

**PAGES
MISSING**

Think for a moment of the power that you can get out of any kind of work. Think of having all the labor done just as long as it takes to shut it off. Then think of the expense of doing it always low in proportion to the work done. It's a labor-saving device. It operates itself. It saves you labor and makes you a better man. You will get your money's worth out of it. The International Harvester Co. has these farm labor-saving devices. You have not already seen them. Call and get the book and study it, and you will get a service such a man would give you.

STEPS TO FEED THE PHOSPHORS

of readers is directed to the advertisement of the Mickelson Bros. of Minneapolis, in our last issue. They are advertising

one of the worst of the farmer has to do with. These little worms eat the roots of the plants. The trouble is that the farmer does not realize, unless he figures it out

when the seed begins to grow. It is not until the plants have very few leaves and are in and hungry.

When the seed is sown, it has been shown that the gopher will eat fully 90 per cent of the wheat before it has time to sprout and grow. For each gopher that is killed, there is a loss of 215 bushels. The increase which is realized from these gophers amounts to 3 lbs. per acre. It is found that one gopher will eat 170 plants by eating the roots as they appear, and 150 heads of wheat before it is harvested. This would amount to 320 bushels, on the basis of 2 bushels per acre. It would figure one more bushel lost, making 4 bushels together with the first loss, would figure fully 4 bushels lost and the gopher alone.

Does not seem large, but in a 40 acre field it would be from 500 to 1000 bushels, and that means a loss of 500 to 1000 bushels. The nature of the loss is such that it will easily be worth \$100.00. Gophers. You can't afford

to know how are gophers to be killed. The most natural weapon is poison, but it is in the way of the farmer. Most of them

any poison in which is used, can never give it. It is next to a solution of it and 12 to 20 hours for it to absorb this solution. When it is prepared, the water becomes stormy for a grain is very apt to rot, for, if put out in the field, it will not be out of the damp ground will rot from the strychnine.

"Kill-em" is used, all kinds are avoided, for any kind of water is soaked, throw it off, and the "Kill-em" comes in the form of a powder stirred in just before it. Above all is the gophers will eat it and



EASY WASHING
—quick washing.
That's the kind of washing you do with the

"New Century" Washing Machine

Ball-bearing means easy running. Powerful Spiral Springs that reverse the motion, make quick work and little effort.
New Wringer Attachment allows water to drain right into the tub.
Only \$9.50—delivered at any railway station in Ontario or Quebec.
Write for free booklet.

DOBBSWELL MANUFACTURING CO. Limited
HAMILTON, Ont. 88

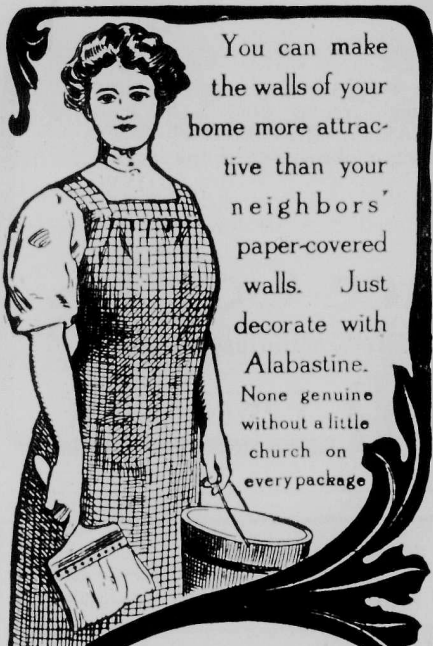
WHEELER & CARLE
ENGINEERS MACHINISTS BRAZERS

Machine and Foundry Work of Every Description

Brazing of Cast Iron, Wrought Iron and Steel

We have the following for sale: 1 new 4 h.-p. vertical engine and boiler, on base, complete with fittings; 1 second-hand 4 h.-p. vertical engine and boiler, on base, complete with fittings; 1 second-hand 4 h.-p. vertical engine only. Write us for full description of the above, which we guarantee will be as represented.

153 Lombard St. Winnipeg, Man.



You can make the walls of your home more attractive than your neighbors' paper-covered walls. Just decorate with Alabastine. None genuine without a little church on every package

You will enjoy decorating with Alabastine. So easy! Alabastine simply requires addition of cold water. And by following the directions on package any woman can apply it to the walls successfully.

Church's Cold Water
Alabastine

Because of its sanitary features Alabastine is endorsed by eminent physicians. These features, as well as its economy and durability, are fully explained in our book, "Homes, Healthful and Beautiful." We would like to have your name and address so as to mail you a copy free. 5 lb. package 50c. at hardware stores.

The Alabastine Co., Limited
50 Willow St., Paris, Ont.



Stephens House Paint

For Permanency

It will cost no more in painter's time to have your house covered with Stephens House Paint than with any other kind, so why not Stephens?

If we could take you personally through our factories, and you could see exactly how we make Stephens House Paint you would understand in part why it is the Paint with the Long Life. You would realize this more fully still when we explained that we have been Western Paint Specialists for twenty-seven years.

We know the West. We know its Paint needs. We make the Paint that suits the West best. If you paint for permanency it will pay you to use Stephens Paint. Write for interesting Free Booklet No. 14, and color cards. Progressive hardware dealers will fill your orders.

G. F. STEPHENS & CO., Ltd.
PAINT AND VARNISH MAKERS
WINNIPEG, CANADA

Titles Indefeasibly Issued Direct from the Mexican Government

PACIFIC SLOPES BE READY BETTER THAN GOLD

First sub-division of the Pacific Government Lands and Concession Corporation, Limited. Purchasers are sure to make as high as ten times the cost of the lands.

Inside of one year, private lands adjoining ours, but further from market, increased and sold at more than three times the price we are asking for ours, and is now held at \$50.00 to \$200.00 per acre.

We guarantee titles direct from the Government.

We guarantee exemption from Federal Government taxes for 10 years.

We guarantee that our settlers can land their effects, and ship their products, with exemption from duty.

We will sell you a 62½-acre or 125-acre farm at \$10.00 per acre, and give you the right to pay for it in five annual instalments, first payment being 25 per cent. on application.

We guarantee any of these farms, properly cropped, will produce at least \$50.00 (gold) per acre per annum.

We will sell you a 62½-acre or 125-acre farm at \$5.00 per acre, which will produce the finest oranges and lemons possible.

We will also sell you first-class land for cattle and hog raising, etc., at \$3.00 per acre.

We guarantee that the Climate is delightful and healthy for those who go to our lands to live.

Local Agents for Pacific Government Lands and Concession Corporation Ltd. **Bond & Clark** Sole Agents for the Mexican Government Wild Lands in the State of Guerrero, Mexico.

Phone 1092 614 Trounce Ave. Victoria, B.C. Phone 1092

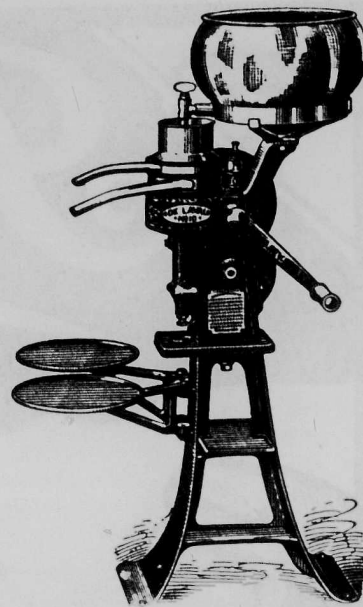


DE LAVAL CREAM SEPARATORS

Are exclusively used in Creameries and Model Dairies throughout the length and breadth of two Continents. Sometimes the original purchase bore the name of one or other of inferior makes extensively advertised, but always practical folk, dairying for profit, replaced this with the De Laval—the universally accepted standard of Separator Values.

Experience of others points the moral:
DE LAVAL SEPARATORS SATISFY—
Get One!

The DE LAVAL SEPARATOR CO.
MONTREAL WINNIPEG VANCOUVER



IF YOU'VE NEVER WORN TOWER'S FEN BRAND SLICKER

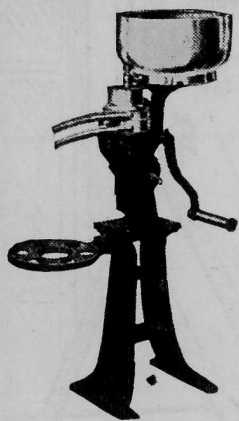
you've yet to learn the bodily comfort it gives in the wettest weather

MADE FOR HARD SERVICE AND GUARANTEED WATERPROOF AT ALL GOOD STORES

TOWER CANAMAR Co. LTD. TORONTO CAN.

Fits Cured For proof that Fits can be cured write to Mr. Wm. Stinson, 134 Tyndall Ave., Toronto. for pamphlet giving full particulars of simple home treatment. 20 years success—over 1000 testimonials in one year. Sole Proprietors—Trench's Remedies Ltd., Dublin

QUALITY CREAM SEPARATORS



are of highest grade material, highest grade workmanship, and get the best and most satisfactory results.

Both of the really good, actual high quality methods of separation are found in

THE EMPIRE LINE

THEY ARE
The Frictionless Empire (The Cone Method)
The Center Feed Empire Disc (The Disc Method Perfected)

In a full range of capacities and sizes.

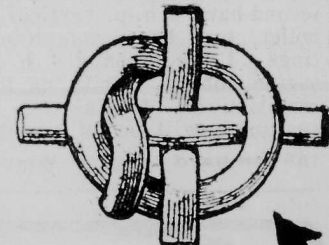
WHICH WILL YOU HAVE?
We can show you both.
YOU CHOOSE the one that SUITS YOU. You will be more than satisfied. Make us prove our statements.



EMPIRE CREAM SEPARATOR CO. OF CANADA LIMITED, Winnipeg and Toronto

Twice As Strong

Hitherto the weakest part of a woven wire fence has been the lock, but now we offer you a new fence with a lock which is the strongest part of the fence. Notice that this lock not only grips the lateral wire to stay, but the ends of the lock are curved in such a manner that the lock practically interlocks itself, making it the strongest part of the entire fence, and giving a double grip. A double-grip means a twice-as-strong lock, a twice-as-strong fence—a twice-as-good investment, and no danger of loose locks in fence, and that is well worth consideration.



We manufacture many designs of Leader woven fence both in the standard, heavy, and medium weight, using nothing but the best galvanized wire in all our fences.

We also make the old reliable Anchor field erected fence coiled spring wire, gates, etc. Catalogue shows different styles of fence and gates for horses, cattle, hogs, etc. Write for your copy.

This is the best fence agency offered the dealer—GET IT.

Anchor Fence Co., Ltd.

Box 1382 850 Henry Ave., Winnipeg, Man.

THE LEADER Fence Lock

SAVE 20c PER SHEEP



With **NEW STEWART SHEARING MACHINE** With 4 combs & \$12.75 the 4 cutters, only
If you have but five sheep it will pay you to own this wonderful at your shearing machine. It does not cut or back sheep like hand shears, and gets one pound and over more wool per head. It shears any kind of wool easily and quickly. WE GUARANTEE IT FOR 25 YEARS. All gears are cut from solid metal, not cast; all wearing parts are file hard; spindles are ground and polished, and the driving mechanism is enclosed from dust and dirt and runs in oil. 95 per cent of all the shearing machines used in the world are Stewart patents. If your dealer does not have it, send \$2 and we will ship c.o.d. for balance. Send for a copy of our free book "How to Shear Sheep," and our big new catalogue showing the largest line of shearing machines on Chicago Flexible Shaft Co., 110 La Salle, Chicago earth. Write today.

Stockmen! Let us sell your stock for you. The method is easy. Write us for rate card, send your ad. and customers will come.

The Elastic Fence

The greater the elasticity the longer the life.

No fence equal in elasticity to Dillon Hinge - Stay fence, therefore no fence is as lasting.

The beginning of the Dillon superior elasticity is in the laterals themselves.

They are made of High Carbon Hard Coiled Wire.

These Dillon Coiled laterals have one-third more elasticity—one-third more tensile strength than the hard steel wire used in ordinary fences—will stand one-third more weight and pressure before breaking.

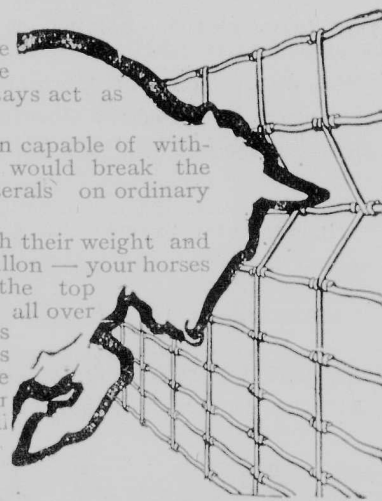
Then, the elasticity of the Dillon is increased ten-fold by the use of the Hinge-Stays.

THE DILLON

When heavy pressure is brought to bear on the fence these Hinge - Stays act as shown in the picture.

They make the Dillon capable of withstanding strains that would break the stays and snap the laterals on ordinary fences.

Your cattle can match their weight and strength against the Dillon—your horses can press down on the top wires—you can climb all over the Dillon—but, thanks to the Hinge - Stays and the quality of the laterals, no damage or even disfigurements will result.



The Owen-Sound Wire Fence Co. Ltd., Owen Sound, Ont.

Western Agents: CHRISTIE BROS. LTD., WINNIPEG, MAN.

HINGE-STAY FENCE

Why not buy the Dillon Hinge - Stay fence and get the most elastic fence in the world.

Made in both heavy and medium weights.

Ask us to mail you a catalogue showing the different styles.

AGENTS WANTED

in every district in Canada. You will be wise to get our proposition. Write us today.

Monarch Stiff - Stay Fence

The Monarch is not by any means an ordinary fence.

It is manufactured entirely of high-grade No. 9 wire.

The lock is applied in a different manner to those on ordinary stiff-stay fences. The wires are not bruised in the making of the fence. There is no undue kinking of laterals. Just write for catalogue explaining difference between the Monarch and other stiff-stay fences.

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Vol. XLV.

FARMER'S AND HOME J

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Canada's Foremost Published Every

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Canada and Great Britain, p

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FARMER'S

OF WINNIP

14-16 PRINCESS STREET

EDITO

The Price

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Naturally a short cr circumstances interve by a crop of mor Indications are that planted to wheat dur in the northern her area hitherto sown to seed time and harv wheat reserves, so s the past twelve mont to standard when the the trade. At the s indication that whea better return to the some time. The spec now to buy for S delivery at around a bad outlook for those to sell.

Founded 1866

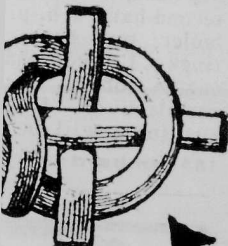
NEVER WORN
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FISH BRAND
SLICKER

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to learn the bodily
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the wettest weather
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AND
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WATERPROOF
AT ALL GOOD STORES
TOWER CANAMAN Co. Ltd.
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Farmer's Advocate and Home Journal

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Vol. XLV.

Winnipeg, Canada, April 28, 1909.

No. 866

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
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FARMER'S ADVOCATE
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14-16 PRINCESS STREET

WINNIPEG, MAN.

EDITORIAL

The Price of Wheat

Not in a good many years has the world's first cereal sold at prices, as high as were paid for it during the past few weeks. The advance has been due almost entirely to the shortage in supplies. True, certain prominent grain gamblers in Chicago had a corner, or something of that nature, developed in wheat for May delivery, but no corner could have stood for any time had the world had all the wheat that seemed needed to bread the wheat eaters until a new crop could be drawn upon. We are shorter on wheat this year than most people imagine, shorter than figures seem capable of portraying. If in 1909 there is no heavier crop reaped in the world's wheat fields than were harvested either last year or the year before, wheat prices will touch points that some of us never dreamed they could touch again.

Naturally a short crop year, unless unforeseen circumstances intervene, is followed regularly by a crop of more bountiful dimensions. Indications are that this year the acreage planted to wheat during the next four weeks, in the northern hemisphere, will exceed any area hitherto sown to this crop. A favorable seed time and harvest will mean that the wheat reserves, so seriously depleted during the past twelve months, will be brought back to standard when the crop of 1909 comes into the trade. At the same time there is every indication that wheat next fall will make a better return to the producer, than it has for some time. The speculative element is willing now to buy for September or December delivery at around a hundred and ten. Not a bad outlook for those likely to have the cereal to sell.

Horizontal and Vertical Hope

Never again to know "cheap" wheat is the prospect that many authorities in the grain trade hold out to us. It is said the recent sensational climb of prices is but the end of a long period of a certain level of values and the beginning of another period of higher prices. It is pointed out that the available wheat land has practically all been brought under cultivation and that the average yield throughout the world is not improving, and especially in the newer countries, while the rate of consumption is continually on the increase.

As has often been remarked to prognosticate the markets is an idle occupation, yet it is expedient to view the situation in the light of experience. Many things will enter into the factor of prices the next few years, if the market is disposed to maintain its present high level. For instance more land will be sown to wheat, which is now devoted to hay, which is not excessively high priced, or that is in pasture producing low priced beef or that is being held for speculative purposes or that may be employed for any other purpose less profitable than growing wheat at one dollar a bushel and upwards. But perhaps the greatest change will be observed in the increase in the average yield per acre, that will result indirectly from higher prices. It is quite within the range of immediate possibilities to raise the low average wheat yield over America of some sixteen bushels to the acre to thirty-two bushels, and then have plenty of room at the top for further advances. Such a yield would not simply double the supply, but would increase the profits by more than 200 per cent. no matter if prices failed to maintain their present high level. The hope of future agriculture strikes downwards into the soil not horizontally with the addition of more acres.

* * *

The report of the second annual convention of the National Live-Stock Association, held at Ottawa, Feb. 5, 6, 7, 1908, has just been issued. It gives in full the address delivered, and papers read before the convention, is a work of 150 pages, containing some valuable information on the pure-bred and commercial live-stock industries.

* * *

If Canadians are anxious to contribute to the strength of the British navy, the best they can do is to provide a liberal supply of bacon and flour. We have the farms to produce these and to produce them is our specialty. We would not expect to grow wheat on Plymouth docks, nor Dreadnoughts on Canadian prairies.

* * *

Boards of trade and women's councils, are advising the government to build Dreadnoughts. The nature of the advice is a measure of the wisdom of the tenderers.

Observe the Oat Plant

Careful students of our methods of farming have been telling us that we have been making a mistake in our methods of oat seeding, and the experience of careful farmers, who observe, seems to support the impeachment. In this matter of thickness of seeding we need to question the soil and the variety of oats we are sowing. Turning to the soil we have been taught by experience that under average conditions of moisture and fertility, a certain given number of plants to a given area, gives the best returns. When the grain is of average size and of the variety most commonly used, Banner, setting the drill at two bushels to the acre gives us this proper number of plants to the given space. If we observe closely we will see that the number of seeds we have sown does not correspond to the number of plants that the soil will conveniently carry, or with which the oat crop makes the best growth. The stooling habit of the oat plant is depended upon to make up the difference. As a general rule, weather conditions assist the habit of the plant and we get an average stand. But it is this dependance upon weather conditions to favor stooling that is not considered good farming and we are called upon to work away from it by growing varieties that do not stool and by sowing the stooling varieties thicker each year, to eliminate the stooling habit, and so put ourselves beyond the vagaries of the weather man.

