the pigs. Everything is done quietly and humanely.

We place scalding trough near the boiling water to be handy. Take two pieces of 3-4 inch rope 10 feet long, and place them across the trough a foot and a half from each end. These ropes are used to move the pig in the boiling water. Place the pig feet downward in the trough, pouring on boiling water until the trough is half full. At the same time two men at the ropes are moving the pig to any position desired, by simply both lifting together. In this way the heaviest pig can be easily and quickly moved. After scalding, the water is again put into the pot to be ready for the next pig. The pig is now scraped clean, hung up and washed down with warm water.

We next remove the insides, by commencing between the hind legs with knife cutting down to the bone. Now run the knife lightly down the middle of the belly. On coming to the breast bone cut deep right out to the head. Then we take the axe and cut the bone between the hind legs. This exposes the bowels. Cut carefully around here and remove the bladder. Then open the belly right down, protecting the intestines from the knife with two fingers. Commencing at the top again we pull the insides out carefully—severing attachments with the knife whenever necessary. After reaching the stomach cut it away from the liver. We next cut the breast bone open with the axe and then take a knife and cut around the liver and lungs, following down the wind pipe until the tongue is reached. When all are removed, the head is cut off and the carcass is left to stiffen before being cut down.

In cutting down we start at the back of the pig and cut right through the flesh to the backbone from top to bottom; with a hand-saw we saw down the backbone and the pig is in two parts. It is now removed to a table and the fat around the kidneys taken out. We always take out the ribs and backbone, by commencing under the ribs near the shoulder, cutting and lifting up the ribs as we go backwards, getting completely under the backbone on reaching the hip joint. The ribs and backbone are pulled away entirely, leaving the whole side of the pig smooth. The hams and shoulders are cut off, trimmed nicely of all ragged pieces, and left to cool before salting.

We have always used the dry method of salting, doing our curing in the cellar. We place a door upon the cellar floor and over it is spread about half an inch of salt. About five hams or shoulders are now laid in a square. Salt is rubbed well into the skin end of the leg bones, and over the lot is laid about one inch of salt. Another layer of hams and shoulders are now placed on top and treated in the same way until all are done. The flicks are piled by themselves, as they do not require so much salt. The meat is turned about every six days, and more salt is put on. There is no danger of getting them too salty. Hams and shoulders are left in salt four weeks. Flicks require about two and a half weeks.

After this the salt is all rubbed off, and the meat is hung up in a cool dry place for a week. Then it is ready to smoke. We have a building 8 x 14 feet. In this a small box stove is placed with an elbow pipe on collar. This pipe keeps any fire from going upwards. We hang the meat as high in the building as possible. For making smoke we use elm and poplar, and smoke five days. Then the meat is hung in a cool dry place, and in three weeks is ready for the table.

Man.

EDW. HENDERSON.

Thinks Cutting Does not Pay

EDITOR FARMER'S ADVOCATE :

In the Eastern provinces, where there are large bank barns, frost proof root houses, silos, large herds and expensive feeds, it is absolutely necessary to cut straw and fodder so that even the coarsest may be eaten.

In the West, however, conditions are very different. Comparatively few have large barns and dairying is not, as yet, at all general. Straw, also, we regard as more of a nuisance than a valuable feed. Therefore, individual conditions will decide whether or not cutting feed pays. Unless one had a bank barn it could scarcely be done at all, for if outside the wind would play havoc with the cut feed. Then feeding would require more labor, for it would take more time to gather up a basketful of cut straw, mix bran and cut roots, etc., than it does to throw in an oat sheaf (as most of us do), not to mention the cost and labor of the cutting. The cutting process also breaks up the leaves into dust, which is injurious to animals and especially horses. Of course, there are advantages. Less feed will be thrown out by the animals and by mixing with bran and roots a balanced ration can be more easily and surely be given.

The advantage of cutting depends then upon the kind of buildings and the kind of stock the farmer keeps. If near a suitable market and he has a high class of dairy cattle he can make it pay, but as long as mill feeds at local points are so high and rough feeds so plentiful, labor so scarce and beef cattle so cheap, I do not think it will pay the average farmer to cut his rough feed.

With regard to the manure, however, the cut feed has a decided advantage. The short particles will make a much better absorbent and can be more easily and evenly spread than can long straw. This would lessen the danger of manure, when plowed under stopping the capillary action, and thus causing the ground to quickly dry out.

Sask.

CHAS. A. LINTOTT.

FARM

Topics for Discussion

In recognition of the fact that valuable hints always are obtained from men engaged in actual farm work THE FARMER'S ADVOCATE has adopted the "Topics for Discussion" column in order that our readers may see an open channel through which they may inform their brother farmers as to practices that are worth adopting and warn them against methods that prove unprofitable. Not only do we wish our readers to discuss the topics announced for the various issues but also we desire that they suggest practical subjects on which it would be well to have discussion.

This notice appears under the "Farm" department, but the questions dealt with cover all branches of the farming industry. Letters should not exceed 600 words and should reach this office 10 days previous to the date of issue. They are read carefully and a first prize of \$3.00 and a second prize of \$2.00 awarded each week. Other letters used will be paid for at regular rates to contributors.

February 9.—What do you consider the easiest and most thorough method of clearing "scrub" land? Discuss different systems for various tree growths, or particularize for the conditions under which you have had experience.

February 16.—What method do you follow in selecting eggs for hatching to ensure getting eggs for this purpose from your best stock? Have you ever used a trap nest? If so, with what results? Do you know of any other method of selection that is just as good and simpler?

February 23.—What do you consider to be the most satisfactory crop rotation? Discuss briefly the nature of your soil and make special mention of means adopted to enrich your fields.

March 2.—What type of seed drill would you advise a farmer purchasing? In what conditions would the hoe drill, the shoe drill, or disc drill work most satisfactorily? What considerations would influence your choice of a drill? What are the "strong points" of a satisfactory seeder?

The Question of Barley

In the discussion on two-rowed and six-rowed barleys, published herewith, some interesting information is offered on the question as to which type of barley is most profitable for the Western farm. As a rule, six-rowed varieties are grown, but there is no reason why we should not grow in this climate a superior quality of malting barley, barley that could be exported or used for malting purposes by brewers in this country. At present no export barley trade exists, and Western maltsters state that they require to import from the East a large part of the barley used. There may be some all-important reason why we should not produce a high-class malting barley in this country, or why an export trade should not be established, but we have not been shown it yet. This barley question is worth looking into.

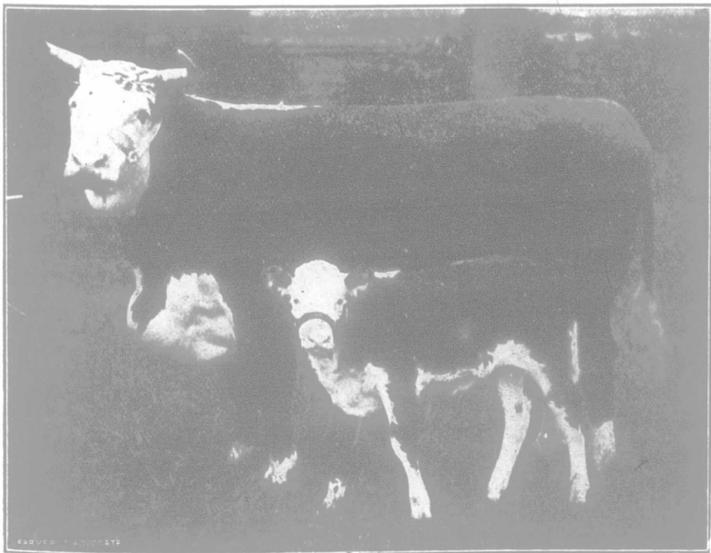
In the competition the prizes are awarded in the order in which the contributions appear.

Five Years' Experience with Two-rowed Barley

EDITOR FARMER'S ADVOCATE :

It seems to me that the growing of barley in the West, either two-rowed or six-rowed, does not receive the attention it deserves, and although there are many farmers who know that barley is a good thing to grow and to have, the majority of them never give it a chance. "Any old land" and "any old seed" is good enough for the barley patch. Naturally, the results at threshing time of such methods of cultivation do not tend to draw any special attention to its possibilities.

But to return to the subject for discussion, "Two-rowed barley as a crop." I have been growing two-rowed barley for the past five years with very fair success, and each year I like it better, so my opinion is very decidedly in its favor. The advantages I find in its favor are: A longer and stronger straw, that stands up against almost any weather; a larger and plumper berry and a very much heavier yield, and from what experience I have had it resists drought better than the six-rowed type. This latter assertion I quote only from my own observations,



MERRIMENT HEREFORD COW, FIRST AT ROYAL SHOW 1909.

but which are not sufficient to warrant that this is always the case. But at the same time I fancy that this will prove the rule. The only disadvantage that I can see is that it is in general a little longer ripening than the majority of the six-rowed types. But there are several types of two-rowed that are just about as early as the ordinary six-rowed, and the difference of a week or ten days is easily avoided by a little earlier seeding if the time of ripening is required to be a factor.

I am not a brewer, and therefore am hardly qualified to make a definite statement that the malting quality of Western barley is A1, but I think I can get around the question in a very satisfactory way by answering the query: "What constitutes a good malting barley?" It is this: A sound, plump berry, with its germinating power totally unimpaired and of a bright color. Well, Mr. Editor, we can grow barley in the West with all these properties; perhaps not quite 100 per cent. perfect, but very near it.

But it must be understood that to grow such barley for yield and quality, there must be the proper conditions—thorough cultivation and good, clean land. Barley requires soil that has been thoroughly pulverized and a good seed-bed, in order that the fibres of the roots which are very tender and minute may readily penetrate the soil in search of the necessary nourishment. Barley on this sort of ground is, I think, the surest crop we can grow, when drought is a question of consideration. Given a fair start at seeding, with the seed properly placed to moisture time, barley will, if the soil was well prepared, give a very fair crop, even in the dry seasons.

There is another point to consider. Even though the quality of the barley may not merit its qualifying as a good malting commodity, and it is the point unto which all the farmers look first, viz., the dollars and cents. As far as I can ascertain the English and European markets would be the best at the present time. Taking the English market for an example, the prices, I understand, range from 75c. to \$1.00 per bushel for such barley as we can grow. Freight rates, quoting from Winnipeg to Liverpool, run according to season from 7c. to 20c. per bushel, making an average of 14 cents per bushel. Two-rowed barley, such as the Standwell or Malster and other varieties suitable to our soil and climate will run in yield from 45 to 70 bushels per acre, weight ranging with the season. This is not a very hard matter to figure out, and if this price can be realized it looks to me to be as good a proposition as Red Fyfe. Of course, a market has got to be established and a trade developed before it would be safe for us to branch out into the business on a large scale. But I happen to know that such a business and trade is being pushed and sought for, with a fair outlook and there is no doubt our respective governments, together with the Dominion Government, will forward and assist any such trade that is likely to benefit Western agriculture.

A word or so regarding color may not be out of place. Color is the brewer's one hard mark in barley, and color we have to make for top prices. I don't think there is any better country than ours for color. The only trouble is to keep it. My idea of obtaining the best color is to cut the barley just when the heads begin to droop and the dark hue changes to a lighter color, always before the berries are hard. Remember this is a malting proposition, not for seed. Cap the shocks, which must not be too large, and stack or thresh as soon as the grain is hard. This is essential for color, and if one has a market for malting barley. Don't leave the barley threshing till last, as is generally done, for each rain leaves its mark. Thresh the barley first, and remember that your other grains will not lose a grade in weather that would ruin barley for malting prices, so easily is barley germinated or discolored.

One often hears discussions on barley color, and there seems to be a great idea that color is all necessary to the brew. Again, I am not a brewer and will not argue the point, but I don't think I am very wide of the mark in stating that the color as called for, by the brewer, is more for a safeguard and surety; that the germinating qualities are not destroyed, either by treating or growth, either of which renders barley absolutely useless for malting purposes. In conclusion let it be understood that my experience with two-rowed barley has been on a medium loam. I cannot say what it will do on the heavier clays, but I am of the opinion that neither kind of barley is as well suited to clay

as to the medium or lighter soils. Further I think that the question of growing malting barley is one that the Western farmers should look into. Let them get together and solve the question of market. We can grow the barley as well as other countries. Let those that doubt it try a few bushels of good seed and give it a fair chance.

Sask.

R. H. CARTER.

bad malt. If farmers grew two-sowed in car lots brewers or maltsters may buy. You could grow many more bushels of barley to the acre than wheat, and if you could get a good price for it, it may pay well to plant it in place of a wheat crop, instead of a catch crop or a weed killing crop as stated above. I should plant it the last week in May or not later than the first week in June.

Man.

JOHN C. WALKER.

Tow-Rowed Malting Barley

EDITOR FARMER'S ADVOCATE:

During my five years of farming in the West and in this district only I have raised two-rowed barley with more or less success, and, taking the five years crops as a whole I say good success. The best features of the business are that I have sown a good deal of barley after wheat seeding, and when sown the fore part of May I have been able to fall follow the barley ground. The best and heaviest (forty bushels to the acre) crop I have had was sown on the tenth of June. My two-rowed 1908 crop sown May 28, won first and sweepstakes for the southern division of Saskatchewan at the Regina Seed Fair. It was taken out of the general crop without any special preparation of seed or land, or forethought as to exhibiting.

I find that two-rowed barley has many advantages over six-rowed or any other rowed barley, and simply consider it the best barley to raise in this part of the West. I have had little experience as to the malting merits of any barley. Many years ago the wheat production of Eastern Ontario fizzled out and farmers had to turn their attention to other farm products, amongst which was the raising of barley fit for the Eastern States malting market.

It was soon found from experience, that two-rowed barley, all things considered, was the most satisfactory and profitable to produce. It was even and plumper in kernel, being taller and more erect was easier to harvest, was less liable to rust and color with dampness and dews and commanded higher prices than the multi-rowed varieties.

From my western experience in barley raising, were I to pander to the malting market, I certainly would stand by the two-rowed varieties of barley. I understand from maltsters that they desire and look for a clean, smooth, even, plump, heavy, and, above all, a bright grained barley. I therefore consider the malting quality of two-rowed barley of sufficient merit to warrant farmers in many sections of the West undertaking the production of this cereal.

Sask.

J. E. FRITH.

Satisfied with Two-Rowed

EDITOR FARMER'S ADVOCATE:

I remember in England a gentleman appointed by the Government lecturing before a large body of market gardeners on the uses of artificial manures. Speaking of nitrate of soda he said: "It is no use putting it on peas, it won't do them a bit of good." A man in the hall spoke up and said: "It's no use your coming here and telling us that, gov'nor; we've tried it and we know."

Now, I have tried out here some of the best two rowed barleys from England so ought to know a little about them. One sort I have tried was Webb's Chevalier, secured from the firm that are seedsmen to King Edward. I got it with other barley direct from them. Chevalier has taken the Brewers' Prize, London, England, open to all the world 8 or 9 years in succession.

All I got did well here, but they all take from two to three weeks longer to ripen than Mensury or other six-rowed barleys grown here. This does away with the object of many in planting barley, as they plant late to enable them to kill a good crop of weeds before planting, and hope to catch a lot more before fully matured when barley is cut. One year I should have sent to Brewer's exhibition but for expense.

I hear brewers or makers of malt will not buy these barleys because they can buy them only in small lots at the present time, and I know to mix them with native barley such as Mensury, you would make very inferior malt. I have had a good deal of experience in malting in England. You want even there to class your barley for each wetting, and not to mix these barleys with native varieties as they would not germinate together; so that if one was just right to go on for drying the other would not be far enough advanced. The consequence would be

Old Country Grower's Experience

EDITOR FARMER'S ADVOCATE:

In regard to two-rowed barley for malting purposes, I think if you will refer back to the years 1890, 1891 and 1892 you will find that the farmers west of Brandon, more especially around Alexander and Griswold, raised quite a lot of two-rowed barley known as Carter's Prize Prolific, and it was a splendid malting variety and a very heavy cropper, but appeared to have a soft straw and lodged very badly, as the head seemed too heavy for the straw to carry it. I counted 92 grains of barley in one head, and eleven heads from one grain. This was in a five acre field of C. E. Hall, a prominent farmer of the Alexander district. I had the pleasure of busheling this crop when it was threshed, as we used the bushels then. I busheled 335 bushels off that five acres, and I am satisfied that nearly a third of the crop was left on the ground, as it was lodged so badly. I know Mr. Hall offered a man he had hired, with his three horses, \$1.00 per acre to cut that barley and find the binder, and he would not do it at that price, but cut it by the day.

I know this as a good malting barley, as much of it is grown in Gloucestershire, where I came from, and I believe it could be grown here on the lighter soils, where it would not grow such rank straw.

I may mention this five acres of C. E. Hall's was in a field he had had fenced off for three years for a pasture for the cow he kept for the use of the house.

There is another question about growing barley for malting. It has to be the right color. I find a heavy dew or a misty day or two will change the color of barley. Certainly anyone who wants to grow barley for malting will have to make small stocks and cap the stocks, and be sure your cap sheaves are kept on.

The great drawback in growing two-rowed barley, is the fact that it takes too long to grow and ripen. I find growing the six-rowed barley is one of the best methods of clearing a farm of wild oats, and the two-rowed variety is no good at all for that purpose, as all oats shell out before the two-rowed barley is ripe enough to cut.

Man.

J. BENNETT.

To Combat Couch Grass

EDITOR FARMER'S ADVOCATE:

A Kenville reader writes: "I have some couch grass on my farm. It is spreading over the valley very fast and no one seems to know what to do to prevent its spreading."

Couch grass is one of the most persistent weeds to be found in this country, and unless eradicated it will soon take possession of any farm. During a dry summer the land may be plowed lightly about the latter end of June, well harrowed, and then cross plowed during July. This will bring a large number of the roots to the surface, where they can be drawn to the surface with the ordinary spike-tooth harrow; or, better still, with a spring-tooth harrow, and then raked up and burned.

The above plan entails a lot of labor, and can only be carried out successfully during a hot, dry summer. In many respects a much better plan is to plow the land during the first week of June; harrow it once, and sow about three bushels of barley per acre. If the land is moist, the barley will grow up quickly and smother out the couch grass, but to secure success with this plan the soil must not be allowed to get dry before the seed is sown, otherwise the couch grass will get the start and choke the barley.

Plowing the grass late in the fall and leaving the land rough so as to expose the roots to the winter frosts often destroys many of them.

Cultivation during damp weather, or when the soil is wet, only helps to spread the roots and increase the pest.

M. A. C.

S. A. BEEFORD.

At what farmers to and how plowed?

Ans.—generally be plowed time to plow.

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EDITOR FA

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I would lik Mrs. Brown's the hot spell i pails and fill t chairs near t draught was c nice and cool a Man.

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EDITOR FARM

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Depth of Plowing

At what season of the year do you recommend farmers to plow land in the Red River Valley, and how deep would you advise such land to be plowed?

H. L. E.

Ans. — The soil of the Red River Valley is generally a stiff clay loam, and such soils should be plowed in the fall; the winter frosts then have time to pulverize and mellow it.

The proper depth depends on several conditions. New breaking should be as shallow as it is possible to plow, providing all the sod is turned over. This depth should be increased when backsetting and also at each fall plowing and summer fallow, until five or six inches is reached; fairly deep plowing or stiff loam helps to pulverize the soil and admits both air and rain.

M. A. C.

S. A. BEDFORD.

Ice Stored in Cellar

EDITOR FARMER'S ADVOCATE :

The place that I store my ice in is a cellar under an old frame house that I use as a granary and I find it keeps very well, as I always have all we can use. I put it up about the first of January as it is generally about the right thickness then, about 16 inches. For several years I sawed it out, but last year several of my neighbors and myself made arrangements with the livery man in town and borrowed his ice plow and took out in one day all we wanted to store and enough rough ice for soft water to last till spring.

The way I store it is this : In the fall I clean out all the old straw and rubbish from the cellar and put a layer of poles, some crossways and some lengthways, in the bottom to give drainage, as it will soon melt if the drippings cannot get away freely. I have a chute from the outside and the ice comes down in a hurry. I start on the far side from the chute about two feet from the wall and pack it in solid about eight feet square and fill up all the cracks with pounded ice. Then I start again on the far side as before, and I put in four layers, that is, about five or six loads. Then I get a load of straw, oat straw is best, as it will pack in better than wheat straw, and get it as chaffy as possible, and tramp it in as solid as I can around the stack of ice and over the top, till I can't get another forkful in the cellar. Then I fill up the chute and cover it over with some boards and it is there ready for the summer. I take it out through the old trap door in the floor.

I would like to tell you about a scheme of Mrs. Brown's to keep the bedrooms cool during the hot spell in August. She would take candy pails and fill them with cracked ice and put on chairs near the windows or doors where the draught was coming in and the house would be nice and cool all night.

Man.

OLIVER BROWN.

Ice Supply Easily Provided

EDITOR FARMER'S ADVOCATE :

When a boy I was raised on the banks of a stream in Eastern Ontario, where ice was in abundance and convenient for storage. My father opened up an old root house, about 12 feet square and 8 feet deep. This he cribbed up with cedar poles to prevent caving in. When the ice was about two feet thick he went on the river and sawed out blocks about two and one-half to three feet wide and as long as a team could draw with a chain. These he drew up and slid into the hole with crowbars and packed three depths of ice closely together. Then he covered it with straw to the depth of about two feet and put a

slanting board roof of two thickness above. The air circulated all through between the straw and cover. We had ice all the season for all farm purposes.

On coming to Manitoba we felt the need of ice for dairy purposes. I enlarged an old well (which had gone dry) to the size of eight feet square and about eight feet deep on the highest side. This well was on a hillside, sloping a little northward and was shaded with trees. This I boarded up with rough lumber and packed tightly with ice cut in blocks about twenty inches square, more or less, according to the thickness, and covered with the sawdust I had saved from sawing my winter's wood, about four inches deep.

I then put a double board slightly sloping roof just above ground with a trap door to get out and in and for future filling. This hole had no drain from it and only the bare earth to put the ice on in the first place, but afterward four or five inches of sawdust in the bottom. I clean it out and level the bottom each fall before it freezes, and always, but once in 15 years, I have tried to



SANDY, "BILLY" AND "LASSIE" HERDING COWS NEAR LYTTON, B. C., IN THIRD GROWTH OF ALFALFA LAST SEASON.

throw out quite a quantity of old ice which remained after my summer's use. I generally fill it three or four depths of ice and like the ice about 15 or 18 inches thick to put in.

I know of an ice house made on the same principle, seven feet square, on level ground (shaded) that gives equally good satisfaction.

My dairy is from 8 to 12 cows, and if rain water is scarce we use from the ice for soft water for washing, etc. Mrs. R. does not think she could do without the ice, even though we have a good supply of good water at hand, and also use the cream separator.

As to cost the only expense would be for lumber and 400 feet at most would be an abundance.

As to filling, two men with a good small cross-cut saw and ice tongs can cut and take out a sufficient supply in one day, and in another day saw it in blocks, draw and pack it, if they have not a long distance to go. Last year two of us sawed and hauled out enough in one day to fill two ice houses of this size; but, of course, there is a knack in being used to it. It is best to let the blocks of ice down in with a windlass of some kind to prevent their breaking.

From my boyhood experience I feel satisfied that ice could be kept as described by covering with chaff, say a foot thick if you have not the sawdust, but I have never tried it in this country. About four barrels of sawdust will do very well on seven feet square.

MANITOBA PIONEER.

Building a Small House

What is the best way to build a small house 20 x 20 and 8 feet high? How many ply of boards would you put outside and inside to have it warm? I want a square roof. What material is advisable for foundation — cement, stone or brick? I want the wall 6 feet high. How much should such a house cost?

ALLAN SUBSCRIBER.

The details at hand are too meagre and the cost of material on the ground would go a good way toward increasing or reducing the cost of such a building; also what work or attendance the owner would be prepared to give. As to the basement I might suggest that six feet high is too low. It should be at least seven and one-half feet high and if stone can be got handy it is all right and as cheap as any. Cement is all right, too, but good gravel or sand would have to be got near by. I would also suggest putting the beams or collar ties about two feet up on the rafters, so as to allow a higher ceiling and instead of running the roof to a peak I would make a square frame about 4 or 6 feet and nail the rafters to it and have a small flat top.

In this country a house must be warm and it is a good plan to leave the foundation out far enough so that if ever you wish you can veneer it with brick. It will require two courses of lumber on the outside and one on the inside with heavy building paper, both inside and out, and stripped and lathed and plastered. I think perhaps both the material and work can be had cheaper in Saskatchewan than in Winnipeg, as there are generally small sawmills around and so you have not to contend with the combines in lumber or labor.

Below is an approximate cost, without the basement or painting or partitions :

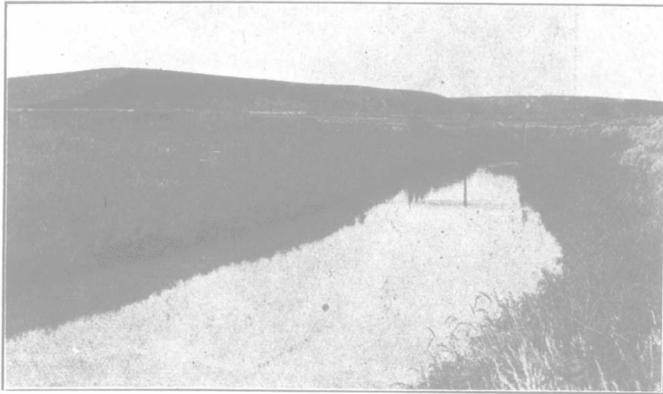
Shiplap, 3200 feet, at \$25 per M.	\$ 80.00
Siding, flooring and finish, lumber 1500 feet, \$40.	60.00
Scantling and joists, 1500 feet at \$20 per M.	30.00
Lath, plaster and work, 115 yds. at 35c. per yd.	40.00
Doors and windows.	15.00
Hardware	10.00
Paper.	8.00
Carpenter Work.	60.00
	\$303.00

The cost of the foundation will depend on the material used. If stone, sand and gravel can be secured near by the cost will be small. A local contractor or mason would give close figures on that part of the work.

GEORGE KERR.

* * *

Speaking at the Ottawa Canadian Club the other day Sydney Fisher, Minister of Agriculture, predicted that the West would ultimately produce a billion bushels of grain a year. He said that ten years ago the three western provinces raised only 23,000,000 bushels of wheat. Last year they raised 147,000,000, and there has been a proportionate increase in other grains. His estimate that there is available in the Canadian west probably about seven times as much land as was under cultivation last year, and if Canadians are able to keep up the average of production, Manitoba, Saskatchewan and Alberta will some time in future produce one billion bushels of wheat or about one and a half times the production of the United States.



IRRIGATION DAM AND 200 FEET OF FLUME NEAR BATTLE CREEK, SASK.

Flax on New Breaking

What is your opinion re sowing wheat or flax on scrub land, spring breaking? I intend to break 50 acres of new land, while putting in the other crop. Do you think flax would be the best? In seeding to wheat we seem to get too much straw and very often get it touched with frost. Give me all the information possible; whether best results are to be had by sowing flax with a nurse crop of oats or flax by itself. I intend to break this land with an engine, then surface cultivate with a disk and harrows. Would advise packing this land after it is sown, and about what depth should I sow? Is it possible to cut with a binder when flax is sown by itself? How much seed per acre should I sow for best results?

CARNEGIE READER.

Ans.—Scrub land well broken should give a good crop of flax the first year, and would not likely give any trouble from over rankness. Have the breaking done as early as possible. A large proportion of western flax is injured each year from late sowing. Sow the flax alone, using about forty pounds of seed per acre and harrow well. Use a drill, if possible, but do not sow as deep as you do wheat. If the land is very light and loose I would advise the use of the sub-surface packer before sowing. If packed after seeding there is danger from the seed being driven too deeply into the soil. Flax seed being small will not germinate if planted too deep. Flax can be cut with a binder. The usual plan is to let the binder run without twine, and make the bunches as large as possible. When cured they are drawn directly to the separator without stooking or stacking. If flax is bound, the sheaves are often tangled together making endless trouble in handling.

A large proportion of the flaxseed offered for sale is badly mixed with noxious weeds and great care should be taken in selecting a pure sample. The following weed seeds commonly are found in western flax: Ball mustard, hare's-ear mustard, false flax, Russian thistle, worm seed mustard and yellow mustard.

M. A. C.

S. A. BEDFORD.

"Down-To-The-Minute."

"I wish to express my appreciation of the FARMER'S ADVOCATE. I am glad we have such a fearless, clean "down-to-the-minute" farm paper in the great West."—Alex. Lochore, British Columbia.

* * *

"Accept my congratulations on the production of your very fine Christmas number, the best yet."—M. Tallant, Saskatchewan.

* * *

"I am well pleased with THE FARMER'S ADVOCATE and look forward to its coming every week."—J. R. Wallace, Saskatchewan.

* * *

"THE FARMER'S ADVOCATE is an excellent farm paper. I wish you every success."—Chas. Attwood, Manitoba.

DAIRY

How to Keep Cow Records

1. Hang up in the stable, or better, in an adjoining milk-room, a spring balance, a small set of steelyards, or, failing that, use almost any kind of scales you like. If you have all your milk pails of a weight, the spring balance may be adjusted to register zero when bearing an empty pail; then, when a pail is hung on it, the total weight recorded will be of milk. Otherwise, the weight of the pail must be mentally subtracted each time.

2. Tack up on a planed board beside the scales a ruled blank for a month's records, with three columns for each cow, and her name or number at the head of the column. At the left-hand side of the sheet will be the figures indicating the day of the month, with lines running from it across the sheet. The first of each cow's three perpendicular columns is for recording the morning's mess, the second for the evening's, and the third for the total day's mess. This latter may be dispensed with, but the daily totals are more interesting for comparison than the records of the separate messes. Besides, if one adds from day to day, he has a lighter task at the end of the month.

3. In the house have a book in which the monthly totals per cow may be entered from month to month, a fresh sheet being tacked up in the stable.

Beside the blank in the stable, have a pencil hung by a string, to insure that it will not be lost.

Regularly, on certain days every month, say the first, the tenth and the twentieth, samples should be taken from both morning and evening milkings for testing to ascertain the percentage of butter-fat. Each cow should be allotted a bottle, one with a screw metal cap and a rubber washer, which may be procured for 5 or 10 cents. A small, conical sampling dipper, which any tinsmith should make for 10 cents, serves to take the sample. A package of 500 preservative tablets, costing 75 cents, will keep the composite samples in good condition. At the beginning of the month put one tablet in each bottle, and on the morning and evening of each day that samples are to be taken pour each cow's milk from one pail to another, and take out the small dipperful while still in motion, in order to insure a fair sample. This will give six dipperfuls per month for each cow, representative of six average milkings.

Screw the cap well on the bottle each time to prevent evaporation. Mix the milk in the test bottle each time that more is added, by giving the bottle a rotary motion. The bottles should be kept in a locked cupboard or box, out of reach of children, and marked poison, as the preservative tablets are deadly poisonous. At the end of the month have the composite samples tested by some creameryman, or by some neighbor, or else do it yourself. A Babcock tester is inexpensive, and very valuable. Having ascertained the percentage of fat in the sample, you can multiply it by the cow's yield of milk, and thus find the estimated total yield of butter-fat for the month. Add one-sixth to this, and you have the

estimated yield of butter. Reckon the value of the butter at ruling prices, add the estimated value of the skim milk, and you have the worth of the cow's total product for the month.