Looked at from every standpoint the suggestions are sound. In the highly organized agriculture of Great Britain and Europe, where moisture is more plentiful than in Canada, farmers consider that they cannot take chances on grain stooling but sow thickly enough to get a maximum stand without stooling. Where the charges against land in the way of rent, manures etc., amount to about \$25 an acre before the crop is up, we may reasonably assume that methods of cultivation and seeding best calculated to produce a big crop are reduced to an exact science and, with this experience before us, we may well question if our own methods may not be improved.

The Uses of Corn

If you can tell a Scottish farmer by his crop of "neeps," a German by his large cabbage patch, an Irishman by his luxuriant potato crop, you can also distinguish an American farmer by his field of corn. Corn seems to be one of the compliments of American country life. Strangely the international boundary seems to arrest the northward march of King Corn, irrespective of the favorable local conditions that may be found far to the north of American territory. The American corn fields extend right up to the north side of North Dakota, thus demonstrating that the crop can be grown in the most adverse conditions that

exist in any of the crop growing areas on the continent, for nothing can be more trying than the Dakota climate along the watershed between the Missouri and Saskatchewan Rivers.

The Dakotans grow corn for a purpose and that purpose is that they may grow more wheat. They are not greater stock raisers than the farmers on this side of the line, but they have less wild hay, and they feed fodder corn to everything. As yet silos are not common, but they are increasing by a hundred per cent. every year; just across the line is one farm with 250 acres of fodder corn. Corn fields have largely supplanted summer fallows, because the crop is valuable for fodder, and the cultivation it demands insures as clean land as a fallow and soil equally as moist. It is a case of getting summer fallow conditions for wheat without losing a crop. Corn improvement toward securing early maturity has developed to such an extent that a crop can be grown in about ninety days, which for bulk of fodder and yield of grain is very little behind those of the essentially corn states.

Corn, (zea mays) has been grown in Western Canada for some time for dry fodder and for silage; but until attempts were made with varieties suited to our shorter and drier summer seasons, little success was attained in growing and ripening corn. The experimental farms at Brandon and Indian Head have for years demonstrated the possibilities of corn as a fodder crop, which testimony has been backed up by the experience of hundreds of farmers.

The FARMER'S ADVOCATE has in its campaign for an improved and more profitable agriculture and the institution of crop rotations, urged the inclusion of clover and corn into those rotations, and has gone far afield in a search for varieties and methods likely to prove of use to Western farmers.

It will be years before the Canadian West can hope to produce large quantities of ripe corn, and only after varieties, quick maturing kinds, are secured, either by importation or by breeding up the squaw corns or selections from varieties already grown. In the meantime, every opportunity to use corn as a fodder crop should be improved.

Books and Book Farming

There still remains in this country a limited number of farmers who harbor a mild enmity and narrow suspicion towards those who write books on agriculture, or those who read such books. It is a steadily diminishing number, fortunately. Now, reader, suppose that you are I were to meet a successful farmer or stockman on the highway, at a farmers' picnic, on the railway train, or any other place, and drew from him practical, helpful observations and experiences in the line in which he excelled; we would not only be interested, but also regard what he said as something practical and helpful. We would both agree that such information was practical. Now, suppose we had a stenographer to take down not only what this man said, and to write out his experiences, but also those of hundreds of other successful men along the same line. Suppose, further, that we placed all this matter in the hands of a careful, capable person, who would arrange, condense, and express in a simple, plain, helpful way all that he had so accumulated. Would any of the information so gathered be less valuable because it finally appeared in print than if it were to fall on the ear, soon to be largely forgotten and lost? The middleman in agriculture is just as important in his way as is the practical man, who produces; we must have both, and let us appreciate both and despise neither.

W. A. HENRY,
Wisconsin College of Agriculture.

HORSE

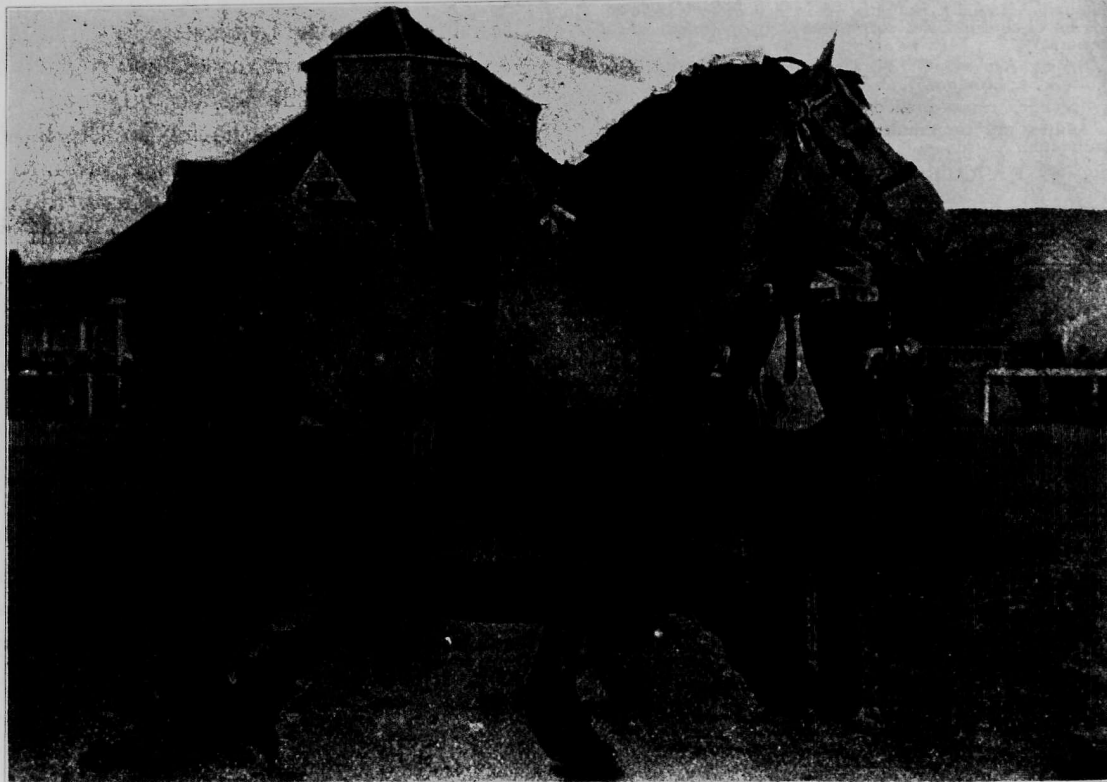
Premium Pictures of Great Horses

We have just completed arrangements for new premiums for horsemen. Splendid photo engravings of the celebrated Clydesdale Stallions, Baron's Pride, Hiawatha and Oyama, have been purchased, and will be given to anyone who helps us with our subscription work. For two new names at \$1.50 we will send the three pictures, or for one new name at \$1.50 which ever two pictures are asked for.

Many of our readers already have a Baron's Pride picture, and this gives them a chance to make an interesting collection, as we will from time to time get pictures of other great horses. The engravings are 8 x 11 inches in size, and are printed in soft tones, on heavy coated paper.

* * *

Horse lovers are promised the greatest treat of their lives by attending the Winnipeg Horse Show on June 24, 25 and 26. Classes for carriage horses, saddle horses, hunters, drafters, ponies, etc., have been prepared and will be well filled. New horses costing as high as \$2,000 are arriving



THREE YEAR OLD PERCHERON STALLION GOURNAY (IMP.)
Selected in France to head the Percheron stud of Geo. Lane, Pekisko, Alta. Reserve Champion at the Calgary Spring Show.

in the city weekly. The event held annually is giving an unusual impetus to horse breeding throughout the country and helps to prepare meritorious entries for larger shows.

The railway companies are co-operating with the directors, and will give special rates to parties of ten or more buying tickets at one point. The occasion is favorable for a visit, and recreation, and as for newness of entertainment the horse show in the new amphitheatre with a band concert offers something really rare.

Speed, or, as it is called pace with high action is coming to be more in demand than was in the best horse markets. Hackneys that have pace are seldom offered for sale.

The various provincial departments of agriculture report that enrolling of stallions is proceeding rapidly. Still there will be a lot of stallions that will not be enrolled and their owners will be liable to a fine as well as miss the protection of the courts in making collections.

One of the greatest peculiarities in the structure of the horse is the small size of his stomach, which is also of a very simple nature. He is likewise without a gall bladder, showing that his digestion must be continuous, and not interrupted by distinct intervals, as in the ruminants and carnivora.

Nature has thus framed this animal in order that he may be at all times able to exert his utmost speed, which he could not do with the mass of provender in his stomach which is carried by the cow or sheep. The same provision is shown in the udder of the mare, which is not larger than that of the goat or sheep.

Clydesdale Rules of Registry

J. W. Sangster, Secretary of the Clydesdale Horse Association of Canada, writes as follows:

"In the circular which was sent out from this office some time ago, re certificates of service from owner of stallion, now called for in the registration of Clydesdales in the Clydesdale Records of Canada, the statement was made that a written declaration of service, made by owner of stallion, was required. Information has since been received from the Canadian Live-Stock Records office, that the Department of Agriculture will accept no such certificate of service, excepting those made out on the special form printed by them, and issued for this purpose. The new application form for the registration of Clydesdales also has a space for the signature of the owner of the service stallion. Both may be had on application to the Accountant, National Live-Stock Records, Ottawa.

"Below will be found a copy of the rules of entry, as revised at the last annual meeting, of the Clydesdale Horse Association of Canada, and the Secretary writes, 'There is little more that can be added, excepting that the rule regarding the imposition of penalty fees on colts over one year of age comes into force on July 1st, 1909. There is also a general impression that the rule

(b) Clydesdale stallions by sires recorded in the Clydesdale Stud Book of Canada, and Clydesdale mares by sires recorded in the Clydesdale Stud Book of Canada. In all cases, the dam must be recorded in the Clydesdale Stud Book of Canada, and the dam must be eligible. Applications for registration of four-cross pedigrees shall be made on a blank which shall be given to the breeder, and must be complete as possible, together with name and registration number of the dam, if signed by the breeder, excepting for registration of mares which were not foaled in Canada. Signature with such ownership appears on the Clydesdale Horse Association of Canada.

2. Every application for registration of a mare which shall be given to the breeder, and must be complete as possible, together with name and registration number of the dam, if signed by the breeder, excepting for registration of mares which were not foaled in Canada. Signature with such ownership appears on the Clydesdale Horse Association of Canada.

3. The owner of the pedigree is offered for entry giving date of service, number of said sire in the Clydesdale Stud Book of Canada. Signature with such ownership appears on the Clydesdale Horse Association of Canada.

4. The breeder of an animal shall be the owner of the dam at the time she was foaled.

5. No application for registration shall be considered until such time as every requirement has been fulfilled.

6. In the case of a female animal, the buyer must procure a certificate of transfer written on the form procured from the Registry when returned to the Registry by the original certificate entered upon the record. The certificate shall be endorsed on the original certificate, and returned to the Registry. Owners will be required from the time an animal is a female, if she has not been served, to give the number of the sire, certificate of service, and his authorized agent.

7. When an animal is registered when applying for registration of the animal, should a twin be entered, such statement, no subsequent entry of animal twin will be accepted.

8. When the pedigree of an animal has been admitted or owner misrepresented or fraudulently obtained, shall, on the discovery of such entry or transfer void, or transfers of descendants, subsequent application dependent on the signature of the applicant in such fraud shall be null and void.

9. Duplicate names shall not be used, the right will be given to the name when necessary, as practicable, some of which shall not be used in the application unless the pedigree has been recorded in another Stud Book.

10. No duplicate certificate of service shall be recorded unless a statutory declaration must be the recorded on the same day as such declaration must be made.

11. The fee for registration shall be as follows:

FOR CANADA

To Members—Animals
age
To Members—Animals

RULES OF ENTRY

Write to the "Accountant," National Live-Stock Records, Ottawa, for Application Blank Forms, Transfer Blanks, etc. All letters to this address will go free of postage.

The following are admitted to registry:

1. IMPORTED ANIMALS.—Stallions and mares recorded and bearing registration numbers in the Clydesdale Stud Book of Great Britain and Ireland, whose sires and dams, together with their sires and dams, are also recorded and bear registration numbers in said Stud Book, providing that the breeding of such sires and dams, if already recorded in the Clydesdale Stud Book of Canada as ancestors, comply with this rule.

When recording animals imported in dam, certificate of service must be furnished from the breeder, signed by the owner of sire at the time of service.

An imported animal is one which has been imported from Great Britain and Ireland. Applications for registration of animals imported from Great Britain after April 1st, 1909, must be accompanied by a tabulated certificate, in addition to the regular export certificate issued by the Clydesdale Society of Great Britain and Ireland, showing ancestors numbered as stated above.

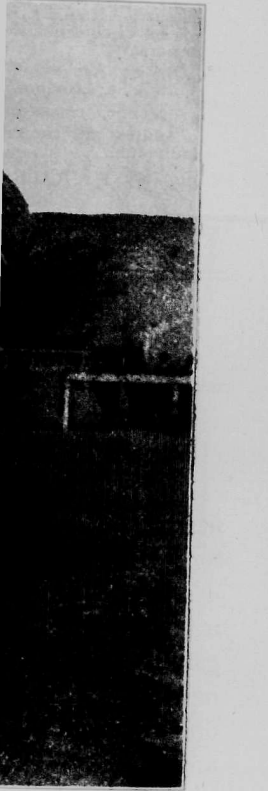
CANADIAN-BRED ANIMALS.—(a) Stallions and mares by sires and out of dams recorded in the Clydesdale Stud Book of Canada.

of Registry

ry of the Clydesdale t, writes as follows :

as sent out from this ficates of service from fic in the registration rdesdale Records of made that a written by owner of stallion, has since been re- Live-Stock Records t of Agriculture will of service, excepting ial form printed by purpose. The new gstration of Clydes- the signature of the Both may be had ntant, National Live

copy of the rules of t annual meeting, of ation of Canada, and s little more than can the rule regarding es on colts over one e on July 1st, 1909. ession that the rule



Calgary Spring Show.

of four-cross fillies ot the case, but the d out with a statu-

TRY it." National Live Application Blank All letters to this

l to registry : stallions and mares tion numbers in the Great Britain and together with their ded and bear regis- book, providing that d dams, if already u Book of Canada rule. imported in dam, furnished from the of sire at the time

which has been im- id Ireland. Appli- nals imported from 1909, must be ac- tificate, in addition ate issued by the ritain and Ireland, s stated above. (a) Stallions and ms recorded in the da.

(b) Clydesdale stallions having five top-crosses by sires recorded in the Clydesdale Stud Book of Canada, and Clydesdale mares having four top-crosses by sires recorded in the Clydesdale Stud Book of Canada. In all cases of Canadian-bred animals, the dam must be recorded before the stallion is eligible, or, in case of a mare with five top-crosses, her dam must be recorded before she is eligible. Applications for the registration of four-cross pedigrees shall be certified and sworn or affirmed to by the breeder before an officer authorized to administer oaths.

2. Every application for registration shall be made on a blank which shall be furnished free for the purpose, and must contain a description as complete as possible, together with the date of birth, name and registered numbers of the sire, and of the dam, if recorded, and must be signed by the breeder, except in case the person applying for registration purchased the dam after being served, then he must sign the application form; but a transfer of ownership of the dam must be supplied, signed by the Recorded owner (giving date of service, name of sire, and date of sale). In registration of pedigrees of four-cross mares which were not bred by the applicant, but which have been foaled his property, the application must be signed by the owner of the dam at the time she was served, and the general color, year of birth, and name and address of breeder of dam must be given.

3. The owner of the sire of an animal whose pedigree is offered for entry shall certify to service, giving date of service, with name and recorded number of said sire in the Clydesdale Stud Book of Canada. Signature will not be accepted unless such ownership appears on the books of the Clydesdale Horse Association of Canada.

4. The breeder of an animal is the owner of the dam at the time she was served. The first owner is the owner of the dam at the time the colt was foaled.

5. No application for registration or transfer shall be considered until the fees are paid, nor shall any number be assigned to the pedigree until every requirement has been complied with.

6. In the case of a change of ownership of an animal, the buyer must obtain from the seller a certificate of transfer written in ink upon a blank form procured from the Record Office, which will, when returned to the Record Office, accompanied by the original certificate of registration, be entered upon the record. The certificate of transfer shall be endorsed on the back of the original certificate, and returned to the applicant. Transfers will be required from the first and succeeding owners to the applicant for entry. If the animal is a female, it must be stated whether or not she has been served. If served, the date of service must be given, with the name and record number of the sire, certified to by the owner or his authorized agent.

7. When an animal is a twin, it shall be so stated when applying for registration, and the sex given of the animal with which it was a twin. Should a twin be entered upon the record without such statement, no subsequent application for the entry of animal twin with the same shall be accepted.

8. When the pedigree of an animal may have been admitted or ownership transferred through misrepresentation or fraud, the Board of Directors shall, on the discovery of the same, declare the entry or transfer void, together with any entries or transfers of descendants of such animal, and subsequent applications for entry or transfer dependent on the signature of any person implicated in such fraud shall be refused.

9. Duplicate names should be avoided. To this end, the right will be reserved to change any name when necessary, preserving, however, as far as practicable, some characteristic of the name given in the application. The word "Young" shall not be used in connection with the name, unless the pedigree has been previously so recorded in another Stud Book.

10. No duplicate certificate will be issued unless a statutory declaration of the applicant (who must be the recorded owner) is supplied, setting forth reasons why such certificate is required. Such declaration must be made on form provided.

11. The fee for registration of pedigrees shall be as follows :

FOR CANADIAN-BRED HORSES

	Each.
To Members—Animals under 1 year of age	\$1.00
To Members—Animals over 1 year of age	2.00

To Non-Members—Animals under 1 year of age	2.00
To Non-Members—Animals over 1 year of age	4.00
Transfers50
Duplicate Certificates50
New Certificates, replacing old ones, of which shipping vouchers have been used50
Tabulated Pedigrees	2.00

In determining fees, the age of an animal is computed from the first day of January of the year of foaling.

FOR IMPORTED HORSES

To Members—Males	Each. \$3.00
To Members—Females	2.00
To Non-Members—Males	4.00
To Non-Members—Females	3.00

Annual membership fee, payable January 1st, \$2.00. Members wishing to withdraw from the Association must give three months' notice of their intention to do so, and pay all arrears.

Address all correspondence and make all fees payable to Accountant, National Live Stock Records, Ottawa, Canada.

Ailments of Horses' Shoulders

The continued irritation occasioned by the rubbing of a badly fitted collar may lead to several difficult forms of sore shoulders. Severe bruising of the muscles of the shoulder of a work horse, leads to inflammation of the parts, followed by effusion of inflammatory lymph (serum) under the muscle that runs over the shoulder (levator humeri). Pus forms when the serum fails to become absorbed and unless this pus is given vent by the use of the knife, it tends to become thickened and voided of its fluids, whereupon nature surrounds the sac with a fibroid wall, constituting a tumor which lies imbedded in the muscle, is fed by enlarged blood vessels and caused to increase in size by further irritation of the collar. When such a condition starts, there is a large or small abscess indicated by a rounded, hot, painful swelling of the shoulder and neither hot, cold nor stimulating applications will remove the pus, nor does the application of a blister avail. The knife is needed and in each case should be freely used, after removing the hair and cleansing the skin with an antiseptic solution. The incision must be made deep to reach the pus-containing sac and large enough to allow of the cleansed finger being introduced to break down adhesions and help remove clots which may have formed. Following the evacuation of the pus the cavity should be syringed out with full tincture of iodine and then packed tightly with oakum. Next day, the first dressing having been removed, oakum saturated in a mixture of equal parts turpentine and raw linseed oil should be inserted, and this is to be renewed once daily until it is found impossible to get anything in the cavity.