Printed blanks and sheets for keeping track of the feed may be obtained free on application to J. H. Grisdale, Central Experimental Farm, Ottawa, if one does not fancy preparing home-made record sheets.

Manitoba Dairy Meetings

Professor Mitchell of the Manitoba Agricultural College is planning to hold as large a number of dairy meetings as possible during the present year. These meetings will be held under the auspices of local farmers' organizations wherever possible. In all cases at least one speaker will be provided by the college, and in addition free discussion and the asking of questions will be encouraged, and local talent made use of as largely as possible.

The speakers will be prepared to discuss such subjects as mixed farming and dairying; cow-testing associations and the testing of milk and cream; building up the dairy herd; care and feeding of dairy cows; dairy stables; care of milk and cream; home dairy and creamery butter making; cheese making, etc., etc.

Local conditions and the wishes of those in attendance at the meetings will largely determine the subjects taken up. The following series of meetings have already been arranged for:

SERIES 1.—Speaker, Prof. W. J. Mitchell. Russell—Tuesday, Jan. 25th, under the auspices of the Grain Growers' Association. Foxwarren—Wednesday, January 26th, in connection with the Foxwarren Creamery. Birtle—Thursday, January 27th, under the auspices of the Farmers' Institute. Shoal Lake—Friday, January 28th, under the auspices of the Agricultural Society.

SERIES 2.—Speaker, I. Villeneuve, instructor in cheese making, Manitoba Agricultural College, and cheese instructor for the province.

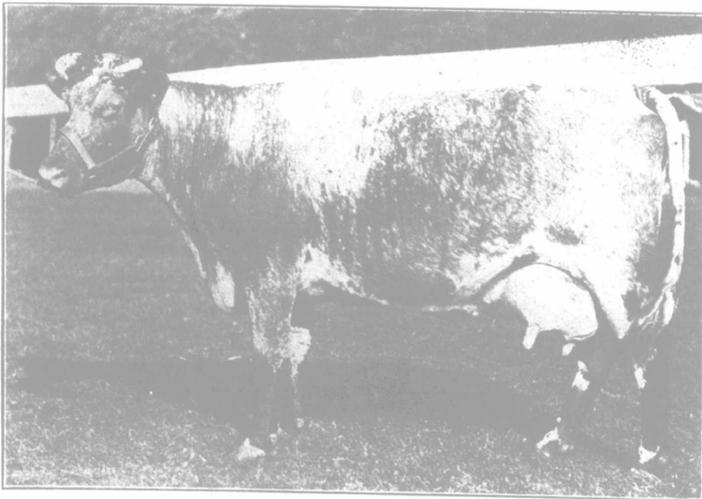
Ste. Pierre, North—Tuesday, January 25th, in connection with the Otterburne and Dessulnier cheese factories. Rioux—Wednesday, January 26th, in connection with the Rioux cheese factory.

Dairy Shorthorns in England

The development of the milking propensity in Shorthorn cows is engaging the attention and effort of breeders in England—the home of the breed—in an increasing degree. The Shorthorn Society ten years ago decided to give liberal prizes at leading shows for dairy Shorthorns eligible for Coates' Herdbook. This has had the effect of exciting interest in the matter, and arising out of this movement a separate association has been formed of breeders interested in the propagation of superior milking qualities in the pedigree dairy Shorthorn. This association, called the Dairy Shorthorn (Coates' Herdbook), is gradually developing the objects for which it was founded, and it has obtained permission from the Royal Agricultural Society to establish a separate class for bulls bred from milking pedigree cows that have won prizes in classes specially designed for them. The condition on which pedigree dairy Shorthorn cows competing in these classes are to be entered and shown are that they must be milked out the night before at a stated hour, and milked next morning in the presence of the judge. The amount of milk necessary to qualify for competition is, in the case of cows that have calved within three months, 25 lbs., and those having calved over three months must produce 20 lbs. of milk. Heifers are required to give not less than 20 lbs. if calved within three months, and 15 lbs. if over three months.

In a paper recently read before a Chamber of Agriculture, by G. Taylor, an experienced breeder of dairy Shorthorns, he said in part:

"When establishing a herd of pedigree milking Shorthorns, one must naturally look to the cow with dairy characteristics. I would place first and foremost a kindly hand and shapely bag, with well-placed teats. Constitution must not be neglected, and I place great importance upon the selection of bulls if you intend to breed a milking herd. I think whatever the extra cost may be it is money well laid out if anyone before buying a bull will go to the herd where he is bred and see his dam; and, if possible, his sire also. The influence of the dam is specially pronounced in milking pedigree Shorthorns, and



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EDITOR FARI

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this policy I know is followed by many of the best breeders of horses, who consider it of greater importance to study the character of the dam than even the character of the sire.

"My experience leads me to the conclusion that milk and beef are very difficult to get right throughout the herd—that is to say, one naturally expects in a herd which is devoted solely to producing animals of a beef type to find them more perfect there than in a herd whose chief duty is to fill the pail, and vice versa. I should not say altogether that the pursuit of milk and beef in one animal is altogether illusory, for so long as the Shorthorn is the Shorthorn we must necessarily cultivate both qualities; but he would indeed be a fortunate man who could find all the best qualities of the dual type combined in one herd, as we occasionally find them in individual animals."

Reference is also made in Mr. Taylor's paper to the importance of keeping private records of the production of not only particular single cows, but of all in the herd, and attention is called to the elaborate series of milk tests conducted by the Highland and Agricultural Society in the south of Scotland.

"When I first started to keep milk records," says Mr. Taylor, "my herd average was not 600 gallons annually; now it exceeds 800 gallons (a trifle over 8,000 pounds), and I rarely keep a cow that does not yield 700 gallons per annum."

Selling Short-Weight Butter

Frequent complaint is made by butter buyers that the pound prints, in which form a good deal of dairy butter is marketed, are under weight. Recently the civic officials at Winnipeg have been inquiring into the question and prosecutions of farmers who are in the habit of making pound prints several ounces less than sixteen is expected. Jobbers and wholesale buyers state that the practice is altogether too general. The other day an inspector weighed a delivery of butter being made by a farmer and found it 20 per cent. short. At another house 60 pound prints were weighed and found to contain only 40 pounds. It is impossible to assume that these things happen accidentally. Butter shrinks some in weight after it is packed into prints but, scarcely to this extent. To put the matter plainly these were cases of deliberate fraud. No butter maker who values his reputation or expects to stay long in business is guilty of it. But it looks like easy money to some, this putting of 12 ounces of butter in a print and selling it for a pound.

POULTRY

Dressing Poultry for Market

EDITOR FARMER'S ADVOCATE :

Permit me to express my opinion about the way some, if not all, poultry reaches the market nowadays. In view of the fact that we have pure food laws, and government meat inspectors, how is it that the poultry has been overlooked and allowed on the market with the entrails in, to say nothing of the feet and wings? Why could not fowl be properly dressed and cleaned so that it would not taint and discolor the meat, such as it will invariably do if the offal is left in? If poultry does not pay to properly dress at present prices, then it is better to raise the price a cent or so per pound, and put it on the market in proper shape. In my opinion it is high time that this matter was given some attention.

Man. A. K.

One of the debated questions among poultry dealers and consumers is whether or not birds keep better when marketed drawn. Practice varies in different localities. Opening the body and removing the viscera undoubtedly exposes the internal surface to the air, which always contains micro-organisms, and thus invites decomposition; but, on the other hand, it must be remembered that the viscera decompose more rapidly than other parts of the body, and if left in are likely to infect the rest of the bird. Of course, in removing them great care and cleanliness should be observed. Washing the inside of a badly drawn bird with salt and water is said to hinder infection. In experiments reported a few years ago properly drawn birds kept sweet two or three days longer than undrawn ones. In the case of undrawn birds the digestive organs contain more or less moist, partly digested material. The liquid in such matter can pass

through the walls of the intestines, etc., and it is thus possible that dissolved bodies of unpleasant flavor can find their way into the adjacent flesh and that the flavor of undrawn poultry which is kept for any considerable time may be injured.

Practice of late years has been in the direction of marketing poultry without removing the viscera, the reason given by dealers being that undrawn poultry keep better and have a better appearance than poultry that have been completely dressed. There are objections to the practice, as this correspondent points out, but so long as the public prefer to buy the entrails, head, feet and wings, everything, in fact, but blood and feathers, it is difficult to do anything in the matter. A serious objection to poultry with the viscera removed is that this work is frequently done carelessly, and the value of the bird, from the middleman's viewpoint, somewhat reduced.

Spiced Food for Poultry

Only under very exceptional conditions am I an advocate of spices or condiments for poultry. Many things used in this way are positively injurious. Recently, it has been brought to my notice that a party giving their laying stock (or, to be more precise, the stock that should have been laying) a liberal daily dosing of cayenne pepper in their mash, as they put it "just to warm them up a bit on account of the cold weather and because they were not laying well." Such a practice which is not uncommon is strongly to be deprecated. It is a great mistake to imagine that because cayenne causes a burning sensation it is warming in the proper sense; and what is still of more importance, it is very liable to cause disease of the liver and other derangements of the internal organs, and is calculated to retard rather than increase egg-production. If the birds are properly and suitably fed, provided with the usual necessities, such as grit and plenty of green stuff, and kept exercised by scattering their hard grain amongst plenty of dry litter where they will have to work for it, strong spices and condiments will be unnecessary and much better avoided.

C. F. COOK.

Hens Subject to Colds

Have frequent trouble with my hens. They seem disposed to take cold easily. Hen house is warm, and the fowls not exposed to the weather. To what is this trouble due? I am feeding them in the regular way, giving mash once a day and grain at other times. Do you think the house is at fault? I have been told that a hen house needs to be well ventilated. How is this to be done and a proper degree of warmth maintained? Man.

P. W. H.

If a flock of poultry show symptoms of some disease of the respiratory organs, the ventilation, whether sufficient, or whether in such a way that the fowls are in a direct draught, whether on the roost or along the floor where they sit during the day, must be looked after; also whether their quarters are not damp and filthy and whether the hen house is properly heated. An overheated henhouse is fully as bad to produce diseases of the respiratory organs as it is for fowls to be out and exposed to inclement weather. In those diseases where there is a general outbreak of some infectious nature the general sanitary conditions must be looked after.

In this case the trouble is due probably to insufficient ventilation. See reply to W. J. C., page 84, of the issue of the FARMER'S ADVOCATE for January 19. Advice was given there re ventilation of a poultry house that was over warm, damp and predisposed the fowls to colds. You will find that less warmth and more fresh air will probably remove this trouble completely. An erroneous impression exists among some poultry raisers that hens have to be kept warm in winter. This is a mistake and to the practice of closing the house up tightly is due much of the respiratory trouble amongst fowls in winter.

* * *

"I have been a reader of THE FARMER'S ADVOCATE for seven years and find it a welcome visitor every week. I find in it something new and also something good every time it comes along, and, as a farmer, take much interest in its pages of information."—Wm. E. Mabley, Manitoba.

* * *

"I notice my subscription has run out and I must renew at once as I like your paper very much. Enclosed please find \$1.50."—John Kerr, Manitoba.

FIELD NOTES

New Coach Horse Association

A Canadian French Coach Horse Association was organized recently at Calgary, Alberta, with the following officers: President, G. E. Goddard, Cochrane; vice-president, I. G. Ruttle, Calgary; secretary-treasurer, E. L. Richardson, Calgary; directors, W. B. Thorne, High River; C. R. de la Vergue, Glenbow; Geo. T. Haag, Calgary; George Hoadley, Okotoks.

By-laws and constitutions have been adopted and forwarded to Ottawa for incorporation under the Act regulating the Live Stock Record Associations. As soon as the association is incorporated pedigrees of Canadian French Coach horses will be recorded at Ottawa in connection with the national live stock records.

The association has already interested itself in the French coach classes at the Alberta Provincial Horse Show to be held at Calgary from the 5th to 8th of April next. A donation of \$100 has been received and will be offered in the following classes at the Spring Horse Show:

Grade carriage gelding or mare 15.2 and over shown in harness, sired by a registered French coach stallion; name of stallion and certificate of breeder required, \$30, \$20, ribbon.

Grade saddle mare or gelding, 15.1 and over, shown under saddle, conditions as above. \$30, \$20, ribbon.

Exhibitor must be a member of the Canadian French Coach Horse Society and owner of animal at time of entry. No entry fee necessary from members of the Canadian French Coach Horse Breeders' Association, but entry must be made in regular way. The membership to the association is \$2 a year, which can be sent to the secretary at Calgary. This will entitle the member to register pedigree at a reduced rate.

North Dakota Grain Growers

The farmers and stockmen of North and South Dakota and Minnesota, held their annual convention last week at Fargo, N. D. A number of different organizations combine to make the convention, the meetings being in the nature of a short agricultural college course, a grain growers convention, livestock breeders meeting, horticulturists convention and so on. A good many of the questions are similar to those discussed at grain growers conventions in this country, the only difference being that the meetings are dominated by the agricultural college, and consequently are more given to educational work along the line of production.

It is interesting to note that the grain growers of these states have grievances in regard to marketing grain much as we have ourselves. The grievances, however, are somewhat different. There is some agitation for federal inspection of grain, and measures to inaugurate such system of inspection have been defeated in the federal house by reason of the influence brought to bear upon congress by those interests most to be benefited by the continuation of the present inspection system. Another thing that strikes one in regard to these conventions is that the platform talent is nearly all professional, meaning by that term that the addresses are given and discussions carried on largely by senators, congressmen, college professors, presidents of this, that or the next thing, while the farmer delegates present sit tight, soak in the information rayed out and then go home to digest it. Some of the speeches rank up well as rhetorical productions, but one misses some of the impromptu orations occasionally indulged at Canadian farmers' conventions, and the threshing out ever, the annual gatherings at Fargo are valuable from the educational standpoint, those in charge seeming to cram in a large amount of work during the four or five days of the convention.

To Investigate Cause of High Prices

Hon. Sydney Fisher, minister of agriculture, intimated in a speech at Ottawa the other day that officials of the department would begin an investigation into the abnormal increase in the cost to the consumer of farm products and other commodities. He stated that farm products were now considerable dearer in Canada than they were some years ago, and comparatively higher here than in England, while it does not appear that the farmer is deriving any considerable share of these enhanced prices. It will be the business of the investigating committee to find whether the increased cost of living is due to the operation of combines, or whether the retailer and middlemen are extracting too large a share as profits.

A similar investigation into the cost of living, with view to getting comparative figures as to wholesale and retail prices, wages, cost of raw material and of the finished product on a large line of commodities in daily use, has also been undertaken by the minister of labor, and is now well under way. The government of Ontario, as intimated in the Lieut.-governor's opening address at the present session, will give some

attention to the problem of high food prices; in fact, this is the most important work foreshadowed for the legislature in the speech from the throne. Similarly, in the United States the federal department of agriculture have named a commission to inquire into the whole question of food prices and find, if possible, the reason for the large increase in the cost of living during the past few years. The United States commission will address itself not only to inquiry at home, but is given authority to prosecute enquiries abroad, to determine whether or not the American consumer is paying more for farm products produced at his door than European consumers pay for the same products when they are exported abroad.

The investigation of the question of food prices will be followed with a good deal of interest. It is expected that considerable light will be thrown on the influence of combines; in fact, action against certain combinations said to be unduly enhancing the consumers' price of a number of food products has been started in Chicago, the presiding judge being K. M. Landis, he who inflicted the twenty-nine million dollar fine on the Standard Oil Company.

James J. Hill, in a recent speech on the question of the high cost of living has this to say and this solution to offer:

"If as a nation we could stop our rush for a few days and give ourselves over to solid thinking, to casting about us to see what is going on, the problem would soon solve itself. There is extravagance in government, in industry, in speech, and in promise. We are wasting our heritage more shamelessly than any people in the history of the world. It has been come easy and go easy with us for so long a time that we don't know how else to lie. In a word, our best thinkers everywhere must turn their thoughts to the problem of increasing the productiveness of the soil before we can arrive at the solution. Manufacturing, mining, industry and transportation have been absorbing too much thought of the world's leaders for half a century. We have those subjects in hand now; there is not much more to be learned in any of them. And so let's turn and solve the farm problem. It is simpler than any of the others, but it is harder to make practical use of the solution. We know how to make two blades of grass grow where only one grew before, but we haven't the men and women out on the farms to do the work. So the chief feature of the problem is how to get the people back to the soil. They have got to come to it if we survive. The sooner the better. The movement from the city back to the country will start before long and we shall immediately feel its effects. Until that movement sets in I have no remedy to suggest for the present high cost of living—I should have said the present cost of high living."

Agricultural Progress in Alberta

The annual report of the department of agriculture for Alberta for 1909 was issued recently. In it the deputy minister of agriculture sums up the features of the season and their bearing upon agriculture. He says, in part:

The acreage seeded to winter wheat was much greater than in previous years, but this did not compensate for the loss by drouth and winter-killing, which amounted to at least 50 per cent. throughout the province. The greater part of the acreage that suffered was reseeded to spring wheat, oats and barley. Frost and hail did some damage during the growing season, but on the whole the province reaped a very bountiful harvest. The sample of grain was almost uniformly good. The official estimate places the total at more than 130,000 acres.

The tabulated estimates of the department gives the acreage and yield as follows:

	Acres.	Est. yield.	Est. bush. acre.
Wheat (spring)	250,000	6,250,000	25
Wheat (winter)	80,000	2,000,000	25
Oats	500,000	20,000,000	40
Barley	100,000	2,500,000	25
Rye	1,000	18,000	18
Flax	9,700	82,450	8 1/2
Speltz	500	11,500	23
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There were about 2,400 acres of sugar beets under cultivation; the estimated yield was eight tons per acre.

Stockmen had the most favorable winter of the last four in 1908-9, with the result that the spring found the stock in good condition, the only exception being in the case of sheep and hogs, where there was some loss of the increase owing to the cold, wet spring. The subsequent season was exceptionally suitable for live stock. The range in the southern portion of the province has been disappearing by reason of the encroachment of the homesteader, but the number of small owners on farms is at the same time so rapidly increasing that there will be more cattle and horses for market than ever before. It may be true that the quality for a time will rank a little lower, but this will soon be readjusted by the introduction of pure-bred sires. The number of cattle marketed during the year is estimated at

128,000; prices, which were even better than those of the previous year, ranged from \$35 to \$50 per head. Prices of horses were well maintained at high figures; at least 17,500 head were sold within the province.

It is now estimated that there are probably 100,000 sheep in Alberta, 60,000 being south of the C. P. R. main line. The flocks in the south are decreasing, but the increase in the north will at least make up for this decrease. About 25,000 were sold for mutton at an average of \$6, and the wool clip was 400,000 pounds, selling at an average price of ten cents. The number of swine shows a substantial increase. The growth in numbers is most rapid in the central and northern portions of the province, yet there is a good increase in the country adjacent to the C. P. R. line from Macleod to Calgary. The number marketed is estimated at 80,000, and prices have ranged from six cents to nine cents per pound.

The dairy commissioner in his report estimates the aggregate selling value of the output of the cheese factories at \$28,000, and the butter from the creameries of the province at \$600,000 for the year ending October 31. In addition, butter from the private dairies has probably been sold in the same period to the value of \$275,000, making a grand total from the dairy produce of the province of at least \$903,000.

Events of the Week

It is stated that Earl Carrington will succeed Earl Grey as governor-general of Canada when the latter's term of office expires this year.

Hugh McKellar, publicity commissioner for Moose Jaw, has resigned to accept the position of secretary and manager of the local agricultural fair board.

The British naval program for 1910 includes the largest item in building ever undertaken by the Admiralty in one year. Four super dreadnoughts will be laid down, together with a number of other vessels of large size and a large list of destroyers and submarines.

The railways are planning to make splendid exhibits at the coming Brussels International Exposition. The Grand Trunk Pacific are making preparations to run a continuous motion picture theatre in which the building of the line will be shown from the steam-shovel to the complete line.

The meat boycott, which was started two weeks ago in certain American cities is spreading rapidly, and those in the United States who are now going without meat in order to bring prices down, are numbering into the hundreds of thousands. In several Canadian cities "meat strikes" have been organized.

J. Pierpont Morgan, promoter of billion dollar corporations, multi-millionaire and collector of works of art and antiques, is behind a gigantic merger in copper which will be the second largest individual combination in the world. Practically all the leading copper mine owners of the United States are in the merger, the capitalization of the new corporation being one billion dollars. Copper is expected in the next few years to assume an importance among metals equal to steel, its use increasing very rapidly.

What cables describe as the most appalling calamity in the history of Paris, France, occurred last week. A tremendous downpour of rain followed by snow in the provinces drained by the Seine, raised that usually placid stream to unrecorded violence. The water rose high above high water mark. Bridges of historic associations were dynamited to give the waters free channel but nearly all the French capitol was inundated. Thirty thousand people are reported homeless; the damage is figured at \$200,000,000. Food prices have soared and fever has broken out among the inhabitants. The flood is the worst ever recorded at Paris and it will be some time before the city recovers from the watery onslaught of the Seine.

The original white settlers of Rupert's Land and the Northwest Territories at a meeting in Winnipeg on January 13 adopted a resolution dealing with the rights and privileges guaranteed them when these territories entered confederation, which resolution was presented last week by James H. Ashdown, ex-mayor of Winnipeg, to the Dominion authorities at Ottawa. The petitioners assert that when the western territories consented to become a part of the confederated Dominion, certain rights which the original white settlers were conceded to hold would be respected by the Dominion government. These rights, it is claimed, have not been respected in the sense that was understood. The original settlers and their descendants claim in this petition that while their claims were prior to and other that could be advanced, other individuals any corporations have been dealt with by the government with a lavish hand, and the original settlers given only such rights as were granted to ordinary settlers. It is proposed, therefore, that the whole question be brought up in Parliament as a non-partisan subject and the matter gone thoroughly into. No reply has yet been received by the pioneers to their request.

Lloyd-George is expected to ask parliament to sanction the raising of \$850,000,000 for next year's public expenditure, one of the largest ever introduced. This sum will be raised in the manner proposed in the budget rejected by the Lords.

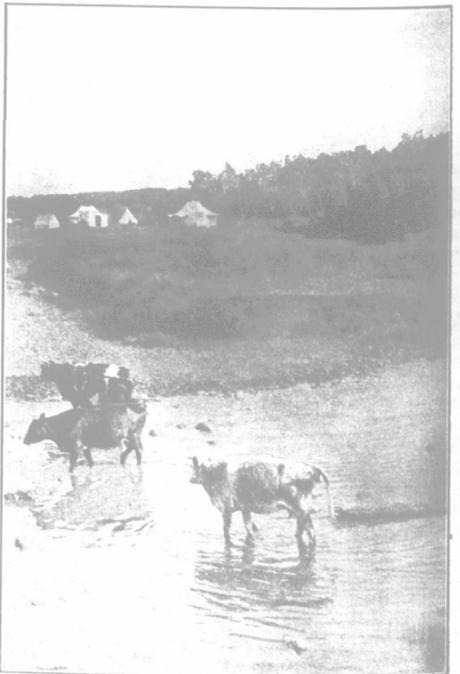
The Western Fair Association presented the following resolutions before the House of Commons' committee on the Miller anti-gambling bill: that racing is necessary to the development of the Thoroughbred; that its results aids the farmers in obtaining good stock to cross with his own; that racing cannot continue without the betting privilege; that the prairie provinces are the only part of Canada from which saddle horses for home purposes and remounts "as in Strathcona Horse regiment" can be obtained for the imperial army.

Dominion trade returns for December show a record volume of business done. The total trade was \$72,527,465, an increase of \$12,250,534 over December, 1909. The exports of domestic products totalled \$30,774,900. The increase in exports, about \$9,000,000, are credited to agriculture, reflecting the results of the record harvest of last year. For the nine months of the fiscal year the total trade has been \$512,486,678, a comparative increase of \$83,288,506. The imports have totalled \$267,041,935 an increase of \$58,381,762. The exports of domestic products have totalled \$221,116,813, an increase of \$26,533,626. During the nine months the agricultural exports increased \$23,000,000, and the exports of the forest have increased by \$7,000,000.

Grain Growers to Federal Government.

A delegation representing the grain growers' and milling interests of the Dominion met the minister of trade and commerce last week and renewed the request that the government take over the terminal elevators at Port Arthur and Fort William. The delegation consisted of R. Mackenzie and R. C. Henders, secretary and vice-president of the Manitoba Grain Growers' Association; Messrs. Watts, Shaw and Rice of the Dominion Millers' Association, and Mr. Ewing, M.L.A., representing the Dominion Grange. R. C. Henders, speaking for the Grain Growers', presented the resolutions adopted at the association's annual meeting in December. R. McKenzie, along the same line, pointed out that the elevator situation had materially changed since the delegation approached the government a year ago. He urged the taking over of the terminals by the federal government as a necessary step to ensure of the grain growers' interests being adequately guarded, and for the establishment of a sample market at Winnipeg.

G. B. Watts, secretary of the Canadian Milling Association, emphasized the necessity of the government taking over the terminal elevators so as to guard against the lowering of the standard of grain, suggesting that conditions ought to be such that grain would be delivered to the consumer in the condition that it is disposed of by the grower. Under the present conditions the grain is tampered with in transit and neither grower nor the manufacturer of flour gets full benefit. Mr. Watts pointed out that Ontario millers give a preference to grain shipped from C. P. R. terminals over grain shipped from the privately owned elevators.



THE COWS ENJOY A STREAM.

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SASKATCHEWAN'S BIG CONVENTION

The outcome of the convention of agricultural societies and provincial grain show at Regina last week indicated that realization is better than anticipation. All had looked forward to an excellent treat and instructive sessions. However, few had counted on such uniformly practical and educational sessions as characterized the week's proceedings. Recognized authorities introduced live topics and used good judgment in the presentation of facts with which farmers wish to become acquainted. Moreover interesting and intelligent discussion followed almost every address. Not the least interesting feature was the great display of high grade grains. It was the greatest grain show ever held in Saskatchewan, if not in Canada. With ninety-two samples of wheat, sixty-seven of oats, twenty of barley, seven of flax, in addition to grass seeds and a fine display of seeds entered under the Canadian Seed Growers' Association rules and regulations, delegates were given an excellent chance to scrutinize superior seed and ascertain what quality should be demanded in the seed sown on prairie farms. Special show cases displayed the samples to advantage.

One of the main features of the week's meetings was the direction of special attention to the growing of alfalfa. This important question was introduced by delegates from Grenfell society. Philip Leech suggested that the government offer a prize of \$1000 for first and others in proportion for the best field of this legume in the province four years hence. W. R. Abbot proposed that the delegates subscribe to a fund to provide a liberal cash prize. Several delegates preached the merits of this crop as a soil renovator and fodder for stock.

Considerable discussion developed over the quality of wheats from the milling standpoint and the advisability of growing coarse grains. The consensus of opinion was that Red Fife continued to stand at the top and that the growing of many other sorts claimed to be earlier had a tendency to depreciate the value of Western Canadian wheat. Practically all agreed, also, that in districts where the season was found to be too short for Red Fife to mature it was well to consider carefully the advisability of growing oats or barley rather than softer grades of wheat.

GRAINS OF SUPERIOR QUALITY

The provincial grain show brought together over two hundred entries of grains and grasses. The northern district, including that part of the province lying north of Qu'Appelle Valley, Lost Mountain Lake and the western end of the G. T. P. railway sent in 24 lots of Red Fife wheat, 16 of wheat of other varieties, 30 of oats and 7 of barley; while the southern district supplied 43 bags of Red Fife, 10 of other varieties of wheat, 32 of oats and four of barley. In addition there were sixteen entries for the Garton Cup in oats, 9 for two-rowed barley and 7 for flax.

Awards were made by James Murray, superintendent of the Experimental Farm at Brandon; F. H. Reed, representative of the seed branch at Regina, and J. Albert Hand, editor of THE FARMER'S ADVOCATE. The closeness of the score best tells the story of the uniformly high quality of many samples. With wheat weighing 64 to 66 pounds or over to the measured bushel and oats running 47 to 50 1/2 pounds and scores totalling 94 to 98 out of a possible 100, Saskatchewan farmers have every reason to boast of the grain producing powers of their broad acres.

In wheat the sweepstakes prize of \$50 and the \$100 silver cup was taken by John Howden, of South Qu'Appelle, with a score of 96. John A. Mooney, of Regina, and F. D. Cherry, of Prince Albert, each had samples that scored 95 1/2. Mr. Cherry won the Purify Flour Cup for the best Red Fife wheat in the northern district. Smith and Rackham, of Lloydminster, secured the sweepstakes prize of \$20 for wheat of variety other than Red Fife.

In oats the sweepstakes prize of \$25 went to J. Lanigan, of Wadena, on a sample of Abundance that weighed 50 1/2 pounds to the bushel and scored 98 points. The competition was very keen. The Garton Cup was won by Joseph Dundas, of Francis.

Two-rowed barley presented a display that for size and general appearance merits special mention. The score cards showed a percentage of 97 1/2 points. Color and quality were of such calibre as to attract general attention.

The scoring of the judges resulted in the following awards:

Red Fife wheat, northern district—1, F. D. Cherry, Prince Albert, score 95 1/2; 2, W. A. Pain, Vonda, 95 1/2; 3, Geo. L. Smith, Saskatoon, 95; 4, D. Lang, Stockholm, 93 1/2. Others who scored 90 or higher were: W. Lang, Stockholm; Jos. Caswell, Saskatoon; W. Barnett, Elfros; W. Chappell, Watson; John Telfer, Melfort; Max Schmitter, Saskatoon; P. Trowell, Saltcoats; W. T. White, Lipton, and D. McIntyre, Togo.

Red Fife, southern district—1, John Howden, South Qu'Appelle, total score, 96; 2, J. A. Mooney, Regina, 95 1/2; 3, Fisher Bros., Windthorst, 95; 4, F. W. Wienshall, Lumsden, 94 1/2. Others scoring 90 or higher were: James Scott, Wolseley; P. M. Bredt & Sons, Edenwold; James Suli, Moose Jaw; B. Green, Moose Jaw, and R. H. Carter, Fort Qu'Appelle.

Wheat, any other variety, northern district—

1, Smith and Rackham, Lloydminster, 98 1/2; 2, R. A. Grannis, Togo, 92 1/2; 3, J. Almond, Lloydminster, 92; 4, W. A. Pain, Vonda, 91 1/2. Mrs. K. Olson, Stockholm, had a sample that scored 90.

Wheat, any other variety, southern district—1, F. Coles, Wolseley, 93 1/2; 2, Alfred Lawton, Broadview, 92; 3, A. R. Partridge, Lumsden, 91 1/2; 4, R. Parsons, 91. C. G. Hayward, Fort Qu'Appelle, had a sample that scored 90 1/2.

Oats, any good milling variety, northern district—1, J. Lanigan, Wadena, score 98; 2, J. C. Hill & Sons, Lloydminster, score 97 1/2; 3, J. Harvey, Wadena, 96 1/2; 4, A. M. Black, Paynton, score 95 1/2. Others scoring 90 or over were: Smith & Rackham, Lloydminster; Wm. Barnett, Wadena; W. Reid, Lipton; F. W. Fast, Rosthern; C. G. Haywood, Lipton; John Alston, Prince Albert; Alex. Weir, Saltcoats; D. Caswell, Asquith; Wm. Busby, Lumsden, and D. McIntyre, Togo.

Oats, any good milling variety, southern district—1, H. R. Hayward, Ft. Qu'Appelle, score 97; 2, R. H. Carter, Ft. Qu'Appelle, score 96 1/2; 3, Jos. Dundas, Francis, score 96; 4, J. B. McGougan, Kronan, score 93 1/2. Others whose samples scored 90 or more were: J. S. Fields, Regina; Chas. E. Hill, S. Qu'Appelle; Robt. Remick, Milestone; Phillip Leech, Grenfell; A. D. Truscott, Alameda; Alex. Weir, Regina; W. R. Abbott, Maple Creek; W. E. Fields, Regina; M. I. Tolton, Tregarva, and Wm. Wellwood, Carlyle.

Oats, Garton Cup special for Regenerated Abundance—Jos. Dundas, Francis, first, and A. M. Black, Paynton, reserve.

Barley, six-rowed, northern district—1, J. Almond, Lloydminster, score 90 1/2; 2, Geo. Neilson, Prince Albert, score 87; 3, F. Beaumont, Lashburn, score 84 1/2.

Barley, six-rowed, southern district—1, D. E. Chalmers, Grand Coulee, score 89; 2, F. Coles, Wolseley, score 88; 3, Chas. Binnie, Lumsden, score 83.

Barley, two-rowed—1, S. H. Knapton, Vonda, score 97 1/2; 2, R. H. Carter, Ft. Qu'Appelle, score 96 1/2; 3, Smith & Rackham, Lloydminster, score 96; 4, A. E. Wilson, Indian Head, score 91 1/2; W. A. Gordon, Wolseley, score 91; John Howden, South Qu'Appelle, score 89 1/2; Geo. Hay, Moosomin, score 89; Wm. Languish, Oxbow, 86.

Barley, sweepstakes—S. H. Knapton, Vonda.

Flax—P. P. Lee, Milestone; R. W. Caswell, Saskatoon; W. Rennick, Milestone; Jas. Russell, Lumsden. Timothy seed—Wm. Busby, Lumsden, second. Brome grass seed—W. G. Anderson, Arcola; Jerry Coffey, Alameda.

Western rye grass seed—Albert Loveridge, Grenfell; Smith & Rackham, Lloydminster; W. G. Anderson, Arcola; Jas. Caswell, Saskatoon.

CANADIAN SEED GROWERS

The exhibit by members of the Canadian Seed Growers' Association consisted of sheaves of 500 hand-selected stalks, five complete plants and bags of "registered seed" wheat, oats and barley. The prize winners were:

Red Fife—1, F. J. Dash, Hillesden; 2, W. M. Black, Creelman.

Hand selected plants, any other variety of wheat—1, F. Coles, Moffat.

Oats, any white variety—1, R. H. Carter, Fort Qu'Appelle; 2, F. Coles, Moffat.

Barley, any six-rowed variety—1, R. H. Carter, Fort Qu'Appelle.

Group exhibit by beginners in hand selection of Red Fife—1, R. H. Carter, Fort Qu'Appelle; 2, Percy Hopkins, Amerley.

C. P. R. special \$25 for the best two bushels of Red Fife wheat grown from registered seed—F. Coles, Moffat.

PRACTICAL QUESTIONS DISCUSSED

Timely and practical topics were discussed by the notable speakers and enthusiastic delegates from all corners of the province showed their appreciation of the sessions by careful attention and intelligent discussion. Moderation and a strong desire to improve conditions for the farmer in general characterized the various meetings. A most pleasing feature was the keen interest manifested by Hon. W. R. Motherwell, commissioner of agriculture, who not only acted as chairman at many of the sessions, but also delivered weighty addresses and answered important questions relating to agricultural work.

The range of subjects included soil tillage, crop growing and grain judging, dairying, poultry raising, horticulture, home beautification, hints to engineers agricultural society management and fairs management. Not the least important were the suggestions offered by Grenfell and Moose Jaw societies on interesting features of farmers' clubs.

SUPERINTENDENT AULD'S REPORT

In dealing with Saskatchewan's agricultural societies for 1909 the superintendent, F. Hedley Auld, stated there were 72 societies as against 44 in 1906. Five societies had held successful plowing matches. Good farming competitions also had been instituted by some societies and the field grain competitions no doubt would be extended to include all branches of farm work. In demonstration work, 529 tests

were started last season. These include grains, grasses and clovers.

The financial statement showed that the societies were liberally supported. The 72 societies received annually \$40,000, while in Ontario over 300 societies received grants totalling only \$70,000. Last year speakers had been supplied for 159 farmers' meetings in the province, 79 of these under the auspices of agricultural societies.

John Mitchell, of Grenfell, and W. R. Abbott, of Maple Creek, congratulated those in charge on the good work done, and made suggestions for special work in the future.

THE SEASON'S SEED FAIRS

Seed fairs and standing field competitions were claimed by F. H. Reed, representing the seed branch, to be important factors in crop improvement and agricultural education. Last season 48 seed fairs were held. Field competitions during the summer numbered 49, comprising 578 fields of 10 acres each, 450 being wheat and 128 oats. This was an increase of 85 in wheat and 98 in oats over 1908. Changes for the better would be made for next year's work.

AGRICULTURAL SOCIETIES' ACT

In outlining amendments to the Agricultural Societies' Act of 1910, Hon. Mr. Motherwell pointed out that the purpose was to increase the opportunities of societies to earn grants by arranging for farmers' clubs, good farming competitions, plowing matches, poultry shows and stallion fairs. Before a society could receive grant there must be a membership of 150, and 75 per cent. of these must be farmers. A lively discussion followed, in which some delegates opined that young societies would be handicapped, at the verdict in general supported the changes.

FUNCTIONS OF A SOCIETY

In discussing the functions of an agricultural society James Murray, B. S. A., Superintendent of Brandon Experimental Farm, took the Agricultural Societies Act and pointed out the opportunities for useful work. In referring to the fact that the agricultural society representatives had urged on the government the advisability of establishing an agricultural college until such was granted he impressed upon them the need for earnest work in other lines. All could not be left to the college. Now while the province is developing is the time for the societies to do good work. Nothing could be of greater benefit than demonstrations in the growing of crops or the feeding of stock or by testing systems of farming in certain localities. If agricultural societies undertook such work a farm of 25 to 40 acres would suffice. Plowing matches, good farming competitions and farmers' club meetings were recommended. In addition something special should be done to add variety to the weekly routine of the farmer's wife. Perhaps something along the line of farmers' clubs would fill the bill.

Presidents, secretaries and directors of societies discussed means whereby a greater enthusiasm could be aroused in society work and gave valuable hints for the guidance of the various officials. Among those who took part in this feature of the program were: H. Kerr, of Watson; H. Dorrell, of Moose Jaw; W. L. Ramsay, of Bladworth; R. M. Crow, of Windthorst; John Mitchell, of Grenfell, and A. G. Hawkes, of Broadview.

Duncan Anderson, of Orillia, Ont., pointed out some needed improvements in the management of agricultural exhibitions. He deplored the multiplicity of breeds in the live stock classes and denounced general purpose horses in breeding classes. The professional horse race also was condemned.

Essentials in the management of an agricultural show were outlined by W. I. Smale, of Carberry, recently appointed manager of Brandon's Summer Fair. Thorough and judicious advertising was the first point dealt with. On the prize list he recommended giving prominence to features that would prove popular in the district. The prize offering in that line should be extended in that class by adding specials.

Competent young men of the district as clerks to the judges in the various classes were recommended. None others should be allowed to enter the ring. He advised that the judge be required to give reasons for his placing and asserted that in this age the man who could not do so was not wanted. It is only by full explanation that the maximum education results.

TUESDAY EVENING SESSION

At the evening session of the opening day Mayor Williams extended civic greetings. This courteous welcome was responded to by W. A. Munro, superintendent of the Experimental Farm at Rosthern.

Hon. W. R. Motherwell gave echoes of the Dry Farming Congress held last fall at Billings, Mont., and told of the great interest taken in this special line of farming in many of the Western States. The system, however, was much the same as that urged by Angus MacKay of Indian Head, for many years, and if followed throughout the Western provinces would result in greatly enhanced yields.

RURAL EDUCATION

In dealing with the question of education for rural life, President W. C. Murray, of the provin-

parliament to for next year's ver introduced. proposed in the

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university at Saskatoon, pointed out that education that tended to produce better farmers, or to increase their capacity as wealth producers, was secondary to education that served as an agency in making happier homes and more congenial conditions on the farm. Arrangements were being made at Saskatoon to have short courses along intensely practical lines. When the college of agriculture opened the main course would consist of two or three terms running from fall to spring so that students could leave the farm after plowing and threshing operations were completed and return in time for seeding. Later a more elaborate course would be put on to equip experts for doing special work and insist in moulding opinion along proper lines. In addition the program outlined included courses of two or three weeks in engineering, stock judging, grain judging, dairy practice, and such lines.

Five members have been appointed to the staff of the college of agriculture. Professor W. J. Rutherford was selected as dean. John Bracken, B.S.A., was professor of field husbandry. A. R. Greig, B. A., Sc., formerly of Manitoba Agricultural College, would be professor of agricultural engineering. W. T. Willing would have charge of botany, and F. Hedley Auld of extension work.

An advisory committee comprising two members, representing the farmers, two appointed by the Lieutenant-governor-in-council and one by the university governors, would supervise the college of agriculture. Present indications were that buildings and equipment would be ready for active work in most departments by November. Dr. Murray pleaded for something that would afford enjoyment to the boys and girls and to the women of the home.

QUALITY WANTED IN GRAINS.

The production of mixed varieties it was claimed by John A. Mooney, of Regina, threatened to lower the milling value of Western Canadian wheat. Millers wanted this cereal of one kind. The tendency of the farmer to look for high yield and earliness had resulted in grain of poor milling quality. None of them satisfied the trade as well as the standard Red Fife.

This statement was supported by Superintendent Murray, who wanted farmers not to grow varieties of wheat that were recognized as being soft and inferior. He suggested that those in districts where Red Fife would not ripen early enough to escape frost damage consider carefully the advisability of growing oats or barley. In reply to a question regarding a variety called Marquis, Mr. Murray said it was a cross between Red Fife and an East Indian wheat. Results had been good so far, and the milling quality seemed almost equal to Red Fife.

However, it had not yet been sufficiently tested to warrant general recommendation.

Several of the delegates deplored the production of so much wheat of softer grade. W. R. Abbott and others supported the suggestion that only Red Fife should be grown and that prizes be not offered for other varieties. Sergt. Major Coles, a large grower of Preston wheat, stated that he would give up his favorite sort if sound evidence were submitted to show that the market price of the product was being damaged.

USING SOIL PACKERS.

The place of the soil packer in grain growing was taken up by A. F. Mantle, who cited the experiences of others and the results of tests on packed and unpacked areas to show the advantage in their use. It was pointed out that Saskatchewan's fields receive an average of 2000 tons of water to the acre, or about 17 inches of precipitation every year. The farmer's aim should be to control this moisture for crop production. Moisture was lost by being pumped out of the soil by weeds, by percolating through the subsoil and by being sucked up by the sun or wind and lost by evaporation. He showed that the last mentioned loss could be reduced by a judicious use of the packer. Whether it was wise to use the sub-surface packer, the surface packer or the ordinary land roller must be decided by the individual farmer. Generally speaking the sub-surface packer was advisable immediately after plowing. The surface packer did best work following a drill on spring plowing well worked down.

In the discussion Angus MacKay said he always advocated plowing the summer fallow early in the summer and in that case a packer was not needed, as the June rains caused sufficient settling of the soil. For fall or spring plowing, however, packing was advisable. It was not safe to advise the purchase either of sub-surface packers because of the high price. Both were good implements for those who could afford them. Those who possessed a land roller, however, could get along very well by making good use of the drag harrow before and after the roller.

ACCIDENTS WITH ENGINES.

Means whereby accidents with steam and gasoline engines could be avoided were related by Prof. A. R. Greig, B. A., Sc., of the college of agriculture at Saskatoon. It was pointed out that over 80 per cent. of the accidents were due to the operator and not the machine. This showed that a competent engineer could eliminate practically all danger of accident. Too many engineers thought they knew almost all there was to know and became careless. With reasonable knowledge of engines and due care in handling there was little chance of meeting with

accidents if the engine was kept clean and in good repair.

EXTENSION WORK IN AGRICULTURE.

The proposed college extension work, whereby farmers in all parts of the province were to be given an opportunity to become well versed in the general principles underlying agricultural operations, was outlined by F. Hedley Auld. An effort would be made to make the instruction beneficial to women on the farm also. He hoped to see a club formed in each of the 2,000 school districts. Congenial and social intercourse was the aim. Boys and girls would also become interested.

JUDGING HEAVY HORSES.

On Wednesday afternoon a demonstration in horse judging was given by Dr. A. G. Hopkins, chief inspector of the Health of Animals branch. Five specimens owned by Robt. Sinton were used and the various characteristics of a good horse carefully outlined and discussed in such way as to give all a fair idea about the selection of good specimens. Dr. Hopkins stated that Western Canada was capable of producing horses with superior bone and feet.

DAIRYING, HORTICULTURE AND POULTRY

The wheat grower's interest in dairying was dealt with vigorously by Wm. Newman, of Lorneville, Ont. It was pointed out that in order to maintain soil fertility it was necessary to return something to the fields. Dairying offered best chances for maximum return. Ontario fed most of the grain to stock and made good use of manure, with the result that her yields per acre were larger than ever. There was no reason why Saskatchewan oats should be bought by Ontario farmers to be fed to dairy herds and the butter made sent back to the west.

W. A. Wilson outlined the work done in Saskatchewan by the fattening stations and referred to principles of breeding, feeding, housing and marketing that meant profit. Pure-bred birds of utility type had made more rapid gains than common scrubs in crate fattening and at lower cost per pound gain. In fact, scrub birds were not found to be satisfactory on the market. Purebreds were ready for market at four months.

Horticulture in Western Canada was discussed by Manitoba's apple king, A. P. Stevenson, of Dunston. Special reference was made to the various kinds of fruit that have succeeded in the Canadian prairies and outlined the care that was necessary in supplying perfect windbreak and in thoroughly preparing the soil.

BEAUTIFYING THE HOME.

What can be done by the farmers of the West in making their homes more attractive was carefully outlined by G. C. Harvey, of Indian Head, who has one of the most beautiful farm homes in Canada. A well drawn plan showing the location of buildings, shelter belt, hedges, gardens, etc., was used. In 1899 a start was made by planting hedges. In 1901 a shelter belt, enclosing five or six acres, was set out. Vegetable, small fruit and flower gardens are separated by neat hedges. In 1902 a windbreak was set out on the east and seeds of ash, maple and Caragana sown. These are now developed to trees 15 to 20 feet high.

Contrary to recommendations of many authorities Mr. Harvey trims and prunes his trees. Many of the shrubs are neatly clipped, while limbs are cut from the inner rows of the shelter belt high enough to allow persons to walk and enjoy the shade.

Careful planning and thorough preparation of the soil with constant attention after planting are the keynotes to Mr. Harvey's success.

On Thursday night M. N. Ross, chief of the tree planting division at Indian Head, gave an illustrated lecture on improving the rural home. Lantern slides showed small dwellings on the bald prairie and others in the neighborhood well sheltered by windbreaks. It was shown that by intelligent planting reasonably good protection was afforded in four to eight years.

SEED GROWERS' SESSION

The Canadian Seed Growers' Association session on Friday afternoon was one of the most interesting of the week. The address by T. N. Willing, of Regina, in which the relationship between municipalities and noxious weeds act was discussed, preceded discussion on wild oats and their eradication. Many effective means were submitted, but the general opinion was that the method adopted would have to be regulated according to conditions. Seeding to grasses and thorough summer fallowing in conjunction with barley growing were claimed to be most satisfactory.

Papers prepared by Seager Wheeler, of Rosthern, and F. J. Dash, of Hillesden, were read by J. Albert Hand and James Murray. Simple and effective methods of improving the annual crop yield by hand selection of large compact heads from the field were outlined. Geo. L. Smith, of Saskatoon, referred to his success in propagating an early strain of Red Fife. In 1902 while walking through his field he noticed an extra good stool of wheat ripening earlier than the main crop. The product of this simple plant comprising three heads was kept and planted from year to year with its increase. In 1903 he had three pounds of seed; in 1904 he had four bushels; in 1905, 200 bushels and in 1906, three thousand bushels. This strain, though in every particular similar to Red Fife, ripens in many days less time. A sample shown at the provincial grain show weighed 65½ pounds to the bushel and scored 95 points.

A comparison of his farm with a neighbor's formed the basis of an interesting talk on the advantages of seed selection, by W. M. Black, of Creelman. Soil was the same and general cultural methods similar, but as a rule he had higher yields of grain that graded higher, than had his neighbor. The difference could be credited only to the fact that he practiced selection of seed.

John A. Mooney also urged the advisability of hand selection from strong typical plants. Personal experience had shown that the ordinary farmer can select for earliness, length of straw, hardiness, etc. As he became interested the field broadened. There was as much in a head of wheat as in any horse, if intelligent work were carried on along the same lines in regard to selection.

Farming methods that induced early ripening were dealt with by J. H. Fraser, of Qu'Appelle. He urged thorough cultivation and a study of the methods adopted by successful farmers in all sections.

FARMERS' CLUBS WORK

A. M. Campbell, of Argyle, Man., dealt vigorously with what he considered the earmarks of an ideal farmers' club lecture. The successful lecturer understood his topic and knew how to place the particulars clearly, forcibly and briefly before his hearers.

At the evening sessions on Wednesday and Thursday evenings Grenfell and Moose Jaw societies presented specimen farmers' club meetings.

OLD TIMERS' SESSION

The closing session on Friday evening was devoted to a discussion of farming operations in Saskatchewan from prior to 1890 down to 1910, by F. C. Tate, M.L.A., of Regina, and Hon. W. R. Motherwell, while Duncan Anderson took a glance into the future and prognosticated the decade 1910 to 1920.

ALFALFA AND CORN DISPLAY

In keeping with the lively interest evinced in Alfalfa, two prime bales were displayed on the platform. These were cut from stacks belonging to Philip Leech and Ed. Crane, of the Grenfell society. Another interesting product was corn. I. B. Brown, of Bienfait; J. A. Brown, of Estevan; J. Killough, of Pense, and A. Bachmann, of Swift Current, each had fine specimen ears fully matured.

RESOLUTIONS PASSED

The resolutions committee comprised A. G. Hawkes, of Broadview (chairman); F. W. Adams, of North Battleford (secretary); H. Kerr, of Watson; W. R. Abbott, of Maple Creek; W. L. Ramsay, of Bladworth, and F. C. Washington, of Weyburn.

Among the resolutions adopted were the following:

Moved by W. L. Ramsay, and seconded by H. Kerr, that the establishment of a central agricultural library available to agricultural society members, said library to be administered by the superintendent of fairs and institutes from an efficient agency for the demonstration of central point, would be economical and agricultural information, an incentive to membership in said societies, and a stepping stone to the agricultural college.

By W. R. Abbott and W. L. Ramsay, that this convention endorses resolution passed at convention in 1909, that it is desirable that a more uniform classification of horses and cattle at the various agricultural fairs throughout the province should be made and that an illustrated bulletin should be issued by the department of agriculture setting standards.

By W. R. Abbott and F. W. Adams that this convention record their thanks to the Grain Growers' Association for their efforts in behalf of the agricultural interests of the province.

By P. M. Bredt and A. M. Black that the department compile a model prize list as far as affecting horses, cattle, sheep and swine classes, in order that same can be accepted by the judges at the fairs.

By A. G. Hawkes and W. R. Abbott, resolved that the department be asked to frame a regulation having in view the prohibiting of speeding contests or other attractions while judging horses and cattle is in progress.

By J. Mitchell and W. P. Osler, that the grain exhibits other than prize winning samples be auctioned off at the close of the convention, and returns sent to exhibitors.

After an interesting discussion as to the most desirable size of field for alfalfa competition, the following resolution was carried: That this convention approves of the suggestion that \$1,000 be raised by subscription by the canvassing of this convention and various agricultural societies and members thereof, and be given as a first prize for the best field of alfalfa consisting of ten acres in the year 1914, and that the commissioner of agriculture appoint a committee to carry the scheme into effect.

ADVISORY BOARD MEMBERS

In response to a request from the commissioner of agriculture two representatives of the farming element of the province were selected by the delegates as members of the advisory board for the college of agriculture at Saskatoon. On motion of P. M. Bredt, Angus Mackay, superintendent of the experimental farm at Indian Head, was appointed without opposition. F. W. Green, of Moose Jaw, was selected as the other member of the board. W. L. Ramsay, of Bladworth; Ed. Fitzgerald, of Grenfell; Ed. Crane, of Baring; W. A. Munro, of Rosthern, and Geo. L. Smith, of Saskatoon, were also nominated.

ALBERTA FARMERS' ASSOCIATION

The United Farmers' Association of Alberta held their second annual convention in Edmonton on January 19, 20 and 21. For the last few years the farmers of the sunny province have not only had visions of government owned and controlled elevators, but also of a pork-packing establishment, built and controlled by the provincial government. At the convention those visions became more real, and after the favorable announcements of consideration and proposed action made by Premier Rutherford and the Hon. Duncan Marshall, minister of agriculture, the delegates in their enthusiasm depicted those oblong farmers' granaries carefully holding "king wheat" secure from the grasp of the corporations. The porkers also could be seen wending their way to an establishment where hams were sent out bearing the government stamp. It is now quite apparent that Alberta is to have a government owned pork-packing establishment. Many other questions of like importance came before the convention. Among those might be mentioned the establishment of a chilled meat plant, the question of government hail insurance, the western shipment of grain, the location of the agricultural college, the advisability of starting a labor bureau, and the question of co-operation work and organization among the different societies of the province. Upwards of two hundred and fifty delegates attended the convention, and it was conceded to be the largest of its kind ever held in Alberta. On the evening of the second day of the convention the farmers were the guests of the city at a large banquet given in their honor.

From the very beginning of the convention the farmers were most urgent in their demands for what they claimed to be their rights. Premier Rutherford undoubtedly was fully aware of this fact, after attending the initial session of the convention. The premier made some statements pertaining to the steps which the government has taken in the direction of agricultural advancement in the province, and the stand which the government will take on questions now looming large on the provincial horizon. He claimed that the hail insurance scheme on the part of the government had met with a deficit last year as in other years, but he was opposed to discontinuing government hail insurance. He defended the action of the government in placing the agricultural college at Strathcona. He claimed that the government did not intend to confine agricultural teaching to the college. A scheme is being devised to introduce agricultural teaching in the high schools. As for the problem of the grain trade, he advised that a committee of the convention be appointed to place before the government a practical scheme for the operation of internal elevators and the putting of the Alberta grain trade on as profitable a basis as possible. But apparently nothing short of government ownership of elevators, both internal and terminal, will meet with the entire satisfaction of the United Farmers of Alberta.

At the opening session of the convention the Hon. Duncan Marshall, minister of agriculture, spoke regarding the work of his department, dwelling especially on the pork-packing establishment.

J. R. Boyle, member for Sturgeon, at this juncture spoke to some length on the agricultural college question, declaring as far as he was aware the question of the location of the agricultural college had not been finally settled, and he considered it an open question, both for the legislature and the convention to discuss.

T. A. Crearer, who appeared as the representative sent by the Manitoba Grain Growers' Association, spoke as to the co-operation needed between the provincial associations. F. W. Green, Moose Jaw, organizer of the Grain Growers' Association in Saskatchewan, delivered an address along the same line.

The reports of the president and the secretary, and also the transportation committee, as presented before the convention, proved of much value and contained much valuable information.

PRESIDENT'S ADDRESS

President Bower, in his report, dwelt on the importance of the U. F. Association, and cited much already accomplished. He made a strong plea for better organization work throughout the province. The different matters of importance to come before the convention he outlined. Regarding the govern-

ment ownership of elevators he stated: "I am glad to know that our government has not received favorably the proposition of bonusing privately owned elevators at the Pacific coast. This would be no benefit to us, unless the government retained such control over them that the warehousing of our grain would be completely taken out of the hands of interested parties. Another proposition, briefly hinted at, that of the association taking shares in a privately owned elevator at the coast, would also, I believe, be fraught with grave danger to our best interests, and may be but one of the many schemes evolved to draw us away from the firm stand we have hitherto taken. As everlasting vigilance is the price of success, it would not be wisdom on the part of the Grain Growers and United Farmers to relax too much in our efforts until government owned elevators are an accomplished fact."

The other reports submitted dwelt on the many phases of the work, much of which was taken up at the convention.

A number of resolutions, making changes in the constitution, passed the convention. Rice Sheppard, of Strathcona, brought forth the resolution providing for the establishment of a life membership fund, at a fee of ten dollars, three dollars of same to be retained by the local union, three dollars to go to the central association for general expenses, or to create a reserve fund and the balance of four dollars to go to the organization fund for organization. Upon the adoption of this resolution several members tendered their fees as life members.

REPORT ON TRANSPORTATION

Sydney Ottewell, Clover Bar, submitted the report of the transportation committee. Freight rates have been lowering from year to year from the East, he said, but are not yet what the farmers want. The C. P. R. have said that rates will be lowered when they have competition from the East, but not until then.

President Bower supplemented the report of Mr. Ottewell. In company with Mr. Wolford, he had taken a trip to the Pacific coast to investigate the conditions there. The British Columbia people showed a desire for closer trade relations and expressed the great sympathy with the Alberta people in their desire for such relations. He quoted figures to show the great advantages of the British Columbia markets. Mr. Bower then took up the question of the competition now existing in the handling of farm products and suggested remedies in the interests of the farmers. "The welfare of Alberta is more vitally tied up with that of British Columbia than with any other province of the Dominion," he proclaimed, and that Alberta is more deeply interested in the development of the markets of the coast than in terminal elevators at Fort William or at Fort Churchill. He suggested that a congress of the producing and consuming interests of both provinces, together with representatives of both governments, be called in order to arrange for closer trade relations between the provinces.

A resolution from the co-operative union of Canada, embodying a bill which will be submitted at the current session of the Dominion parliament, was unanimously endorsed by the convention. The resolution provided for the approval of a bill for the purpose of affording cheap, simple and effective facilities for the legal incorporation, regulation and control of co-operative societies. A copy of this resolution will be sent to all the federal members and senators and they will be asked to give the bill their support.

TERMINAL AND INTERNAL ELEVATORS

Two very important resolutions dealing with the elevator questions passed the convention. The first was proposed by the Rocky Coulee Association, and dealt with terminal elevators. It was as follows: Resolved that the Dominion government be asked to take over the terminal elevators at Port William and Port Arthur, and also to build and operate a terminal elevator at Vancouver, of sufficient capacity to handle the prospective grain trade via the western route.

The second was from Fisburn union, and dealt with internal elevators. It read as follows: Resolved that we are in favor of a plan by which the government may build or secure elevators, and for the advancement of this cause a committee be appointed who will formulate a fully detailed plan for the financing and operating of a system of government elevators, and that this plan be submitted to

the proper parties at the first meeting of parliament, with an urgent request that it be brought to a favorable issue.

SHIPPING GRAIN TO MEXICO

Capt. T. H. Worsnop, general manager of the Canadian Mexican Pacific Steamship line, addressed the convention on the western route for grain, dealing at some length with the methods of handling and the Mexican market. He asked the convention to favor the scheme of guaranteeing bonds for the construction of a privately owned terminal elevator, which the government might have controlling interest. However, the convention did not consider the scheme favorably.

A resolution asking that the time for loading cars be extended from 24 hours to two days was passed by the convention.

PORK-PACKING PLANT

The question of a pork-packing plant is one of vital importance to the Alberta farmer. By the action of the convention they now have forced the hand of the provincial government in the matter of the pork-packing plant, and have broken the deadlock which has existed between the association and the farmers for some months, by adopting the agreement as presented by the government representative in place of their own draft. At first there were many dissenters to this move, and not until after much strenuous argument was it adopted. J. Rye, of Edmonton, who was a member of the pork commission outlined the farmers' position as they had found it in Denmark, and his speech had much to do in causing the favorable termination of the resolution. In Denmark, he claimed, the farmer guarantees to sell all his hogs to the plant he supports, except those for breeding purposes, or hogs for domestic use. Twenty-three years ago the first co-operative plant in Denmark was built, and today there are thirty-six.

The provincial government agreement, as adopted by the convention, is absolutely binding upon the farmer. It binds him to irrevocably support a government plant. By it he guarantees to furnish a certain number of hogs per year to the plant, also pledges himself to sell hogs to no other plant. He further agrees to become a member of any association that may be formed in connection with the operation of such a plant. The agreement makes him liable to a fine of \$2 per head for every hog he sells to other plants, or fails to supply to the plant, short of the number to which he agrees, provided, of course, that such a failure is not caused by the failure of crops or other reasons over which the farmer has no control. It is believed that, based on the new agreement, the establishment of a plant will at once be undertaken by the government, when a sufficient number of farmers have signed the form.

HAIL INSURANCE AND COYOTE BOUNTIES

Resolutions dealing with hail insurance were submitted by a number of the local unions and after considerable discussion it was decided that these be referred to the various unions of the province for their reports by the first of April. Resolutions were also passed calling for larger bounties on coyotes; that further amendments be made in the Weights and Measures Act, and that the executive take up the matter with the government. A draft constitution for a proposed national council of agriculture for all of Canada was submitted to the convention in a letter from R. McKenzie, secretary of the Manitoba Grain Growers' Association. The draft was discussed at some length by R. Speakman, Penhold, President Bower and Secretary Fream, and then endorsed unanimously.

CHILLED MEAT PROPOSALS

The chilled meat question again came up for discussion, E. J. Palmer, chilled meat expert, explained the proposition which he had made to the government. The convention did not regard it with favor, fearing somewhat the probability of some corporation getting control. A resolution was passed calling upon the government to take action towards the development of a dead meat export trade and the establishment of a chilled meat plant. It was pointed out that the federal government should take immediate action, as it was in the interests of the whole west for the establishment of the chilled beef industry to be on a sound and permanent basis and that the interests of the producers should adequately be protected.

(Continued on page 170)

OUR WEEKLY MARKET REVIEW

Britain was still so much concerned with election matters that the leading wheat market of the world scarcely exerted the influence she usually does on cereal and food stuffs values. After this Liverpool will have more time to devote to market affairs, now that the results of the election seem certain. In the meantime wheat prices have been fluctuating around last week's level, with a slight average increase in values all round. The clamor in America for lower prices is gaining headway and American and Canadian governments are promising immediate investigation of the whole problem. Whether anything will come out of it is not yet clear, but the great middle classes, so called, are engineering a large sized agitation and threaten to either break prices or receive a satisfactory explanation of the reason they are so high.

The live stock situation has changed little from the last report. There is a tendency in American centres to revert the lower levels. Locally and in Eastern Canadian markets the going prices are about the same as a week ago. The American meat trust is likely to be driven into a corner finally, two separated investigations having been started against it last week, and will probably have to cut its prices to retailers or directly to the public, it being claimed for the trust that it has the retail end of the business entirely in its maw; in which event there would be a strong tendency to start hacking at the producer. But only a slight indication of the event of this contingency is yet evident.