Where a fibroid tumor has formed as the result of failing to evacuate the pus the only recourse is the knife. The tumor has to be cleanly dissected out, and this is a somewhat heroic and bloody job as the blood vessels of the part having enlarged, bleeding is apt to be profuse but as a rule this is easily stopped by packing the cavity on conclusion of the operation, or using a red hot iron to cauterize the bleeding vessels where that is seen to be necessary. The subsequent treatment consists in use of the oakum dressing advised for the treatment of abscess of the shoulder and in a majority of instances healing is rapid and permanent. Where a tumor returns it has not been perfectly removed, or it has been due to a fungus growth known as "botryo-mycetes," any vestige of which being left in the wound will speedily cause a return of the tumor. As in some cases the tumor is dangerously near the jugular vein and considerable skill is required in conducting a successful dissection, it is best to employ a qualified veterinarian for the work. The lancing and treatment of the ordinary abscess caused by the collar may be carried out by the owner, where competent assistance cannot be had.

Speaking of the fungus it may be added that it causes another form of shoulder "gall." This is of the nature of a baggy tumor situated near the point of the shoulder, not involving the scules deeply and having on its surface a round, red sore. These baggy tumors tend to swell up under pressure of the collar and fail to heal although persistently treated with all manner of "gall cures." The best way to treat them is to cut them out and treat the wound with an astringent, antiseptic lotion, such as a mixture of one ounce of sugar of lead and six drams of sulphate of zinc in a pint of water. This mixture is poisonous and should be so labeled, and as a heavy precipitate falls when it is not in use it should be thoroughly shaken before application. It should be used several times a day. Often it is not necessary to remove all of the tumor, as in some cases the removal of the center will be followed by absorption of the tumified tissues. Iodine applications may be used with some degree of success while the horse is being worked and until he can be laid aside for the operation described. A suitable lotion for use in the last mentioned cases is made by mixing together two ounces of tincture of iodine and six ounces of extract

of witch-hazel. This should be applied with a brush night and morning and before the horse is put to work a little carbolized vaseline may be applied to the sore. It is much better, however, to operate than to bother with the treatment of these tumors an entire season without the hope of final cure.

For ordinary "galls" of the shoulder an ointment composed of one dram of iodoform, and one dram each of tannic and boracic acids to the ounce of lard will be found useful, but in all cases it is absolutely necessary to improve the fit of the collar and to keep the collar clean and dry when the horse has much work to do in warm weather or on hilly ground where great strain comes upon the shoulders. Dirty, sweaty, roughened, tight or too loose collars accounts for most of the ailment we have considered, and more care in such matters will greatly lessen the prevalence of sore shoulders, while properly fitting collars and nicely adjusted hames, tugs and wagon or implement poles will have as sure an effect in preventing sore necks. The lotions suggested above will also prove effective for the latter form of harness galls.

A. S. ALEXANDER, V. S.

STOCK

Comment upon Live-Stock Subjects Invited

Live-Stock and Farm News from Britain

OUR ENGLISH CORRESPONDENCE

War seems to be inevitable in the matter of meat warranties. The meat traders are organizing in such a manner that it is claimed they can do without home cattle. The Central Chamber of Agriculture advises farmers to boycott all members of the Meat Traders' Federation who demand a warranty, and generally to maintain their firm attitude.

The butchers made their first demand for a warranty at the Easter auction sale at Wellington, Salop, and threatened a boycott. The local farmers' association refused a warranty, and the sale proceeded. Many buyers were present, bidding was brisk and trade was good. As high as £27 10s., was given for Welsh bullocks.

A scheme has been proposed to overcome the difficulties besetting the warranty question. It is suggested that "fat" cattle sold at auction shall be sold as fit for human food, but this guarantee shall only hold for six days. If the cattle should again change hands the condition would be void. A compensation fund is proposed by making a charge of sixpence per head on all fat cattle sold, half to be paid by the seller, and half by the buyer. If cattle are condemned compensation is to be paid to the extent of 90 per cent., of the purchase money. For cattle selling at less than £8 the scheme shall not apply. In the event of cattle being condemned the hide is to be left on the animal for the purpose of identification.

The sale of Lord Rothschild's famous herd of Red Polls brought an enormous crowd to Tring Park. No outstanding prices were realized, but the average was good, bulls making £36 18s., and cows and heifers £24 18s. 4d. The herd realized 1,883½ guineas. For the champion cow of the breed, "Clarissa" Mr. George Taylor paid 70 guineas.

England has long lagged behind Germany and the United States in certain lines of agricultural investigation, and in no branch has this been so noticeable as in the matter of feeding stuffs. This is peculiar in view of the fact that British farmers are so largely dependent on live-stock.

The South Eastern College at Wye is now doing some much needed work along these lines, and an instructive report has been issued.

By actual data the feeding value of many food-stuffs is shown, and these show how unreliable it is to depend on chemical analysis alone as the percentage of digestibility is so very variable. As much as from 40 to 60 per cent. of the calculated value of some food-stuffs is not utilized in digestion. Others, such as cane sugar, molasses and cellulose, are freely assimilated.

Many field trials to ascertain the value of sprouting seed potatoes in boxes before planting them have been recently made in Britain. The results indicate that the method is profitable.

In one experiment in 1905 the average gain of sprouted over unsprouted seed was 1 ton 18 cwt., per acre. In the following year again of 1 ton 9 cwt., was shown.

On twelve farms in 1907, the average gain was 2 tons per acre, and on fourteen farms in 1908 the gain averaged 2 tons 14 cwt. In addition there were fewer small potatoes, and less disease.

The method is well worthy of trial by anyone interested in potato culture.

Some valuable information has come to hand regarding the feeding of draught horses. A Yorkshire

stud of 240 horses used for draught purposes have been kept for a long period at moderate cost. The stud has not been troubled by colic, and ailments of any kind have been very few. On an average not more than two horses per week were unable to work, and this is an unusually small number in so large a stud.

The horses in question were fed a weekly ration of 56 pounds of oats, 14 pounds of maize, and 49 pounds of bran.

An ordinary day's ration was about as follows:—18 pounds of hay, 8 pounds of oats, 2 pounds of maize, and 7 pounds of bran. 8 pounds of peat moss was used as litter.

These rations were mixed at home as it was found that if blended by the manufacturers they could not be relied upon, maize especially, being cheaper, was used to excess. Maize in quantity is fattening and not desirable for draught horses. One highly lauded purchased food was found to be 85 per cent. maize.

For eight years experiments have been in progress in different countries to find the best manurial dressing for meadow lands. A summary of the work so far conducted gives the following mixture as giving the heaviest yields and greatest profit:—1 cwt. nitrate of soda, 2 cwt., superphosphate, 2 cwt., kainit per acre.

Ten tons of farmyard manure per acre, costing 4s., per ton, gave a good yield, but resulted in a loss.

The Irish Department of Agriculture has been testing various varieties of barley, and recommends the Archer & Goldthorpe types to give the largest and most profitable returns to farmers. The Chevalier types all proved inferior to Archer in yield. The department advises early sowing, except on the heaviest soils. Archer being an especially late ripener must be gotten in very early.

A capital paper on "Small Holdings" was read by Mr. J. H. Diggle before the Farmers' Club in London.

Many interesting examples were given of successful experiments in South Lincolnshire. One place mentioned was "The Crown Lands" at Burwell—a farm of 917 acres, leased by Mr. C. D. Rose, and sublet in 75 small holdings.

The total cost of equipment was under £2,000, of which £1,870 bears interest at 4 per cent. as additional rent. In all seven farms were divided, and the lecturer gave particulars in each case. On one large estate the arrears of rent during twelve years were less than 2s. 6d. for each £100 payable.

One holder of 58 acres in 1907 fattened 20 head of cattle, and 116 sheep, spending £250 on cake and feeding stuffs.

The Daylight Saving Bill now before parliament proposes that the clock shall be put forward one hour in April for the summer months so that workers may have the benefit of more daylight after their labors end. Most sections of the community are in favor of the bill, but some of the Chambers of Agriculture are vigorously opposing it, and they claim that the measure is a foolish and unworkable one.

The hours between four and six in the afternoon are said to be the best of the day for both corn and hay, and if work is dropped at five o'clock it would tend hardly on farmers. Morning dews would prevent an earlier start so the loss could not be thus overcome.

The Cumberland and Westmoreland Boards have passed strong resolutions against the measure.

A better system of education in rural schools in England is being persistently advocated, and a conference of agricultural associations has been assembled in London to foster the movement. The inadequacy of both teachers and facilities was deplored, and a resolution demanding vastly increased grants for agricultural education was passed.

The foreign trade returns for March show declines from last years total, but smaller than for some months past. The aggregate imports were £52,034,063, and the exports were £31,904,673.

The amount paid for breadstuffs fell by £197,000—which brings the shrinkage for the first three months of the year to nearly £2,000,000, a tribute to the good home crops.

Cattle imports declined by £340,000 and bacon was less by £188,800.

March proved a cold, stormy month—the worst for a long time. As a consequence little farm work was done, and the farmers who took advantage of the mildness of early winter are to be congratulated.

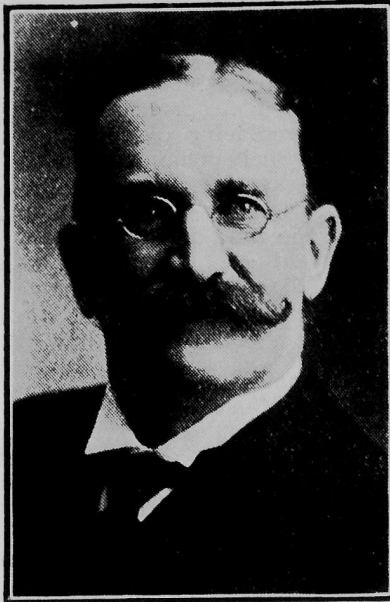
The fine, bright weather of the first week of April has brought relief, and has been taken advantage of by farmers, and in Cheshire, especially a large acreage of oats has been sown. In some sections the land is still too saturated to be fit for tillage.

Shortage of keep is bringing large numbers of cattle to market, and prices have suffered. Fat sheep are plentiful and prices are barely steady, as foreign and colonial competition is very keen.

The slump in potatoes still continues, and prospects of any better prices are very slight.

Wheat is in strong demand at higher prices. Barley is not much called for, but oats are selling freely.

Leeds, England. P. DEWHIRST.



P. M. BREDET.

"Golden West Stock Farm," Balgonie. Elected president of the Saskatchewan Cattle Breeders' Association.

Finds Ranch Sheep Infested with Liver Worms

EDITED BY FARMER'S ADVOCATE:

Every half section in Manitoba can carry from twenty to thirty sheep on the wasted grain grass and weeds. Only sheep can clean stubble or summer fallow properly. Mutton is the only meat the farmer can retail. He can sell beef and pork but always at wholesale price. I sold two or four every week in the hot weather from ten cents to seventeen cents per pound, averaging at 13 cents for the last two summers. The same grass that will grow a pound of beef will make one of lamb or mutton.

In the fall of 1906, I bought from a firm of ranchers, Magrath, Alberta, 234 range ewes, adding 136 Shropshire grades from J. Harkness, Lyleton, Manitoba, and the last of the Shropshires of the Prairie Home flock. Have closed out all except pure-breds at a loss owing to parasites in the range flock. I did not pay for the parasites, they were given to me, just thrown in,—worms in the liver. Am told they are common in all range stock. Do not think they ever kill. They are not the liver fluke. Sheep may be fat and have them. The general tendency is of course, to lessen thrift, especially in lambs, which almost stop growing when they get them. The worm is white, flat, one-quarter of an inch wide and from two to three inches long, is very ribbonlike and flexible up and down, but no side motion, is somewhat elastic. As my pastures are now all contaminated, I shall keep my pure-breds in the stable in the hope of getting rid of this pest through the summer. I have some very expensive stock here, imported and other, that I cannot even offer for sale.

I hope readers will take warning from this and buy stock from flocks only, not from ranch bands, without first killing and examining. In fact, all movement from the West of sheep should be watched and care taken at exhibitions that this trouble does not cause further loss. The veterinarians with whom I have communicated know nothing of this, neither have the veterinary books any information in the matter. The ranchmen do sometimes offer bands of choice stock, all the one grade, age and appearance, sufficient to tempt anyone. The roving

habit of the ranch make the chances of picking this parasite up less in the bands than in the farm flocks. I do not think it causes very great loss to ranchers, but on a farm it doubles losses and completely prevents profit. At the same time I feel certain all range sheep are afflicted and that no safe purchases can be made from that quarter.

Man.

A. A. TRUS.

Managing Show Sheep

While practical breeders deprecate the necessity that requires sheep intended for exhibition purposes to be fed to a degree of fatness, beyond that which is either necessary for the well being of the animals, or for their utility when put into the breeding flock, it has become fashionable these days to fatten sheep for the shows, and the custom is too deep rooted to be broken. The exhibitor who wishes to be successful must therefore see that his exhibits are brought out with a depth of flesh and touch also, equal almost to that which is necessary to win in the fat stock show. To bring out sheep and lambs in this forward condition is a matter that requires the greatest care and minutest attention of those who are responsible, and many sheep, particularly ewes and lambs, become broken down, or at any rate, to use a homely phrase, "driven off their legs and feet," during this severe course of preparation.

To prevent the breaking down of stock intended for exhibition, regular exercise and plenty of it is a necessity. It is difficult sometimes to get rams, ewes or lambs, being heavily fed for the show-ring to walk about as much as they should, after they become heavy in flesh. Their feed usually is abundant and they do not have to travel far to get it. In the Old Country, where rather more trouble is encountered with sheep breaking down while being fitted for the show-ring, the animals are exercised by the shepherd regularly each day on the halter. It may seem rather out of place with the average western breeder, this exercising of sheep on the halter, but the system has a dual advantage for it gives the sheep exercise, which is most essential and beneficial to their well-being, and at the same time enables those who are responsible for their preparation to train them to show themselves off to the best advantage when before the judge.

A new department of federal government is being considered at Ottawa, a bill being before the house to establish a department of external affairs.

Returns from the business done in 1908 by the life insurance companies operating in Manitoba, show an increase of 5.2 per cent., over the business of 1907. Large gains are reported from all the companies.

The oil trust is fighting a desperate battle to retain the duties on oil. As the new tariff bill passed the house of representatives, oil is on the free list. It is believed, however, that the senate will amend the measure, placing oil on the protected list.

Bread in Winnipeg has been advanced a cent a loaf on account of the price of wheat due to the cornering of the cereal. All over the United States fears are expressed that bread will be advanced, and congress is considering one of its perennial bills, to prohibit speculation in food stuffs. In the meantime, the "Emperor of the wheat pit," as the American yellow journals have dubbed Patten, sits in his Chicago office and without possessing a bushel of actual wheat, is controlling the price, users all over the world are forced to pay for the commodity.



Photo by C. & B. Rutter, Red Deer.

A SHEEP FLOCK NEAR RED DEER. WINTER QUARTERS INEXPENSIVE BUT COMFORTABLE.

F A

Letters Upon Farming

Topics for

To afford an opportunity, ideas, and to provide a week at the head of topics, which our readers opposite each topic is contributions on it and articles contributed on must be in our hands than the subject is scheduled columns.

Readers will understand of the paper is entirely. They are invited at all fully and freely expressed manner in which it is invited to suggest topics reader has in mind any may think could be of a place in the or to the notice of the general interest. Because at the head of the Farm mean that farm quest cussed. The discussion every department of the

For the best article we will award a first and for the second the latter sum for of subject received and published. Article should not exceed

ORDER OF

May 12.—What method for cream intended for dairy creamery?

May 19.—Which pasture to stable feed and fatten feed them outside in yard, straw and grain, or to farmers may think that of handling, offer proposals they are invited to exchange turning profit out of the just now while the operations are fresh in for the discussion of success.

May 26.—Describe a and what amount of are grown. Send photo. Brinda Neville is contributor which we would like our

Preparing the

Tell how to prepare either turnips, mangels, sown, cultivation give suggestions you deem questions readers were experiences on for those received are give some other practical awards go to H. and G. E. Iveson. ly. The attention of question on cattle feed issue of April 21st. is more pertinent at with experience in favorable or otherwise that experience, that sum total of information may be presented at for publication on the before May 10th.

The Growing of

EDITOR FARMER'S ADVOCATE

The soil best adapted may be grown upon through cultivation. Satisfactory but a light crop. In remember that sun yields, but roots can be land as a cleaning crop be manured and prepared often apply manure in seeding, which I do

chances of picking this that in the farm flocks, great loss to ranchers, and completely prevent I feel certain all range safe purchases can be

A. A. Titus.

ow Sheep

uplicate the necessity for exhibition purposes beyond that which is of the animals, or the breeding flock, it days to fatten sheep is too deep rooted to be wishes to be successful chibits are brought out h also, equal almost to in the fat stock show. in this forward condi- the greatest care and ho are responsible, and es and lambs, become o use a homely phrase, t." during this severe

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a advanced a cent a wheat due to the cor- r the United States will be advanced, and its perennial bills to fs. In the meantime, it," as the American Patten, sits in his sassing a bushel of price, users all over the commodity.

FARM

Letters Upon Farming Operations Welcomed.

Topics for Discussion

To afford an opportunity for the interchange of ideas, and to provide a place where information may be given and received, we will publish each week at the head of this department a list of topics, which our readers are invited to discuss. Opposite each topic is the date of publication of contributions on it and readers are reminded that articles contributed on any of the subjects given, must be in our hands at least ten days earlier than the subject is scheduled for discussion in our columns.

Readers will understand that this department of the paper is entirely and altogether their own. They are invited at all times to write the editor fully and freely expressing their opinion of the manner in which it is conducted. They are invited to suggest topics to be discussed. If any reader has in mind any question which he or she may think could be profitably discussed, it will be given a place in the order of subjects, if brought to the notice of the edition, and is of sufficient general interest. Because this notice runs weekly at the head of the Farm Department does not mean that farm questions, only, may be discussed. The discussions will be spread over every department of the paper.

For the best article received on each topic, we will award a first prize of Three Dollars and for the second best Two Dollars, paying the latter sum for other contributions on the subject received and published in the same issue. Article should not exceed 500 words in length.

ORDER OF SUBJECTS

May 12.—What method do you follow in caring for cream intended for delivery to a cream gathering creamery?

May 19.—Which pays the average farmer best, to stable feed and fatten his steers in winter, to feed them outside in yards or in the scrub, on hay or straw and grain, or to sell them as stockers? Some farmers may think that none of these three methods of handling, offer profit making possibilities so they are invited to explain their own system of turning profit out of the cattle they rear each year. Just now while the experiences of a season's operations are fresh in the mind is a good time for the discussion of such questions as this.

May 26.—Describe your farm garden tell what, and what amount of vegetables, fruits, and flowers are grown. Send photos if you have them. Miss Brinda Neville is contributing articles upon garden which we would like our readers to discuss.

Preparing the Land for Roots

Tell how to prepare the land for a crop of roots, either turnips, mangels or carrots; how the seed is sown, cultivation given and whatever practical suggestions you deem necessary. This was the questions readers were invited to contribute their experiences on for this week's issue. Several of those received are given herewith together with some other practical hints on root growing. The awards go to Thomas Walker, Manitoba, and G. E. Iveson, Saskatchewan, respectively. The attention of readers is directed to the question on cattle feeding, published first in our issue of April 21st. No question other than this is more pertinent at the moment, and anyone with experience in the cattle-feeding business, favorable or otherwise, is invited to contribute that experience, that as much as possible of the sum total of information on the points raised, may be presented at one time. Letters intended for publication on that question should reach us before May 10th.