GRAIN

So far as wheat is concerned the week was one of continued pressure of bear influence. It started auspiciously for that element and continued favorable all week though prices maintained strength and advanced a trifle.

World's shipments were again heavy and primary receipts away above the week previous. Russia continues to deliver heavily, though shipments fell off a few hundred thousand bushels from the week preceding. America increased her shipments somewhat as did also Argentina, though the latter's was less than one-fifth what it was a year ago. Australia took third place last week among the world's wheat shippers. Last year at this season she was in first place.

VISIBLE SUPPLY

Canadian visible is at practically the same level as a week ago. American figures show little change.			
Canadian	Last Week	Prev. Week	Last Year
Wheat	12,837,876	12,726,574	6,526,064
Oats	5,064,724	5,153,398	3,614,044
Barley	963,938	959,641	756,025
American			
Wheat	26,265,000	26,068,000	46,875,000
Oats	9,986,000	10,142,000	6,549,000

WORLD'S SHIPMENTS

	Last Week	Prev. Week	Last Year
North America	2,752,000	2,032,000	2,848,000
Russia	2,296,000	2,920,000	592,000
Danube	936,000	456,000	344,000
India	160,000	296,000	
Argentina	472,000	296,000	2,472,000
Australia	2,264,000	2,792,000	2,968,000
Various	112,000	136,000	184,000

STOCKS IN TERMINALS

Total wheat in store, Fort William and Port Arthur, on Jan. 21, was 4,935,702, as against 4,772,965 last week, and 4,600,156 last year. The total shipments for the week were 332,138,30, last year 566,229. Amount of each grade was:

No. 1 hard	1910	1909
No. 1 northern	23,886	3,836
No. 2 northern	1,392,980	348,190
No. 3 northern	1,625,921	1,330,089
No. 4	1,008,461	1,073,268
No. 5	238,334	583,020
Other grades	54,763	248,504
	591,355	1,013,247

Oats	4,935,702	4,600,156
Barley	1,908,979	2,369,734
Flax	417,554	420,571
	651,065	732,386

HIGH PRICE AGITATION

The agitation against high prices for food stuffs is certain to act on wheat prices. In fact, its influence is already noticeable. While people can stop eating meat and other animal products, they cannot subsist without the staff of life, but at the same time if they keep at it long enough and with persistence they can influence a slump in the leading cereal.

To some extent wheat prices are high because the prices of other food products is high. There is a direct relation between the price say of meat and the price of flour. One cannot become abnormally high priced without affecting the exchange value of the other. Meat prices are high, so high in fact that choice cuts are selling at figures that make purchase by the mass of consumers impossible. If by abstaining from meat eating they can reduce the price of that

commodity, they can reduce with it the price of other products that are partly dependent on meat values for their present price level. Already it is evident that some reduction is to be effected in the price of animal products.

FOREIGN OUTLOOK

There have been unusual floods in France and the French crop is expected to be effected thereby, though nothing unfavorable has yet been cabled. Stormy and severe weather prevailed all over Europe during last week, low temperatures accompanied by snow being the crop influencing phenomena in the north, and tremendous downpours of rain being reported from all Southern Europe. There was some business done with France in Canadian wheat during the week and enquiry from that quarter is expected to improve.

The Argentine, as has developed, is not as influential a factor in world's markets as was anticipated. Whether the South American Republic ships 75,000,000 bushels or 100,000,000 bushels will not make much difference. At present the most nearly reliable estimate of exportable surplus from that quarter places it at 80,000,000 bushels.

For the remainder of the world the outlook is favorable and inclined to be bearish. American and Canadian primary receipts are heavy. The United States winter crop is reported in good condition. Australia is shipping well and Indian conditions regarded in every way favorable.

The situation, take it as a whole, is a rather peculiar one. We have a new and decidedly strong bear factor in the cheap food agitation going on in America, which added to the substantial bear factor previously in evidence, viz., the large world supplies, makes a combination that should ordinarily break prices a little. But on the other hand it may not. Suspicions are beginning to develop that everything is not hunky dory in regard to the European winter crop and that the recent unusual weather will make a bull factor of some prominence pretty soon. Bulls, too, scout the idea that world's supplies are over large and opine that 200,000,000 bushels or so don't cut much figure in world's supplies.

At the close of the week wheat regained and run about 1 1/2 cents over the opening prices. Liverpool came strong and a more brisk inquiry exists abroad for Canadian hard wheat. Latest reports made Argentina weak both as regards quantity and quality and that is having some effect on values.

Oats and barley show little change. Oats are expected to advance though exactly what is to induce the advance is difficult to say. Supplies are large, away beyond the average, both in Canada and the United States.

Flax showed a tendency to regain its former level and there is a feeling among some traders that the decline is only a temporary one. At the same time, however, it is difficult to see what will cause the seed to go much higher. There are yet a lot of bulls in the flax market.

CASH PRICES

Wheat —						
No. 1 Nor.	102 1/2	102 1/2	103 1/2	103 1/2	102 1/2	103 1/2
No. 2 Nor.	100 1/2	100 1/2	101 1/2	101 1/2	100 1/2	101 1/2
No. 3 Nor.	98 1/2	98 1/2	99 1/2	99 1/2	98 1/2	99 1/2
No. 4	96	95 1/2	96 1/2	96 1/2	96	97
No. 5	93	93	93 1/2	93 1/2	93	94
No. 6	85	85	85 1/2	85 1/2	85	86
Rej. 1, 1 Nor.	97	97 1/2	98	98	98	98 1/2
Rej. 1, 2 Nor.	96	96 1/2	97	97	97	97 1/2
Rej. 2, 1 Nor.	96		97	97	97	97 1/2
Rej. 2, 2 Nor.	94		95	95	95	95 1/2
Rej. 1 Nor.						
for seeds	96	96 1/2	97	97	97	97 1/2
Rej. 2 Nor.						
for seeds	94	94 1/2	95	95	95	95 1/2
Oats —						
No. 2 White	36 1/2	36 1/2	36 1/2	37	37	37
No. 3 White	35	34 1/2	35	35 1/2	35 1/2	35 1/2
Barley —						
No. 3	47 1/2	47 1/2	48	48	48	48
Flax —						
N. W.	183	188 1/2	188 1/2	189	189	189

CLOSING OPTIONS, WINNIPEG

Wheat —	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Jan.	102 1/2	103	103 1/2	103 1/2	103	104
May	106 1/2	106 1/2	107 1/2	107 1/2	106 1/2	107 1/2
July	107 1/2	108 1/2	108 1/2	108 1/2	108	108
Oats —						
Jan.	36 1/2	36 1/2	36 1/2	37	37	37
May	38 1/2	38 1/2	38 1/2	39	39	39 1/2
July	39 1/2	39 1/2	39 1/2	39 1/2	39 1/2	40 1/2
Flax —						
Jan.	188	184	188 1/2	188 1/2	189	189
May	188 1/2	184	188 1/2	188 1/2	188	188
July	193	187	193	193	195	195

LIVERPOOL

No. 1 Nor.	121 1/2	121 1/2	120 1/2	120 1/2	121 1/2	121 1/2
No. 2 Nor.	120	120 1/2	119 1/2	119 1/2	120 1/2	120 1/2
No. 3 Nor.	118 1/2	119	118 1/2	118 1/2	118 1/2	118 1/2
March	118 1/2	118 1/2	119 1/2	119 1/2	120 1/2	120 1/2
May	116 1/2	116 1/2	115 1/2	115 1/2	117 1/2	117 1/2
July	115	115 1/2	115	115 1/2	116	116

LIVE STOCK

Locally there is little doing in live stock. Some butcher stock is coming in, but not enough to create much of a stir. Hogs are in fairly good volume and prices steady at last week's quotations. There has been an advance in cattle prices of about 25 cents per cwt. all round. This advance is due to stronger cattle prices in outside markets as well as to lighter receipts in the local markets. Considering the kind of stock coming in Winnipeg prices are high, higher than the figures would indicate. The quality as a rule is poor. Sheep and lambs are practically out of the running.

MARKET QUOTATIONS

Receipts of cattle for the past week show considerable decrease and the quality is mostly common, market good for any cattle with quality. Hog receipts fairly liberal, market active, strong at prevailing quotations. Practically no sheep or lambs arriving. Very few calves offered, quality common.

Choice export steers, freight assumed	\$4.50 to \$4.75
Good export steers, freight assumed	4.00 to 4.25
Choice export heifers, freight assumed	4.00 to 4.25
Choice butcher steers and heifers, delivered	4.25 to 4.75
Good butcher cows and heifers	3.50 to 4.00
Medium mixed butcher cattle	3.00 to 3.50
Choice hogs	8.25 to 8.50
Choice lambs	6.00 to 6.50
Choice sheep	5.00 to 5.50
Choice calves	3.00 to 3.50
Medium calves	2.50 to 3.00

REPRESENTATIVE PURCHASES

No.	Hogs —	Ave. Wt.	Price
496	Medium hogs	181	\$8.50
13	"	227	8.25
3	"	140	8.00
CATTLE —			
8	Steers and cows	1159	4.70
20	"	1049	4.30
19	Steers and heifers	952	4.00
2	Cows	1012	4.25
7	"	1132	4.00
10	"	957	3.80
22	"	933	3.75
5	"	1026	3.55
3	Bulls	1528	4.00
1	"	1240	3.25
1	Calf	400	4.25
1	"	105	4.00
4	Calves	350	3.80
3	"	216	3.75
SHEEP —			
2	Sheep	183	5.50

BRITISH

Old country cables do not indicate much change in live stock values. Ranchers are not quoted, few offering at either Liverpool or London markets. American steers are 13c. to 13 1/2c. at Liverpool; Canadians, 12 1/2c. to 13c. per lb.; ranchers, 10c. to 11 1/2c.; heifers, 10c. to 11 1/2c.; bulls, 9c. to 10c. At London Deptford market nothing but American steers were offering. Prices for these were from \$13 to \$14 per cwt.

CALGARY

Live-stock prices on the Calgary market show nothing whatever sensational. The demand for horse flesh is greater than anything along the bovine or porcine line. Good work horses are in good demand. The cattle arriving are mostly butchers' stock. Steers sell at 3c. to 3 1/2c.; cows, per lb., 2 1/2c. to 3c.; hogs, per lb., 8c., and mutton, per lb., 5c. The demand for country produce, such as butter and eggs, is exceedingly brisk, the local supply much below the demand.

CHICAGO

Beef cattle, \$4.25 to \$7.75; cows and heifers, \$2.25 to \$6.10; stockers and feeders, \$3.25 to \$5.40; Texans, \$5.00 to \$6.00; calves, \$6.50 to \$9.00; sheep, \$3.75 to \$6.00; lambs, \$5.50 to \$8.25; hogs, \$8.00 to \$8.50.

TORONTO

Export steers, \$5.35 to \$6.00; heifers, \$5.75 to \$6.00; butcher cattle, \$5.25 to \$5.50; stockers, \$3.00 to \$3.50; calves, \$3.25 to \$7.25; sheep, \$3.50 to \$4.25; lambs, \$6.50 to \$7.40; hogs, f.o.b., \$8.65 to \$8.85; fed and watered, \$8.40 to \$8.50.

HORSE MARKETS

Demand in Eastern markets on Western account continues active. At Toronto choice drafters are quoted at \$175 to \$250; agricultural, \$130 to \$200; farm horses, \$110 to \$200. These are average for prices for average age horses. Choice young horses, sound, of weight and quality, will sell rveo these prices considerably.

At Winnipeg inquiry is increasing for serviceable horses for farm work. There is usually at this season a number of idle horses about the city which are being rapidly picked by farmers requiring work horses. Some of these animals are all right for farm work, their principal disqualification being that they are a little tender on the feet due to heavy travel on the hard pavements. Some of these may be procured at comparatively low prices.

Home Journal

People and Things the World Over

To the vocabulary of the airship Professor Alexander Graham Bell contributes the words drome and droming. The English favor the still simpler words flier and flying.

At 80 years of age, nearly blind, and worn with 65 years' beneficent toil, seldom equalled in the annals of humanity, General Wm. Booth, of the Salvation Army, has sat down to write his autobiography. The general has earned the undying gratitude of the world.

M. Paderewski has presented to the city of Cracow, Austrian Poland, a statue 40 feet high of King Ladislas Jagiello, the Polish monarch who defeated the Germans at Gdunwald in 1410. It is the work of the Polish sculptor, M. Wiwulski, and cost £12,000.

The Carnegie hero fund commission has announced that seventeen more heroes have been added to the list. There were five silver and twelve bronze medals awarded, and about \$19,000 in money. The acts of heroism cover rescues from drowning, electrocution, trains, fire and suffocation.

A despatch from Providence, Rhode Island, calls attention to the fact that Brown University provides special courses in preparation for public or government service, covering such subjects as international law; natural, industrial and commercial resources; history, government institutions, and modern languages. President Taft has ordered examinations now preparatory to diplomatic appointments. This ought to be an improvement on the "political pull."

At the Unionist meetings of the present election campaign in the Home Land one hears Canada described as enjoying splendid prosperity owing to the tariff. The same is claimed for every other protectionist country; while at Liberal meetings a picture quite the reverse is drawn. *The Stratford Express* says if the Canadian government should offer a free passage home to any Britishers wanting to return at least 100,000 would seize the chance.

According to the *Journal De Stamboul*, Sir William Wilcox, the British adviser to the minister of public works, thinks he has determined the exact site of the Garden of Eden. He places it at Hairlah, a flourishing oasis, some 250 kilometers northwest of Bagdad.

Through this site the Euphrates runs, and is divided into four arms, representing the four rivers of Eden. Sir William suggests that the deluge was merely the flooding of the entire plain between the Euphrates and the Tigris, owing to these rivers breaking down the irrigation dikes which had been built by the pastoral dwellers on the plain.

Fifty years ago Madame Adelina Patti made her debut at the New York Academy of Music in Donizetti's "Lucia di Lammermoor. Though then only sixteen years of age, her voice already exhibited those marvelous qualities which have since won for its possessor the very highest place among the world's great singers. The reception accorded her that night well befitted the opening of that wonderful career in the course of which the great prima donna has earned well over a million pounds. Two years later, when her fame was already well established, the young soprano appeared in "La Sonnambula," at Covent Garden, and took the town by storm.

My Books

Ah! well I love those books of mine,
That stand so trimly on the shelves,
With here and there a broken line
(Fat "quartos" jostling modest "twelves")
A curious company I own;
The poorest ranking with their betters;
In brief—a thing almost unknown—
A Pure Democracy—of Letters.

A worthy gathering are they;
Some fairly worth their weight in gold;
Some just too good to throw away;
Some scarcely worth the place they hold,
Yet well I love them, one and all,
These friends so meek and unobtrusive,
Who never fail to come at call,
Nor (if I scold them) turn abusive.

If I have favorites here and there,
And, like a monarch, pick and choose,
I never meet an angry stare
That this I take and that refuse;
No discords rise my soul to vex,
Among these peaceful book relations,
No envious strife of age or sex
To mar my quiet lucubrations.

And they have still another merit,
Which otherwise one vainly seeks,
Whate'er may be an author's spirit,
He never uninvited speaks.
And should he prove a fool or clown,
Unworth the precious time you're spending,
How quickly you "can put him down."
Or "shut him up" without offending!

I call them friends, these quiet books,
And well the title they may claim,
Who always give me cheerful looks.
(What living friend has done the same?)
And, for companionship, how few,
As these, my cronies ever present,
Of all the friends I ever knew
Have been so useful and so pleasant!

—John G. Saxe.

The Crop of College Heads

In its New Year edition the *Halifax Chronicle* has a paragraph drawing attention to the output for which Nova Scotia is becoming increasingly remarkable—the production and export of college presidents. In its nurture of a high intellectuality that makes leaders in a plane above mere material things, the little province by the Atlantic can feel honest pride—New Scotland has kept and cultivated the great quality that has made auld Scotia a power in the earth. At the present time no less than five of the great and growing universities of America have as heads men who were trained and fitted for the post in Nova Scotia. The president of Toronto University, Dr. R. A. Falconer, got part of his schooling in Nova Scotia and much of his experience in the Presbyterian college at Halifax. Dr. D. M. Gordon, the present head of Queen's, is a Pictou man and spent most of his life in the province before succeeding Dr. Grant at Kingston. Dr. A. Ross Hill was born in Colchester county, and is one of the good men Canada has given to the States. He has done work in several American colleges, and is now head of the University of Missouri, with 200 professors and 3,000 students under him. Western Canada has been fortunate enough to get hold of two of these Nova Scotia intellectuals. Dr. Walter C. Murray, formerly of Dalhousie College, has undertaken as its first president to lay the foundations of the Saskatchewan University at Saskatoon. It is a great opportunity and only a great man can deal with it properly. A similar work is being carried on in Sunny Alberta by Dr. H. M. Tory, first president of the Alberta University. Dr. Tory is a native of Guysboro county, Nova Scotia.

Where Their Money Went

A Chicago paper has been making an estimate of the amount given for education and philanthropy in the United States during 1909. The total was \$150,641,253, which was ten millions more than the record of any previous year. About sixty-seven and a half millions of this tremendous sum went to charity; a little over forty-six to educational institutions; about half the latter amount went to religious organizations, nearly nine millions to art museums, and three millions to libraries. The donors of the largest sums were those who could best afford to give—Rockefeller, Carnegie, Frick, Charles Ellis, John S. Kennedy, Caroline Stokes and Elizabeth Bingham. One of the gifts of a million was made by Edward Ginn, of Boston, to the cause of universal peace. An unnamed donor gave over a million to the New York Teachers' College, and another similarly modest soul gave a million to charity.

Training the Memory

Unlike greatness, though some may be born with a retentive memory and some may achieve one, none ever have it thrust upon them. The number of those born with a good memory is not large. The great majority of human beings are in the class of those who by patience and perseverance achieve it or else, being too indolent or careless to do so, make a new class of themselves whose cry is "I have a wretched memory." This is delivered as if it were something to be almost proud of and as a good excuse for almost every neglect of duty.

Almost invariably the successful man in any walk of life has a memory that grasps and holds essentials and also seeming non-essentials. And in very few cases is it a natural gift, but it has been cultivated with great care with the knowledge of what its possession will mean to its owner.

Do you ever try at night to recall the events of the day: what you have done, seen, heard or thought since rising? The difficulty of correct recall will surprise you if you have not tried it before. But incompetent memory is not entirely to blame in every case, lack of observation and the dislike of the indolent mind to having a clear and deep impression made upon it, account for a good deal of the failure to recall distinctly at the end of the day. But practice is the great thing in memory cultivation. Learn short extracts from good writers and you will have gained two things—a helpful thought and a strengthened mind. Try to fix in your mind the exact words that your family and neighbors use in speaking to you. Endeavor to remember figures, sizes, distances. You may not ever need those particular numbers, but some day you will want your memory to grip on some important statistics.

There are some marvellous accounts of retentive memories preserved in historical records of various countries. Magliabechi, an Italian scholar of the 17th century, was lent a long manuscript to read and a day or two after he was able to repeat its contents word for word. Rev. John Wallis, an Englishman, worked out mentally in bed one sleepless night the square root of a number having fifty-three places to twenty-seven terms and repeated the result twenty days after. Pliny says that Cyrus the Great knew the names of all his soldiers. (Remembering names and faces is a prime necessity with statesmen and politicians.) Sophocles in his old age, to prove that his mind was still firm, recited to the Judges the *Oedipus at Colona*.

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HOPE'S QUIET HOUR

Editor "Quiet Hour:"

In reading the "Quiet Hour," the thought came to me that you must reach a very large number of the farmers' homes in this province, and, while perhaps the following does not really belong to your department, I thought perhaps you might be able to do something in the matter. The subject I would like to mention is the very irregular way a minister is paid his salary in many places in the country. From early spring to late fall, money is scarce in a farmer's home, no doubt, but too often they never seem to remember that a minister has no farm to depend on, and that the butcher, baker, milkman, grocer and dry goods man must be paid, and a minister forced to live on credit must suffer as well as anyone else, and must take what the dealer chooses to give him.

No honest man or woman likes to be forced into debt, and yet there are ministers, with families depending on them, who not only have to run store bills, but have to borrow money during the summer. The trouble is, the farmer and his wife have no idea what it means to have to pay for every pint of milk used, for every egg, and every pound of butter and meat used in the house, besides the clothing, books, and other necessary expenses. The dealers do not like, or, very likely cannot afford to wait months for a settlement, any more than the farmer can afford to wait for months for payment for his grain, or dairy produce.

"What has this to do with the 'Quiet Hour'?" a farmer or his wife may ask, but I should think that the "Quiet Hour" would be all the more enjoyable if the church members were sure that their minister and his wife were receiving enough money each month to pay their weekly bills, and not having to worry over how to meet the store-bills that seem to grow large so fast.

I think this condition of affairs is caused, not because the members do not want to do everything for their minister's comfort, but because they have never been forced to depend on dealers for the necessities of life, and so do not realize what it means to be under the necessity of having cash on hand at all times.

Yours sincerely,

"READER."

WORTHY OF HIS HIRE

(S. Matt. x.: 9, 10; S. Luke x.: 7)

The writer of the letter given above seems to feel that the subject of paying a minister's salary with businesslike promptness is outside the province of the "Quiet Hour." But I am very glad indeed to give space to the letter, and also to take it for this week's topic. St. Paul declares that the Lord Himself has "ordained that they which preach the Gospel should live of the Gospel." This is one of the laws of Christ's Kingdom, being a continuation of the laws of maintenance of the priests and Levites, so strongly declared by Moses. We are told that those who minister "spiritual" things to their brethren should, as a matter of course, receive in return a necessary supply of "carnal" things—though no earthly gifts can ever balance the account.—1 Cor., ix., 11; Gal. vi.: 6.

Under the old covenant, the tribe of Levi was not given any inheritance—except forty-eight cities. The members of this priestly tribe were set apart to minister about holy things, and the other tribes were allowed the privilege of supplying their earthly necessities. The "tenth" was their portion—so that rich and poor each paid a reasonable proportion—and to them was also given the "best" of the first fruits and other offerings. People are very fond of speaking

as though Jews were grasping and miserly, but I am afraid a Christian minister, if he compared notes with a Jewish priest, might feel that those who—as St. Paul says—"live of the Gospel," fare more scantily than those who ministered as priests under the law. Even heathen priests might look with amazement at the grudging offerings of many Christians.

Let us look at this matter from a business standpoint, leaving the religious obligation aside for the present. People complain that sermons are "poor," and grumble at a lack of efficiency on the part of their ministers. If the congregations realized the spiritual gain to themselves of leaders able to lift their ideals high, and give them hope and courage for the battle of life, they would give them the leisure and freedom from anxiety about worldly matters which would allow these consecrated men to throw themselves whole-hearted into spiritual work. A family suffers terrible loss when the house-mother is forced to drudge from morning to night and has no time, strength, or heart, to be a bright, well-read, thoughtful companion to the family. So also a congregation suffers infinite loss when its minister is not set free to attend to his reading and studying, to his praying and ministering.

The church is a body, and each mem-

ber has his own share in the well-being of the whole. We know what loss the whole body suffers when the eyes are overworked and overstrained. The eye may do very little hard work—in the opinion of the sturdy feet or toil-worn hands—and yet these eyes, with their apparently light duty, are precious treasures, very necessary to the welfare of the whole body.

Some farmers have an idea that a minister is not a "laborer worthy of his hire," because he does not know how to plow, because his hands are not toil-worn, and he does not usually get up at five o'clock in the morning. Sad indeed would the condition of a congregation be if the minister spent his days working in the fields, to the neglect of his proper work. The people would suffer from famine of the worst kind.—Amos viii. 11.

I once read a story about the building of a big grain-elevator in a great hurry. The "boss" thought he was "just the man for the place," because he climbed on beams, driving nails with the workmen, working as hard with his hands as any of them. But the company had a different opinion, and sent down another man to take charge, who sarcastically informed the cheery "boss" that he had better go to the foreman for his dollar or two a day, "like the other hands." He was given a larger income in order that he might be free to work his

brains and keep the oversight of the whole job. The new leader had not toil-worn hands, but he understood the duty assigned to him, and did it. The job was finished on time, just because he did not do other men's work to the neglect of his own.

It is the very poorest economy to starve one's minister, and a very good way to starve one's own soul. How can he minister to you of spiritual things, when he is full of anxiety about earthly things?

DORA FARNCOMB.

Happiness is not the end of life: character is.

—Henry Ward Beecher.

INGLE NOOK

THE NORTH WIND.

Cheer up, you shivering pessimist!
Hold your chattering teeth in check;

Forget the sulky cook stove,
And the draught upon your neck.
Give over moaning "Woe is me.
Alas, alack!"

For the North Wind's just the South
Wind Coming back.

THE CARE OF FOOD IN THE HOME

In the buying, storing, and handling of food it is important that we realize the causes of what is called the spoiling of food. And the knowledge that the spoiling is due to yeasts, molds, and

the dough, and sometimes got the better of the yeast in the struggle for food, and the result of their life in the dough was sour or bitter bread.

Even when we are able to utilize the life processes of the yeast plant, its good offices are paid for with a certain amount of food material; thus, when introduced into the bread dough it breaks up part of the sugar present into alcohol and carbonic-acid gas, and the gas stretches out in the glutinous mass, making the porous loaf which at the right moment is stiffened by the heat of the oven.

In the same way the wild yeast attacks the sugar in the stewed fruit that has stood exposed on a warm day or the jelly left uncovered, or sometimes even when apparently covered, only in these cases the gas evolved serves no useful purpose and the fermentation ruins the taste of the food. Yeasts grow best at a temperature of 70° to 90° F.; therefore, food that is to be protected from their action must be kept well below that point.

The appearance of mold as growing on bread, cheese, and other foods is familiar to every housewife. The spores of the different varieties of mold are everywhere present, and they need only warmth and moisture to enable them to grow on many kinds of food. These organisms are always at work in damp cellars and in dark and damp corners of rooms; they are borne on the feet of insects, they are on the skins of all fruits, and in the dust flying in the air. They are not fond of light and they require no great abundance of air, flourishing best in foods that are piled close together, leaving small, undisturbed air spaces and moisture.

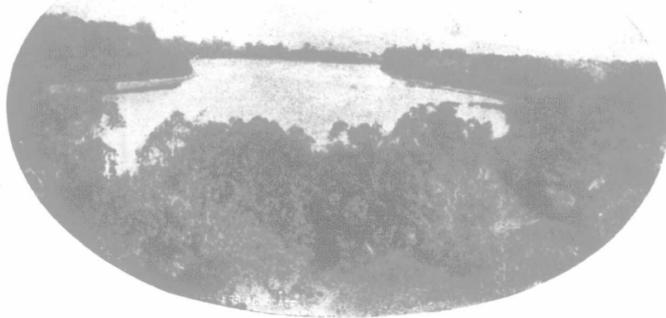
The growth of most molds is retarded by light, ventilation, and low temperature.

From the standpoint of household sanitation, bacteria are the most important of these micro-organisms. They are widely distributed; the soil teems with them; they are in the air, in water, and in all foods exposed to dust and air.

In some foods bacteria in the early stages of their action leave no disagreeable or unhealthful effects, so far as yet proved. Meat is in some measure ripened by bacterial action, and the "gamey" taste given meat by "hanging" comes in part from the same cause, though in both cases the changes are chiefly due to the action of ferments normally present. It is not easy to draw the line between the harmless ripening processes and the bacterial changes classed as decay, but if the bacteria are allowed to grow without hindrance the time comes when the food, either animal or vegetable, attacked by bacteria, breaks up into a loathsome mass.

The food may become dangerous even before it shows outward signs of decomposition, for the bacteria may give off substances known as ptomaines, some of which are very poisonous to man. Certain apparently mysterious cases of illness have been traced to such causes, and milk, fish, meat, cheese, baked beans, ice cream, and other foods have all been found responsible for food poisoning. This sort of poisoning is not a true bacterial disease; that is, it is not due, as is typhoid fever, to the growth of an organism in the body, but the illness results from the introduction into the system of poisonous substances already formed in the food by the bacteria.

A new meaning for the scrubbing, airing and sunning that for many generations have been practiced by good housekeepers, together with good reason for the need of other precautions to be taken for home sanitation, will be found in Farmer's Bulletin 375, "Care of Food in the Home," just issued by the U. S. Department of Agriculture.



INGLE NOOK NEWS NOTES.

Here's an extract from a male well-wisher that is encouraging. I think it does us good to hear a little praise sometimes.

"I may say that I am a silent reader of the Ingle Nook and admire the way it is run and kept so very clean. I think the Ingle Nook is one of the finest of its class and there are some very clever lady correspondents. I always look forward to this page and am sorry there are not more letters every week, but perhaps I should make an effort and do my share to keep up the fine reputation of the Ingle Nook." I may say in answer to a private enquiry by this writer that Winnipeg is sufficient address for the person named.—D. D.

The holiday season brought in a short note from our old friend, Lancashire Lass, who has been over a year now in Old England. She sent some very pretty views and has promised a letter for the Ingle Nook.

A reader was enquiring for pattern designs for misses. Quite a fair proportion of the designs shown in our fashion department are for young girls; for instance, in the issues of Sept. 15, Oct. 6, Nov. 10, Nov. 17, Dec. 22, Dec. 29. If she has not these issues she may be able to borrow them from a neighbor.

DON'T BAR THE UNHAPPY.

Dear Dame Durden:—May I come in again to have a chat with you all? I am not so lonesome as when I came before. We are living in Cardston for the winter so that my little girl can go to school. We will have a school close to our farm next year, for our country is being settled fast. It lies between the Kootenay and Belly rivers and it sure is a pretty place.

Dear Dame Durden, please don't bar the sister out that comes with her troubles, for it is a great relief to many to tell their troubles to someone. If she tells them to a neighbor it is likely to be all over the neighborhood in a few days. But she can write her troubles to the Ingle Nook and get the relief of telling and receive some help and sympathy besides. Although my own home is happy and I wish every life was as happy as mine, yet I have seen in my travels some miserable and unhappy homes. If the wife could get some good advice things might be different.

How many of our readers are grandmothers? I have two little grandsons. My, they are nice. How it does my heart good to see them and hear their little voices! They live in Oklahoma and their mother brought them up for a six weeks' visit. I sure enjoyed it. Must close now with best wishes to all this new year.

Lonesome One.

(Dear heart, you may be sure that as long as I am here there will never be a bar put up between the Ingle Nook and the woman who needs any help you and I can give her. That is what we have a page for and there is no limit to the nature of the help that is to be supplied except the limit of our capability. Glad your name is becoming less appropriate every day.—D. D.

SAUERKRAUT.

Dear Dame Durden:—I have read your paper for a year and see a lot of helpful things in it, so we are always glad when the mail is coming. I live on a homestead nine miles from Teulon. We have six head of cattle which is not much, but is very satisfactory for a poor family. Can anyone tell me how to make sauerkraut? Miss L.