The Growing of Mangels, Turnips and Carrots

EDITOR FARMER'S ADVOCATE:

The soil best adapted for mangels is loam, but they may be grown upon heavier clay soils if given thorough cultivation. Sandy and gravelly soils will yield but a light crop. In preparing land for a root crop, remember that summer fallow gives the largest yields, but roots can be grown to advantage on stubble land as a cleaning crop. The land for mangels should be manured and prepared in the fall. Many growers often apply manure in the spring and plow just before seeding, which I do not think is a good plan. If

the season is moist no bad affects will result; but should the summer be dry, the crop is apt to be very rough and rooty, and not a clean well shaped crop as you would expect. I always prepare my land in the fall, applying plenty of well rotted manure on stubble land, plowing it five or six inches deep, harrow it smooth and leave until spring. As soon as the land is ready in the spring, I harrow it well at first, once a week or oftener. This helps to kill the weeds and retains the moisture. About the latter part of April I roll or pack the land to have it firm. The seed is sown with an ordinary wheat drill in rows, three feet apart. I test the drill by running it on hard ground to get the right thickness of seed. To get the right distance between the rows, block up all the spouts not required with a small bag of grain and sow between four or five pounds of mangel seed to the acre, putting it in about two inches deep.

Cultivation should begin as soon as the rows can be followed, care being taken at first not to cover the young plants. I always cultivate with a one-horse cultivator and do not cultivate very deeply till the plants are three or four inches high. At that time I thin them out till they are about eighteen inches apart in the row. Thorough cultivation is what is necessary for a root crop. Cultivate and hoe the crop once a week or oftener, the oftener the better. Last year I prepared my land the way I have outlined, sowing four pounds of mangel seed per acre, but the season being very dry, the crop did not do as well as I expected. Still I had about four hundred bushels per acre. This year I am going to sow mangels on timothy, backsetting that has been well manured. I always grow the Perfection long red, and yellow globe varieties. I prefer the long red for the reason that it is easily harvested, but the yellow globe will keep the best for spring feeding.

I also grow field carrots and turnips with good success. For these I cultivate the land same as for mangels. I always sow carrots the same time as mangels, only with a different seeder. I have a Planet Junior, No. 4, which is a most perfect machine for small seeds. The carrots are sown in rows about twenty inches apart. When the crop is about three inches high I thin the plants out till they are from four to six inches apart in the row. I sow about three pounds of seed to the acre and keep the land well cultivated during the season.

For turnips keep the land well cultivated till about June the 15th, then sow the seed in drills or upon the level. I prefer sowing on the level, to insure against a dry season. Turnips sown in drills are more easily cultivated and thinned out, but if the season is dry, the drills dry out and the prospects are not as good for a crop as if they were sown on the level. Just one remark about growing roots: Be sure and keep the growing crop clean and well cultivated. Cultivation, I think, is the one thing most essential in growing crops of roots. It keeps the ground with a good mulch, which retains moisture, and moisture is absolutely necessary for a good root crop. I think if these suggestions are followed there is no reason why anyone should not have a bumper crop of roots of any variety. The turnip seed, I might say, is sown in drills or rows thirty-six inches apart. When the plants are three inches high they should be thinned out to twelve or fourteen inches apart in the row. I sow from two to two and a half pounds of seed per acre.

Man.

THOMAS WALKER.

Roots in Saskatchewan

EDITOR FARMER'S ADVOCATE:

My method of preparing the soil for seeding and cultivation for the growing of field roots or garden roots is to manure the land heavily in the fall with well rotted manure. The manure is spread and the field plowed as soon as possible after manure is applied to keep manure from drying out, to a depth of eight or ten inches. It is then well dragged down and left till spring. Right here I might say, that in the open on plowed land it is very difficult to get the snow to lodge, which difficulty may be overcome by spreading straw in winrows about twenty to thirty feet apart, or by scattering brush over the field. In sections where rainfall is heavy this precaution is not necessary. So much for fall preparation.

In the spring, as soon as the drag harrow can be used, give the field a good harrowing. If straw has been used as a snow catcher burn it off, but do not wait for straw to be dry enough to burn before harrowing. Get a good dust top and keep it until planting time about the first of June. Turnips may be planted earlier. Select the kind of seed wanted. I have grown the Jumbo Swede Turnip, and Royal Giant Sugar Beet. I have never grown field carrots but intend to grow some this season. I have found the turnip and sugar beet mentioned, good growers and large yielders, not having very many roots to make hard pulling.

I plant the seed with a Planet Jr., No. 4, planting it in rows about two feet apart so that the horse-hoe may be worked to keep the weeds down. I do not follow directions sent with seeds as to thinning but let plants grow until the roots get large enough to feed the pigs, then I pull out what are smallest and feed up leaving others to grow. In thinning I go over the field three or four times increasing distance at each thinning. It will repay ten fold if the hoe is kept busy during the season. When harvest time arrives, which is before the frost comes hard enough

to freeze—the tops, pull the roots, load them into wagon box and haul to feed yard, where they are topped and removed to root house for winter feeding. The tops making excellent feed for milch cows and pigs.

From about one-half acre last year I raised enough beets and turnips to feed four cows a patent pailful each every morning, dividing another pailful amongst three calves, fed the horses a half bushel about three times a week and have enough left to feed for another two weeks at least. I find both the beets and turnips good for cows, horses and pigs. The hens like some too, and the beets pickled, and turnips mashed with potatoes make a medicine which I can take too.

Sask.

G. E. IVESON.

Preparing for Grain Crops in Saskatchewan

During the growing season of 1908, almost the entire western portion of the Province suffered from dry weather, and the majority of the new settlers either from unfamiliarity with the methods of cultivation for the conservatism of moisture, or through a desire to bring the greatest possible area under cultivation, naturally suffered a severe disappointment.

In some districts, where in former years moisture has been abundant and proper cultivation had in consequence been neglected in the effort to 'get rich quick,' the partial failure of the crop proved an expensive lesson.

For many years, commencing in 1888, the methods of conserving moisture by "Breaking and Backsetting" and by "Summer-fallowing," now called "Dry-farming" for a change, have been recommended and universally adopted by the older settlers, but to very many of the new settlers they are unknown. The latter, I trust, may be benefited by the following explanation of the methods, which for a great many years have proven uniformly successful at the Experimental Farm here, and may, with confidence, be recommended for every district in the Province of Saskatchewan.

BREAKING UP PRAIRIE SOD.

The success or failure of a new settler often depends on the method employed in the preparation of the land for his first crop, and it is, therefore, of the utmost importance that the question of "Breaking" or "Breaking and Backsetting" be given the consideration it deserves.

For some years past the general practice throughout the country has been to continue breaking three or more inches deep so long as the teams can turn over the sod, then in the fall to disc the top-soil and grow in the spring following. From the breaking so done before the end of June, a good crop of wheat, oats or barley is usually obtained, but no amount of cultivating will ensure even a fair crop on this land in the next succeeding year. After the first crop has been cut, the soil is usually in a perfectly dry state and remains so, in spite of any known method of cultivation, until the rains come in the spring following. If they are insufficient or late, as is frequently the case, failure of the crop must be the result.

SUMMER-FALLOWS AND SUMMER-FALLOWING.

Among the many advantages to the credit of the practice of summer-fallowing may be mentioned: The conservation of moisture, the eradication of weeds, the preparation of the land for grain crops at a time when no other work is pressing, the availability of summer-fallowed land for seeding at the earliest possible date in the spring, and the minor advantages of having suitable land for the growing of pure seed, potatoes, roots and vegetables at the least cost and with the greatest chance for success, and that of being able to secure two crops of grain with little or no further cultivation.

Summer-fallowing undoubtedly has some disadvantages; but so long as the growing of grain, and more particularly wheat remains, the principal industry of the Province, it will be necessary to store up moisture against a possible dry season, to restrain the weeds from over-running the land and on account of the short seasons, to prepare at least a portion of the land to be cropped in the year previous to seeding and a well made summer-fallow is the best means to this end. Among the disadvantages are: The liability of the soil to drift, the over-production of straw, in a wet season, causing late maturity and consequent danger of damage by frost, and it is claimed, the partial exhaustion of the soil. The two former may, to a greater extent, be overcome by different methods of cultivation, and if the soil can be prevented from drifting, I am satisfied that one of the reasons for the latter contention will disappear.

Various methods are practised in the preparation of fallow, and where the aim has been to take advantage of the June rains, and to prevent the growth of weeds, success is almost assured. Where the object has been to spend as little time as possible on the work, failure is equally certain.

After seventeen years further experience and observation the following was written on this sub-

ject in the Annual Report of the Experimental Farms for 1906:

METHODS OF PREPARING NEW GROUND

"In view of the fact that every year brings to the Northwest many new settlers who are unacquainted with the methods of breaking up and preparing new land for crop, a few suggestions with regard to this important work may not be amiss.

"In all sections where the sod is thick and tough, breaking and backsetting should be done; while in the districts where bluffs abound and the sod is thin, deep breaking is all that is necessary.

BREAKING AND BACKSETTING

"Breaking and backsetting is the true way of laying the foundation for future success in the greater number of districts throughout the province, and while this method does not permit of as large an acreage being brought under cultivation in the year, it does permit of more thorough work and ensures better results in the long run. The anxiety of nearly all settlers to sow every acre regardless of how or when the work on the land has been accomplished, may be given as the reason for breaking and discing, to a large extent, superseding the older, better and safer plan.

"Breaking and backsetting means the plowing of the prairie sod as shallow as possible before the June or early July rains are over, and in August or September, when the sod will have become thoroughly rotted by the rains and hot sun, plowing two or three inches deeper in the same direction, and then harrowing to make a fine and firm seed-bed. From land prepared in this way, two good crops of wheat may be expected. The first crop will be heavy and the stubble, if cut high at harvest time, will retain sufficient snow to produce the moisture required, even in the driest spring to germinate the seed for the next crop. The stubble land can readily be burned on a day in the spring with a warm, steady wind, and the seed may be sown with or without further cultivation. In a case where the grass roots have not been entirely killed by the backsetting, a shallow cultivation before seeding will be found advantageous, but, as a rule, the harrowing of the land with a drag harrow after seeding will be sufficient.

"The principal objection to 'breaking and backsetting' is urged with regard to the backsetting, which, no doubt, is heavy work for the teams, but if the discing required to reduce deep breaking, and then the plowing or other cultivation that must be done in an effort to obtain a second crop, be taken into consideration, it must be conceded that in the end 'breaking and backsetting' is the cheaper and better method.

"When two crops have been taken from new land, it should be summer-fallowed.

"The former is generally applicable to the southern and western portions, and the latter to the northern part of Saskatchewan, where the land is more or less covered with bluffs.

"The sod should be turned over as thin as possible, and for this purpose a walking plow with a 12 or 14-inch share, is the best. When the breaking is completed (which should not be later than the second week in July), rolling will hasten the rotting process and permit backsetting to commence early in August.

"Backsetting is merely turning the sod back to its original place, and at the same time bringing up two or three inches of fresh soil to cover it. The plowing should be done in the same direction as the breaking, and the same width of furrow turned. Two inches below the breaking is considered enough, but three or four inches will give better results.

"After backsetting, the soil cannot be made too fine, and the use of the disc or Randall harrow to cut up every piece of unrotted sod will complete the work.

DEEP BREAKING

"Deep breaking, which in some sections of the country is the only practicable way of preparing new land, and which is, unfortunately, done in some instances where breaking and backsetting would give much more satisfactory results, consists in the turning over of the sod as deeply as possible, usually from four to five inches. When the sod has rotted, the top soil should be worked and made as fine as possible. The use of harrow or disc will fill up all irregularities on the surface, and make a fine, even seed-bed.

"Whether the land is broken shallow or deep, it is necessary to have the work completed early, so as to take advantage of the rains which usually come in June or early in July. These rains cause the sod to rot, and without them, or if the plowing is done after they are over, the sod remains in the same condition as when turned, and no amount of work will make up for the loss.

(Continued on page 645.)

Test Drill for Thickness of Seeding

EDITOR "FARMER'S ADVOCATE":

Could you give us a simple method of making an accurate test of my drill without actually sowing on the land? FERGUSON BROS.

Roblin Mun, Man.

The method we use in our seeding operations on our seed farms, where very careful work is necessary,

is to set the drill on a clean floor, then raise it off the wheels, set it at a given point, measure the circumference of the wheel, and calculate how far that wheel would have to travel to cover a given amount of land, then turn it until it has covered that distance. The seed that has come through can then be weighed up, and the accuracy or otherwise of the drill determined. The method is very simple, and is absolutely reliable.

T. R. GARTON,
Seed Specialist, Winnipeg.

When and Where to Use the Packer

EDITOR FARMER'S ADVOCATE:

I have purchased a land packer this spring, but I don't know just at what stage of the process of cultivation it should be used.

1. Should the land be packed before or after the drill, or does it matter which?

2. Should the land be harrowed after the packer?

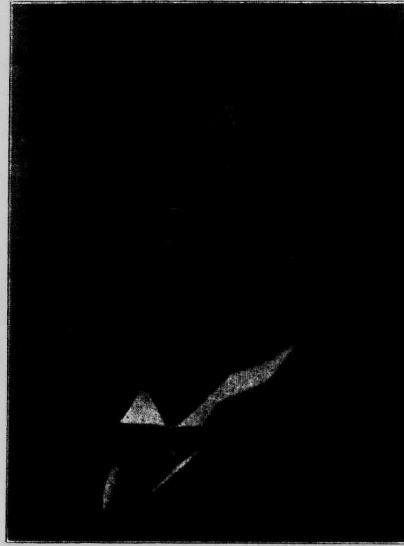
3. When is the proper time to pack summer fallow? Also fall plowing?

4. Would it injure the crop to use the packer after the grain is up?

If you can give me any other information on this subject it will be thankfully received.

Man. G. H. S.

The land packer should be used on ordinary sandy loam soil as soon after plowing as possible, as the soil packs best then. On stiff clay soils such as is often found in the Red River Valley I would not recommend the use of a packer, neither should it be used when any class of soil



JAMES POTHERINGHAM, GRENPELL.
Grower of prize winning barley at Grenfell Seed Fair.

is saturated with water, as there is then danger of forming a hard crust on the surface, a condition very unfavorable for grain crops of all kinds.

The land should be harrowed directly after the packer, but not too fine. The soil should be left in a granular condition, but not reduced to a fine powder, or it may drift with the wind.

If the soil is in any way loose I should be afraid to use the packer after the grain is up, it would likely drive a lot of the plants too deep, and if the soil is solid it does not need the packer after the grain is up.

Summer fallow should be packed immediately after plowing, unless the soil is very wet, in which case packing should be deferred for a time until it has dried up somewhat.

H. W. Campbell says, "Sub-surface packing of the soil is a process of following the plow immediately or otherwise, with implements which crush down the loose soil of the under portion of the furrow slice, breaking up the large lumps, and compacting the whole so that the particles of soil lie closer together and form a perfect connection between the unbroken earth beneath the surface and the loosened soil of the furrow."

At Brandon I found that summer fallow land plowed early, and, properly worked during the summer was moist from near the surface to a depth of seven feet, while adjoining old stubble land was dry from the surface to a depth of six feet, showing clearly that a properly managed fallow is a great restorer of moisture to the soil. Then again a good summer fallow will be the means of greatly reducing the amount of old stubble and other trash which so greatly tend to keep our Western soil open to the drying winds of summer. The moisture of the fallow rots this vegetable matter and it becomes excellent plant food instead of an injury.

M. A. C. S. A. BEDFORD.

Eradicating Wild Mustard and Seeding to Timothy

EDITOR FARMER'S ADVOCATE:

My land is badly infected with mustard. Summer-fallowed it in July and August last year, but lots of mustard seed was ripe when turned under. How may it be eradicated? Have been advised to sow barley and timothy together. What is your advice? If I sow barley and timothy how much of each to the acre.

NEW SUBSCRIBER.

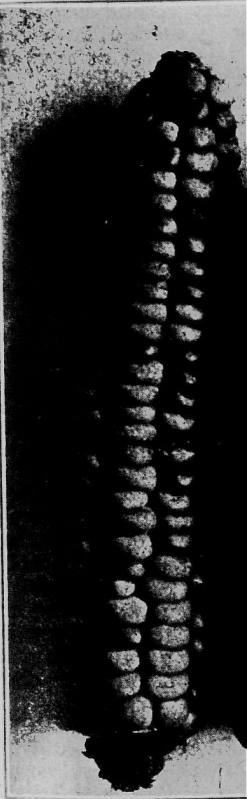
Mustard, once it has become well entrenched in land, is a difficult weed to eradicate, so difficult in fact, that we have seen farms after years of the most careful cultivation and hand pulling of the weed, still infested with the pest. It is difficult to get rid of for the reason that the seeds retain their vitality longer in a dormant state, than the seeds of any other weed perhaps that we have. It follows therefore that in cultivating to eradicate mustard in badly infested soil, one is continually turning up fresh seed from below, or bringing it up near enough the surface to permit of germination. The result is that for some years, even though no plants have been permitted to mature seed, the weed will still persist with almost unabated luxuriance. In the older sections of the country, where labor is less at a premium, than it is here, hand pulling is the means usually recommended, together with a properly planned system of cultivation and crop rotation, as a means of eradicating mustard. Here, however, hand pulling is entirely out of the question, except in a very limited way. A good way to fight the pest is to harrow the stubble land as soon as the crop is off in the fall, and start the mustard seeds on the surface, the idea being to bury as few seeds as possible with the plow. In the spring after the grain is up, harrow the crop with a weeder or light harrow, to cut off any plants that may be starting, and also to produce conditions favorable for the germination of the seeds lying near the surface. Some farmers hesitate to harrow the growing crop, fearing that the grain plants may be dragged out, but experience goes to show that no fears on this score need be entertained, providing the land is in condition fit for harrowing, and the work is done with light or slope-toothed harrows. Wheat will stand a good deal of harrowing, more than oats.

The next problem is to get after the seeds near the surface, started into life by the harrowing, but not killed. If the affected area is small, hand pulling may be resorted to, spudding or other means of destroying the plants. It is necessary, as much as possible, to prevent the mustard from producing seed. Cultivation up to this point has been for the purpose of starting all the seeds in the surface zone into life; the problem now is to cut the plants from these off before seed is borne to reinfest the soil. Probably the most effective method of doing this, where a large area is being handled, is by spraying with chemical mixtures. Spraying as a means of eradicating mustard and certain other weeds, susceptible to the action of the mixture used, has lately been widely experimented with. Last season some work was done in the West on a large scale and with a fair degree of success. In North Dakota and in Ontario, considerable areas have been sprayed for mustard, and with satisfactory results. The mixture ordinarily used is two pounds of bluestone to ten gallons of water, sprayed onto the crop at the rate of about forty gallons per acre. It destroys the mustard without injury to the grain crop. A spraying outfit is required, and the cost of this together with the materials required brings the cost up to a dollar and a half or so per acre. Follow this by again harrowing the stubble after harvest, harrowing the grain crop and spraying the following season.

Spraying is the modern method of eradicating mustard, but there are circumstances in which it is not practical. Considerable water is required and in some sections, in the spraying season, which is towards the end of June and during July, water is not available for the purpose. In case of rain, too, immediately after, or within twenty hours or so of the spraying, the treatment will have no effect, and the operation has to be performed again. Two treatments generally are required in a season.

Some valuable hints on the seeding of timothy were given in our issue of February 3rd last. The usual practice is to seed with a nurse crop, preferably sowing the grain a little light, say of barley, at the rate of a bushel to the acre, seeding the timothy by means of the ordinary grass seeder that may be procured for most drills, and sowing about eight pounds per acre. If you have no grass seeder on your drill, scatter the timothy seed on the land by hand, or use a hand seeder, doing the work on a calm day, and giving the soil a stroke of the harrow afterwards. We would not advise the sowing of barley and timothy seed together, that is, mixing the grain and seed together and sowing that way.

Corn is the only cereal of any importance grown on this continent that is native to the new world. When the Spaniards their explorations, barred their westward, spicy islands of the east plant cultivated by the natives. In the north, from what nearly the northern limit ward through the tropic latitudes of the temperate. Remains of different varieties in the ancient tombs of Egypt and Peru, indicating that the Europeans came, corn grown by the people of the Old World and introduced to Egypt, Turkey, and other countries bordering the Mediterranean, the it has never attained Europe anything like prominence it has in America as a staple cereal crop. The people of the United States consume each year per head 5.3 times the quantity of corn, which they consume of wheat, several times quantity of corn which consume of any one other grain grown. Nor are the United States the only nation of America where corn bulks large as a farm crop. Ontario produces each year more bushels of corn than she produces of any other grain. The grain product of the United States is the largest of any nation in the world. It develops in much the same way as wheat, or other cereals, that is, as regards growth very similar. It differs from the grass family in the



SQUAW CORN
Showing how the native corn

CORN GROWING IN WESTERN CANADA

Corn is the only cereal of any importance grown on this continent that is native to the new world.

When the Spaniards and Portuguese began their explorations of the continent that barred their westward way, from Europe to the spicy islands of the east, they found the corn plant cultivated by the natives of both Americas. In the north, from what is now considered very nearly the northern limit of corn growth, southward through the tropics and on until the cooler latitudes of the temperate south were reached. Remains of different varieties of corn were found in the ancient tombs of Mexico, Central America and Peru, indicating that for generations before the Europeans came, corn was the staple cereal grown by the people of this continent. The Europeans took seeds of the corn plant to the Old World and introduced it into Spain, Sicily, Egypt, Turkey, and the countries bordering upon the Mediterranean, though it has never attained in Europe anything like the prominence it has in America as a staple cereal crop. The people of the United States consume each year per head, 5.3 times the quantity of corn, which they consume of wheat, several times the quantity of corn which they consume of any one other grain grown. Nor are the United States the only section of America where corn bulks large as a farm crop. Ontario produces each year more bushels of corn than she produces of any cereal save oats, and seventy-five per cent of her corn comes from the Lake Erie counties, the portion of the province lying southward of the boundary marked on the north for the corn belt. But far beyond the northern limits of the cultivation of corn for grain, the cereal may be grown for fodder purposes, and as we in this country have little hope at the moment of ever seeing corn a staple grain product of the Canadian prairies, it is in the growing of the plant for fodder purposes that most of us interested at all are concerned.

Corn is known botanically as *zea mays*. Its botanical characteristics and its relationship to our other cereals and to grasses, may best be appreciated if we remember that it is the giant of the grass family and belongs to the same family of plants as wheat, oats, barley, timothy, etc. It develops in much the same way as wheat or the other cereals, that is, its general characteristics as regards growth and reproduction are very similar. It differs from other members of the grass family in that its stalks are filled with

a pithy substance and its sex organs arranged somewhat differently to what we find in the cereals or grasses. But these largely are botanical differences and of little significance to the corn grower, less significant to the grower of fodder corn than to he who grows the plant for grain.

Five distinct varieties of corn exist naturally, the dent variety with wedge-shaped kernels and indented top; flint corn, with hard smooth, glossy grains and smooth top; pop corn, a variety with an elongated oval kernel, extremely hard and more or less sharply pointed; soft corn with easily crushed kernels, and sweet corn, that type in which the kernels are wedge-shaped, very much wrinkled, sweet to the taste and when mature, hard. The dent variety is the most im-

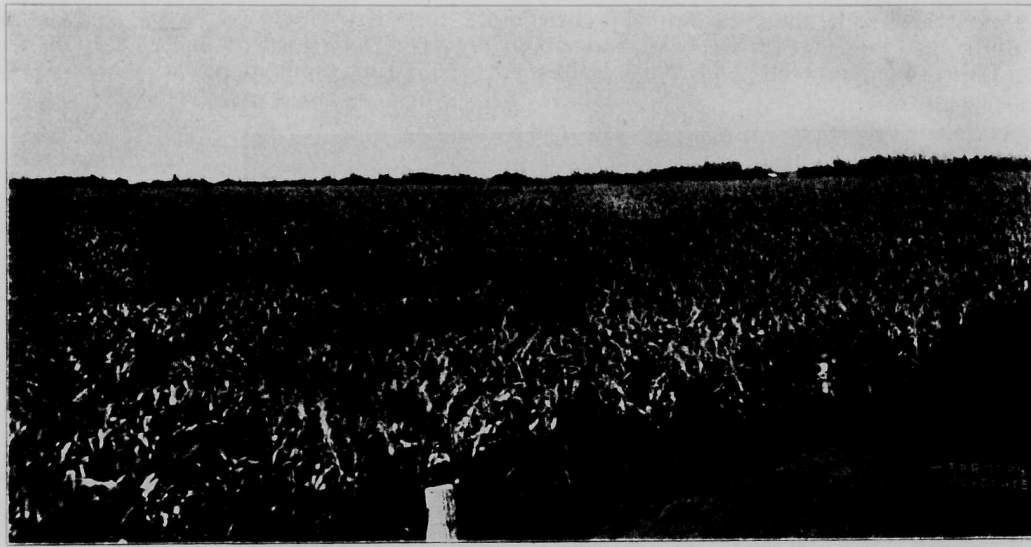
portant of these both from the grain and fodder standpoint. Flint corn, as a general rule, requires several days longer to reach maturity, on the average it does not produce as heavily to the acre, of either grain or fodder. Soft corn is the kind the Indians make a specialty of growing and is better known perhaps as "squaw corn," sweet and pop corn are grown only for garden purposes. The illustration given herewith shows the desirable and undesirable characteristics of a good cob of dent corn.

On the uses of corn several volumes might be written and the various purposes for which this plant and its grain are utilized only partially discussed. Without one exception corn has the most diversified uses of any plant grown. The grain as such is a staple human food; transformed into beef, mutton, pork, milk, butter, cheese, eggs, and poultry, it is the basis of the greatest farm industry of the new world. The stalks are used in the manufacture of paper and alcohol, and are burnt as fuel. The pithy matter within the stalks is used for packing between the armor plates of battleships, because of the wonderful power of the pith substance to expand when wet, thus when the armor is pierced below the water line the pith packing swells out and fills the perforation. The same substance likewise is used in the production of cellulose, high explosives, etc., in fact, more uses have been developed for the various parts of this plant than for any other produced. From the standpoint of the corn grower of the Canadian prairies, the most important use of corn, it's most important use anyway, wherever grown, is as a fodder plant for live-stock, a fodder ideally adapted both for summer and winter use.

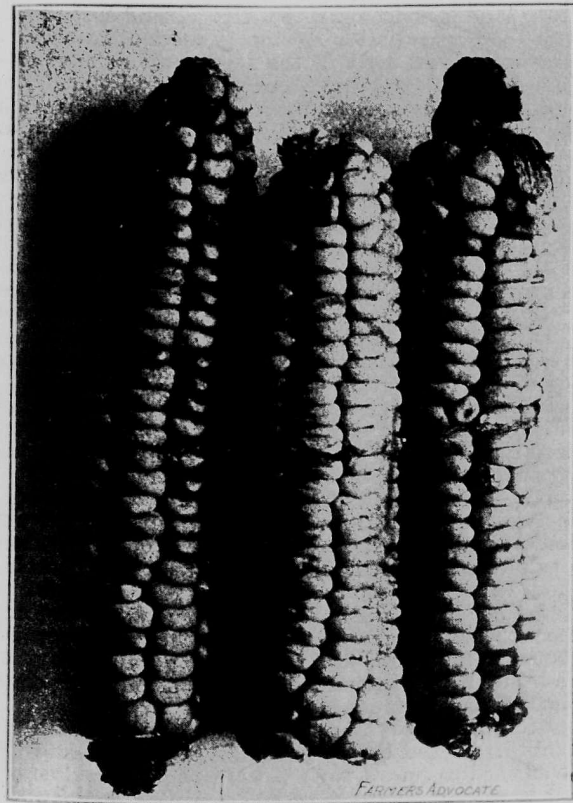
We have only touched the edge yet in this country, of our possibilities in fodder corn production. For years the experimental farms of the West have carried on experiments with different varieties and with different methods of growing, that form a valuable guide to those undertaking the cultivation of corn for the first time; here and there, all over the prairie provinces, farmers have experimented with the crop on their own land and many successful demonstrations have been given in this way. The acreage annually planted to the crop is increasing and will continue to increase as mixed farming develops, as dairying becomes a more permanent branch of our agriculture, as the absolute necessity becomes recognized of providing succulent feed for the production of milk in winter and as

the value of corn as a summer and winter feed becomes more generally appreciated. As a fodder crop, corn offers the advantage of producing a larger acre yield than any other farm crop grown. As a crop for the eradication of weeds the growing of it, if proper cultivation is given during the growing season is a method superior to summer fallowing. As a regular crop for a mixed farm it is very nearly a necessity. Corn is a rank feeder and requires a good deal of moisture to attain its proper development. The soil it is sown on may be manured as heavily almost as one may desire, the manure serving the dual purpose of feeding the crop and holding the spring moisture for the use of the plants in the dry season. For best results corn should be sown on the warmest land on the farm, on the part least subject to early fall frosts. Experience shows that the best method of sowing the seed is with the grain drill, plugging up the grain spouts in such a way that the corn is sown in rows from three feet to forty inches apart, the quantity of seed sown being regulated by testing the drill on the road, or on a hard piece of ground before starting in the field, in order to gauge the proper amount of seed to sow. It pays to make a germination test of the seed before it is sown. The crop may be harrowed without injuring it in anyway, until the plants have reached a height of six inches or so. After that the one-horse cultivator is the best implement to use, regulating the depth of cultivation, making it more shallow as the lateral roots of the corn develop.

For fodder purposes the crop is ready to use as soon as it has made sufficient growth. If intended for winter use it is usual to cut the crop with the binder, corn harvester or sickle, stook it in the field until cured, and, later in the fall, stack near the barns. The silo has been used successfully in this country in several cases for the curing and storing of the crop for winter use, but the subject of the silo and silage is one for consideration at some other time. It has been tried, however, sufficiently to demonstrate that this method of handling the corn crop may be successfully carried on. We will publish later a number of contributions by practical corn growers, on the methods which they have employed successfully in the growing of this crop. Appended hereto is an article by Mr. James Murray, Superintendent of Brandon Experimental Farm, on the growing of corn in Manitoba, an article based on experience with corn at that institution.

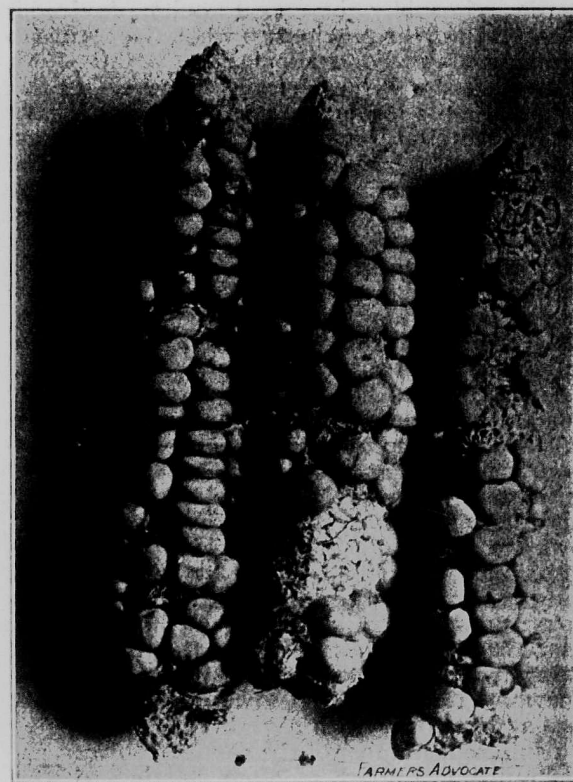


A MANITOBA CORN FIELD GROWN FOR FODDER.



SQUAW CORN (SELECTED).

Showing how the native corn may be improved in a short time, very hardy.



SQUAW CORN (UNSELECTED). Cobs of the wild native corn.

ard and Seeding 1y

mustard. Summer- last year, but lots of turned under. How been advised to sow? What is your advice? much of each to the

NEW SUBSCRIBER.

well entrenched in dicate, so difficult in ter years of the most ling of the weed, still difficult to get rid of for their vitality longer ds of any other weed s of therefore that in ws therefore that in rd in badly infested up fresh seed from ough the surface to sult is that for some ve been permitted to persist with almost lder sections of the a premium, than it is sually recommended, d system of cultiva- means of eradicating d pulling is entirely very limited way. A harrow the stubble the fall, and start the ie idea being to bury plow. In the spring crop with a weeder plants that may be ditions favorable for ing near the surface, w the growing crop, ay be dragged out, no fears on this score the land is in condi- work is done with Wheat will stand a in oats.

er the seeds near the harrowing, but not small, hand pulling other means of des- ary, as much as pos- rom producing seed. been for the purpose urface zone into life; plants from these off e soil. Probably the this, where a large ay with chemical ans of eradicating s, susceptible to the s lately been widely on some work was and with a fair de- ota and in Ontario, prayed for mustard.

The mixture ordi- stone to ten gallons at the rate of about stroys the mustard A spraying outfit s together with the s up to a dollar and s by again harrowing wing the grain crop n.

thod of eradicating ances in which it is ter is required and ng season, which is ng July, water is not ase of rain, too, im- y hours or so of the e no effect, and the again. Two treat- eason.

ling of timothy were rd last. The usual rop, preferably sow- barley, at the rate of imothy by means of ay be procured for ht pounds per acre. ur drill, scatter the and, or use a hand day, and giving the rwards. We would and timothy seed n and seed together

Corn in Manitoba

Indian corn is the heaviest producer of fodder per acre of any of the crops grown in Manitoba, and is adapted to being grown much more extensively than it is at present. With the increase in the numbers of live-stock kept, the acreage will doubtless expand, but even at present it only requires to be better known to be more appreciated and grown more largely by those who have cattle to feed. Corn is an excellent land cleaner when properly grown and leaves the land in first class condition for a grain crop to follow. As a feed for cattle of all kinds it is unsurpassed and may be fed in small quantities to horses and pigs to good advantage. In our latitude, we cannot expect to grow it to the perfection that it is grown in the corn belt, nor should we attempt to grow the same varieties, as we have a much shorter season and we must, therefore, adapt our methods to our conditions, if best results are to be secured.

While this crop will grow on almost any soil, it thrives best on a rich, warm, well drained land preferably with a southern slope. Land that has

about the right distance apart. Fifteen to twenty pounds of seed is sufficient for an acre when the corn is of good vitality, and sown in rows 36 inches to 42 inches apart.

Much of the satisfaction in growing corn depends on getting suitable varieties. The heavy late varieties will undoubtedly produce a heavier yield of green fodder per acre, but as they have to be cut before they are nearly mature and often before they are in tassel, the quality of the fodder is not what it should be, and not nearly so good as when smaller earlier varieties are grown. The varieties that have been most commonly grown in Manitoba are: Compton's Early, North Dakota, White, and Longfellow. The average yield of these varieties on this farm for the past five years has been, 19 tons 1640 lbs., 18 tons 1924 lbs., and 22 tons 722 lbs., respectively, of green fodder per acre. Ordinarily these varieties do not reach any nearer maturity than the early milk stage, and in unfavorable seasons are only in tassel. Such corn has not the feeding value that we find in corn more mature. For two years we have had North Western Dent corn on trial, and while it has not yielded as much per

and may be drawn to the stable as wanted during the winter.

Where a large acreage of corn is grown, the most satisfactory means of preserving it is provided in the silo. The corn is run through a cutting box when green and stored in the silo,—an air tight chamber. The efficiency of the silo depends upon its being air tight and of sufficient depth to insure the corn being packed properly. It should have no sharp angles and have no obstacles on the inside surface to prevent uniform settling. The stave silo will probably continue to be the most popular, although when cement is used the structure is more permanent, and will usually preserve the silage with less loss.

A bulletin on Stave Silos has been issued by the Experimental Farms, and those contemplating building would do well to secure a copy.

JAMES MURRAY,

Brandon Experimental Farm.

Inquiry Re Breaking

The land on my homestead is a sandy loam, 4 inches deep on a clay subsoil, and I would be glad if you would advise me with respect to the following questions:

1. Would wheat be the best crop to grow on such land; if not, what other crop would give best returns?
2. What method of breaking and cultivation would you advise?
3. Would you advise say, after the land had been plowed once or twice, to plow deep and turn up the sub-soil by small degrees, say, one inch at a time, and if that was done would it have a good or bad effect on the top soil?

1. The class of soil mentioned should prove excellent for wheat, but would also be suitable for either barley or oats.

2. There are two systems of preparing prairie for grain, called deep and shallow breaking. By the first plan the sod is plowed from four to six inches deep and then worked on the surface with a disc harrow, this plan usually leaves the sod only partly rotted and very dry, and for years afterwards the soil is filled with sods and refuses to yield a profitable crop of grain. The most approved plan is to plow the prairie as thin as possible with a breaking plow before the 7th of July, and when the sod is well rotted, which is generally about the end of August, backset by plowing two or three inches deeper in the same direction and harrowing as fine as possible. The last plan ensures a good crop the following year and leaves the land in excellent shape for future crops.

3. It is a good plan to gradually increase the depth of plowing until a maximum of from five to seven inches is reached, but the increase in depth should only be made in the fall or when plowing for summer fallow. If any quantity of new soil is thrown up in the spring by deep plowing it will remain hard and sour and seriously injure the crop. In all our farm operations in the west we should endeavor to have the soil moist and fine.

M. A. C.

S. A. BEDFORD.

Barley in Southern Alberta

I prefer not to sow barley on newly broken land, but prefer land that has been cropped one or more years. The better the preparation, the better the crop, but not always the best quality, for this depends largely on the handling at harvest and after, which I will deal with later on.

My land is a strong, clay loam. I find that a good way to prepare it for sowing is to double disc and harrow it down early in the spring. This answers a dual purpose, starting weed seeds and conserving moisture, both essential for a good crop. Then from the first to the middle of May I plow from five to six inches deep, harrow down at once, better if one has a packer (a subsurface packer) to pack, than harrowing.