(Sauerkraut.—A wine or vinegar barrel is better than a new one. Slice white cabbage in thin shreds. At the bottom of the barrel put a layer of salt, then a layer of cabbage, and so on in alternate layers pressing down each layer firmly. A few caraway or corriander seeds are sometimes added for flavor. When the barrel has been pressed full lay a clean cloth over the cabbage. Put

a wooden covering and heavy weights to keep it pressed down while fermenting. When it begins to ferment the brine must be drawn off and fresh water added and this should be done every day until the liquid remains quite clear. Put on a new cloth and clean the lid, put the weights on again and leave for a month when it will be ready for use. I hope you will find this recipe satisfactory. It is one the Germans use. Come and see us again.—D. D.)

EGGS—BROWN BREAD—HAIR TREATMENT.

Dear Dame Durden:—I meant to write last spring and tell how I made my poultry money. Well, the greater part of it was made from turkeys, and the rest from packed eggs. I packed the eggs when they were plentiful and low in price, taking care, of course, that every egg was strictly fresh. I kept them in a cool room and sold them in December for thirty-five cents per dozen. (They were packed in September when eggs were fifteen cents). There is no need to ship the eggs away. You can sell them to the local stores as there is always a good demand for eggs at Christmas. The eggs came out good and fresh.

Figure up fifty dozen eggs at thirty-five cents and the same at fifteen cents and see how easily ten dollars can be made.

I saw some one asking last Easter for a good recipe for Easter buns. Here is one I use, and they are good at any time and cheap: 3 cups sweet milk, 1 yeast cake, soaked in ½ cup warm water; set this as a sponge over night warmly covered up. In the morning add scant ¾ cup sugar, ½ cup melted lard, 1 salt spoon salt, make into a soft dough. Let rise for about five hours. Then roll out, cut into round cakes, let rise for half an hour and bake to a light brown, brush the top with a little cream and sugar. Don't let the dough get cold. Try them and I think you will say they are good. A cheap way to provide material for porridge is to take a bag of good clean wheat and get it put through a crusher four times. It cost us forty cents a bag to get this done. Then take the coarsest of the bran out by putting through a flour sifter. Some don't even bother to take any bran out, but we like it better after the bran is out. This makes splendid porridge and does away with a big oatmeal bill. Good brown bread can also be made by setting the bread with white flour and use the whole wheat flour to stiffen it with.

I might tell "A Friend" that my hair has been falling out by the handful but I have got it stopped by the following treatment: Have washed the hair once a week, making a lather of foso soap and rubbing it well into the scalp. Then I rinse it in two waters or more if the soap is not all out. After it is thoroughly dry I have rubbed in a hair tonic of bay rum and quinine which comes at about fifty cents a bottle. When I have run out of the above I have used ammoniated mercury ointment, which comes at about five cents an ounce, or even vaseline. My hair was very dry and brittle and the washing made it drier still, but it cleaned the scalp and the tonic supplied nourishment for the roots. I rub it in every night, and in the case of the ointment use only what the scalp will ab-

sorb, sometimes every second night is sufficient for it. Dear Dame Durden, if you consider what I have written of any use, print it, if not, stick it in the waste paper basket without any hesitation.

Evelyn.

P. S. I forgot to say that I am going to try water glass to pack eggs in. I believe it costs about a cent a dozen.

(I forwarded your letter to English Rose the day it came. Thanks very much for your help. It seems good to hear from you again.—D. D.)

A HELPFUL NEW MEMBER.

Dear Dame Durden:—I saw Emerald Gem's remark about her brown bread and I thought I'd tell you my experience. I always make whole bread. In this part of British Columbia that is what is called brown bread. I set my sponge the same as for white bread and if I have milk, use milk instead of water, with which to mix it. I take white flour to make the sponge, also add about one-half white flour to the whole wheat flour and make the dough as soft as I can, sometimes mixing it as stiff as I can with a spoon, and letting it raise over night, then putting it in the baking tins without a second kneading down in the mixing dish. I find if I wish the crust soft I must not have my oven too hot when I bake it, as slow, steady heat in the oven is better for any kind of brown bread. Then, too, as soon as the bread is cooked, I remove from the tins and give a coat of melted butter all over and I find the crust remains soft till the bread is all used up. I also enclose some recipes for other varieties of brown bread which makes a nice change. This is my first visit to the Ingle Nook. Wishing all a Happy New Year.

Aruai Yelgdim.

No. 1—3 cups graham flour, 2 cups butter milk, ¾ cup sugar, 1 tea spoon salt, ¾ baking soda, 1 cup raisins or chopped dates. Mix milk, sugar and baking soda together first. Bake slowly one hour.

No. 2—Mrs. G. F. Allan's, Fall River, Man. Equal quantities Indian meal and rye meal, 1 cup molasses, 2 teaspoons soda, mixed with water; 1 teaspoon salt, boil 3 hours (a close covered lard tin is a very good tin in which to put the brown bread to be boiled). Fill the tin less than half full as it swells.

No. 3—1 quart graham flour, 1 pint white flour, 1 cup molasses, 1 cup yeast, 1 teaspoon salt, mix soft like ginger bread; let raise over night, stir well in the morning; let rise after putting in tins and bake like white bread for an hour or a little more.

No. 4—2 cups corn meal, 1 cup flour, 2 cups sweet milk, 1 cup butter milk, ½ cup molasses, a little salt, 2 teaspoons soda, steam 2 hours.

No. 5—1 pint corn meal, well scalded and let cool, add 1 pint light sponge, ½ cup molasses, a little salt, white flour sufficient to knead. Put the meal and sponge together over night; in the morning add the flour and molasses, and a half teaspoon soda, put in tins, let raise again and bake in slow oven.

A. Y.

MORE HOMELESS CHILDREN FOR CHILDLESS HOMES.

Dear Friend,—In the name of the Saskatchewan Children's Aid society

I wish to heartily thank you and your paper for the help afforded us, in placing our children in foster homes. A great number of our applications for the six boys last men-



A BRIGHT BOY WHO GOT THE CHANCE HE NEEDED.

tioned came through your paper; thus, Clarence is placed, also Arthur and Cyril.

The present inmates of the home are then the following: Teddy, aged 10, a quiet, thoughtful nature, very exact in the execution of any work. He likes mechanical things, and tries to be precise in fulfilling his duties. Archie, aged 7, also quiet behaving fellow, a philosopher to judge by his brow, yet can be chatty and cheerful. His kindergarten teacher always delight in his pretty work.

Leslie, aged 2½, a chubby, clever child, very quick at remembering a new word. Makes cute speeches and is an affectionate child.

Mary, 10 years old, a very pretty child, dark eyes, brown hair, smiling and bright. She is a good little housekeeper for her years.

This is the state of the shelter at present, but additions are soon expected, which will be reported to you as soon as possible.

Again presenting to you the thanks of the society, believe me, yours sincerely,

Fanny I. Moffat.

The Western Wigwam

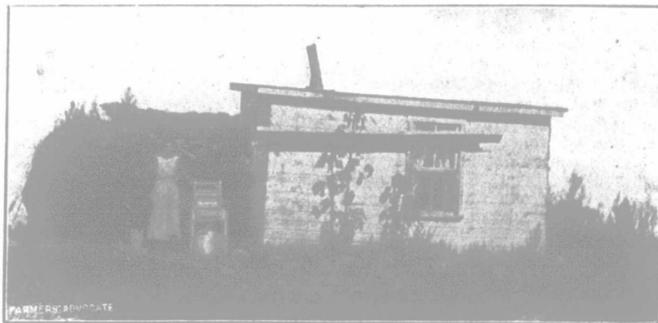
NEAR THE RAILROAD.

Dear Cousin Dorothy:—This is the second time I have written to your club. I came to Canada five years ago and like it fine. We have a skating pond near our place and have lots of fun skating. The Grand Trunk Pacific railroad goes by our place. I would like to exchange post cards with any girl my own age. I am twelve years old. I would like to get a button and enclose a stamped envelope.

Sask. (a) Prairie Rose.

A BOOK REVIEW.

Dear Cousin Dorothy:—As I saw my letter in print I thought I would write again. Well, winter has come again and covered everything with snow and ice, but has brought the pleasure of skating and coasting to boys and girls. I cannot skate but am learning. I suppose most of the other cousins skate. I am very fond of reading and have read more stories than I can remember. I have just finished reading several of the "Elsie" books, written by Martha Finlay. I think they are fine, and if the girls or boys either are thinking of getting books, I think they will not be disappointed in these.



THE HOME OF THE FIRST YEAR.

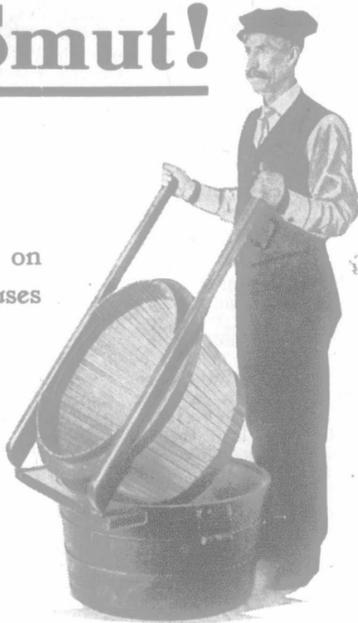
Slut! Smut! Smut!

Prevented by Using
Western Grain Pickler

The handiest and most thorough working Pickler on the Market. Treats all grain equally well and uses either Bluestone or Formalin.

Saves Time, Labor and Solution. Every Grain immersed in the Solution. Very attractive Terms to dealers or sold direct to farmers at \$8.50 each F.O.B. Oak Lake, Man.

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Perhaps the boys will not like them so well, but I am sure the girls will. I have read "The Prospector," "The Lamplighter," "Glengarry School-days" and "Tom Brown's School-days" lately and I liked them very much. I, like most girls, did not like "Jane Eyre."

I would like to get "Mary, Queen of Scots" but I do not see it in any of the book stores or advertised any place.

I go to school and am in the fifth grade. My studies are, literature, grammar, English and Canadian History, geography, agriculture, book-keeping, drawing, geometry, algebra and arithmetic. I intend to try the

entrance examination next summer.

I think the club has some very interesting members. Why doesn't "Oriole" and "Violette" come again? I think the Western Wigwag is improving greatly. The letters nearly all used to tell how many cows, pigs, horses and chickens papa had; now they are most all interesting.

But I think I hear Cousin Dorothy saying "I wish this were to be continued in our next," so I will close with best wishes to Cousin Dorothy and all the other Indian Cousins.

Alta. (a) Evangeline
(Your letter is interesting and the neat writing and good spelling are

a treat to see. I think you are too young yet to appreciate Jane Eyre but you will enjoy it exceedingly ten years from now. Have you read any of the "Little Colonel" series? I am sure you would enjoy them.—C. D.)

A CRUSHED FOOT

Dear Cousin Dorothy,—This is my first letter to your club. My father is a subscriber to "The Farmer's Advocate." I enclose stamp for a button of your charming club. We have thirteen horses and one colt. I have three calves and two cows, a cat and some poultry. I hope I am under the age. I am fourteen. I was after the cattle and my horse

slipped and crushed my foot. Hoping this will escape the waste-paper basket and wishing the club every success.

Sask. (a) Western Cowboy.

RAISE HEREFORDS

Dear Cousin Dorothy,—My father has taken "The Farmer's Advocate" for many years. I go to school every day, and I am in grade four. We have ten horses and about twenty Hereford cattle. I have a pet kitten called Tom. We have four cats all together, and two dogs that we call Jeff and Rover. It is pretty cold here now, and Christmas will soon be here. We live three miles from La Riviere. It is surrounded with hills, and the Pembina River runs close to it. It is a very pretty little village in the summer. There are two churches and three elevators. As my letter is getting long, I will close.

Man. (b) Effie Clements.

NOT MANY THOUGHTS

Dear Cousin Dorothy,—I am writing a few lines to show that I read the letters. My father has taken the "Advocate" for ten years. We have two little colts, one is Goldie and the other Queen, and a calf named Billy. Well, that is all I can think of to-day.

Edgar J. Robinson.

Man. (b)

A FINE DOG

Dear Cousin Dorothy,—As I saw my other letter in print I thought I would write. I have a dog that will drive. I have a dog cart, and he has drawn me eight miles and a half. His name is Rab, and he is a brown dog. We have a hundred chickens and five ducks. I have tried to tame wild rabbits, but they got away on me. There are thirteen going to our school. It is a mile away from us, and we are driven in the winter time.

Nellie Smith.

Man. (b).

BOYS, STOP! LOOK! LISTEN!

Are the boy readers of the Farmer's Advocate getting a fair deal? It has seemed to the editor of the Home Journal department that the interests of the big boy were not receiving as much attention as they merited. The Western Wigwag has always been open to all children and unless the very little children are to be crowded out there is not much opportunity to get in reading matter of particular interest to older boys. But the little peoples' privileges must not be infringed upon at any cost. So to keep up the interest for every one it has been decided to devote a space in every week's issue to the things that especially appeal to big boys.

For the present at least it will be known as the Boys' Club.

Any boy between the ages of twelve and twenty years may become a member by taking some part in the discussions carried on.

There are hundreds of things that boys between those years are interested in and that they know a great deal more about than people think because they do not get a chance to tell what they know.

Here are a few things some of our boys have said they want to know:

Frank Mitchell.—"I like to read information about articles and how to make them. I am interested in photography and could send a photograph once in a while."

Charlie Cooper.—"I would like to see letters from boys describing their hunting and fishing trips and about baseball and other games. My hobbies are rabbits and pigeons."

George Walker.—"Will some of the boys that hunt tell some of the secrets of successful hunting, trapping and fishing? I would like to know more about the caretaking of horses, how to break in colts and how to handle balky horses."

Frank Smith.—"It would be a good idea to have the members give plans for making any article they

The Boys' Club

thought suitable or to exchange friendly advice. I am fond of using the hammer and other tools. I should like to see a column headed 'Sport' too."

Paul J. Hammer.—"My favorite hobby is sports. I am fond of games of all kinds."

Gordon Ryan.—"I am in favor of a Boys' Club and will do all I can to build it up. My favorite amusements are skating in winter and baseball in summer."

Frank Barker.—"I would like to see a page for boys with stories, puzzles and articles. I will help all I can. I will send a puzzle and directions how to make some things as soon as the club is started."

Every boy who reads what these few lads have said can think of at least one other thing that they did not mention. And he can think of half a dozen questions he would like to ask. Remember a question that draws out good answers is very valuable.

Each boy—that is every real boy who has enough good stuff in him to be interested in something beside himself—will keep his eyes open he will see some subject mentioned in the club that he knows about and likes and he can be unselfish enough to tell the rest of us about it.

Beside the interesting things that the boys quoted above have mentioned there such topics as: How did you Train your Dog? What a Boy should know how to do before He starts Homesteading. Tell some Interesting Things about the Country you I in before Coming to Canada. use is Stamp Collecting?

If you think of others write a letter or send it in on a post-card.

Address all letters to Editor Boys'

Club, Farmer's Advocate, Winnipeg. Let us work all together and make a "howling" success of the Boys' Club.—The Editor.

THE HORSE AND THE DOG AND THE MAN.

The horse and the dog had tamed a man and fastened him to a fence. Said the horse to the dog, "For the life of me, I don't see a bit of sense

In letting him have the thumbs that grow at the sides of his hands, do you?"

And the dog looked solemn and shook his head and said, "I'm a goat if I do."

The poor man groaned and tried to get loose, and sadly he begged them, "Stay!"

You will rob me of things for which I have use by cutting my thumbs away

You will spoil my looks, you will cause me pain! Ah, why would you treat me so?"

As I am, God made me, and He knows best! Oh, masters, pray let me go!"

The dog laughed out and the horse replied, "Oh, the cutting won't hurt! You see,

We'll have a hot iron to clap right on, as you did in your docking of me!

God gave you your thumbs and all, but still the Creator you know may fail

To do the artistic thing, as He did in furnishing me with a tail!"

So they bound the man and cut off his thumbs, and were deaf to his pitiful cries,

And they seared the stumps and they viewed their work through happy and dazzled eyes,

"How trim he appears," the horse exclaimed, "Since his awkward thumbs are gone!

For the life of me I cannot see why the Lord ever put them on!"

"Still it seems to me," the dog replied, "that there's something else to do,

His ears look rather long for me, and how do they look to you?"

The man cried out, "Oh spare my ears! God fashioned them as you see.

And if you apply your knife to them you'll surely disfigure me!"

"But you didn't disfigure me, you know," the dog decisively said, "When you bound me fast and trimmed my ears down close to the top of my head!"

So they let him moan and they let him groan while they cropped his ears away.

And they praised his looks when they let him up, and proud indeed were they!

But that was years and years ago, in an unlightened age!

Such things are ended now, you know; we've reached a higher stage!

The ears and thumbs God gave to man are his to keep and wear, and the cruel horse and dog look on and never appear to care!

—S. E. Kiser, in Chicago Record-Herald.

THE PASSENGER PIGEON.

Not many years ago the passenger pigeon was a very common bird, and great flocks, comprising hundreds of thousands, were often observed during their periods of flight. Its range extended along Eastern North America, as far west as the Mississippi Valley, and northward to the Hud-

son's Bay. It nested in the northern portions of its range. Now, however, it is so rare that there are doubts as to its very existence in America.

The cause of the disappearance of such useful, beautiful tender-voiced birds in the course of a single generation is not far to seek. They were thoughtlessly slaughtered by the thousands, in order to provide sport and food for a few days. It is stated by a trustworthy eye-witness that "people would come from all parts of the country with wagons, axes, beds, and cooking utensils, camping on the ground with their families for days, where they could plunder the nests or roosts of the vast army of passenger pigeons."

An effort is now being made by persons interested in the preservation of such a fine bird, to save it from utter extinction, if there be any alive. At a recent meeting of the American Ornithologists' Union, the matter was brought up by Prof. C. F. Hodge, of Clark University, Worcester Mass., and as a result of the discussion that followed, Colonel Kuser offered an award of \$300 for first information of a nesting pair of wild passenger pigeons undisturbed. Before this award will be paid, such information exclusive and confidential, must be furnished as will enable a committee of expert ornithologists to visit the nest and confirm the finding. If the nest and parent birds are found undisturbed, the award, will be promptly paid, through Prof. Hodge. The object of this generous award is to induce a search for nesting passenger pigeons throughout the length and breadth of Canada and the United States; and when they are found, to organize adequate protective work through legislation and warden service, so that the birds may be permitted to feed in absolute safety, and be accorded the freedom of the American Continent.

All lovers of birds, it is felt, will join heartily in the plan proposed for the preservation of this ill-fated pigeon. In order, however, that a widespread interest may be aroused in the effort to locate nesting pairs, there should also be local volunteer awards for the first undisturbed nest in each Province. And a call is here made to our liberal minded citizens for such local awards. Teachers throughout Canada should call the attention of the boys and girls to the plan, and ask them to join in the search. The first nest discovered will draw Colonel Kuser's award of \$300 and the local award as well. The first nest is likely to be found in Canada.

W. LOCHHEAD.
Macdonald College, Que.

The Western Wigwam

ADDRESS WANTED.

Will "Heartbroken" please send her address to the Western Wigwam? I have a letter here for her that she would like to have.—C. D.

FROM HOLLAND.

Dear Cousin Dorothy:—This is my first letter to your club and I should like to join it. I am thirteen years of age and go to school every day. It is three and a half miles from our house to the school. I have a pony and her name is Flora. I have three brothers and two sisters. We came from Holland five years ago, and father has three-quarters of land. I hope my letter will escape the waste paper basket and I should like to get a button. Wishing every success to the club and its members.

Alta. (b). Henry Veldhuiser.

CLEVER PIGEONS.

Dear Cousin Dorothy:—As my father is taking the paper I think I will write and get a button. I have five pigeons and think they are very nice. Every time they want a drink of

water they come to the window and flap their wings and wait at the well until you come out with the water. When they get all they want they go away. I have also a white chicken.

Alta. (a). Flower Girl.

GOOD TO ME TOO.

Dear Cousin Dorothy:—I think I will sit down and write a few lines to you and the wigs. I am keeping house for father and brother this winter, as mamma has gone back to the States on a trip. Did Santa Claus find you, Cousin Dorothy? He left lots of things for me and my brother.

How many of the wigs like to read? I am a regular book-worm. I like M. J. Holme's books and also Louisa M. Alcott's "English Orphans" is a fine book written by M. J. Holme. I am 14 years old and would like to correspond with "Cowgirl Estelle" of Alberta if you would give me her address, please

Sask. (a). Brown Eyes.

DEATH OF A RABBIT.

Dear Cousin Dorothy:—This is the first letter I have written to the Western Wigwam. I am going to tell you about a rabbit we caught in a trap and I took it home. It cried all the way. We put it in the barn and my brother let it go. I caught it again and took it to the house and the cat killed it.

Sask. (b). Willie Oxford.

THE CHRISTMAS CONCERT.

Dear Cousin Dorothy:—You must excuse me for not writing before but I didn't have much time. I got my button and like it very much. I am going to tell you about our Christmas concert that we had up at our school. We had it on the 23rd of December. We took about a month preparing for it. The admission was twenty-five cents. We made twelve dollars and twenty-five cents. They all enjoyed it and went home quite merry. Our teacher said we did well. The next day she gave us some candy and nuts and some oranges.

Sask. (a). T. R. Y.

GENEROUS SANTA CLAUS.

Dear Cousin Dorothy:—We just moved out here last spring from Guelph, Ont. We have a section of land nine miles north of Brandon. The school is on our farm. The name of it is Rugby school. I am eight years old, I am in grade four. I have four brothers and three sisters, and five of us go to school. Santa came to our place and left us each a good share of things.

Man. (b). Joe Bowman.

The Golden Dog

By WILLIAM KIRBY, F.R.S.C.
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CHAPTER XLVII.—Continued.

But Bigot minded not the implied threat. He was immovable in the direction she wished him to move. He understood her allusion, but would not appear to understand it, lest worse than she meant should come of it.

"Forgive me, Angelique!" said he, with a sudden change from frigid to fondness. "I am not unmindful of my promises; there is nothing better to myself than to keep them, nothing worse than to break them. Beaumanoir is now without reproach, and you can visit it without fear of aught but the ghosts in the gallery."

Angelique feared no ghosts, but she did fear that the Intendant's words implied a suggestion of one which might haunt it for the future, if there were any truth in tales.

"How can you warrant that, Bigot?" asked she dubiously.

"Because Pierre Philibert and La Corne St. Luc have been with the King's warrant and searched the Chateau from crypt to attic, without finding a trace of your rival."

"What, Chevalier, searched the Chateau of the Intendant?"

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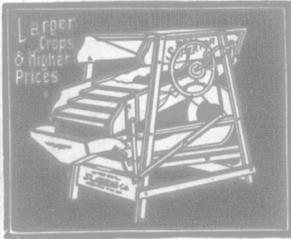
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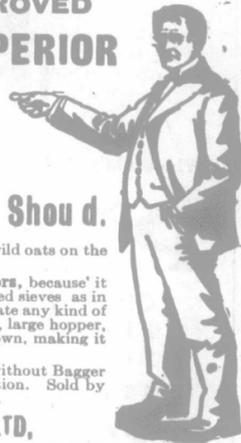
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WINNIPEG, MAN.

"Par bleu! yes, I insisted upon their doing so; not, however, till they had gone through the Castle of St. Louis. They apologized to me for finding nothing. What did they expect to find, think you?"

"The lady, to be sure! Oh, Bigot," continued she, tapping him with her fan, "if they would send a commission of women to search for her, the secret could not remain hid."

"No, truly, Angelique! If you were on such a commission to search for the secret of her."

"Well, Bigot, I would never betray it, if I knew it," answered she, promptly.

"You swear to that, Angelique?" asked he, looking full in her eyes, which did not flinch under his gaze.

"Yes; on my book of hours, as you did!" said she.

"Well, there is my hand upon it Angelique. I have no secret to tell respecting her. She has gone, I cannot tell whither."

Angelique gave him her hand on the lie. She knew he was playing with her, as she with him, a game of mutual deception, which both knew to be such. And yet they must, circumstanced as they were, play it out to the end, which end, she hoped, would be her marriage with this arch-deceiver. A breach of their alliance was as dangerous as it would be unprofitable to both.

Bigot rose to depart with an air of gay regret at leaving the company of Angelique to make room for De Pean, "who," he said, "would pull every hair out of his horse's mane if he waited much longer."

"Your visit is no pleasure to you, Bigot," she, said looking hard at him.

'You are discontented with me, and would rather go than stay!'

"Well, Angelique, I am a dissatisfied man to-day. The mysterious disappearance of that girl from Beaumanoir is the cause of my discontent. The defiant boldness of the Bourgeois Philibert is another. I have heard to-day that the Bourgeois has chartered every ship that is to sail to France during the remainder of the autumn. These things are provoking enough, but they drive me for consolation to you. But for you I should shut myself up in Beaumanoir, and let every thing go helter-skelter to the devil."

"You only flatter me and do not mean it!" said she, as he took her hand with an over-empressement as perceptible to her as was his occasional coldness.

"By all the saints! I mean it," said he. But he did not deceive her. His professions were not all true, but how far they were true was a question that again and again tormented her, and set her bosom palpitating as he left her room with his usual courteous salute.

"He suspects me! He more than suspects me!" said she to herself as Bigot passed out of the mansion and mounted his horse to ride off. "He would speak out plainer if he dared avow that that woman was in truth the missing Caroline de St. Castin!" thought she with savage bitterness.

"I have a bit in your mouth there, Francois Bigot, that will forever hold you in check. That missing demoiselle, no one knows as you do where she is. I would give away every jewel I own to



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know what you did with the pretty piece of mortality left on your hands by La Corriveau."

Thus soliloquized Angelique for a few moments, looking gloomy and beautiful as Medea, when the step of De Pean sounded up the broad stair.

With a sudden transformation, as if touched by a magic wand, Angelique sprang forward, all smiles and fascinations to greet his entrance.

The Chevalier de Pean had long made distant and timid pretensions to her favor, but he had been overborne by a dozen rivals. He was incapable of love in any honest sense; but he had immense vanity. He had been barely noticed among the crowd of Angelique's admirers. "He was only food for powder," she had laughingly remarked upon one occasion, when a duel on her account seemed to be impending between De Pean and the young Captain de Tours; and beyond doubt Angelique would have been far prouder of him shot for her sake in a duel than she was of his living attentions.

She was not sorry, however, that he came in to-day after the departure of the Intendant. It kept her from her own thoughts, which were bitter enough when alone. Moreover, she never tired of any amount of homage and admiration, come from what quarter it would.

De Pean stayed long with Angelique. How far he opened the details of the plot to create a riot in the market-place that afternoon can only be conjectured by the fact of her agreeing to ride out at the hour designated, which she warmly consented to do as soon as De Pean informed her that Le Gardeur would be there and might be expected to have a hand in the tumult raised against the Golden Dog. The conference over, Angelique speedily dismissed De Pean. She was in no mood for flirtation with him. Her mind was taken up with the possibility of danger to Le Gardeur in this plot, which she saw clearly was the work of others, and not of himself, although he was expected to be a chief actor in it.

CHAPTER XLVIII.

"IN GOLD CLASPS LOCKS IN THE GOLDEN STORY"

Love is like a bright river when it springs from the fresh fountains of the heart. It flows on between fair and ever widening banks until it reaches the ocean of eternity and happiness.

The days illuminated with the brightest sunshine are those which smile over the heads of a loving pair who have found each other, and with tender confessions and mutual avowals plighted their troth and prepared their little bark for sailing together down the changeful stream of time.

So it had been through the long Indian summer days with Pierre Philibert and Amelie de Repentigny. Since the blessed hour they plighted their troth in the evening twilight upon the shore of the little lake of Tilly, they had showed to each other, in the heart's confessional, the treasures of true human affection, holy in the eyes of God and man.

When Amelie gave her love to Pierre, she gave it utterly and without a scruple of reservation. It was so easy to love Pierre, so impossible not to love him; nay, she remembered not the time it was otherwise, or when he had not been first and last in her secret thoughts as he was now in her chaste confessions, although whispered so low that her approving angel hardly caught the sound as it passed into the ear of Pierre Philibert.

A warm, soft wind blew gently down the little valley of the Lairet, which wound and rippled over its glossy brown pebbles, murmuring a quiet song down in its hollow bed. Tufts of spiry grass clung to its steep banks, and a few wild

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flowers peeped out among the nooks among the sere fallen leaves that lay upon the still green sward on each shore of the little rivulet.

Pierre and Amelie had been tempted by the beauty of the Indian summer to dismount and send their horses forward to the city in charge of a servant while they walked home by way of the fields to gather the last flowers of autumn, which Amelie said lingered longest in the deep swales of the Lairet.

A walk in the golden sunshine with Amelie alone amid the quiet fields free to speak of his love, and she to hear him and be glad, was a pleasure Pierre had dreamt of but never enjoyed since the blessed night when they plighted their troth to each other by the lake of Tilly.

The betrothal of Pierre and Amelie had been accepted by their friends on both sides as a most fitting and desirable match, but the manners of the age with respect to the unmarried did not admit of that freedom in society which prevails at the present day.

They had seldom met save in the presence of others, and accept for a few chance but blissful moments, Pierre had not been favored with the company all to himself of his betrothed.

Amelie was not unmindful of that when she gave a willing consent to-day to walk with him along the banks of the Lairet, under the shady elms, birches, and old thorns that overhung the path by the little stream.

"Pierre," said she smiling, "our horses are gone and I must now walk home with you, right or wrong. My old mistress in the Convent would shake her head if she heard of it, but I care not who blames me to-day, if you do not, Pierre!"

"Who can blame you, darling? What you do is ever wisest and best in my eyes, except one thing, which I will confess now that you are my own, I cannot account for—"

"I had hoped, Pierre, there was no exception to your admiration; you are taking off my angel's wings already, and leaving me a mere woman!" replied she merrily.

"It is a woman I want you to be, darling, a woman not faultless, but human as myself, a wife to hold to me and love me despite my faults, not an angel too bright and too perfect to be my other self."

"Dear Pierre," said she, pressing his arm, "I will be that woman to you, full enough of faults to satisfy you. An angel I am not and cannot be, nor wish to be until we go together to the spirit-land. I am so glad I have a fault for which you can blame me, if it makes you love me better. Indeed I own to many, but what is that one fault, Pierre, which you cannot account for?"

"That you should have taken a rough soldier like me, Amelie! That one so fair and perfect in all the graces of

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Pastry

womanhood, with the world to choose from, should have permitted Pierre Philibert to win her loving heart of hearts."

Amelie looked at him with a fond expression of reproach. "Does that surprise you, Pierre? You rough soldier, you little know, and I will not tell you, the way to a woman's heart; but for one blindfolded by so much diffidence to his own merits, you have found the way very easily! Was it for loving you that you blamed me? What if I should recall the fault?" added she, laughing.

Pierre raised her hand to his lips, kissing devotedly the ring he had placed upon her finger. "I have no fear of that, Amelie! The wonder to me is that you could think me worthy of the priceless trust of your happiness.

"And the wonder to me," replied she, "is that your dear heart ever burdened itself with my happiness. I am weak in myself, and only strong in my resolution to be all a loving wife should be to you, My Pierre! You wonder how you gained my love? Shall I tell you? You never gained it; it was always yours, before you formed a thought to win it! You are now my betrothed, Pierre Philibert, soon to be my husband; I would not exchange my fortune to become the proudest queen that ever sat on the throne of France."