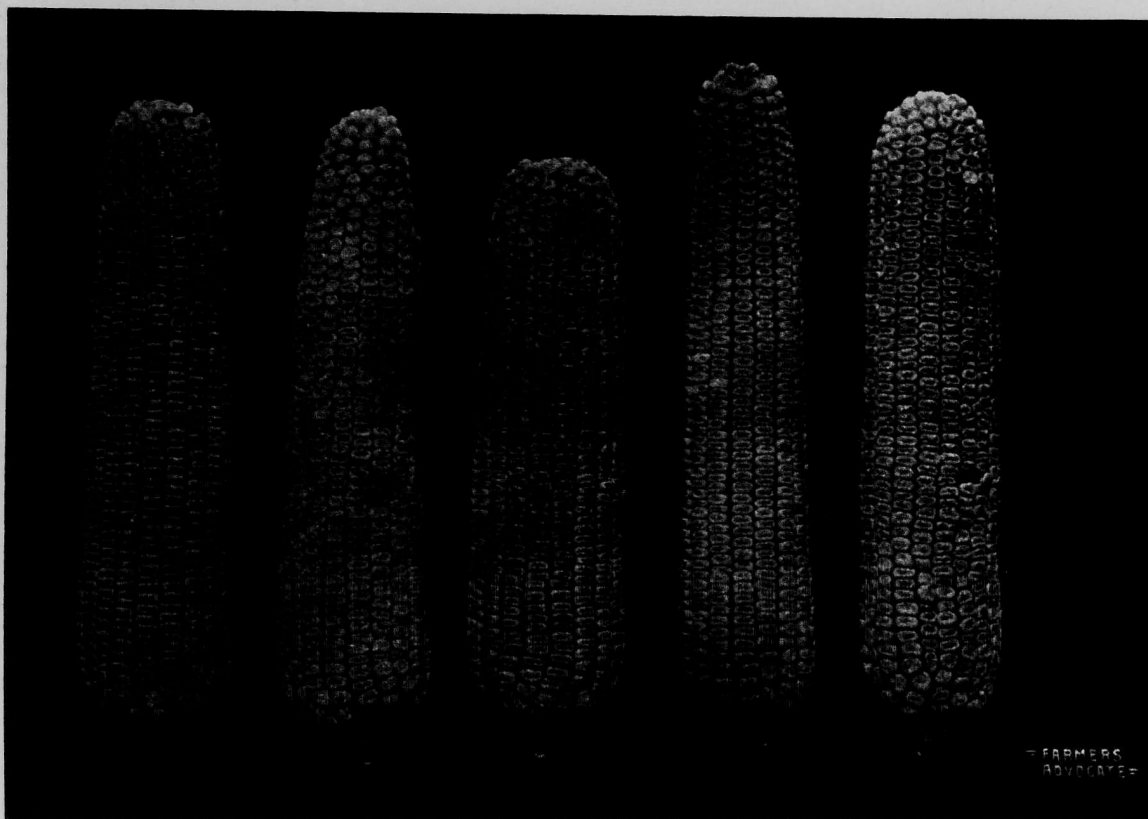
The next is the seed. I put on about two measured bushels of barley per acre, well cleaned and well treated with formaldehyde, put in with a disc drill. If the land is weedy and the barley has good root, much good can be done by giving the land two strokes with some light harrows, lever harrow preferred. This answers a double purpose, killing weeds and helping to retain moisture. That other things being equal, is about all that can be done till harvest.

I prefer cutting, if possible, when the heads are fully ripe and the straw a little green. Make good sized bundles, with the twine good and tight. Stooking should be done right after the binder, with about ten or twelve bundles in a stook and capped with one or two bundles. If the stooking is done after the binder, while the straw is yet green and heavy, well set down and braced, stooks thus treated will stand a good wind. As soon as dry the barley should be stacked. If left in the field for stook threshing and the weather is somewhat catchy, the grain soon becomes stained and, while the feeding value may not be injured, its commercial value and value for show purposes is very much reduced.

I find that threshing has something to do with the quality. If the barley is some what tough and the awns hard to get off, the most of us threshers are very apt to set our concaves up too close and do considerable cracking, thus injuring the grain for seed, malting and show purposes.

Alta.

THOS. H. WOOLFORD.



Ear No. 1 is almost ideal in form. It is well proportioned and strongly and uniformly developed.

Ear No. 2 is too tapering in form, the tip is weak and the kernels are rounded and shallow.

Ear No. 3 is too thick for its length, and looks blunt and coarse. The cob is large. Such ears are slow to mature and dry.

Ear No. 4 is too slender, showing a rather weak constitution. The kernels are shallow.

Ear No. 5 is weak and irregular near the butt end, showing lack of vigor.

Ear No. 1 is the only desirable type in the group.

been in sod usually gives good results, provided it is broken the year previous to when the corn is to be sown and well worked down.

The land should be liberally manured, as this crop is a rank feeder, and will utilize a heavy dressing without danger of lodging like grain crops. Thorough cultivation pays well, and the land should therefore be well prepared before the time for sowing. This should usually be not earlier than the 25th of May, as it is easily cut down with late frosts. Sowing broadcast has seldom if ever been satisfactory, and the universal system now obtains of either sowing in rows or hills. Sowing in hills is done either with a special corn drill or with a hand machine, and while this method has the advantage of allowing cross cultivation with horse implements, it does not yield any more per acre, and has the disadvantage of being more difficult to sow. Sowing in rows is, everything considered, the most satisfactory method for the average grower. Rows are sometimes made as close as 30 inches apart, but 36 inches is a better width and 42 inches is a common distance. In order to get a strong growth of stalk, the plants should not be closer than six inches apart in the row, but in sowing it is advisable to count on having them somewhat thicker. The sowing can be done quite satisfactorily with a grain drill by plugging up a sufficient number of the spouts to sow at the proper distance apart. Before starting to sow, the drill should be tried on a hard road or in a yard to see that the kernels are being dropped

acre, it has reached the glazed stage before time for cutting, and has made most excellent feed, whether fed as a dry fodder or as silage. This year we are sowing this variety almost exclusively believing that the difference in the value of the feed is sufficient to offset the comparatively low yield.

Frequent cultivation during the growing season is essential to satisfactory results. The harrows may be used to good advantage every few days from the time of sowing until the corn is six inches high, as many small weeds are destroyed then, that would give trouble later. When the harrows can be no longer used, the one or two-horse cultivator should be used occasionally until the crop is four feet high. Cultivation should be deep at first and gradually get shallower as the roots fill the ground. Unless cultivation is given liberally, comparatively poor results are inevitable, as not only will the crop be lighter, but the weeds will grow uncontrolled, and one of the objects in growing this crop will thereby be defeated.

Cutting will require to be done about the first of September, or before danger of frost. While some of the fodder may be fed green during the late summer as a soiling crop, most of it will require to be preserved for winter use. Where only a small acreage is grown, the corn can be satisfactorily cured by stooking, putting about 250 to 400 pounds in each stook, sufficient to stand up in a high wind. The corn will cure in the stook

HORTIC

The topic announced in the May 26th number is expected to get some good will pay as usual \$3.00 for others published.

The Farm

SOWING EARLY
(Conti

The question of how to garden that is to be, is one considered. Very different to virgin prairie soil, from garden.

Supposing you are a new little patch of new break best thing to do in that piece thoroughly, till all the A few strokes of the drag-improve it. Do not roll the exposed to the wind it will fine, and the soil will blow seeds with it, or else cutting and stems of the young ten If you have the good fortune



summer fallow near the house for a garden. Usually it should be rather light for certainly more convenient land; but I have seen heavy clay soil. It really kind of soil you have to garden almost anywhere, need is perseverance, and life. If you are starting a I would advise you to plow If the soil is heavy, you n but in any case it is better raw soil all at once. If the last season; do not plow however, be harrowed, to surface as soon as possible moisture for use during t allowed to become hard, after the snow goes off, a evaporate.

If the land is new, when fallow, I would not advise year.

Decide where the garden shape.

Forty yards wide by one a very good home garden. house as possible, so that to do with these matter vegetables at a moment's notice to have to go a long distance onion or parsley for flavor is close at hand, many a word of hoeing done, in spare m it a pleasure to care for garden is close by.

If the garden is an old, plow it. Let the plow garden gets older, the plow year. A little well-rotte

HORTICULTURE

The topic announced this week for discussion in the May 26th number is upon garden subjects. We expect to get some good letters for that issue and will pay as usual \$3.00 for the best and \$2.00 for any others published.

The Farm Garden

SOWING EARLY VEGETABLES
(Continued)

The question of how to prepare the soil for the garden that is to be, is one that should be well considered. Very different treatment must be given to virgin prairie soil, from that required for an old garden.

Supposing you are a new homesteader, and have a little patch of new breaking near your shack. The best thing to do in that case is to disc-harrow the piece thoroughly, till all the sod is worked up finely. A few strokes of the drag-harrows after discing will improve it. Do not roll the garden however, as it is exposed to the wind it will make the surface too fine, and the soil will blow away, either carrying the seeds with it, or else cutting and bruising the leaves and stems of the young tender plants.

If you have the good fortune to have a good piece of

free from lumps, should be spread over the garden before plowing, and a little more after plowing. This last should be harrowed in well, until it is thoroughly incorporated with the surface soil.

The frost should be out of the ground before any attempt is made to sow the seeds. Seeds sown before the ground is well thawed, often lie a long time in the cold earth before they commence to grow. If they escape rotting, and sprout at all, they are likely to be weakened so that the first growth will be slow. Several times I tried sowing hardy seeds in the fall, or during a thaw in February. Although the seeds germinated and gave a fair crop, they were slow, and the vegetables so grown were from one to two weeks later than the same varieties sown after the ground was warm.

The first seeds to be sown are as follows: Radish, lettuce, onion, cress, parsnip, spinach, beets, sugar beets, and early table turnips. Better commence with a sowing of early Milan turnips. Carrots may be sown early also. Radishes, lettuce, cress, spinach, beets, and early turnips should be sown several times, leaving from a week to ten days between the sowings, so as to have them always fresh and tender for the table. Carrots may be planted as late as May 24th, with a probability of a fair yield; but the seeds sown in April will yield best. If celery is to be sown in the open, it will do best about May 10th. Cabbages and tomatoes may be sown from May 15th to June 1st; also cauliflowers. Potatoes do best planted after May 15th, though a few may be planted earlier for first use. It is always best to wait until after June 1st to sow Wax beans, corn, squash, cucumbers, citrons, and pumpkins. Windsor beans should



AN EAST KOOTENAY ORCHARD.
Located near Cranbrook, B. C.

summer fallow near the house, you have an ideal spot for a garden. Usually it is thought best that land should be rather light for garden purposes. It is certainly more convenient to work in than heavy land; but I have seen beautiful gardens on very heavy clay soil. It really matters very little what kind of soil you have to start on. You can have a garden almost anywhere, if you will. What you need is perseverance, and a little knowledge of plant-life. If you are starting a garden on very light land, I would advise you to plow rather shallow at first. If the soil is heavy, you may plow it a little deeper; but in any case it is better not to turn up too much raw soil all at once. If the land was summer fallowed last season; do not plow it this spring. It should, however, be harrowed, to form a dust mulch on the surface as soon as possible, thus conserving all the moisture for use during the summer. If the soil is allowed to become hard, and full of little cracks, after the snow goes off, a great deal of moisture will evaporate.

If the land is new, whether breaking or summer-fallow, I would not advise adding manure the first year.

Decide where the garden is to be, and what size and shape.

Forty yards wide by one hundred yards long, makes a very good home garden. It should be as near the house as possible, so that the woman who has most to do with these matters may easily secure fresh vegetables at a moment's notice. It is very awkward to have to go a long distance when one wants a bit of onion or parsley for flavoring. Besides, if the garden is close at hand, many a weed may be pulled, or a bit of hoeing done, in spare moments. Most women find it a pleasure to care for growing plants, if the garden is close by.

If the garden is an old one, then it will be best to plow it. Let the plowing be done deeply. As a garden gets older, the plow should be set deeper each year. A little well-rotted manure, made fine and

be sown very early, and so should the first crop of peas.

Many people have good success by using a drill, such as the Planet Jr., for sowing their seeds. Their method is to be recommended if moisture conditions are just right. The drill does the work evenly and well, and it is an easy matter to sow a large garden in a very short time by its use.

But often, in Saskatchewan, we have dry weather just at the time when the seeds should start. Instead of growing at once, they lie in the dry ground till the late rains commence. That is usually late for many vegetables. Sometimes we have high winds, and if the soil is dry, seeds and all may blow away.

For several years I have followed a method of planting that seems to do away with all risk. It is a lot of work, but I have found that it pays for the extra work because the seeds always grow in good time and surely.

I first open my drills to the desired depth. I use a Planet Jr., plow for this purpose, making the drills long, and about a yard apart. Then I sow the seed carefully by hand. Next I fill my sprinkling can with water and sprinkle the seeds thoroughly as they lie in the drill. If the seeds are large, such as peas or beans, I then turn the earth in on them again with the plow. If they are fine seeds, I cover them very carefully with a handrake, pressing the soil firmly down. Care should be taken not to cover the seeds too deeply. A good rule to follow is to cover all seeds to a depth equal to four times the thickness of the seed.

When water is applied in the manner above described, the seeds are moist, while the surface soil is loose. It is worse than useless to sprinkle the ground after seeds have been planted and covered. The moisture does not reach the seeds, and it makes the surface of the soil hard and impenetrable, so that when the seeds germinate, it is very difficult for them to break through the earth to reach the light and air.

Sask.

BRENDA E. NEVILLE.

The Fruit Growers' Problem in B. C.

The fruit growers of British Columbia are grappling—and grappling good and hard with the problem of selling their produce to the best advantage and this is more particularly so with regard to small fruits, for the reason that the season is shorter, and if not marketed at just the right time there is considerable loss.

The need for an up-to-date and effective selling organization has been felt very keenly in the Kootenay. For the past two years the operations of the Kootenay Fruit Growers' Association have been practically a failure. A year ago it was felt that a new era had dawned when the association signed a contract with a selling expert from Hood River at a large salary, but the organization was found to be too expensive, considering the limited output, or, in other words, the expense of selling \$25,000 worth of small fruits was found to be about \$5,000.

In addition to this the Kootenay Fruit Growers' Association sold their fruit through the B. C. Fruit and Produce Exchange of Revelstoke. Returns through them were very unsatisfactory. One grower who shipped 540 crates had received up to a short time ago only \$128. Others were in the same position. When asked for an explanation the answer came back—some three or four months after the berries were shipped—that they had arrived at Calgary and other points in poor condition.

The confidence of the various associations in the exchange has been much shaken and the exchange itself has gone into liquidation.

In this connection it is interesting to note that the B. C. Government has appointed a chartered accountant to go through the books of the exchange, and the Victoria Colonist, in a recent issue has this to say:

"The government has appointed Albert F. Griffiths, chartered accountant of this city, a commissioner under the Public Enquiries Act with power to take evidence under oath, for the purpose of enquiring into the affairs of the B. C. Fruit Exchange of Revelstoke, which has recently gone into liquidation.

It will be remembered that the B. C. Fruit Exchange was started last year. It prepared to handle all the fruit output of the province and place the crop to the advantage of all concerned. In this way all were assured that there would be no fruit markets glutted one day and no fruit the next, no fruit would be left to rot in cars on sidings for want of proper arrangements, but, in a word, the situation would be handled in a businesslike up-to-date fashion.

"Subordinate exchanges were organized in various districts to work with the central body and special agents were sent out on good salaries. There was nothing wrong with the scheme. It was one that has been successfully worked out in California and elsewhere. Just what was the matter it will be the duty of Mr. Griffiths to discover. Fortunately, the exchange only handled a portion of the crop.

"The season ended with the central exchange in debt to the local exchanges and no available assets beyond a few bad debts. The Victoria Association like others, has money coming to it from the Central Exchange but it was not nearly so badly hit as some on the mainland. The Nelson men seem to have been the worst hit, many of the fruit growers having little or nothing to show for the crop entrusted to the distributing organization.

"The one good point in a bad business is that there does not seem to be a suggestion of graft anywhere. The money has been lost by incompetent management but has not been stolen. It seems to be the old story of a fascinating idea, insufficiently worked out by men who lacked experience in the special field in which they were attempting to work.

"Mr. Griffiths' report will be awaited with interest, for while it is not likely that the financial returns will be encouraging, it is thought most likely that a thorough examination of the operations of the defunct exchange, will result in a number of valuable lessons from which further fruit organizations will be able to profit. Mr. Griffiths will start on his work without delay."

Mr. James Johnstone of Nelson, the president of the exchange when told of the Government's action, said, that he was delighted to see that an enquiry had been decided upon. Regarding the exchange he said that the greatest opposition they had been obliged to contend with, was the Coldstream Packing Co. They had obtained a very large percentage of the shipments from the Okanogan district which had been promised to the exchange. Owing to this the exchange only received some 97,000 crates instead of the 400,000 promised by the growers. Not only did the tonnage of fruit not come up to expectations, but it was a practice of many of the growers to sell only their second grade fruit to the exchange, while their first grade stuff was sold to the firm before referred to or direct to wholesalers.

Concerning the statement that some of the growers had received very little for their fruit, he asserted that it was their own fault through careless packing and bad shipping methods.

One of the most regrettable features of the whole matter is that the growers have lost confidence in co-operative effort to such an extent that in the Kootenay at least, the local association will not attempt shipments this year. Of course the individual growers will ship as before the days of an association, but it is generally felt that where one of the growers may make good contracts with big

ble as wanted during

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JAMES MURRAY,
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S. H. WOOLFORD.

retailers on the prairies, all cannot do this and as well there is much overlapping and many of the small towns supplied with very little fruit.

Mr. Beeston, secretary of the Kootenay Fruit Growers' Association suggested that he considered, that a very effective means of getting over the difficulty would be to have a central exchange under control of the government although just why there might not be mis-management then, as well as now, is hard to detect. There should be no reason, however, why a competent man or body of men under the employ of the government should not be able to materially assist in the problem of marketing, just as the able force of government inspectors are keeping the orchards of the province remarkably free from insect pests.

E. W. D.

POULTRY

A Poultry and Pet Stock Association has been organized at Okotoks, Alberta. Mr. E. A. Hayes is secretary.

* * *

The German people consume annually some 3,500,000,000 eggs and produce something like 1,000,000,000, necessitating the importation of some 2,500,000,000 eggs each year. These supplies are drawn from Russia, Asia Minor and Egypt chiefly.

* * *

Prices for eggs were higher in December in the London market than they have been for 20 years, being worth 21½ cents per dozen. London in the egg business regulates the markets of the world. The supplies reaching it determine the price eggs will sell for in that center, and the price per dozen or pound they sell for there determines the prices that can be paid in the wholesale trade the world over.

* * *

Effort is being made to have the Hungarian partridge introduced, into certain states, in the United States, the idea being that natural increase will quickly make this bird plentiful, and the returns in the way of sportsmen's licenses will soon more than repay the cost of bringing the birds in.

The Hungarian partridge, it is claimed, is one of the best game birds known to sportsmen, they are hardy, will live in any cold climate, and well adapted to withstand the severe winters. They are somewhat larger than the quail, not quite as large as the native partridge, fly swiftly at different angles, and are anything but an easy mark. The birds when hunted with a dog lie close to cover, and their flesh is said to surpass that of the quail or ruffed grouse.

Notes on Artificial Incubators

The end of March is time enough in this country to start the incubator going.

Select eggs for use in incubators with as much care as you could choose a setting to place under a hen, the fresher the eggs are, the better they will hatch, use medium sized eggs.

Do not use very small, extra large, mis-shaped or rough-shelled eggs.

Collect eggs intended for hatching several times daily in both cold and warm weather.

The best place to locate your incubator is in a well aired house cellar. I have heard of people having good success in a roomy kitchen, where the machine can be kept free from drafts.

Probably the air charged with steam and moisture with fairly uniform temperature is responsible for the good results.

Be sure to keep your incubator lamps clean, and trim the wick when you fill the lamp once a day.

Never fill the lamp before turning the eggs, do it afterwards, oil on the eggs from your soiled hands will not help the hatch, use a new wick for each hatch.

Follow the printed instruction closely in all details and you will be sure of success.