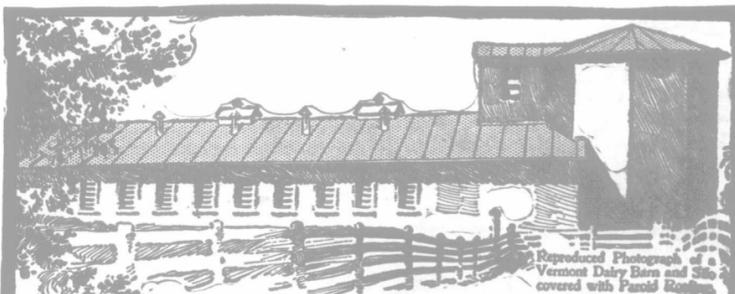
Amelie was very happy to-day. The half-stolen delight of walking by the side of Pierre Philibert was enhanced by the hope that the fatal spell that bound Le Gardeur to the Palace had been broken and he would yet return home a new man.

Le Gardeur had only yesterday, in a moment of recollection of himself and of his sister, addressed a note to Amelie, asking pardon for his recent neglect of home, and promising to come and see them on St. Martin's day.

He had heard of her betrothal to Pierre. It was the gladdest news, he said, that had ever come to him in his life. He sent a brother's blessing upon them both, and claimed the privilege of giving away her hand to the noblest man in New France, Pierre Philibert.

Amelie showed the precious note to Pierre. It only needed that to complete their happiness for the day. The one cloud that had overshadowed their joy in their approaching nuptials was passing away, and Amelie was prouder in the anticipation that Le Gardeur, restored to himself, sober, and in his right mind, was to be present at her wedding and give her away, than if the whole Court of France, with thousands of admiring spectators, were to pay her royal honors.

They sauntered on towards a turn of the stream where a little pool lay embayed like a smooth mirror reflecting the grassy bank. Amelie sat down under a tree while Pierre crossed over the brook to gather on the opposite side



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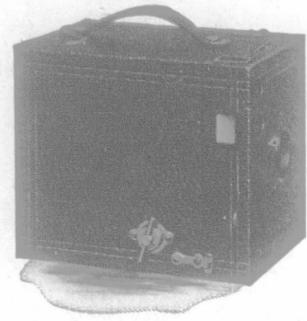
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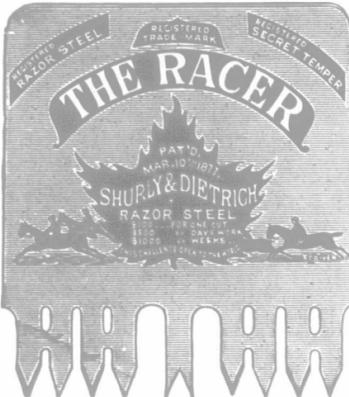


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some flowers which had caught her eye. "Tell me which, Amelie!" exclaimed he, "for they are all yours; you are Flora's heiress, with right to enter into possession of her whole kingdom!" "The water-lilies, Pierre, those, and those, and those; they are to deck the shrine of Notre Dame des Victoires. Aunt has a vow there, and to-morrow it must be paid; I too."

He looked up at her with eyes of admiration. "A vow! Let me share in its payment, Amelie," said he.

"You may, but you shall not ask me what it is. There now, do not wet yourself further! You have gathered more lilies than we can carry home."

"But I have my own thank-offering to make to Notre Dame des Victoires, for I think I love God even better for your sake, Amelie."

"Fie, Pierre, say not that! and yet I know what you mean. I ought to reprove you, but for your penance you shall gather more lilies, for I fear you need many prayers and offerings to expiate," she hesitated to finish the sentence.

"My idolatry, Amelie," said he, completing her meaning.

"I doubt it is little better, Pierre, if you love me as you say. But you shall join in my offering, and that will do for both. Please pull that one bunch of lilies and no more, or Our Lady of Victory will judge you harder than I do."

Pierre stepped from stone to stone over the gentle brook, gathering the golden lilies, while Amelie clasped her hands and silently thanked God for this happy hour of her life.

(To be continued next week.)

ALBERTA FARMERS' ASSOCIATION

(Continued from page 161)

AGRICULTURAL COLLEGE QUESTION.
The location of the agricultural college has been a question of great concern to the farmers of Alberta. It, therefore created much interest when it came before the convention. When addressing the convention at the initial session Premier Rutherford alluded to the agricultural college, stating that it was already decided that the college would be located at Strathcona and in connection with the university. However, he thought that agricultural education should not all be given within the walls of a college, and that it was the government's purpose to institute short courses for the education of the farmer. It was also their purpose to encourage agricultural education in public schools and he, too, was of the opinion that there should be agricultural high schools as found in Ontario and the United States.

Dr. Tory made himself known to the convention on this question, asking leave to make an appeal to present his arguments. He went into detail as to the advantages of affiliation with the university, claiming that the science of agriculture always had a definite appeal to him.

W. J. Tregillus, of Calgary, backed up the resolution calling for agricultural college being so situated that it will admit of the education of students in all methods of farming that are of most vital importance to the prosperity of the province.

E. Mitchener, M. P. P., Red Deer, introduced an amendment to the resolution to the effect that the entire matter of the agricultural college be referred to the executive committee to take up further with the local government.

Prof. Elliott, recently of the University of Montana, and now of Strathmore, Alberta, gave it as his opinion that the agricultural college should be connected with some experimental farm, although he did not wish to influence

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the farmers of Alberta one way or the other, as he did not know all the local conditions, but according to all his experiences in the United States and elsewhere, it was better to have the agricultural college and the university separate. The amendment to leave further action in the hands of the executive passed the convention.

CONSOLIDATION OF RURAL SCHOOLS.

The resolution calling for consolidation of rural schools was as follows:

Resolved that in the opinion of this convention children of farmers are entitled to education without cost, and whereas the present rural school system does not provide this for several reasons: First, because on account of many classes and only one teacher, scholars, and particularly the younger ones, must be neglected for a large part of the time; and, second, because older pupils have to attend town schools to obtain an education worthy of the name, thereby making it hard and in many cases impossible for farmers to provide that education. We hereby urge upon the government the need of exacting the necessary legislation to make provision for a system of consolidated schools, as successfully operated in other parts of Canada and the United States.

OTHER RESOLUTIONS

A resolution was passed asking the board of directors to confer with the government regarding the difficulty in securing farm labor during the harvest season, and asking the establishment of a labor bureau by the association for the securing of labor.

A resolution asking that the government retain control of creameries, was introduced from Penhold union and carried.

A resolution asking that the minister of agriculture take up the matter of grants to seed fairs, to insure more prompt payment of such, was passed.

A resolution demanding legislation in the matter of exorbitant rates of interest charged on loans by banking institutions was passed.

A resolution asking for amendments to the weed ordinance, making it more workable, was carried.

A resolution asking for amendments to the statutes to allow local improvement districts to spend \$150 instead of \$75 for gopher poison was adopted.

A resolution calling for a reduction of the duty charged on all classes of wire passed unanimously.

The provincial government will also be asked by the association to go into the loaning business to procure money if possible at 3 1/2 per cent. on the credit of the province, and to loan it out to farmers at 5 per cent. The resolution proposing this was introduced by Streamstown union and carried by a large majority.

When the convention terminated it was generally conceded that it was by far the most important convention ever held by farmers in Alberta. The need of better organization work was generally felt and it is intended that much organizing will be done this coming year. A recommendation was made that W. J. Tregillus, vice president be organizer for the district south of Red Deer.

OFFICERS ELECTED.

The officers elected for the ensuing year are as follows: President, Jas. Bower, Red Deer; vice-president, W. J. Tregillus, Calgary; directors, James Speakman, Innisfail; L. H. Jellett, Spring Coulee; D. W. Warner, Clover Bar; district representatives, Victoria constituency, F. H. Ballaam, Vegreville; Edmonton, Geo. S. Long, Namayo; Strathcona constituency, F. Langston, Rosenroll; Red Deer constituency, E. Carswell, Red Deer; Macleod constituency, J. Quinsey, Macleod; Medicine Hat, E. N. Grisbach, Gleichen.

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Hams (medium)	17	
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No. 1 tallow	5 1/2	
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Native beets, per 100 lbs.	1 25	
Native turnips, per bushel	60	
Dry onions, per 100 lbs.	2 50	
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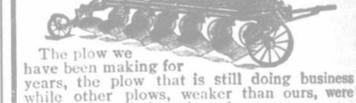
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One of the leading plow men in the country said: "We have been up against the plow game; we have tried them all, but the Mogul is a little the 'slickest' yet." features not found on any others. Platform is level; levers bunched in the center, saving half the walking. Self-castering gauge wheels and rolling coulters which do not interfere with each other. Simple and strong.

P. & O. Senior Engine Gang

Four Sizes: 3, 4, 5 and 6 Bottoms



The plow we have been making for years, the plow that is still doing business while other plows, weaker than ours, were strained or pulled to pieces long ago.

P. & O. Disc Engine Gangs

Three Sizes; 4, 5 and 6 furrow. The simplest, strongest and best disc plows made. Write for our pamphlet on Traction Engine Plowing. It fully describes the P. & O. Plows and gives valuable information as to the capacity of the different sizes, etc. To get this particular pamphlet, ask for Catalog No. E156

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A comfortable congenial home in Winnipeg suburbs needs a bright young Western woman as help who would be received as one of the family. Salary and fare paid. Correspondence invited. References exchanged. Address Ransom, 14 Princess St., Winnipeg.

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A little Scotch boy on being rescued by a bystander from the dock into which he had fallen expressed heartfelt gratitude, saying: "I'm so glad you got me out. What a lickin' I wad have frae my mither if I had been drowned!"

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Made for 2, 3, 4, 5 or 6 horses. The HEIDER 4-horse Plow Evener works four horses abreast on gang, sulky or disc plow. Works free, no side draft, all horses pull equal. We make clevises to attach our Eveners to all plows. HEIDER 3-horse Wagon Eveners for wagon, manure-spreader, grain drill or any other implement with pole. GO TO YOUR DEALER, if he can't supply you don't accept any other. Write us for catalog and we will tell you where to get them. We also make Wagon Loultrees, Single trees, Neck Yokes, etc. Insist on getting HEIDER'S if you want the best in EVENERS

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3, 4, 5 and
12 Furrow

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ing plow men
in the country said:
"I have been up
plow gangs; we
have them all, but
the 'slickest' yet,
best, with new
rollers. Platform is
center, saving half
the weight and
interfere with
the wheels."

Line Gang

Four Sizes:
3, 4, 5 and
6 Bottoms

Doing business
than ours, were
10 years ago.

Line Gangs

Four. The sim-
plest made.

Traction Engine
P. & O. Plows
as to the capac-
ity. To get this
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TAKING U. S. CENSUS

The American Census Bureau are planning to make the farm census, which begins April 15 next, the most comprehensive compilation of data and information on the condition and standing of agriculture that has ever been attempted by a government. Farmers are being urged to be in a position to furnish the enumerators with complete and accurate information of the extent of and returns from each department of their business. A list of the questions the enumerators will put is being published broadcast, and farmers are asked to prepare written records or memoranda, by means of which the work of taking the census can be most speedily carried out. The information will cover chiefly the operation of the farm during 1909 with data regarding equipment up to April 15, 1910. It is aimed to complete the census in thirty days.

When the returns of the census takers are compiled it is expected that more will be known about agriculture in the United States than has ever been known from any census made before. The value of the farms, buildings, equipment and live-stock will be gone completely into. Farmers will be asked to estimate as accurately as they can the returns from each branch of their work in 1909, together with the amounts spent for labor, house rent, fodder and produce, fertilizers, sales of live-stock, prices received, etc.

The enumeration must be completed within thirty days. The enumerators are held responsible for the general accuracy of the schedules carried by them, and they are required to give farmers such time as may be necessary to answer fully and accurately each question asked.

MAPLEINE PUMPKIN PIE

Four eggs, one cup of granulated sugar, one cup of milk, one teaspoonful of butter, one teaspoonful cornstarch, pinch of salt, one pint of stewed and strained pumpkin, one teaspoonful of ginger, nutmeg or cinnamon if desired, and one-half teaspoonful Mapleine.

Use regular pie crust and bake in moderate oven. Enough for two pies.

Mapleine is the new flavoring, better than maple. It is sold by grocers everywhere, 50c. per bottle. If not, send 50c. in stamps to the Crescent Mfg. Co., Seattle, Wash., for a 2-oz. bottle and recipe book.

Questions & Answers

GENERAL
Questions of general interest to farmers are answered through our columns without charge to bona-fide subscribers. Details must be clearly stated as briefly as possible, only one side of the paper being written on. Full name and address of the enquirer must accompany each query as an evidence of good faith but not necessarily for publication. When a reply is required by mail one dollar (\$1.00) must be enclosed.

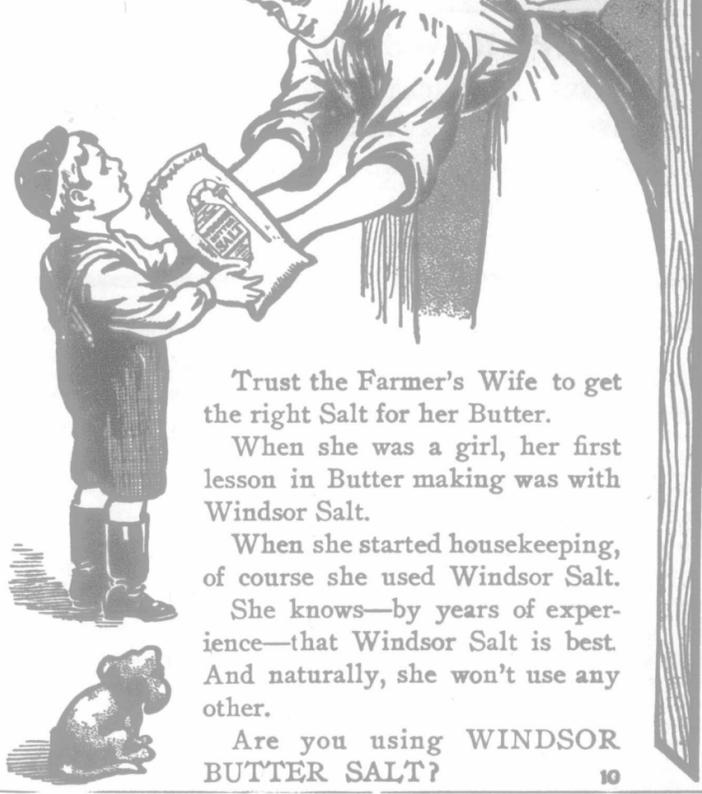
MAPLE SYRUP MOLDY
How can I remove the moldy flavor from maple syrup?
SUBSCRIBER.

Ans.—The only method known to us for removing the musty flavor is to carefully skim off any scum that has risen, then boil up the syrup, skimming until it is quite clear.

WINTERING DUCKS
What is the best method of feeding and housing ducks in winter? What is the best temperature to have the house at to keep them in good health? How about watering them?
Sask.
J. A. H.

Ans.—Ducks will do well on the grains ordinarily fed to poultry, such as wheat, barley and oats: with green feed or cooked vegetables occasionally. The feeding is not difficult. They thrive on anything a hen will live on, and being more healthy by nature are not subject to so many ailments. Ducks consume large quantities of coarse bulky food, and for the sake of economy in feeding it is good practice to give them a meal of grain in the morning and evening, with plenty of bulky food such as chopped clover, boiled potatoes or turnips or mangels boiled and mashed. They should have water before them at all times, except in freezing cold weather, when it is impossible to have it so. Water may then be given in a pen or trough two or three times a day. The house does not need to be warm but it should be dry. As good a way as any if one has a good sized hen house is to partition off one end of it for a duck house. If the henhouse is not built too warmly the duck room will be sufficiently ventilated and straw on the floor does for them to sit on.

WINDSOR BUTTER SALT



Trust the Farmer's Wife to get the right Salt for her Butter.

When she was a girl, her first lesson in Butter making was with Windsor Salt.

When she started housekeeping, of course she used Windsor Salt. She knows—by years of experience—that Windsor Salt is best. And naturally, she won't use any other.

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How the Frost Fence "Gives" and "Takes," Like a Spring

ANY "coilless" Fence is liable to snap in certain weather conditions.

But the Frost is a coil Fence. In Winter, when steel Wire contracts, Frost coils "give" their surplus, instead of snapping like "coilless" Fence.

And in Summer, when the Wire expands, that surplus returns to the Frost coils, instead of sagging and causing the Fence to lose its shape.

And no matter how often contraction or expansion is caused, the Frost Fence always acts the same, like a Spring.

Merely Excuses

Lots of other Wire Fences have a Tension, Curve or Kink, as an excuse for "Give" and "Take." But the number of these "gives" and "takes" is limited. They cannot keep it up. It isn't in the Wire or the method to do so.

Both the Frost Field-Erected and the Frost Woven Fence have extra provisions for "Give" and "Take." But no others have it. You simply cannot find another Fence which will retain its shape like the Frost.

Please remember that when buying Fence!

Make Our Own Wire

We are the only Fence Makers in Canada who Make and Galvanize Wire exclusively for Fence purposes.

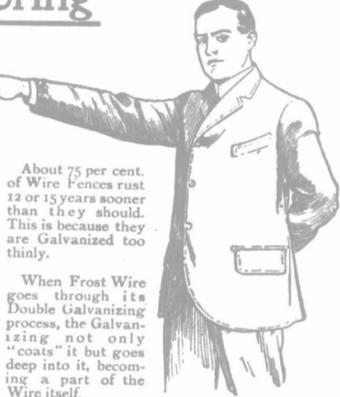
Wire, to give satisfactory service in Canada, should be made especially to fight off the peculiar Canadian climate, which simply knocks the very life out of most Fences. But all Wire is not made with Canadian conditions in view.

For that reason we decided to Make and Galvanize our own Wire. So we built a Mill for Wire-making, and another for Galvanizing, and installed the most modern Machinery in use.

Then we obtained the services of one of the most Expert Wire-Makers in America. A man with 25 years of Wire-Making experience back of him.

The new Frost Wire is Annealed so scientifically that it possesses the proper temper for Canadian conditions.

Every inch is of uniform temper, and stronger than any other No. 9 Wire. It will not snap, regardless of the peculiar Canadian weather variations.



About 75 per cent. of Wire Fences rust 12 or 15 years sooner than they should. This is because they are Galvanized too thinly.

When Frost Wire goes through its Double Galvanizing process, the Galvanizing not only "coats" it but goes deep into it, becoming a part of the Wire itself.

Frost Galvanizing is doubly thick, yet it will not scale.

This gives the Frost Fence a life of about 20 to 25 years longer than most Fences. No peculiar climate can rust the new Frost Fence.

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Questions & Answers

VETERINARY

Enquiries dealing with matters of a veterinary nature are answered through our columns by a competent veterinarian free of charge to bona-fide subscribers. Details and symptoms must be fully and clearly stated on only one side of the paper. Full name and address of the writer must accompany each query, as a guarantee of good faith but not necessarily for publication. When a reply is required by mail one dollar (\$1.00) must be enclosed.

SWELLING UNDER BELLY

I have a pony mare, 9 years old, that ran on the range all summer with a colt. I brought her up late this fall. About one month ago I weaned the colt. She swelled under her belly the full length and width, a hard swelling. She is all dried up and has been for two weeks. I stable her at night and turn out in day time. I feed her a bundle of oats night and morning. She seems to feel all right and eats well. I see nothing wrong but the swelling. She will foal again in April. T. J.

Ans.—The swelling is likely to persist until after she foals. About all you can do is to keep her well exercised, and rub it well with the hand when you can. Should the belly become very pendulous, it would be advisable to make a canvas belt for her, make it to extend the full length of the belly and buckle it along the back, with straps and buckles sewn on the canvas support. As the belly enlarges as pregnancy advances, the straps can be let out a hole or so, as the needs of the case demand. This belt is a good abdominal support, and takes off considerable weight from the abdominal muscles.

YOUNG CATTLE HAVE RINGWORM

Young stock rising two years have contracted a kind of skin disease which seems to break out around the eyes. The hair comes off and the skin peels off, giving it a white appearance and it is very hard. What is wrong and what can I do for it?

SUBSCRIBER.

Ans.—We are of the opinion that your young stock are affected with ringworm. It affects the hair and epidermic layer of the skin, it is highly contagious, being readily transmitted from one animal to another. It is due to a vegetable fungus or parasite. The treatment consists of washing the parts well with soap and water to remove all crusts, then apply once a day tincture of iodine with a brush, or smear once daily nitrate of mercury ointment. White wash the stable as soon as the frost is out. This will destroy the spores, and prevent further infection.

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get largest crops with least work

What's the use of drudging to get ordinary results when a Planet Jr Seeder or Cultivator does six men's work, and gives you an increased yield besides? Planet Jrs are patents of a man skilled both in farming and manufacturing for over 35 years. They are light, strong, lasting, and fully guaranteed.



No. 4 Planet Jr Combined Seeder and Wheel-Hoe saves time, labor, seed and money. Almost all useful garden implements in one. Adjustable in a minute to sow all garden seeds, hoe, cultivate, weed, or plow. Pays for itself quickly, even in small gardens.

No. 8 Planet Jr Horse Hoe and Cultivator will do more things in more ways than any other horse-hoe made. Plows to or from the row. A splendid furrower, coverer, hiller, and horse hoe; and unequalled as a cultivator.

The 1910 Planet Jr catalogue is free. It illustrates and describes 55 different implements for the farm and garden. Write for it today.

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Under the authority of Secs. 18, 19, 20, 22 and 26 of the Veterinary Association Act, 1890 (53 Vic., Chap. 60), the following persons only are entitled to practice as Veterinary Surgeons in the Province of Manitoba, or to collect fees for services rendered as such:—

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The practice of the veterinary profession in Manitoba by any other person is direct contravention of the statute and renders him liable to prosecution
FREDERICK TORRANCE, Registrar.

CARPITIS, INFLAMMATION OF KNEE

A heavy Shire mare 11 years old, went suddenly lame when running in the field about three weeks ago. The trouble is in her left knee. It is swollen and very hard. We tried a bran poultice, but it didn't do any good. We have now blistered with caustic balsam. She stands with her foot well under her, the knee bowed slightly. She has favored that leg all summer a little when turning, but I couldn't tell just where the seat of the trouble was. She was driven quite hard on the grain wagon last fall and came home lame in the left ankle. I put a strong blister on it and turned her out and she was all right till the present trouble set in. C. B.

Ans.—Carpitis— inflammation of the knee joint—is a serious condition. There is frequently an alteration of structure, resulting from the inflammatory action, affecting one or more of the various tissues entering into the formation of the knee joint, which cause it to become more or less stiff. The immobility is often permanent and renders the horse useless for anything but slow work. The treatment for some time after the accident should be of such a nature as not to increase the inflammation, such as fomentations of warm water in cold weather, or cold water applied with a sponge in warm weather. It is a mistake to apply irritants—medicines that blister—until all inflammation has subsided. In this case at this stage of the trouble, we advise gentle exercise several times a day, together with cautious massage of the joints. This may be done by more or less forcibly flexing and extending the limb at the knee. For instance, lift up the foot, take it backward and try to make the heel touch the point of the elbow, then take the leg forward. Repeat this backward and forward movement many times during the day for about two minutes at a time, then walk her about for ten minutes. It may be necessary to apply a blister if this treatment proves of no avail, although blistering frequently fails to bring about satisfactory results in these cases.

INTESTINAL WORMS

I lost a filly foal under the following circumstances: Two months ago, noticing she exhibited marked symptoms of worms, white mucus around anus, rough coat, pot belly, etc., I commenced giving her small doses, averaging one-half teaspoon sulphate of iron twice a day in food. She did not improve and got to standing around "moping." I then put her in the stable and give her 1 teaspoon turpentine in 4 oz. linseed oil on two successive mornings. This caused her to urinate frequently, but she had become constipated by this time and although I

injected a quart of tepid water and soap she failed to pass anything. However, in her death struggles she passed her faeces which were darker than usual, but not hard. I dissected her and found her stomach full of pin worms and her intestines crowded with the long white worms up to 1 foot in length. Where did I fail in my treatment? Are the pin worm and long white round worm the same? Is there any danger in an overdose of sulphate of iron or turpentine? What is the maximum dose for a well grown heavy draft colt of six months? Would an injection of quassia chips or tansy tea reach the worms in the intestines and stomach?

L. W. T.

Ans.—Nematoids is the name of the family of round worm which infest various parts of the body, stomach and intestines. There are many divisions and sub-divisions of the family, each having its own peculiar location in the body of its host. The genus ascaris is the branch which infest the stomach and intestines. The pin worm oxyuris is another branch or genus. It infests the rear bowel and floating colon. Yes, there is danger in long continued use and overdose of either sulphate of iron, or turpentine. The iron may derange the digestive system, and even set up inflammation in any part of it. So also may turpentine cause inflammation of any of these organs, but especially the kidneys and bladder. The maximum dose of turpentine for a six months old colt would be a table-spoonful—one-half fluid ounce. Injections of quassia, salt solution or any other non irritating bitter will, when injected into the rectum and floating colon, kill and bring away worms—pin worms. But injections do not reach the stomach when administered per rectum, as the distance between the rectum and the stomach is approximately one hundred feet.

From the above you will learn wherein you failed in your treatment.

DISEASED TISSUE

Am sending a growth of some kind found on the breast of a hen. I would like to know what you call it and would it be advisable to cook the fowl?

A. C. C.

Ans.—We have examined the specimen of diseased tissue taken from a chicken, and find it either to be an old abscess wall, or a cyst. If all the diseased tissue is carefully removed, the remaining portion—if in good condition—may be used, but as a chicken is of so little value, we would advise you to destroy it, and so avoid all the possible bad results, which are liable to follow the consumption of unsound food.

GOSSIP

RAILWAYS OF CANADA

The mileage of railways in actual operation in Canada during the year 1909 was increased by 1,138 miles, as compared with an increase of 514 miles in 1908. There are 24,104 miles now in operation in Canada which exceeds the mileage of Great Britain and Ireland, which is 23,061.

Railway capital in Canada now amounts to \$1,300,681,416 of which \$647,734,647 is stocks and \$660,946,769 is funded debt, a total increase of \$69,186,403. Passengers to the number of 33,683,309 were carried last year as against 44,044,092 in 1908. Thus while the railways had an increased passenger train mileage in 1909 over 1908, they carried fewer passengers and earned less from ticket sales. The passenger revenue was \$25,282,326 as compared with \$46,854,182 in 1908.

There were 478 persons killed and 1,404 injured by railways during 1909. These figures represent an increase over 1908 of 29 in the number



Raise The Crop That Never Fails

That crop is poultry—the crop that knows no “bad years.” You can raise that crop on your farm, no matter whereabouts in Canada it is. You can raise poultry successfully, make money doing it, and be sure of a good market for all you do raise. You need make no heavy investment to start at it; you need no elaborate equipment; you don't have to give up a big slice of your land to poultry-raising, even if you go into it on a pretty big scale. Nor is it hard work to

make a go of poultry farming,—not anything like the work it takes most everywhere to make even a pittance out of ordinary farming. Poultry-raising, nowadays, with The Peerless Way to follow and the certainty it provides for you, is actually a business that you owe it to yourself to get into, and to get into right away. Consider the matter carefully. Read every word of what follows, and act upon its suggestions.

This Is How You Can Make Your Farm Pay Better

First of all, sit down now and drop us a post card with your name and address on it. That will bring you a book you ought to read. It tells you the real truth about poultry-raising. This book explains just why The Peerless Incubator, The Peerless Brooder, and The Peerless Way make a combination that puts success within anybody's reach—makes success practically certain, failure practically impossible.

Very Little Money Will Start You Right

Don't imagine for a moment that you need a great deal of cash to start after the profit there is in poultry. One important feature of The Peerless Way is that you can get our friends to go into the business with you, but very little money. And don't imagine, either, you need the help of an expert to succeed with poultry. Your own good common-sense, added to a fair degree of diligence and effort, equips you thoroughly to make money poultry-raising, and to make it quick. Get the cold facts.

You Get, Free, The Advice And Aid of Experts

Another very important thing about The Peerless Way is that our interest in your success doesn't lapse when your Peerless Outfit is shipped. If one Peerless customer should fail at poultry-raising because we did not do all we should have done to help him, we would feel disgraced. So we try to see to it that no Peerless customer fails. Our Board of Experts gives advice, counsel, detailed instructions, to every Peerless user who wants them. And the advice is so plain, so explicit, that a child could not misunderstand it.

We Trust You Willing'y

When it is not just convenient for our customers to start on a cash-down basis, we willingly arrange such long credit terms that the Peerless equipment pays for itself—earns its whole cost long before the last payment is due. WRITE US TO-DAY FOR FULL DETAILS.



Let us ship you this and trust you for it. We pay freight and give you a 10-year guarantee

We Find a Buyer For Your Product

There is another valuable service you get when you follow The Peerless Way:—We guarantee to find a buyer for all the fowl or eggs you want to sell—a buyer who pays spot cash, pays the highest market prices, and charges no commission whatever. Poultry prices, and prices for eggs—as you would know if you lived in a city—have been climbing steadily year after year.

Best Paying Business For You

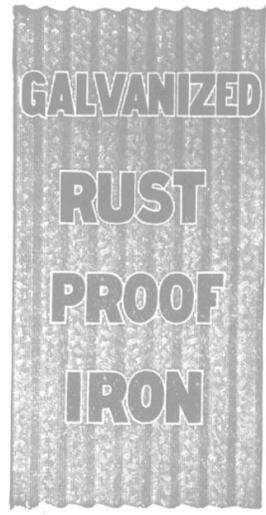
For the work involved and the money required, poultry-raising, The Peerless Way, is the best business there is. It has possibilities big enough to interest a capitalist; and yet a schoolboy of average intelligence can succeed at it, make money at it, prosper in it, yet start with but a few dollars. There is not a farm in Canada on which poultry cannot be raised for profit; there is not a farm on which poultry will not pay better than any other crop. You simply cannot find a better investment for part of your time or for all of it.

FREE BIG VALUABLE POULTRY BOOK

You have read enough here to convince you, probably, that there really is something worth while in poultry-raising The Peerless Way. Now send for the FREE book that tells the whole story—that clinches the whole argument—that gives facts and figures and proofs—things you want to know, and ought to learn of right NOW. Make a start this very day. Send for the book. Address:

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killed and a decrease of the number injured of 943.

The total mileage of electric railways may be put at 988. This would show a decrease of 370, but there is really an increase as there has always been confusion as to reporting mileage. The gross earnings were \$14,824,936 a gain of \$817,887 over the preceding year. One hundred and sixty-eight persons

were killed during 1909 by electric railways and 2,139 injured.

INSPECTION AND QUARANTINE

The annual report of Secretary Wilson, of the Department of Agriculture, Washington, D. C., contains interesting details regarding inspection of export animals and quarantine regulations. In addition particulars are

given about outbreak of foot and mouth disease that occurred in the fall of 1908.

The report says that the outbreak of foot and mouth disease caused a considerable reduction in exports of cattle and sheep. The Bureau of Animal Industry made during the fiscal year 1909 397,925 inspections, including re-inspections of 227,255 animals for export from the United States, besides inspect-

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RANDON

ION OF KNEE

11 years old, on running in 25 days ago. The It is swollen with a bran poultice good. We used austic balsam. Well under her, ly. She has a little amer a little don't tell just ble was. She on the grain home lame strong blister and she was rouble set in.

C. B.

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HASSARD'S HORSES

I have just landed a fresh importation consisting of Clydesdale and Hackney stallions and Clydesdale fillies, direct from Scotland. The stallions are sired by such notable sires as Lord Fauntleroy, Revelant, Baron of Buchlyvie, Sir Everest and Prince Thomas; these stallions range from 2 years to 6 years old and are horses with lots of size and extra quality. The fillies are two and three years old and are sired by such horses as Prince Alexander, Benedict, Prince Attractive, Prince Maryfield and others. These are good big fillies with a lot of quality—the kind to take to the show ring. In fact, it is said by those who have already seen them that they are the best bunch that has ever come to the province. I have 18 more fillies coming that will reach Deloraine by November the 15th; further particulars of them later. Come and see me or write. I am always ready for business with small profits.

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ing 50,943 Canadian animals in transit through the United States for export. There were inspected on arrival at British ports, by Bureau inspectors stationed there, 259,297 animals from the United States and Canada. During the year 473 inspections of vessels carrying live stock were made in order to see that the fittings, equipment, ventilation, feed, water, attendants, etc., conformed to the regulations.

In order to prevent the introduction of contagious diseases of live stock the Bureau makes a rigid inspection of all imported animals at ports of entry, and quarantine is imposed upon animals from all parts of the world except North America. During the fiscal year 237, 804 imported animals were inspected, 4,760 of which were also quarantined.

The outbreak of contagious foot-and-mouth disease, referred to in my previous report, was stamped out after a vigorous campaign by this Department in co-operation with the authorities of the affected States. The disease was discovered in Pennsylvania early in November, 1908, and the territory affected comprised fifteen counties in Pennsylvania, five counties in New York, two counties in Michigan, and one county in Maryland. The plan of eradication followed was similar to that successfully employed six years previously in the New England outbreak, namely, to enforce a strict quarantine, to discover all infected animals and localities, and to slaughter and bury all diseased and exposed animals and disinfect the premises occupied by them. The condemned animals were appraised and the owners were paid the full appraised value, two-thirds by the Department and one-third by the State. The expenses of burial, disinfection, etc., were shared in the same way.

The total number of animals slaughtered was 3,636, and their total appraised value was \$90,033.18. The figures by States are as follows: In Pennsylvania, 1,232 cattle, 1,000 hogs, 52 sheep, 4 goats; a total of 2,288 animals, valued at \$58,667.22, on 101 premises. In New York, 520 cattle, 246 hogs, 214 sheep; a total of 980 animals, valued at \$24,378.13, on 45 premises. In Michigan, 242 cattle, 23 hogs, 9 sheep, 3 goats; a total of 277 animals, valued at \$5,359, on 9 premises. In Maryland, 31 cattle, 60 hogs; a total of 91 animals, valued at \$1,628.83, on 2 premises.

The Bureau of Animal Industry had a force of 572 men, including 159 veterinarians, engaged in the work of inspection and eradication. In addition to the work of slaughter, burial, and disinfection, a vast amount of work was done in thoroughly canvassing the infected regions, going from farm to farm and inspecting all animals, and in investigating rumors of disease so as to detect all cases. The number of visits made by the Bureau's inspectors was 108,683, and the total number of animals inspected, including re-inspections, was more than a million and a half. Besides the infected states the inspectors visited points in Ohio, Indiana, Kentucky, West Virginia, Virginia, New Jersey, Delaware, and Connecticut in tracing rumors.

The federal quarantine, which was first placed upon four counties in Pennsylvania, effective November 13, 1908, was extended from time to time as additional territory was found to be infected. With the progress of eradication the quarantine was modified and partly released from time to time, as conditions warranted, and was entirely removed April 24, 1909.

The amount expended by the Department of Agriculture eradicating the disease was barely kept within the special appropriations, aggregating \$300,000, made by Congress for that purpose. Fortunately the disease was confined to practically the territory infected at the time of its discovery

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Timothy, Fancy A	per bus.	\$ 3.65
Timothy, Extra Choice B	"	3.25
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Early Ohio	per bus.	\$0.75
Early Rose	"	.75
Early Bovies	"	.75
Early Puritans	"	.75

Bags for seed 25c. each extra.
Bags for potatoes 10c. each extra.

Now is time to order seed as prices are reasonable and from our reports there is room for an advance. These prices are cash with order. We solicit correspondence.

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Philander C. Knox, the secretary
 of state of the United States,
 talked at a reception at Valley Forge of
 an impudent politician.
 "The impudence with which he de-
 mands his favors," said Mr. Knox, "re-
 minds me of that of young John Gains,
 a Brownsville boy.
 "One winter day the skating was
 good and a game of hockey was pro-
 posed. John Gains, his skates over his
 arm, rang the bell of one of our oldest
 inhabitants, an 1812 veteran with a
 wooden leg.
 "Excuse me, sir," he said, "but are
 you going out today?"
 "No, I believe not," replied the
 veteran, kindly. "Why do you ask,
 my son?"
 "Because if you are not," said John
 Gains, "I'd like to borrow your wooden
 leg to play hockey with."—*Cleveland*
Leader.

**IT'S THE TALK OF
 THE COUNTRY SIDE**
 How Dodd's Kidney Pills
 Cured Mrs. Samuel
 Thompson's
 Dropsy

Her's Was a terrible Case and the
 Doctors were Powerless to Check
 it, but the Great Kidney Remedy
 Cured It.
 Holt, Ont., Feb. 2.—(Special).—
 All the country side about here is talk-
 ing of the wonderful cure of Mrs. Samuel
 Thompson of this place. She was
 taken sick with Jaundice, and though
 the doctor was called in she grew
 steadily worse. Her stomach was so
 bad she could not keep anything on
 it. Dropsy set in and she bloated to a
 terrible size. The doctor came three
 times to tap her, but her husband
 would not allow him to do it, saying
 that if she could not get better they
 might let her die in peace. Finally
 she dropped the doctors and tried other
 medicines, but they did her no good.
 Her leg burst and the water streamed
 from it. Then someone told her about
 Dodd's Kidney Pills and so she asked
 her husband to get her a box.
 After taking them a while she took
 a bad turn. Something would come
 up in her throat and she would vomit.
 The water would just fly from her
 mouth. But from that time she com-
 menced to get better, and today she
 is a well woman. Dodd's Kidney Pills
 cured her.
 Dodd's Kidney Pills cure Dropsy by
 putting the Kidneys in condition to
 take the surplus water out of the blood.
 They always cure it.

and was prevented from spreading to
 other sections. If it had persisted
 longer or spread farther, it would have
 been necessary to call upon Congress
 for additional funds.

ORIGIN OF OUTBREAK.
 On tracing the origin of the disease,
 which was at first a matter of mystery
 it was soon found that the cattle which
 carried it into Pennsylvania came
 through the Buffalo stock yards, and
 from Buffalo suspicion pointed to Michi-
 gan. I visited Buffalo and Detroit, in
 company with the Chief of the Bureau
 of Animal Industry, in order to give
 personal attention to the situation. It
 was believed from the first that the
 contagion must have come from abroad,
 yet in view of the Department's strict
 quarantine an imported live stock it
 was considered improbable that it could
 have been brought in with animals, and
 other means of entrance were looked for.
 When inspectors of the Bureau of
 Animal Industry traced the disease to
 certain calves that had been used by a
 Detroit firm for the propagation of
 smallpox vaccine it was regarded as
 very probable that the vaccine was con-
 taminated with the virus of foot-and-
 mouth disease and that the outbreak
 was due to this cause. I therefore
 directed that a careful scientific in-
 vestigation be made to determine this
 point, and the work was entrusted to
 Dr. John R. Mohler, of the Bureau of
 Animal Industry, and Dr. Milton J.
 Roseneau, of the Public Health and
 Marine Hospital Service, that Service
 having been invited to join in the in-
 vestigation because it was charged by
 law with the supervision of biological
 products used in human medicine.

These investigators by a noteworthy
 piece of scientific work demonstrated
 that the smallpox vaccine virus of the
 Detroit firm was in fact contaminated
 with foot-and-mouth disease, and,
 further, that the vaccine of a Penn-
 sylvania firm, from which the particular
 strain of vaccine in question was obtained
 by the Detroit firm, was like wise
 contaminated. While it is not positively
 known just how long the contamination
 had existed at the Pennsylvania estab-
 lishment, it seems probable that it was
 introduced with vaccine virus imported
 from Japan in 1902, and that it was the
 cause of the New England outbreak of
 that year.

The introduction of the contagion
 through contaminated vaccine shows
 the importance of a congressional en-
 actment giving to the Secretary of
 Agriculture power to control the im-
 portation of biological products in-
 tended for the treatment of animals,
 and to supervise the preparation of such
 products for interstate commerce, in
 the same manner that such products
 for use in human medicine are already
 under the control of the Public Health
 and Marine Hospital Service. With
 the progress of medical and veterinary
 science there is an increasing traffic in
 vaccines, serums, antitoxins, etc., and
 there is a great danger that without
 proper control there may be introduced
 with these remedies the contagion of
 some disease that would cause havoc
 among our live stock.

CANADIAN NAVY PROPOSALS
 According to newspaper despatches
 the Canadian navy as defined in a
 bill introduced in the House of Commons
 by the Prime Minister recently, provides
 for a naval force of three divisions,
 namely, permanent, volunteer and
 reserve corps. The Militia Act has
 been largely followed, but there will
 be no compulsory enrollment in case
 of war, no conscription, and no balloting.
 The service will be under the charge
 of the Marine and Fisheries Depart-
 ment, with a director, who will hold
 the rank of rear admiral, or at least
 captain, and who will be advised by a
 naval board. The Governor in

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 have them at all ages and
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 They are imported and home-
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 also have some very fine
Mares and Fillies for sale.
 Trojan, grand champion
 at the Dominion Exhibition
 at Calgary in 1908, is heading
 at present our stud. Visitors
 always welcome and will be
 met by our rig if notified a
 few days ahead at Balgonie
 (Station on C.P.R. main line,
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**TROJAN (imp.), Grand Champion, Dominion
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Imported Clydesdales
 If you are in the market for a choice
 Filly or a Show Stallion come and see my
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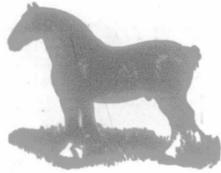
Having sold my farm I must dispose of my en-
 tire herd of pure-bred Shorthorn cattle. I have yet
 my champion herd and their descendants that won for
 me honors at many of the leading Alberta exhibi-
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 descendants of the most noted families of
 in Scotland. I have used such stock bulls as Trout Creek Hero, the
 champion bull in Alberta, for a number of years; Loyalty (imp.); Remus,
 a Toronto prize winner, and Lucerne (imp.), the latter a bull of exceptional
 merit. My prices are very reasonable.
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Three (3) importations made since January, 1909, and the last to
 hand on November 1st, totalling 23 head of stallions and mares.
 If you are in the market to buy, don't miss seeing my stock before
 closing any deal; can give you the best Scotland produces or an equally
 well-bred horse at a small price. Have a selection to suit all buyers.
 I have such crack show horses on hand as the following: Arnot's
 Heir, by Hiawatha that stood reserve for the Bridon Shield in 1907,
 besides winning many other first prizes; Lord Guthrie that as a 3-year-old
 was first in his class, and champion at the Royal Northern Aberdeen,
 besides other winnings to his credit; Silver King that was 1st as a yearling,
 2, 3, and 4-year-old at Dublin and Belfast.
 Will be pleased to have you inspect my stock whether you buy or
 not.
CARBERRY, MANITOBA

SHIRE STALLIONS & MARES FOR SALE

My importation of Shire stallions and mares has arrived, and are well over the effects of the voyage. They consist of one six-year-old brown, and one two-year-old red roan stallions, both the best of the breed yet imported to this province, also ten mares, three and four years old, all in foal to first-class stallions. You can pick some prize winners from them, also one nine-year-old and two three-year-old stallions; all imported last spring. Prices defy competition.



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Two imported yearling shorthorn bulls, one red, one roan. One 2 year old imported bull, red choice individual, an extra sire. Ten young bulls, 9 to 16 months old, all by imported sire. Thirty young cows and heifers, bred to high-class imported bulls. Long distance Telephone, Farm 1/2 mile from Burlington Junction, G.T.R. 30 miles west of Toronto.

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ALSO FOR SALE

Helstein-Frisian bull calf, nine months old, sire Duke Varese Beryl Wayne (7718), dam Duchess de Kel (7158) and litter of registered Sable Gelle puppies.

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Osborne P. O., Man. On the G. T. P.

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Also three young Shorthorn bulls. Apply for prices on bulls.

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Breeder and importer of high class Clydesdales. Young stock always for sale. Male and female. A car load of young stallions just arrived. I can supply you with a show ring champion or a range stallion.

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\$5.00 a bottle, with written binding guarantee. Send for copy, booklet and letters from business men and trainers. Permanently cures Spavin, Thoroughpins, Ringbones, (except low), Curbs, Splints, Blisters, Old Sores, Scurred Tendons and all Lameness. No scar or loss of hair. Horse works as usual. Dealers, or express paid.

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And 148 Van Horne St., Toronto, Ontario.

Mr. A. I. Hlozman, Court Lodge

Egerton, Kent, England, exports pedigree Live Stock of every description to all parts of the world. Exported during 1907 more Shetland Ponies, more Romney Marsh Sheep, and more champion Oxford Downs than any other breeder or exporter, besides large numbers of other breed of horses, ponies, cattle, sheep and hogs. Correspondence invited. Highest references given.

CATTLE and SHEEP LABELS

The greatest thing for stock now is the time to get posted. Write today for free samples and circular

F. G. JAMES, Bowmanville, Ont.

25 Reasons for Raising Mules

Send for my booklet showing that mules pay and pay big. New Importation of Jacks and Jennets now in my barns. No better stock anywhere. Prices right. Farm 6 miles from Indianapolis. Call or write

BAKER'S JACK FARM, Lawrence, Ind.

HELP WANTED

We want a reliable man with rig, or capable of handling horses, in every locality in Canada on salary or commission—\$15.00 a week and expenses, with advertisement, introducing and advertising our Royal Purple Stock and Poultry Specifics, putting up bill posters, 7 by 9 feet; selling goods to merchants and consumers. No experience needed. We lay out your work for you. A good position for farmer or for farmer's son, permanent, or for fall and winter months. Write for particulars.

The W. A. Jenkins Mfg. Co., London, Ont.

Council will have the power to place the force in active service in case of war, invasion, or insurrection, real or apprehended.

The Governor in Council will also have the power to place the Canadian fleet at the disposal of His Majesty in time of war. In the event of the Governor in Council taking such action Parliament must immediately be summoned. Provision is made for pensions for officers and men, and for the establishment of a naval college similar to the Royal Military College at Kingston. At first the Canadian navy is to consist of four vessels of the Bristol type, one of the Boadicea type, and six destroyers of the improved river type.

The vessels are to be built in Canada if possible, and construction will be commenced as early as can be. The cost will be £2,338,000 if the vessels are constructed in Great Britain, or about 33 1-3 per cent. more if constructed in Canada. The annual expenditure will be, at first, about \$3,000,000.

In ordering change of advertisement, J. F. Mitchell, of Burlington, Ont., says that the imported bulls offered are good enough to head any high class herd. They have a lot of show blood in them and can be banked on as getters of the right sort. The two year old bull is a choice individual and one of the very best sires in this country. Some of his get were winners at the Canadian National at Toronto last fall and a number will be at Toronto this coming fall.

HOUSES READY FOR IMMIGRANTS

An arrangement whereby ready made homes will be provided for immigrants coming from Great Britain to the Canadian West is proposed by the Canadian Pacific Railway Co. It is pointed out that many Englishmen want land and are anxious to farm but they do not care to undertake the hardship of the first season.

The simple plan suggested is that the company will make preparations in advance for suitable emigrants from England, build houses for them, break the land, plow it, sow the first crops, and secure repayment by instalments spread over a number of years. The president says: "We want to make it possible for a large body of the best kind of emigrants, working country people, to settle in Canada in place of, as now, drifting into the towns where they are not needed."

"We shall probably settle the families not more than two to the square mile, in order that if they do well they can extend their holdings. The primary aim is not to sell land—for it is easy enough to sell land in the west in large quantities to-day—but to bring people. We want the right kind of Englishmen in the west, and we want them in large numbers."

The land to which this scheme applied is in Alberta and Saskatchewan. In the wheat belt the farms would be 160 acres in extent; in the irrigated portions of Alberta they would necessarily be smaller. The policy of irrigation which has been adopted is said to have been most successful, and the company proposes to apply it to another 1,000,000 acres. The preparatory home-making would cost about \$4,000. The repayment would be spread over ten years, leaving the settler \$400 a year to pay for his property. Men of the right stamp who came out with \$500 would be able to get along successfully.

BREED SOCIETY ANNUAL MEETINGS

Following are the dates announced for the holding of the annual meetings in Toronto of the breed societies named. Those indicated by the as-

TRENCH'S REMEDY -FOR- EPILEPSY AND FITS

IMPORTANT NOTICE
A BRANCH OFFICE has been established at 107 St. James' Chambers, Toronto.
REDUCTION IN PRICE
This important change permits of prices being reduced to those prevailing in Europe, namely—Full package, \$12.00; half do., \$6.50; quarter do. \$3.75; postage or express charges extra.
THE ONLY CANADIAN AND U.S. ADDRESS
TRENCH'S REMEDIES, LIMITED
107 ST. JAMES' CHAMBERS, TORONTO
Pamphlet mailed free on application. Beware of spurious imitations. All packages of Trench's Remedy must bear our trademark seal in unbroken condition on each end.

DOG MEDICINE—Most dogs have worms. And the worms kill the dogs. Get rid of the worms with **VERMICIDE CAPSULES**. Six capsules 25c. Hundred capsules, \$3. Mailed with free booklet telling all about worms in dogs on receipt of price. **Dr. Cecil French, Washington, D.C.**

SHOEMAKER'S BOOK ON POULTRY

and Almanac for 1910 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about turkeys, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chicken-dom. You need it. Only 15c. **C. C. SHOEMAKER, Box 575, Probert, Ill.**

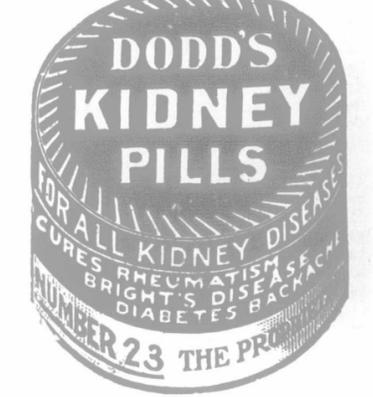
48 BREEDS Fine pure bred chickens, ducks, geese and turkeys. Northern raised, hardy and very beautiful. Fowls, eggs and incubators at low prices. America's greatest poultry farm. Send 4 cents for fine 80-page 16th Annual Poultry Book. **E. F. NEUBERT, Box 816, Mankato, Minn.**

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with **Fleming's Fistula and Poll Evil Cure**—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in **Fleming's Vest-Pocket Veterinary Adviser**. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durably bound, indexed and illustrated. **FLEMING BROS., Chemists 45 Church St., Toronto, Ontario**

B. P. RICHARDSON BARRISTER, SOLICITOR, NOTARY PUBLIC. GRENFELL, SASX. LANDS FOR SALE

You are probably acquainted with one of the latest popular hits in the song line, the refrain of which is "Where Has My Lima Bean?" The New York Telegraph makes it out to be an Englishman who heard the song at the Murray Hill Theatre and who was much perplexed by the refrain. Seeking out the house manager, who was a friend, he thus voiced his objections, according to the Telegraph:—"Beastly bad grammar that song—what? How on earth, dear chap, can you make sense or meaning out of such foolishness? Why, such a meaningless babble! 'Where Has My Lima Bean?' It ought to be either 'Where Is My Lima Bean?' or 'Who Has My Lima Bean,' and it's idiotic to sing it in the way they are doing—what?"



REMEDY
AND FITS

NOTICE
been established
Toronto.
PRICE
units of price
sailing in Europe,
5; half do., \$6.00;
express charges

S. ADDRESS
S. LIMITED
S. TORONTO
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tions. All pack-
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on on each end.

have worms. And
rid of the worms
Six capsules
Mailed with free
in dogs on receipt,
Shington, D.C.

ILTRY

as 224 pages with many
true to life. It tells all
ices, their care, dis-
eases, their habits, their
on. All about poultry
them. It's an encyclo-
pedia you need it. Only 10c
x 875, Freeport, Ill.

are bred chickens,
geese and turkeys
very beautiful.
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Send 4 cents for
poultry Book.
Wankato, Minn.

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Dr. A. W. Chase's
Nerve Food

The sleeplessness, headaches,
tired feelings and irritability soon
disappear when Dr. A. W. Chase's
Nerve Food is used. Nervous pro-
stration and paralysis are prevented.
Health and vigor are restored.



BITTER LICK
MEDICATED
Salt Brick



The Great
Conditioner,
Tonic, Digestive
& Worm Destroyer.

BITTER LICK will give your horses a keen
appetite—regulate disorders and keep them
healthy. Made of salt, linseed, roots and herbs.
Full particulars from
Steele Briggs Seed Co. Limited., Winnipeg, Man.

Gen. St. Clair Mulholland, veteran
and historian of the Civil War, tells an
incident showing the utter worthlessness
of Confederate paper money at the close
of the war.

"Shortly after Lee's surrender," says
the General, "I was a short distance
from Richmond. The Confederate sol-
diers were going home to become men of
peace again and were thinking about
their farms.

"One had a lame, broken-down horse,
which he viewed with pride. 'Wish I
had him, Jim,' said the other. 'What'll
you take for him?' 'I'll give you \$20,000
for him.'

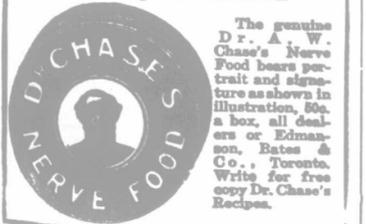
"'No,' said Jim.
'Give you \$50,000.'
'No,' said Jim.
'Give you \$100,000,' his friend said.
'Not much,' replied Jim. 'I just
gave \$120,000 to have him shod.'"—
Philadelphia Times.



Women's nerves are of-
ten ruined by sewing.
The strain of working the
machine is bad. The strain on
the eyes is often worse.
Once the nervous system is run
down, nothing short of patient and
persistent treatment will bring back
health and vigor.
Rest if you can—get out into the
fresh air and sunshine—build up the
nervous system by using

Dr. A. W. Chase's
Nerve Food

The sleeplessness, headaches,
tired feelings and irritability soon
disappear when Dr. A. W. Chase's
Nerve Food is used. Nervous pro-
stration and paralysis are prevented.
Health and vigor are restored.



terisk are suggested dates, not con-
firmed by official communication:

Dominion Shorthorn Breeders' As-
sociation, February 1st.

*Canadian Shire Horse Ass'n, Feb.
1st, 4 p. m.

*Canadian Pony Society, Feb. 3rd,
8 p. m.

Ontario Horse-breeders' Association,
February 1st, 7.30 p. m.

Dominion Cattle-breeders' Associa-
tion, February 2nd, 7.30 p. m.

Dominion Swine-breeders' Associa-
tion, Feb. 3rd, 2 p. m.; Directors'
meeting at 9.30 a. m.

Dominion Sheep-breeders' Associa-
tion—Directors' meeting, Feb. 3rd,
7.30 p. m.; annual meeting, Feb. 4th,
9.30 a. m.

Ontario Sheep-breeders' Association,
February 4th, 2 p. m.

Canadian Holstein-Friesian Associa-
tion, Temple Building, Feb. 10th, 9
a. m.

AGRICULTURAL MOTOR CONTEST

The motor competition arranged for
the Winnipeg Industrial Exhibition
next July promises to eclipse other sim-
ilar contests in scope and in general in-
terest. Prof. A. R. Greig, of the de-
partment of engineering in Saskatche-
wan's new college of agriculture at
Saskatoon, and Prof. L. J. Smith, of
M. A. C., will be the engineers in charge.
Particulars can be had from the ex-
hibition manager, A. W. Bell.

Rules and conditions will be ad-
hered to as follows:

- 1. The entries shall be classified as
follows by the judges:—
(a) Internal Combustion En-
gines, 20 brake h.-p. and under.
(b) Internal Combustion En-
gines, 21 to 30 brake h.-p.
(c) Internal Combustion En-
gines, over 30 brake h.-p.
(d) Steam Engines.

Prizes shall consist of: First prize,
gold medal; second prize, silver medal;
third prize, bronze medal.

2. All entries must be made on or
before June 1st, 1910. Entries must
be made on the attached form, with all
the data filled in accurately, and must
be accompanied by entry fee of 5.00 for
each entry.

3. Any firm or individual may enter
more than one motor.

4. The fuel used during any test
shall be that supplied by the Exhibition
Association, and will be supplied to
contestants at the following rates:

Gasoline, 20 cents per gallon of 277
cub. inches; Coal oil, 18 cents per gallon
of 277 cub. inches; soft coal, \$8.50 per
ton of 2,000 lbs.; wood, \$4.50 per cord.

5. Each competitor must have suffi-
cient staff for the care of and running of
his motor.

6. All motors entered for competition
must be on the grounds not later than
July 11th, 1910.

7. Each motor will be allotted an
official number, which shall be displayed
during the competition.

8. Each motor shall be allotted a
certain space on the grounds where the
motor shall be exhibited at all times,
except when being tested. Only those
motors taking part in the tests will be
allowed on this space.

9. The tests will comprise brake-
test, plowing-test, and such other tests
as the judges deem essential.

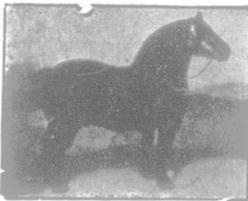
10. The ploughs, belts, chains,
water-tanks and such other things as
may be required during the test must be
supplied by the contestants.

11. The judges may test the engines
in any order that may seem to them de-
sirable. The contestants will be given
one hour's notice when to be ready for
test.

12. Each contestant must supply a
recording dynamometer and sufficient
charts for two hours' reading for all
the tests of his engine.

The brake test shall consist of an
economy test, extending over a period

Percheron Stallions and Mares



We have lately had a consignment of
Percheron Stallions and mares from
Maple Leaf Farm, Essex County, Ont.,
to our sale barn at Victoria Park, Calgary,
Alta. Stock is all young. We can give
you greater value for your money than
you can get elsewhere. Come and let us
prove this to you. Barn is full. Buy
early, while there is a choice. Write for
full information.

Address Phone 472 E. J. WIGLE, 342 18th Ave. W., Calgary, Alta.

REGISTERED PERCHERONS for SALE



TMP. ROBOSSE

Including several prize winners at the sum-
mer fairs of Winnipeg, Brandon, Regina and
Saskatoon. At these exhibitions our exhibits
won seventy-four prizes, nine gold medals and
two silver cups. We have 40 head to select
from, registered in both American and Canadian
Records. Young stallions and mares sired by
our Imported Robosse. Also choice Ameri-
cated stock. Western buyers would do well to
inspect our horses before purchasing as they are
acclimated and will be sold at reasonable prices.
Terms given to any one with satisfactory re-
ferences. Write or come and see us. Long
distance phone connection, farm three miles from
town, visitors met at train.

W. E. & R. C. Upper, North Portal, Sask.

"TIGHNDUIN" Stock Farm

LASHBURN, SASK.

on C. N. R. main line.

Breeders and Importers of
Pure Bred

Clydesdales,
Hackneys and
Shetlands

Mares, Stallions and young
Stock for sale. Also pure-
bred Shorthorn Cattle.

J. Morison Bruce, Prop.

J. C. M. Johns, Mgr.

Bow River Horse Ranch

[Established 1880]

Pure Bred Clydes, French Coach and Thoroughbreds

Carriage, saddle and show horses a specialty. Young STAL-
LIONS and FILLIES from \$250 up. Farm horses, singly or by
the carload. Buyers met. Local and long-distance 'phone.

G. E. Goddard, Cochrane, Alta.

GLENCARNOCK

— ABERDEEN ANGUS CATTLE



We have a choice lot of well grown
young bulls of 1909, of the low down
blocky type sired by Imported Prince of
Benton, who was one of the best Angus
bulls ever imported to America. We have
also a choice lot of two year old heifers
by the same sire out of big heavy fleshed,
choicely bred cows of the easy keeping
sort. Now is the time to get a bull that
will sire the low down heavy fleshed steers
that bring the top price.

GLENCARNOCK STOCK FARM, BRANDON, MAN.

ROBT. BROWN
Herdsman

JAS. D. MCGREGOR
Prop.

IT MAKES LIVE MEN OUT OF WRECKS

Many people would give all they possess to regain the health they have lost. Many have spent their last cent in its pursuit—and thrown their money away.

Such people are misled by custom and the well-meant advice of friends. They take every new drug under the sun and find them all useless.

Yet here is a simple, natural remedy, Dr. McLaughlin's Electric Belt, that does what other things fail to do. It does not poison the system nor depress the spirits. On the contrary, it starts the life current anew and produces health. It invigorates the mind. Without knowing how, the patient jumps from despondency to health and ambition.

There is nothing wonderful in this change. It is all so natural. Think what the effect would be if you were suddenly deprived of all the Electricity in your body. You could not live an instant. No mental or physical life could exist without Electricity. Naturally, when the amount is below normal, you are less vigorous, less ambitious.

Then is the time my Belt does great things for you. It recharges your nerves with life-giving currents. Soon strength and vitality are restored. You feel the old, stimulating glow of health. You now have the right amount of Electricity, and you feel "equal to anything."

What is my Belt? It is a body battery, made for the purpose of applying Electricity to the human system in the most scientific and effective way. It is made on an entirely different plan from the worthless devices known by "Electric Belt." Its current is of guaranteed strength and constancy. It is provided with a regulator. This enables you to change the current to suit varying needs. You wear it at night. Its soothing currents send you to sleep. You wake up refreshed and invigorated. Before long you feel like a different person—and you are different. Your friends tell you so.

The benefits of my Belt are being daily demonstrated by thousands of patients, and it is heartily endorsed by those who have been cured.

If you are sick or weak, and your doctor isn't helping you much, you ought to try my Belt. It's a grand remedy. All such troubles as Indigestion, Constipation, Torpid Liver, Tired Feeling, Weak Kidneys, Rheumatism, Neuralgia, Lamé Back, Lumbago, Sciatica, Sleeplessness, Nervousness and Headaches are cured completely with Electricity applied with my Belt; it overcomes all signs of weakness or breakdown in men and women. My Belt not only cures the sick, but gives the well a greater zest in life.

If you haven't confidence in Electricity, let me treat you at my risk. I will give you the Belt on trial, without one cent of risk to yourself. Give me reasonable security, and I will take your case, and

WHEN YOU ARE CURED PAY ME

Dr. McLaughlin: Dear Sir,—I am very thankful for the good your Belt has done me. I can work now and feel that the restoration of my health is complete. All I can say is that your Belt cured me after the failures of doctors. If there are any men broken down like was there is only one thing that can make them men again, and that is Dr. McLaughlin's Electric Belt. It has cured me and will do the same for you. If anyone doubts you, let them write to me. Yours very gratefully, P. DESLORS, Ralph Station, Sask.