BUSY B.

How to Make a Nest

An English authority on poultry rearing, gives the following description of the best kind of nest to arrange for sitting hens:

The best way to make the nest is to scoop out a little earth from the ground, and then the earth in the hollow should be beaten down quite firm in the shape of the nest. Where no earth can be removed a few shovelfuls of soil should be obtained and moulded into the shape in an ordinary nest-box. It is easier to form the nest of soil than with a turf, and the soil should be damp, beaten down well with the hand. If the soil is damp it forms a nice even surface and holds well together. The nest should be a quite round hollow, so that all the eggs are covered when the hen alters her position. The lowest point should, of course, be in the centre, so that the eggs roll and keep together again when the hen steps into the nest. Plenty of room must be given, as when a bird is cramped in sitting a good many of the eggs are likely to get broken.

The hollow should be lined with fine hay at the bottom of the nest in very cold weather, but before this is put in a handful of slack lime should be sprinkled into the nest, as this prevents vermin from breeding there. Hay is much better than straw, as it keeps closer together, and thenceforth holds warmth better, and where this is used the hens may be allowed more eggs. Straw is hollow, and so conducts the cold air to the eggs, especially, in frosty weather.

Nest-boxes should be made considerably larger than is generally allowed, as it is important that a good depth and width should be allowed for, as only when a good amount of earth is put in is sufficient moisture applied wherewith to damp the eggs. The heat from the hen's body draws it upwards as the inner membrane of the egg is softened by this moisture, consequently if there is not sufficient the dry tough membrane holds the chicks prisoners, and many are thus lost.

Where a nest is large, this is, of course, avoided, as there is a much better supply of moisture. The nest-box should never be less than 15 inches or 18 inches square. A board 6 inches to 7 inches wide should be put in front of the nest, so that the damp soil, when thrown in, should be a little higher than this board. The soil should be beaten into shape with the hand, which should be protected with a glove, so that nothing that is in the soil may injure the hand. Some people have a piece of wood, about 3 inches or 4 inches square, to beat the soil with, but the hand shapes the earth better. The nest should be perfectly round, and the center should be the lowest point of the hollow, so that all the eggs should roll towards the center.

After the nest is shaped it can easily be beaten out a little wider at the top if more eggs are set. A hen will cover fifteen eggs in the coldest weather, sometimes twenty-one, but it is better to be on the safe side, and if valuable eggs are set twelve in a sitting, if put into a well-made nest, will hatch for all they are worth, as few addled eggs are found if this is done.

A little freshly-slacked lime should be put round the top of the nest and in the middle, so that when the nest is lined with fine meadow hay this lime comes under the hay and kills any vermin that may accumulate. It is very necessary that the hay be interwoven and put together layer over layer, so that it is nice and smooth.

The hen turns her eggs twice in each twenty-four hours, and when the nest is properly made the eggs turn quite easily, and do not roll one on the other. When the hen is sitting her wings rest on the side of the nest and her feet go to the bottom, and this is the reason why the comfort of the hen should be studied.

The Spread of Poultry Diseases

EDITOR FARMER'S ADVOCATE:

A few years ago yellow fever was the most dreaded of all human diseases in the States about the Gulf of Mexico. For years it baffled all attempts to discover the manner of infection. People lived in the same houses with those suffering from the disease, sometimes even slept in the same beds with them without taking the disease; while others who had not come in contact with diseased persons were attacked by the hundred. It was finally discovered that the yellow fever was spread by mosquitoes which bit diseased persons and then bit well persons, who soon afterwards contracted the disease. Since the government has taken the matter in hand and killed the mosquitoes by draining and the use of petroleum, yellow fever is no longer dreaded.

When I was in the university a report came to the medical department of the institution, of a peculiar disease which was causing the death of many people on one side of a valley, in the Rocky Mountains, while no one died from it on the other side of the valley. During the next summer vacation, one of the professors with others to help him went to the valley, to discover, if possible, the cause of the disease. They found that frequently a person died of it in a family, while none of the other members of the family took it. They were unable to find the manner of infection till they chanced to learn, that one of the patients had been bitten by a wood tick shortly before he was taken sick. Then they observed that the side of the valley where the disease was found was wooded, while the other was not. Investigation showed that the gophers of the valley, were doing the disease; that the wood ticks bit the diseased gophers, then bit the people who died of the spotted fever as they called it.

Two flocks of poultry have come under my observation that were doing disease that yielded to no manner of treatment or change of feed. In both cases they were housed in old buildings alive with chicken lice. I am thoroughly of the opinion that the lice carried the disease from fowl to fowl.

Typhoid fever is always spread by food and water; in cities by sewerage getting into the water supply, in the country by underground drainage from outhouses to wells, and perhaps the greatest spreader of this disease is the common house fly, which walks across the stool of persons coming down with it, and then lights upon the food placed upon the table for other persons to eat.

Bowel diseases are spread among fowls by eating food which has fallen upon the droppings of diseased fowls. Other diseases are spread by the drinking water. It is astonishing how many farmers keep

fowls for the winter in a building where the droppings accumulate till spring, the fowls' food being thrown down upon the droppings. A disinfectant should be put into the drinking water, especially where there are any signs of roup. I have tried several. Zenoleum would kill all disease germs, but as it has a strong odor and presumably a strong taste, fowls will not drink the water as long as they get along without. The best method I have found is to put a little permanganate of potash in the water, as it is a good disinfectant and nearly odorless and tasteless.

W. I. THOMAS.

Raising Incubator Chicks Without a Brooder

EDITOR FARMER'S ADVOCATE:

Seeing so many poultry raisers complain of not being able to keep chicks alive hatched from incubators, I will say right here where their trouble begins and ends. Most of these people feed their chicks at sunset and leave them warm for the night. Very probably these poultry keepers do not rise till seven a. m. next day and never bother about chicks till after their own breakfast is over, which will probably be by 8.30 or 9 o'clock. The consequence is the chicks are half-starved. I guarantee to raise all I can hatch. We have R. C. B. Leghorns and never yet lost a bird from frost. Our hen-house is a big dug-out, with logs for sides and roof turf covered over all outside. A window with double glass with south aspect and the door same size as window, 2½ feet each way (lengthwise and width) with a drop of 3 feet from sill of door to floor of house gives light and fresh air. The door is of wood and right beside window facing south.

Now, here is my way of bringing up incubator chicks: As soon as the chicks are dry I put them into a box with old flannel or woollen undershirt at the bottom, or an old woollen shawl; then I put a thin piece of flannel over them to exclude the light. A bag is placed over the box which is set in a warm place near the stove. Next day I put them into a shallow box that has some white packing paper on the bottom, and that is covered with some warm, dry clean sand. Then some clean, tepid water in a can turned upside down to prevent their getting into it is given. Then I sprinkle dry cornmeal on sand and put the little things in. I hold them towards water and as soon as one or two learn to drink the rest soon copy them. I leave them in box until they begin to huddle together. When I shake out flannel and replace them covered up warm for an hour in the first box by the stove, then I take them out again and go through same performance. Before going to bed at 9 or 9.30, or sometimes 10 o'clock, I put them into the box and feed them once more ere I fix them for the night, and at 6.30 a. m. before I get breakfast, feed them again, just fresh water and cornmeal and a few bread crumbs. Every hour that day I feed them as they were fed the day before, and always feed before retiring till the chicks are a month old. If I have only 40 or 50 birds I don't bother with the brooder, as oil at 50 cents a gallon is too expensive for such a few, and even if I have 70 or 80 I always feed them in brooder last thing at night just like the few in boxes and never lose any. If their feet or legs seem weak I keep the weak ones out alone and feed them in a box separately as described until their legs or feet (toes) are straight. I find the soft woollen underwear at bottom of box much better for their curled toes or weak legs than a brooder floor and sand all the time, and they soon get strong. After I have taken them from warm box three or four times to feed in box with sand, I notice first one and then another stands straight and strong like the others and I put them into brooder with their relations.

I clean the brooder every day, and never let the chicks get their feet wet. On the fourth day from the shell I give them wheat cracked very fine, and bread crumbs and fresh water three and four times a day, the water always tepid. When they are big and strong and about a month old, I put them into a sunny yard, with large and small meshed wire fencing and a window level with ground connecting with the hen-house so there sunlight is on floor all the time. I put six inches of sand on floor of the house, so if the weather is chilly in May, they can go indoors. I put a box on its sides in the house for them to go into at night. When all are in the box cover it with sacks and letting the chicks out early next morning and feeding them with cracked wheat and fresh water. They are very fond of boiled potatoes, and I find these fed once a day are good for them. A hen can make her chicks eat much more at a time than a breeder can. They require more feeding and oftener when they are incubator hatched.

Alta.

EXPERIENCED.

Trap Nesting Hens

Two years ago the North Dakota Experiment Station began establishing laying records of hens by means of trap nests. For some years the Station has kept a good laying strain of Barred Plymouth Rocks. The results obtained the first year were very striking in the great variation in egg yields among the birds. In a flock of forty pullets of the same breeding the poorest layer had 71 eggs to her credit while the champion hen registered a total of 212 eggs. The poorest laying bird received exactly the same care and feed as the best layer and laid only one-third as

many eggs. The hens hol were not the largest, nor ye but were of a medium bu fluous flesh. They were alert in appearance with e constitution.

The second year of trap number of birds and a much was found. The leading eggs.

The practice of trap ne mended to the average p expense entailed in furnis extra labor involved. It however, to the special bre tempting to produce a hea As a means of eliminat great value, and the trap n poultrymen at least a po purpose.

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Alberta C Conve

The annual convention government creameries wi Tuesday evening, April 13, officials and buttermakers the platform were Hon.

Agriculture; George H. F of Agriculture; C. Mark W. J. Botterill, Mayor o M. L. A.; and E. Carsw Deer creamery. Mayor J spoke briefly in welcoming

The meeting, the first nature, addresses by mem dairy experts were in order

Hon. W. T. Finlay spok dairy industry in the prov in the number of the crea industry had been taken years ago.

Mr. George Harcourt, culture, spoke on the a country during the last fe and stock form one of the stones for agriculture in development of the sto development of the dairy So far the improvements stock, but the time is c change and with a little possible for every crea without the number of co it is absolutely necessary cows and find out what court also briefly outli undertaken by the depart

Mr. W. F. Stevens, Liv a brief description of a Calgary, and also gave industry. Hon. W. T. prizes to the winners of the season 1908, and poi work done by the butte there was less than 1½ p first prize-winner and winners, and the points

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W. W. McGregor,	Black
Fred Stenberg,	Lame
M. B. Latam,	Conj
W. J. Beckett,	Rose

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Hon. W. T. Finlay o morning, and Mr. Geo in regard to the resolutio. He said that th supplied to the govern season of 1908 were se patrons before Christm tion asking for uniform ies, an amendment to had been under consid department had also n proprietors or secretari in the province by pri to adopt the system. sistance in introducing at the recent sessio \$1000 was set aside fo information that deal creamery boxes for the

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W. I. THOMAS.

Chicks Without a er

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many eggs. The hens holding the highest records were not the largest, nor yet the smallest in the flock, but were of a medium build and carried no superfluous flesh. They were invariably vigorous and alert in appearance with every evidence of a strong constitution.

The second year of trap nesting included a greater number of birds and a much wider variation in records was found. The leading hen had a record of 229 eggs.

The practice of trap nesting is not to be recommended to the average poultryman, owing to the expense entailed in furnishing special nests and the extra labor involved. It is of incalculable value, however, to the special breeder of poultry who is attempting to produce a heavy laying strain of fowls. As a means of eliminating unprofitable layers it is of great value, and the trap nest is being used by many poultrymen at least a portion of the year for this purpose.

of other kinds of butter, this has been investigated and evidence has not been obtained in support of the alleged use of Government creamery butter packages for the purpose of pushing other makes of butter on the British Columbia market.

Regarding the request for financial assistance to creameries in difficulties, at the 1908 session of the legislature the sum of \$21,411.06 was set aside for the purpose of advancing further loans to creamery associations, which found themselves in financial difficulties and complied with the requirements of the government with respect to security for such additional loans. He reported that at the poultry breeding station, Edmonton, there was now at the station 12 pens, consisting of 3 pens White Wyandottes, 2 of Rhode Island Reds, 2 of Buff Orpingtons, 1 of White Rocks, 3 of Barred Rocks and 1 of Brown Leghorns. Eggs are being supplied from these pens at the rate of \$1.00 for one setting of 13 eggs, or \$2.50 for three sittings.

Mr. C. Marker gave a resume of the past session's work, using comparative charts which were both instructive and convincing. Reviewing the situation generally there was a most hopeful outlook, and not only was the output of last year considerably larger, but the markets, on the whole, were better. During the past winter the department have held a large number of meetings and the reports from the institute workers show that greater interest is being taken in dairying.

DAIRY

Alberta Creamery Convention

The annual convention of delegates from the government creameries was opened at Red Deer on Tuesday evening, April 13, 1909, some sixty delegates, officials and buttermakers being in attendance. On the platform were Hon. W. T. Finlay, Minister of Agriculture; George H. Harcourt, Deputy Minister of Agriculture; C. Marker, Dairy Commissioner; W. J. Botterill, Mayor of Red Deer; E. Michiner, M. L. A.; and E. Carswell, president of the Red Deer creamery. Mayor Botterill and Mr. Michiner spoke briefly in welcoming the convention.

The meeting, the first evening being of general nature, addresses by members of the government and dairy experts were in order.

Hon. W. T. Finlay spoke of the development of the dairy industry in the province, and noted the increase in the number of the creameries and output since the industry had been taken over by the province three years ago.

Mr. George Harcourt, Deputy Minister of Agriculture, spoke on the agricultural progress of the country during the last few years, showing that dairy and stock form one of the most successful foundation stones for agriculture in any country. With the development of the stock industry will come the development of the dairy stock and the creameries. So far the improvements have been mostly in the beef stock, but the time is coming when there will be a change and with a little care and attention it will be possible for every creamery to increase its output without the number of cows supplying it. To do this it is absolutely necessary for every farmer to test his cows and find out what they are doing. Mr. Harcourt also briefly outlined the educational work undertaken by the department.

Mr. W. F. Stevens, Live-Stock Commissioner, gave a brief description of a visit to a dairy ranch near Calgary, and also gave some statistics on the hog industry. Hon. W. T. Finlay then presented the prizes to the winners of the scoring competition for the season 1908, and pointed out the excellence of the work done by the buttermakers by remarking that there was less than 1 1/2 points difference between the first prize-winner and the eleventh. The prize-winners, and the points obtained by them, are:

Name.	Creamery.	Points.	Prize.
D. Morkeberg,	Markerville,	95.53	Challenge Cup & Gold Medal
J. M. Stevenson,	Red Deer,	95.42	Silver Medal
A. A. Munro,	Rimby,	95.12	" "
J. A. Dangerfield,	Olds,	95.05	" "
J. J. Skalitzky,	Spring Lake	94.93	" "
L. M. McLean,	Innisfail,	94.92	" "
W. H. Morris,	Wetaskiwin	94.92	" "
W. W. McGregor,	Blackfalds,	94.82	" "
Fred Stenberg,	Lamerton,	94.34	" "
M. B. Latam,	Conj'g Creek	94.21	" "
W. J. Beckett,	Rosenroll,	94.19	" "

ACTION ON RESOLUTIONS

Hon. W. T. Finlay occupied the chair Wednesday morning, and Mr. George H. Harcourt spoke first in regard to the resolutions passed at the last convention. He said that the balance cheques for cream supplied to the government creameries during the season of 1908 were sent out in time to reach the patrons before Christmas. In regard to the resolution asking for uniform statements from all creameries, an amendment to the present dairy legislation had been under consideration for some time, and the department had also mailed a circular letter to the proprietors or secretaries of all creameries operated in the province by private enterprise, asking them to adopt the system. In regard to request for assistance in introducing dairy bulls into the province, at the recent session of the legislature the sum of \$1000 was set aside for this purpose. Regarding the information that dealers were using government creamery boxes for the purpose of pushing the sales

PROGRESS OF THE INDUSTRY

Using the charts to illustrate his remarks and comparing the results of the last three years, Mr. Marker showed that too many patrons were supplying cream when butter was cheapest. He also recommended that each association should subscribe for two or three good trade papers and keep in touch with the markets, and that the associations should show, in a tangible manner, by prize or otherwise, the good work done by some of the haulers. Mr. Marker also gave some advice on the keeping of cream and taking of tests, and of can testing work. The chairman on resuming the chair after lunch asked the meeting to appoint a resolution committee. The following were elected: Messrs. E. J. Fream, Innisfail; C. J. B. Ward, Red Deer; C. A. A. Hare, Earlville; D. Morkeberg, Tindastoll; E. Carswell, Red Deer.

IMPORTATION OF PURE-BRED STOCK

Mr. W. F. Stevens said that at the convention a year ago a resolution was adopted asking the provincial government to give assistance in bringing into the province pure-bred bulls of dairy breeds. Private requests were also received by the department. In response to these requests an order-in-council was passed, authorizing the expenditure of \$1,000.00 in this work. A circular letter was sent to the creamery associations, agricultural societies and farmers' associations, stating what the government was prepared to do, and in the course of about ten days responses began to come in, and most of them were in the form of complaints. One complaint was "Why were the dairy Shorthorns not admitted?" Others were that it would place the buyers at the mercy of sellers and breeders in the East, and still others that it would drive the dairy stock breeders in Alberta out of business. The reason, dairy Shorthorns were left out, was on account of the expense, they cannot be procured except in England, and at present, at least, it was not advisable to go to so much expense.

Mr. Stevens said the only assistance the department can give is as laid down in the circular letter. When a sufficient number of animals to fill a car have been reported, the department will appoint a man to collect them and deliver them to the nearest stations in Alberta.

CREAMERY WORK IN 1909.

Mr. George Harcourt, speaking on this question said, that when the Dominion government started the creameries it was with the idea that they would only operate them for three or four years or until the loans to the creameries were repaid. This arrangement had gone on for a long time and when the province was organized the creameries were taken over by the provincial authorities and carried on. It was thought at that time better to do this. The time, however, had now almost arrived when some of the creameries should learn to stand on their own feet, as the necessity which existed years ago, when this system was started, no longer exists to-day, and the question is now asked whether the government is not justified in taking some steps towards relinquishing, at least the older creameries. At the first convention in 1906 it was stated that the object of the government was to help the farmers help themselves, and to carry out this idea it was thought advisable that some of the work should go over to the creameries which are in a position to take it. Last year the patrons were asked to pay for the cold storage at Calgary, and this year they would be requested to go a step farther, the government has been making the so-called government creameries a donation of between \$5,000 and \$6,000 yearly. This included the cost of entry cheques, keeping accounts, marketing of butter, auditing and a few other charges. This year the request will be made that the creameries bear this expense, the approximate cost being about one-half cent per lb.

This announcement of the Deputy Minister brought forth a very spirited discussion, nearly every delegate taking part in it and expressing his views,

and the air was not cleared until the Minister of Agriculture had made the definite announcement that the government would not abandon the creamery system, and also that it might be as well to postpone the proposed change for one year, in order to allow all creamery associations to become fully conversant with the same. The consensus of opinion of the delegates was that the government was needed in the business as a balance wheel, and if the creameries were once more thrown on their own resources the system would soon fall to pieces.