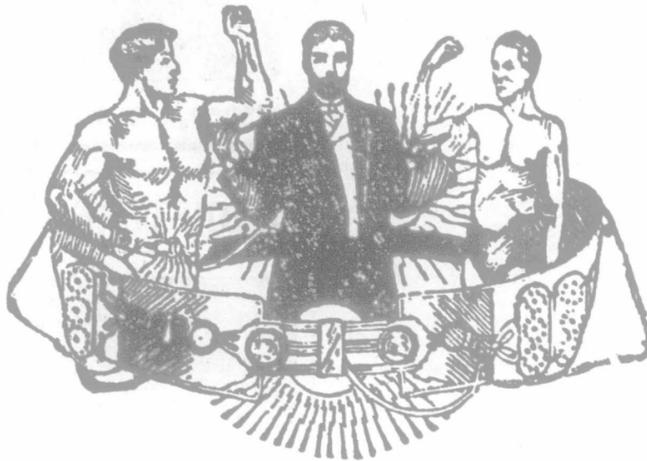
FREE BOOK.

If you cannot call and see me personally, you can write for my book. It will cost you nothing, and will tell you lots of things you ought to know. Send coupon for this beautifully illustrated 84-page Free Book to-day. "Electricity is Life." I know best how to apply the remedy, and thousands of men owe their health and happiness to-day—their success in life—to DR. McLAUGHLIN'S ELECTRIC BELT. Office Hours: 9 a.m. to 6 p.m.; Wednesday and Saturday till 9 p.m. Consultation free.

DR. M. D. McLAUGHLIN,
112 Yonge St., Toronto, Canada
Gentlemen,—Please send me,
prepaid, your Free Book.

NAME

ADDRESS



of two hours, and the maximum horsepower test for a period of thirty minutes or longer, at the discretion of the judges.

The brake apparatus used last year consisted of two iron pulleys mounted on and keyed to a four-inch shaft. This shaft was carried by two large bearings, on a strong wooden frame. The pulley marked A is 40 inches in diameter by 16 inch face, and on this pulley the belts from the engine are run. The other pulley B is 50-inch diameter by 10-inch face, flanged both on the inside and outside of the rim with flanges projecting two inches. Around this pulley is wrapped four falls of rope, arranged with pulleys to equalize the strain on all the rope. The oak block to which the ropes are fastened at the top is carried by a book bolt to a dynamometer which is supported from the frame work. The lower block has a long bolt, on which a number of 25-lb.

nesting weights are hung. These lbs. are due to friction, and 80 lbs. are weights are on a scale, and when the ropes are slack, the full amount of the weights and bolt are on this scale. The pulleys revolve in the direction of the arrow, so that all the friction has a tendency to make the weights rest entirely on the scale. Now, if the hook bolt G were tightened up sufficiently it would take up all the slack and have a tendency to lift the weights off the scale. For example, suppose an engine runs the brake pulley at 240 revolutions per minute, and the ropes pull down on the upper dynamometer 1,300 lbs., and on the scale at the start there were seven, twenty-five pound weights and 5 lbs. of bolts, nuts, washers, etc., making 180 lbs. in all, and when running as above, there are only 100 lbs. shown on the scale; that means that the slack side of the ropes are tight enough to lift 80 lbs. off the scale, or that of the 1,300 lbs. shown, 1,220

The speed usually employed to run a

separator would run the brake at about 240 revolutions per minute; at this speed it has been found to take about 2 h.-p. to run the brake. This 2 h.-p. is added to the h.-p. developed by the engine.

Competitors will be allowed 15 minutes after they have lined up to the brake, to try-out their engine, and to state the amount of load they wish to carry. Last year some of the engines had to withdraw from the brake test, and the manufacturer should be careful to have everything in good shape for a hard run. After the competitor has stated the load he wishes to carry, the operators will keep the brake as near that load as possible for two hours and no change will be made. Careful measurements of the fuel and water used will be taken and the condition of the engine noted. Also the mean effective pressure developed in the cylinder will also be taken into account.

After the two hours run, the test will be made of the maximum h.-p. the engine will develop for thirty minutes; careful measurements again being taken of all the fuel and water.

Hauling tests shall consist of hauling the load around the tract for a period of two hours; the load shall be made up to suit the capacity of the engine. A number of loaded wagons will be provided, so that a load of any size may be obtained. The larger engines hauling the dead engine and one, two or more wagons as desired; between the engine and the load shall be placed a traction dynamometer, which shall accurately record the draw bar pull for the period of two hours. The course consists of part sod, part gravel and part block pavement; careful measurements of all fuel and water supplied will be taken and of all stops, etc., that may occur. A trial round will be allowed so that the competitor may be able to select a suitable load. Note will be taken of the ton miles hauled; per unit of fuel and water used. The proportion of draw-bar h.-p. to the brake horsepower and such other data as the judges deem essential.

Plowing test shall extend over a period of three hours, or longer, if deemed necessary by the judges. The contestants may use any make of plow they wish. The depth of plowing to be as directed by the judges. A recording dynamometer will be placed between the engine and the plow, which will accurately record the pull for at least a period of two hours. Careful measurements will be taken of the fuel and water used; the acres plowed; the draw-bar pull; the fuel per acre; the distance travelled without replenishing, and such other data as the judges deem essential.

Design and Construction.—Under this head will be considered the perfection of the working parts from mud and dust; dust-proof bearings, accessibility of all parts, such as valves, igniters, bearings, fuel and water tanks; facilities for washing out the boiler; cleaning grates and tubes; easy manipulation, such as starting and stopping, reversing and the general handling of the engine; the clearance of working parts from the ground; the proportion of the various working parts of the machine and the materials of construction; the workmanship and method of lubrication.

The following are points upon which the awards will be made (May be changed at discretion of judges): Brake test, 150; hauling test, 100; plowing test, 200; design and construction, 50.

THRESHER'S LIEN ACT DECISION

The attorney-general's department of Alberta has handed out an important decision which will be of interest to all farmers and threshermen in the province. It appears that a thresher in the neighborhood of Cowley was under the impression that he could enter a farmer's pre-

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Warranted to Give Satisfaction.
Gombault's
Caustic Balsam



Has Imitators But No Competitors.
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 ex-
press, charges paid, with full directions for
its use. Send for descriptive circulars,
testimonials, etc. Address
The Lawrence-Williams Co., Toronto, Ont.

**Shoe Boils, Capped
Hock, Bursitis.**
are hard to cure, yet



ABSORBINE

will remove them and leave no blem-
ish. Does not blister or remove
the hair. Cures any puff or swelling. Horse can
be worked \$2.00 per bottle, delivered. Look & D free.
ABSORBINE, J.R. (manikin), \$1.00 bottle.)
For Boils, Irritations, Old Sores, Swellings, Gout, etc.
Tartaric Acid, Varicella, Allays Pain.
W. F. YOUNG, P.O.F., 248 Temple St., Springfield, Mass.
LYMANS Ltd., Montreal, Canadian Agents.
Also furnished by Martin Cole & Wynne Co., Winnipeg;
The National Drug & Chemical Co., Winnipeg and Calgary;
and Henderson, Dept. Co. 144 Vancouver.

THE DISPUTE
Smith said that Cook was surely first
To stand upon the pole.
And Brown said Peary was the man
Who won the icy goal.
Brown added then a few remarks
On Smith's veracity,
And Smith responded with a punch
On Brown's anatomy.
Now where had Brown gained Arctic
lore,
To give his views such weight?
He once within a skating rink
Had cut the figure 8.
And where had Smith acquired his
fund
Of information rare?
Some years ago in Central Park
He saw a polar bear.

**HEADACHE
AND
Burdock Blood Bitters.**

The presence of headache nearly always
tells us that there is another disease
which, although we may not be aware of
it, is still exerting its baneful influence,
and perhaps awaiting an opportunity to
assert itself plainly.

Burdock Blood Bitters has, for years,
been curing all kinds of headaches, and if
you will only give it a trial we are sure it
will do for you what it has done for thou-
sands of others.

***** Mrs. John Connors,
Burlington, N.S., writes: "I have been
troubled with head-
ache and constipation
for a long time. After
trying different doc-
tors' medicine a friend
asked me to try Burdock Blood Bitters.
I find I am completely cured after having
taken three bottles. I can safely recom-
mend it to all."

For sale by all dealers.
Manufactured only by The T. Milburn
Co., Limited, Toronto, Ont.

mises at any time and take enough
grain to pay for the threshing, pro-
viding the account was not paid on
demand, claiming that the Threshers'
Lien Act even gave the right to break
into a granary to secure the grain.
The attorney-general has decided that
a thresher has no such rights under the
Act. His decision is that to benefit
under the Act a thresher would have
to remove the grain directly from
the machine. The Act gives the
thresher no authority, he claims, to
enter a man's premises and take the
grain forcibly from the granary, and
that a farmer is within his rights in
defending his property.

GRANGERS ON TARIFF REFORM
In the election campaign just con-
cluded in Great Britain, colonial opin-
ion was frequently quoted by speak-
ers, both favoring and opposing tariff
reform, and was supposed to have
some influence in forming the opin-
ions of the electorate on this issue.
To set forth the position of Cana-
dian farmers on the question, E. C.
Drury, grand master of the Dominion
Grange, addressed the following letter
to David Lloyd-George, Chancellor of
the Exchequer:
"It is brought to my notice that
in your campaign your opponents are
using the statement that the Colonies
are demanding preferential treatment
for their foodstuffs in the British
market. As head of the Dominion
Grange, an organization of farmers
covering Ontario, and in affiliation
with farmers' organizations in other
provinces, I am in a position to
speak with authority for the farming
class of Canada, and I would desire
most emphatically to contradict the
above statement as far as the farm-
ers of Canada are concerned. We
are not troubling ourselves as to
preferential treatment in the British
market, which we realize would work
harm to the consuming masses in
Britain, and would ultimately injure
us by injuring our market. On the
other hand, our organizations have
taken a stand favoring the admission
of British goods free of duty into
Canada, both as an act of patriotism
toward England and as affording us
some relief from the oppressions of
combines and trusts which have
grown up in the shelter of our pro-
tective tariff among our manufactur-
ers. The cry for preferential treat-
ment in Britain, so far as Canada is
concerned originated with our pro-
tectionist manufacturers, who desire
the triumph of protection in England
to strengthen their position here, but
the preference in England they would
be willing to give British manufactur-
ers would be a sham—a duty over-
er than that given to other countries,
but still high enough to give control
of Canadian markets to Canadian
manufacturers, as they have frequent-
ly affirmed by resolutions in their
association. The farmers of Canada
are engaged in a life-and-death strug-
gle with the combines which have
grown up under our tariff, and no
greater evil could befall them than
the triumph of protectionism in Eng-
land, as it could not help but
strengthen the hands of the protec-
tionist element here.
" Hoping that this statement may
help to clear a misrepresentation of
the attitude of Canadian farmers on
this question, I remain,
"Yours respectfully,
(Signed) "E. C. DRURY."

Geo. Lane, Bar U Ranch, Pekisko,
Alta., received recently from France
a consignment of fifteen Percheron
stallions, said to contain some of the
best specimens of the breed yet
brought to Western Canada. The
stallions are two-year-olds, and have
been selected from some of the best
breeding studs in the old world. W.
B. Thorne, High River, made the se-
lections and purchased for himself
four mares and one stallion. These
horses arrived at High River in good
condition, despite a rather rough
voyage from Antwerp to St. John,
and delays en route West. The en-
tire bunch was purchased from M.
Aveline, Nogent, president of the
Percheron Horse Association of
France.

TRAYNOR BROS.' CLYDESDALES



ARE TOP NOTCHERS

You should look these over before
buying. Our present offering includes

**The Champions of the 1908 Chicago
International; Champions of
the 1909 Regina Show, and Fillies
and Stallions from the Great Sires
"Baron's Gem" and "Black
Ivory," also imported Stallions and
Mares from a number of the best
breeding horses in Scotland**

See our stock and be convinced that
we have the best horses for the
least money considering the quality

Regina on the C.P.R. Condie on the C.N.R.
MEADOW LAWN FARM
Condie, Sask.

J. D. TRAYNOR R. I. TRAYNOR

**HILLCREST
STUD**



We have added to our well known stud
of Clydesdales at the Hillcrest Stud,
Condie, Sask., a recent importation of thirty-
five head—twenty-three stallions and
twelve fillies. Our new importation was
personally selected to keep up the high
standard of our stud, and we are offering
horses with size and quality combined,
to a marked degree. They are sired by such
horses as Baron's Pride, Hiawatha,
Everlasting, Baron's Gem, Royal Favo-
rite, Baron's Voucher, Royal Edward,
Baron o' Buchlyvie and Sir Hugo.

Customers buying from us have no
middlemen's profits to pay, as we buy
and sell our own horses.

Write for descriptive catalogue. Long-
distance telephone in house.

TABER & PLUMMER
CONDIE, SASK.

Craigie Mains Clydesdales



We have in our new barns
situated in Lumsden, Sask., about
70 head of imported and Cana-
dian-bred Clydesdales. Our last
importation of over 50 head is the
largest importation made to
Canada in 1909 and is without a
doubt the best selection we have
yet handled; they are all the
Scotch type and are sired by such
horses as Baron's Pride, Baron
Cedric, Everlasting, Sir Everard,
Baron O'Buchlyvie, Royal Favo-
rite, Royal Edward, Revelanta,
Scottish Crest, Marcellus, Lobori.

Customers buying from us have
no middlemen's profits to pay, as
we buy and sell our own horses.
Write for descriptive catalogue.

A. & G. MUTCH
LUMSDEN, SASKATCHEWAN

DO NOT SAVE YOUR MONEY

CUT OUT THIS ADV. AND MAIL IT TO US FOR

OUR SPECIAL ADVERTISING OFFER

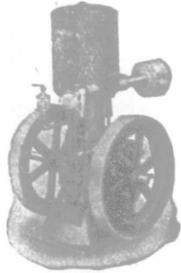
WHICH WILL SHOW YOU HOW

WE WILL DO IT FOR YOU

THIS MONTH ONLY

"LONDON" GAS OR GASOLINE ENGINES
1½ to 5 Horse-Power.

SCOTT MACHINE COMPANY, Limited
LONDON 19 CANADA



Horsemen

Now is the time to prepare a catalog of your stock. Write to us for prices, giving size and number you require.

LOCAL TREATMENT FOR WOMEN'S DISORDERS



The health we enjoy depends very largely upon how the blood circulates in our bodies; in other words, if we have perfect circulation we will have perfect health. There is a constant wearing out of the tissues in every part of the body. The blood flowing through the veins carries off this waste or dead matter, while the blood coming from the heart through the arteries brings the fresh new living tissue, the essence of the food we have digested, to replace what has been carried off. This constant wearing out and expelling of the dead matter and the replacing of it with new matter, atom by atom, goes on day and night, until in about 7 years a complete change has been effected. Thus every man and woman has an entirely different body in every particle of it from what he or she had 7 years before.

It sometimes happens, however, from a variety of causes, that the blood becomes congested in certain portions of the body. This means that the blood vessels in these parts become weakened, and the circulation in that section of the body becomes sluggish and stagnant. The consequence is that the dead matter in that part of the body is only partially carried away, and that but little of the new, vital matter is introduced there to build up and strengthen the tissues and nerves.

This condition invariably exists in all cases of female disorders. The dead matter retained in the circulation, which should have been expelled, causes irritation and inflammation of the delicate membranes, and oppresses the nerve centres. This condition is the cause of the grievous physical and mental suffering which accompanies female troubles.

To obtain relief it is evident that the first thing to be done is to get rid of the dead matter which is being held in the circulation. If this dead matter is allowed to remain there a species of blood poisoning will result and nature will endeavor to get rid of it by forming ulcers, tumors, etc.

The above explanation will also show why ORANGE LILY is so successful in curing this condition. It is a local treatment, and is applied direct to the affected organs. Its curative elements are absorbed into the congested tissue, and from the very start the dead matter begins to be discharged. A feeling of immense relief, both mental and physical, accompanies it, and the improvement is constant and positive. This feature of the expelling of the dead matter is always present to a greater or less extent, and in some cases it is so marked as to be amazing. The case described in the following letter is not exceptional:

Dr. Coonley—I am thankful to Mrs. F. E. Currah, your Canadian representative, for my health restored by your wonderful remedy. I have suffered for 17 years, but not so bad until 7 years ago. Then I had a doctor, who told me I had a tumor, and could live no more than a year. If I went through an operation I would not live through it. A year later I sent for him again, and he gave me up to die. My husband then sent for another doctor, who performed an operation, and it did me much good. I doctored with him 3 or 4 months, but became so bad again that I thought I could live no longer, and I began to long to die. One day my husband came home and threw a slip of paper to me with Mrs. Currah's address and told me a lady had advised him to write to her for a treatment that would cure me. I said it was too late, that I would die anyway. I could not lift a teacup without hurting me. Then the first doctor told me I was worse than ever. However, my husband sent for ORANGE LILY, and the third treatment brought away one tumor. Others followed, until 7 tumors had been expelled, 3 large ones and 4 small ones. I know if it had not been for ORANGE LILY I would have died, for I could not live much longer. I would have thought it cheap at one hundred dollars for a month's treatment, instead of one dollar. It is worth its weight in gold.—MRS. GEO. LEWIS, Huntsville, Ont.

The above letter is published with Mrs. Lewis' permission. All letters received are treated as being sacredly confidential, but occasionally some patient feels so grateful for being cured that she is willing to make the matter known for the benefit and encouragement of her suffering sisters.

ORANGE LILY is a positive, scientific remedy for all disorders of the female functions. As explained above these troubles are of local origin, and require local treatment. It is just as sensible to take medicine internally for female troubles as it would be to take medicine internally for a bruise, a boil or an ulcerated tooth. In all these cases some dead matter is being retained, and the cure is effected by employing local methods for expelling the dead matter. ORANGE LILY has antiseptic, soothing and healing properties, and also tones up and invigorates blood vessels and nerves. I am so anxious that every suffering woman may satisfy herself, without cost to her, that ORANGE LILY will cure her, that I hereby make the following

FREE TRIAL OFFER

I will send, without charge, to every reader of this notice who suffers in any way from any of the troubles peculiar to women, if she will send me her address, enough of the ORANGE LILY treatment to last her ten days. In many cases this trial treatment is all that is necessary to effect a complete cure, and in every instance it will give very noticeable relief. If you are a sufferer, you owe it to yourself to your family and to your friends to take advantage of this offer and get cured in the privacy of your home, without doctors' bills or expense of any kind. Address MRS. FRANCES E. CURRAH, Windsor, Ont.

Orange Lily is recommended and sold in Winnipeg by the T. Eaton Co., Ltd.



Wit and Humor

A poor Turkish slater of Constantinople, being at work upon the roof of a house, lost his footing and fell into the narrow street upon a man. The pedestrian was killed by the concussion, while the slater escaped without material injury. A son of the deceased caused the slater to be arrested. The cadi listened attentively and in the end asked the slater what he had to say in his defence.

"Dispenser of justice," answered the accused. "It is even as this man says, but heaven forbid that there should be evil in my heart. I am a poor man and know not how to make amends."

The son of the man who had been killed thereupon demanded that condign punishment should be inflicted on the accused.

The cadi meditated a few moments and finally said, "It shall be so." Then to the slater he said, "Thou shalt stand in the street where the father of this young man stood when thou didst fall on him."

And to the accuser he added: "Thou shalt, if it please thee, go up on the roof and fall upon the culprit even as he fell upon thy father. Allah be praised!"

In answer to the question, "Please tell when and where are, or is, the correct time for a gentleman to lift or remove his hat," we reply: Without consulting authorities of etiquette, in fact giving it to you offhand, so to speak, we should say at the following occasions, respectively, the hat should be lifted or removed as circumstances indicate: When mopping the brow, when taking a bath, when eating, when going to bed, when taking up a collection, when having the hair trimmed, when being shampooed, when standing on the head.—Wichita (Kan.) Beacon.

"A friend once told me of a sure cure for sleeplessness. Eat a pint of peanuts and drink two or three glasses of milk before going to bed, said he, and I'll warrant you'll be asleep within half an hour. I did as he suggested. My friend was right. I did go to sleep very soon after my retirement. Then a friend with his head under his arm came along and asked me if I wanted to buy his feet. I was negotiating with him, when the dragon on which I was riding slipped out of his skin and left me floating in mid-air. While I was considering how I should get down, a bull with two heads peered over the edge of the wall and said he would haul me up if I would first climb up and rig a windlass for him. So as I was sliding down the mountain side the breakman came in, and I asked him when the train would reach my station. 'We passed your station four hundred years ago,' he said, calmly folding the train up and slipping it into his vest pocket. At this juncture the clown bounded in to the ring and pulled the centerpole out of the ground, lifting the tent and all the people in it up, while I stood on the earth below watching myself go out of sight among the clouds above. Then I awoke, and found I had been asleep almost ten minutes."—China Mail.

Miss Dorothy Drew, who was presented at Court a few days ago, was the favorite granddaughter of the late Mr. W. E. Gladstone, and among the stories of her childhood days is the following:

One morning she refused to get up, and, all other means failing, Mr. Gladstone was called to her. "Why won't you get up, my child?" he asked. "Why, grandpa, didn't you tell me to do what the Bible says?" replied Dorothy. "Yes, certainly." "Well, it disapproves of early rising—says it's a waste of time," replied the child. Mr. Gladstone was unable to agree, but Dorothy was sure of her ground. "You listen, then," she said, in reply to his exclamation of astonishment, and, taking up her Bible, she read verse 2 of Psalms 127, laying great emphasis on the words, "It is vain for you to rise up early."—Tribune.

SLOCAN PARK

The choicest Fruit Land in the

KOOTENAYS

New Map now ready giving particulars of

IMPROVEMENTS

New Prices and Terms

Many Lots all ready for the Spring work. Trees growing. Write for particulars to

THE KOOTENAY-SLOCAN FRUIT CO., Ltd.

NELSON

B. C.

You can make \$2,000 a year with the PowersWell Machine and carry on your regular farm work. Our Combined Boring and Drilling Rig is the most complete machine on earth. It is mounted on wheels and the anchor or drill operates through center of platform. No change in mounting necessary for moving to the next place. One man and team easily run it alone. Bore 100 feet in 10 hours and drills as fast as any.

This is your chance to make a fortune with only a small investment.

Write for catalogue and our easy terms. Lisle Mfg. Co., Box 19, Clarinda, Iowa.

Your Time Is Worth \$2000 A Year

"The pictures they publish of me," said Robert Louis Stevenson speaking once of the trials of the photographed, "vary considerably. They represent every type from the most godlike creatures to the criminal classes, and their descriptions of me vary in proportion—from a man with a 'noble bearing to a 'blighted boy.' I don't mind what they say as a general rule, only I did object when somewhere in the States, an interviewer wrote: 'A tall, willowy column supported his classic head, from which proceeded a hacking cough.' I could not forgive that!"

Was All Run Down. Weighed 125 Lbs Now Weighs 185

Mrs. M. McGann, Debec Junction, N. B., writes:—"I wish to tell you what Milburn's Heart and Nerve Pills have done for me. Three years ago I was so run down I could not do my own work. I went to a doctor, and he told me I had heart trouble and that my nerves were all unstrung. I took his medicine, as he ordered me to do, but it did me no good. I then started to take Milburn's Heart and Nerve Pills, and had only taken one box before I started to feel better, so I continued their use until I had taken several boxes, and I am now strong and well and able to do my own work. When I commenced taking your pills I weighed 125 pounds, and now weigh 185 and have given birth to a lovely young daughter, which was a happy thing in the family. When I commenced taking Milburn's Heart and Nerve Pills, I could not go upstairs without resting before I got to the top. I can now go up without any trouble."

The price of Milburn's Heart and Nerve Pills is 50 cents per box, or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The T. Milburn Co. Limited, Toronto, Ont.

RE-BUILT TYPE-WRITERS

There are no worn parts in these machines. All are equipped with new type, ribbons and rollers. Guaranteed for a year like a new machine.

- Remington No. 6 — \$35.00, \$37.50, \$40.00, \$42.50.
- Remington No. 7 — \$37.50, \$40.00, \$42.00, \$45.00.
- Smith Premier, No. 2 — \$40.00, \$42.50, \$45.00.
- Smith Premier, No. 4 — \$42.50, \$45.00, \$50.00.
- Oliver, No. 3 — \$50.00, \$52.50, \$55.00, \$60.00.
- L. C. Smith's No. 2 — \$65.00, \$70.00, \$75.00.
- Monarch's No. 2 — \$70.00, \$75.00, \$80.00.
- Underwood's No. 4 — \$70.00, \$75.00.
- Fay Schole's, from \$25.00, \$27.00, \$30.00.
- Blickensderfer's, \$22.50 to \$27.50.
- Densmore's No. 4 — \$30.00, \$32.50, \$35.00, \$40.00.

Machines not listed. Prices will be given on application. Return the machine if not satisfied with it and get your money back.

Chas. M. Gregg & Co.
368 Portage Ave.
Winnipeg, Man.

THIRTY-DAY SLAUGHTER SALE OF KOOTENAY FRUIT LANDS

I am instructed by the **Columbia River Orchards, Ltd.** to place on the market for quick sale their entire Central Park Subdivision on the Columbia River, Kootenay District of British Columbia, consisting of 66 Lots at from

\$30 to \$380 per Lot.

\$5.45 to \$31.80 per acre.

Terms: \$10 cash and \$10 per month. No interest. Taxes paid until 1911

On March 27th, 1909, Mr. J. D. Anderson, B. C. Land Surveyor, wrote us with reference to the Central Park property as follows:

The more I see of this particular block the more highly I think of it. There is no possible doubt but this is very high grade fruit land, and it is a pity that settlers are not already on it. It is so easy to clear, and the land is the characteristic high grade fruit land of this district, that is sure to be in time a very profitable tract. It compares very favorably with the Doukhobors' land at Waterloo and the McKenzie land at Champion Creek below Waterloo held at \$50 to \$150 an acre.

Never before have B.C. Fruit Lands been offered at such ridiculous prices. Price is no object. These Lands **MUST BE SOLD** within 30 days. The owners have given definite instructions to sell every lot regardless of price. This is, I believe, the first time the public has been given the opportunity to buy Fruit Lands at such prices.

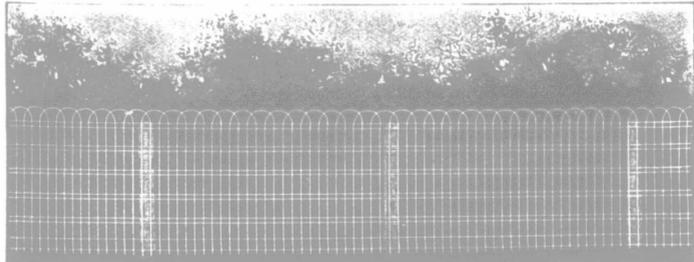
Maps, surveyors' reports on each lot and application forms will be mailed on request.

The Sale Lasts for Thirty Days Only

WRITE AT ONCE FOR PARTICULARS

E. B. McDERMID

339 MAIN STREET, WINNIPEG, MAN., OR NELSON, B.C.



PAGE WHITE FENCES

Page Fences wear Best—Styles for Lawns, Parks, Farms and Railroads. 14,000 miles of Page Fences and 73,000 Page Gates now in use in Canada. Our 1910 Fences are better than ever. Get latest prices and booklet.

R. LANGTRY
137 BANNATYNE ST. E., WINNIPEG FENCE AND GATES IN STOCK

We are doing a tremendous business and every purchaser is delighted. Read these letters,—one from each of the Prairie Provinces. These are not ancient letters,—note the dates.



\$18.00

FOR THIS HIGH-GRADE

DOMO CREAM SEPARATOR

Direct. Why pay \$25 to \$50 more to an Agent?

SPECIAL 30-DAY TRIAL OFFER

Free Catalogue gives particulars of special trial offer, testimonials, description and low prices of 5 sizes.

HAMILTON'S

Department A. WINNIPEG

G. B. Dunning, Tuxford, Sask., Jan. 8th, 1910.

"The Domo I purchased from you has proven satisfactory. We are well pleased with it. It runs easily, and skims perfectly. I would take much pleasure in recommending it to anybody wishing to purchase a Separator." (Purchase Price \$18.00)

O. H. Woods, Airdrie, Alta., Jan. 9th, 1910

"I must say that it (the Domo) is giving me perfect satisfaction. Much better than I expected for such a low price. I consider it is as good as the high priced machines." (Purchase Price, \$24.50)

N. A. Douglass, Hartney, Man., Jan. 4th, 1910

"We are quite satisfied with the Separator, and I think it very cheap at the price." (Purchase Price \$39.50)

KILL THE GOPHER AND SAVE THE GRAIN

The early spring will soon be here and the gophers will be out in vast numbers to feast upon the green grass, the seed, and the tender shoots of grain in order to recuperate from their starved condition.

The wet season of last spring and the lateness of the dry period has made it possible for these grain destroyers to increase in numbers very rapidly.

FARMERS: Now is the time to get together for your mutual interest and carry on a systematic warfare in order to rid the fields of these pests that destroy thousands of bushels of grain every year.

Make preparations at once for their destruction by purchasing

MICKELSON'S "KILL-EM-QUICK" GOPHER POISON

which is the only successful gopher exterminator in existence and thus save many a bushel of grain for the yield at harvest time.

"KILL-EM-QUICK" is in powder form to be mixed with wheat, cracked corn, chopped up alfalfa, alfalfa meal or other grain which has been soaked over night and the water drained off the next morning. To prepare any dry grain for immediate use add boiling hot water and drain off when cool; then mix in the "KILL-EM-QUICK." The poison will then adhere to and form a coating on the outside of the kernels of grain. It thus comes in immediate contact with the tissues of the stomach and a kernel of the prepared grain eaten will cause almost instant death. "KILL-EM-QUICK" has a peculiar odor which attracts the gophers and being very pleasing to the taste they eat it in preference to any other food.

"KILL-EM-QUICK" BACKED BY CASH REFUND GUARANTEE

Thousands of farmers use and recommend this patent preparation for the extermination of the gopher pest. "KILL-EM-QUICK" is backed by a cash guarantee (which is printed on every package) that in case this gopher poison does not prove satisfactory after same is used in accordance with directions this Company will refund direct to the purchaser the amount paid for it. The element of danger in the handling of poison is eliminated to a large extent in "KILL-EM-QUICK" as it is convenient and ready-to-use. "KILL-EM-

"KILL-EM-QUICK" kills gophers, squirrels, field mice, ground hogs, rats, mice, wolves, coyotes, rabbits and badgers. Two sizes, 75c. and \$1.25 per package.

NOTICE — OFFICIALS OF IMPROVEMENT DISTRICTS SHOULD CALL UPON THE LOCAL DRUGGISTS FOR LARGE QUANTITY QUOTATIONS.

SOLD BY DRUGGISTS AND DRUG DEALERS. If not carried in stock, accept no other, but have it ordered for you. If unobtainable, The Bole Drug Company (Jobbers) Winnipeg, Man., will send same prepaid upon receipt of price. All inquiries for information should be addressed to the



Trade Mark

MICKELSON KILL-EM-QUICK COMPANY MANUFACTURERS

Dept. F. Dept. H.
Minneapolis, Minn., or
Winnipeg, Man.