CREAMERY ACCOUNTING

The first discussion at Wednesday evening session was on Creamery Bookkeeping, by Mr. E. J. Fream, Innisfail, and Mr. C. J. B. Ward, Red Deer. Mr. Fream took up the subject of general bookkeeping, showing a sample of this synoptic ledger, and Mr. Ward followed with the share ledger, showing a sample of the one used by him at Red Deer. The convention decided that the Dairy Commissioner should investigate the systems as outlined, and, if possible, a uniform system be perfected and recommended by the department to all associations for their use.

RESOLUTIONS ADOPTED

The Resolution Committee's report was then presented, and all resolutions submitted were unanimously adopted. The resolutions were as follows:— That this convention places on record its appreciation of the services and assistance rendered to the creamery industry by the Minister of Agriculture and his staff, more especially the Dairy Commissioner, Mr. C. Marker, who has devoted so much of his time and services to this work, and the convention feels that it is impossible to emphasize too much the splendid work being done by him.

Whereas, it has been brought to the notice of this convention that the Department of Agriculture is of opinion that the time has now arrived when the older creamery associations shall take up a greater share of the work, therefore, be it resolved that the Department be requested to continue the agreement now in force for one year, and in the meantime that a statement be issued by the Dairy Commissioner to the association, showing just what the department wishes the association to do, so that all can properly discuss same and be prepared to act on it at the next annual convention.

That this convention suggests to the Department of Agriculture that the scheme outlined by the Deputy Minister of Agriculture to the meeting, that the association shall bear the charge of bookkeeping, auditing, issuing of cheques, etc., that the charge shall be made only in the creamery associations now out of debt and self-supporting, also that these associations be charged only with the actual expense incurred by each association, such expenses not to exceed one-half cent per pound, but that creamery associations now in debt be not charged this amount until such time as their indebtedness is paid off, when this rule shall become operative. Further, that the associations now known as self-supporting be given the option of either agreeing to this charge or to undertake all the work as above outlined, the Dairy Commissioner issuing cheques to the association for butter sold.

That the government be requested to amend the order-in-council applying to the importation of pure-bred dairy stock, by adding thereto Shorthorn cattle of dairy strain, and that the sections of the Dominion now omitted from the order be added to the list of provinces from which dairy cattle may be imported.

That this convention request the Minister of Agriculture to take up with the Executive Council and secure the passage of an Act to regulate all creameries and cheese factories, such Act to cover the issuing of proper statements, showing the relative proportions of butter and butter-fat each month, and the basis of payment, the requirement of full weight and the proper amount of moisture and other foreign matter in butter and cheese, and also that the Act be made so that the government will have full power to inspect creameries and cheese factories, not only in the matter of manufacturing, but also in all matters of sanitation. Further, that the books of all creameries and factories shall be open to inspection of patrons at any time.

That the government be requested to take steps to pass legislation, either by order-in-council or by Act, whereby no person or company can erect a creamery or cheese factory in the province without first securing a permit authorizing the erection, the applicant to file plans of the proposed creamery or factory and the area from which the support will be drawn, the plan of permit to be prepared and full authority for issuing same to be granted by a special council appointed as follows: One member to be nominated by the government and one by each of the organized associations now existing in the province, and the associations interested in this industry, also that all creameries and cheese factories be licensed and that the licenses be renewed yearly.

The champion butter cow of the Jersey breed, Pedro S. Estella, died at the Missouri Experiment Station the other day. She tumbled into a ditch and in endeavoring to get out injured herself so seriously that death ensued. Estella's butter record was 712 pounds in 12 months.

FIELD NOTES

Social Life Among Bachelor Homesteaders

The poet sings of the joys of solitude, and intimacy with Nature. One can easily believe he was not a Western bachelor homesteader, else he would have found that one can have too much even of a good thing. The desolate loneliness, the craving for human companionship, the desire for new scenes are familiar to many who read these pages.

How many can look back, almost with a shudder, to the first days of their homestead life. Bred in large cities, accustomed to luxury and congenial companionship, these men undertake the momentous task of homesteading. It needs no stretch of imagination to see them in their new spheres. Lonely and tired, the bachelor retires to rest at night, unable to woo sweet Morpheus, thinking of "The Old Folks at Home," contrasting the present with the past, and conjecturing concerning the future. After the weariness of the night he arises with the sun to go through the day's toil once more. What an event is the visit to or from a neighbor! What a pleasant surprise when the mail brings a letter.

In pioneer settlements such disadvantages have to be faced for a time, but only for a short period. Soon one quarter, then another is taken up and the rolling prairie is dotted with homes of thrifty farmers who have gone to be with nature and wrest the latent wealth from the rich soil. After their arrival, opportunities are practically unlimited to enjoy social intercourse with the ever-increasing horde of settlers pouring in from all quarters. Solitude no longer exists after the day's work is done; evenings are spent in the various homes entertaining and being entertained.

The bachelor requires some mild excitement, something to lift himself above his own lonely thoughts, something to break the monotony of his otherwise dreary existence. The solution of the problem as to how this result may be obtained is found in the formation of an exclusively Bachelor Club. Exclusive because bachelor interests are common to each member, because each knows the other's difficulties by experience, and the good-hearted fellowship is more complete, the members more united. The followers of Benedict, though, could be admitted on "Visitors' Nights" and their occasional presence would add a new zest to the meetings. As to the nature of the clubs: that depends on the district and the tastes of the members. One district has a literary and debating society where many profitable evenings are spent discussing questions of the hour. The school trustees have thrown open the school house for these meetings, a privilege that is greatly appreciated. It is rumored that on "Ladies' Invitation Nights" (which occur frequently) the bachelors have a surprisingly jolly time.

Every homesteader is aware of the difficulty of procuring good literature on the prairie, so book clubs have been formed in many places, often in connection with some other clubs where the current magazines and bound volumes, (chiefly fiction) are circulated amongst the members. This insures increased facilities for reading with a minimum expense. Some societies exist for the distributing of reading matter amongst settlers in Western Canada, yet the numbers are small that can be reached by these on account of their limited supply and the vast number of applicants. Private individuals would create some pleasant sensations in the breast of homestead farmers and their families and also the bachelors, by passing on papers, magazines and paper bound books. The majority of those whom they would benefit would be intelligent, educated people, who could properly appreciate their thoughtfulness and kindness. Might this suggestion be offered to any who read these articles?

"The Bachelor Social Circle" has proved to be a success. A number of young men band themselves together with the object of furthering the social life of the community, especially amongst themselves. Their meetings should be held weekly or fortnightly in the various homes of the members. This sustains interest by means of their anticipating their turns to act as host, each endeavoring to outshine the other by the reception they give to the circle on its visit to their shack. A musical evening, impromptu speeches, and story tellings, when each man gives a "yarn" from his own experiences, are suggestions which, if properly carried out, will prove a source of real enjoyment and be a means of passing many an agreeable evening which would otherwise have been dreary and lonely to each separate individual. This circle should sometimes give an evening to the ladies, when each member contributes some part of the refreshments to be made entirely by himself. If this does not interest, and perhaps amuse the fair sex they are unlike the rest of their class. A gentle hint given by the chairman might secure a return invitation from the ladies for the circle to spend a few hours with them.

The scope of this circle is practically unlimited as far as organizing new entertainments is concerned, to make life more pleasant to the toiling farmer and

his neighbors. A programme could be arranged for every month by a committee. Novel ideas and unusual plans would attract many visitors. A charge for admission would help pay for printing, etc., and probably leave something to go into the funds of the society. Some enterprising literateur has an opportunity to start a district magazine in almost every neighborhood. If the "Circle" took the matter in hand, each member contributing something for every issue, there should be little difficulty in getting rid of the copies at a profit. A small hectograph would be the most economical and easiest way of making duplicates of the original. It should not cost more than a couple of dollars at the most. The amusement afforded by a sheet of this nature would simply repay the originators even if no pecuniary gain was in view.

Some country districts have quite a presentable hockey club each winter and baseball clubs in summer, and why not? Are there not usually to be found all over the West young men virile, athletic and fond of healthy pure sport? More honest fun can be got out of one good evening's sport than from a month's "riotous living" in town. If neighboring communities can be persuaded to meet each other in baseball or hockey matches, much will be done to foster friendship between the friendly rivals and amongst themselves. This will tend to lighten the loneliness of existence.

Those whose tastes do not lie in the direction of the suggestions laid down in the beginning of this article could form a hunting club to exterminate coyotes, etc., and by that means rid the country of nuisances and obtain exhilarating sport and exercise. With such chances as these for social intercourse there is no reason for any bachelor to mope in his shack alone and desolate, rather let him get out, enthrone his chums, make plans and enjoy a merry holiday all the year round. It is just possible that this social life will be the means of convincing some of the Western bachelors of the advisability of having a helpmate in his solitude. Let us hope he will act in the proper manner after his conviction.

Alta.

LOUIS C. BELROSE.

A Gentleman from New Jersey States His Case

EDITOR FARMER'S ADVOCATE:

In the FARMER'S ADVOCATE of March 17th, there is an article entitled "The Marrying Problem." I would like to give "One of the Fair Sex" an answer. The lady states that if some of these bachelors, who have been bemoaning to you the awful loneliness of single blessedness, would go to town once in a while, they might stand a chance of getting a wife. I will tell this young person something about this game. I am living in a town with a population of about 15,000, and work in New York City where I have plenty of chances to meet the fair sex. For years I have been thinking of taking a homestead and thought it would be better to have a wife before going in for that. I am not bashful by nature, and had no timidity about pressing my case with such members of the opposite sex as I cared to approach on wooing bent. But do you think any of the girls in this town would go on a farm? Never! "I would rather starve in the city than live on a farm," was the way one girl put it whom I asked to marry me. She said she wouldn't mind being on a farm once in a while, but it would have to be close enough to the city for her to go to the theater once or twice a week anyway. I could give you plenty of similar examples, but quote this one merely to show the young girl who wrote the article referred to, that it is no so easy a thing as she imagines to get an average member of the fair sex out to a farm.

I would like if some readers of the FARMER'S ADVOCATE would give me some advice as to where to take up a homestead. I do not know Canada and would like if some homesteader would advise me as to desirable locations. I am willing to make good the expenses.

Wechawkin, N. J.

C. HONEGAR.

Catch the Weeds at the Start

My experience in growing roots has extended over a period of fifty years; I have grown as many as 140 acres in one year, and had them all fit to be seen when thinned out and cleaned. My practice is to plow the land in the autumn and leave it in the furrow. It will hold more snow to thaw out and give moisture in the spring here, if left in the furrow than it will if harrowed down.

As soon as the surface is dry enough in the spring I harrow it twice. If very foul, cultivate and harrow down fine. Then I seed my wheat and other grain and by the time this is done the root land is ready to be harrowed again. This will practically kill all seedling weeds started. I find that the 20th of May is quite early enough to plant mangolds here, or the first of June if the seed is started by soaking before sowing. The first week in June is the time to put in the seed for swede turnips, and the last of June for common white turnips, although a few of the latter may be planted for early use.

The grand thing to study in root growing, is weed killing before planting. In England, where roots are grown extensively, mangolds are generally planted the first week in April. To clean and thin them out costs about five dollars per acre. They are the most expensive crop to clean from the necessity of planting them earlier than other roots. I hit on a different plan some few years ago. When others were planting I harrowed my soil well as they did, killing a lot of weeds, but did not plant till three weeks later. Then I harrowed again, killing weeds by the thousands, and then sowed my seed which I had started. I grew as good a crop as those who sowed three weeks earlier with less than half the expense of hoeing and weeding.

For Swedes, adopt practically the same plan. Move your soil early to kill the weeds started, and to encourage others to show themselves above the surface. You can stay them right and left before seeding. The great foe will then be vanquished and I don't think it will give you much trouble afterwards. I would not plant my Swedes before the first week in June on any account. Planted earlier you get them hard and horny. Then, being sown so late gives you greater advantage over your foes, the weeds. I have grown as fine ones here as I ever grew, and good farmers who were born in Canada have said they never saw such fine ones before. I plant yellow fleshed Swedes and turnips for cattle, if I can get them. There is double the feeding value in them compared with white fleshed ones, at least I find all kinds of stock make double progress fed with them, in comparison to white ones.

Man.

JOHN C. WALKER.

* * *

R. D., Man., sends us the following simple method of breaking up broodiness in hens:

Take any kind of packing case large enough, and nail some 1 by 3 inch slats edgewise up in the bottom, about 3 inches apart, the object being to make it so the hen cannot possibly sit down with any comfort, as her feet slip between the slats. Make aperture in side of box, and place a bit of wire netting or some slats over, so that hen gets plenty of light, give plenty of food and water and place the box where the occupant can see other fowls running about. I never knew this to fail in affecting a cure in three days or thereabouts.

* * *

Young chicks crowded in small runs or coops, may live, and the owner may think they thrive, but it is not often that such chicks look thrifty when brought into direct comparison with really vigorous chicks grown under better conditions. There are two ways of giving chicks room. One is by shifting coops frequently to new ground while the chicks are small, and giving good range when they are large enough to roam with safety. The other way is by strictly limiting the number of young chickens grown. It is in every way better and more satisfactory to raise a dozen good ones, than to grow three or four dozen poor ones on the same area.



A BUNCH OF EAST KOOTENAY PRODUCTS,
Grown near Cranbrook, B.C.

Events of

P. Burns & Co., Calg., a packing plant at Vancouver capacity.

The C. P. R., will construct a high level and Strathcona.

The governors of the have decided on the 1,172 acres and the purchase is across the river from city limits.

The negotiations under the government of Saskatchewan Company, concluded by the government of the province. The purchase \$367,500.

Vice-president Mann, states that the company a month in construction season and that three million rolling stock will be delivered grain crop is ready to be

A Canadian revenue had an encounter with a within Canadian waters cruiser fired several shots over the mast and doing then hauled the prize into

A serious ice jam occurred above the Falls. A distance of twelve miles in to a height of sixty feet. Experts were hurried to and American government dynamite used to break back by the ice dam, the considerable damage to li

A committee representing Agriculture of Alberta, the Alberta are in Ottawa to lay before a proposal for Manitoba grain act. It secured, grain shipments coast as readily as to the As the Manitoba grain act take shipments to the grain buyers of Alberta, accommodation in Van

BRITISH

A French professor advised a means of signalling which communication. He requires ten million periments.

The latest word from the world is that Mr. J. J. readiness to meet Mr. J. just as soon as he can get the fray. The colored

Ten thousand persons killed as a result of the last week. The rioting revolution now centering the young Turk party of the constitution assembly months ago.

Rat Invasion

An invasion of rats from prairie country is a fortnight frequent report Winnipeg of the sudden of these rodents in South Emerson, Rosenfelt, and No attempt has yet been other than by resolute Trade, and nothing is authorities are contemplating rat army.

Rats began appearing about the points above and were soon making stores, barns, etc. of the trouble they were Citizens in town notice pretty well off their cl his barn for a foundation underneath and killed, moving his granary foundation on the ground beneath an unusually large-size water rats.

s at the Start

roots has extended over the ground as many as 140 feet deep...

ry enough in the spring to cultivate and harrow the root land...

n root growing, is weed eradication, where roots are generally planted...

cally the same plan, weeds started, and to themselves above the ground...

Following simple method: use large enough, and ways up in the bottom...

small runs or coops, think they thrive, but look look thrifty when...



Events of the Week

CANADIAN

P. Burns & Co., Calgary, packers, will establish a packing plant at Vancouver of a thousand hogs a week capacity.

The C. P. R., will commence at once on the construction of a high level bridge between Edmonton and Strathcona.

The governors of the University of Saskatchewan have decided on the purchase of a site of 1,172 acres and the purchase price is fixed at \$112,240.

The negotiations under way for some time between the government of Saskatchewan and the Bell Telephone Company, concluded last week in the purchase by the government of the Bell system within the province.

Vice-president Mann, of the Canadian Northern, states that the company will expend a million dollars a month in construction work during the present season...

A Canadian revenue cutter on the Pacific Coast had an encounter with an American schooner fishing within Canadian waters one day last week.

A serious ice jam occurred last week in the Niagara River above the Falls. The ice piled up for a distance of twelve miles in the river...

A committee representing the Department of Agriculture of Alberta, the United Farmer's Association and the Alberta Pacific Elevator Company, are in Ottawa to lay before the minister of trade and commerce a proposal for certain amendments to the Manitoba grain act.

BRITISH AND FOREIGN

A French professor announces that he has discovered a means of signalling by the use of mirrors, by which communication may be opened with Mars.

The latest word from the head liners of the pugilistic world is that Mr. J. J. Jeffries has announced his readiness to meet Mr. John Johnson in a fistie bout...

Ten thousand persons are reported to have been killed as a result of the anti-Christian riots in Armenia last week. The rioting arose over the political revolution now centering at Constantinople...

Rat Invasion Threatens

An invasion of rats from the South into the Canadian prairie country is threatened. During the past fortnight frequent reports have been received at Winnipeg of the sudden appearance of a great number of these rodents in Southern Manitoba...

Rats began appearing in suspiciously large numbers about the points above mentioned early last fall, and were soon making themselves at home in elevators, stores, barns, etc. Farmers began complaining of the trouble they were having with the rodents.

While the present is the first intimation the public have had of the northward movement of rats, the pests have been for years, slowly and steadily travelling in our direction. Those who live in North Dakota can remember when vermin was unknown there.

Table with columns for days (Tuesday, Wednesday, Thursday, Friday, Saturday) and months (May, July, Oct.) with numerical values representing market prices.

MARKETS

The wheat markets of the new world for the week back have not been lacking in sensational features. Things happened in the exchange of the first cereal that have scarcely been paralleled in the history of grain trading since that business became established on its present basis.

Meanwhile the world's situation, the situation as regards actual wheat, not the Chicago commodity, has every indication of maintaining its strength. The situation in America hangs on the condition of the United States winter wheat crop and the probable circumstances in which the spring wheat country will seed.

Deliveries in Europe are falling off from the amount estimated as required, and Argentine shipments arriving at present are said to be far from satisfactory.

Prices for the week have fluctuated widely. The figures touched day by day are as follows:

Table showing prices for various commodities like wheat, oats, and barley across different days of the week (Mon. to Sat.).

OPTION QUOTATIONS

Table showing option quotations for wheat on Monday, with columns for Open, High, Low, and Close.

PRODUCE AND MILL FEED

Table listing prices for various produce items like Bran, Shorts, Chopped Feeds, Barley, Oats, Hay, Timothy, and Baled straw.

BUTTER AND EGGS

Table listing prices for butter and eggs, including items like Fresh turned creamery bricks, Dairy Butter, and Eggs.

POULTRY

Table listing prices for various poultry items like Turkey, Spring chicken, Ducks, and Geese.

VEGETABLES

Table listing prices for various vegetables like Potatoes, Carrots, Beets, Turnips, Cabbage, Onions, and Parsnips.

HIDES

Table listing prices for various hides like Cow hides, Sheepskins, and Lambskins.

LIVE-STOCK, WINNIPEG

The movement of cattle for the season has begun at the Winnipeg stockyards, and large increases were noticeable last week in the number of cattle offering. Fed exporters are going through in good numbers and prices remain firm.

Locally exporters are quoted at \$5.00 and a fair business doing; butcher cattle, \$3.00 to \$4.50; sheep, \$6.50; bacon hog, \$7.00; light hogs, \$5.50.

TORONTO

Export steers, \$5.50 to \$5.60; prime butchers, \$5.30 to \$5.60; medium, \$4.00 to \$5.00; calves, \$3.00 to \$6.00; sheep, \$4.50 to \$5.00; rams, \$3.50 to \$4.25; lambs, \$5.00 to \$7.50; hogs, \$7.50.

CHICAGO

Export steers, 1275 to 1400 pounds, \$5.90 to \$6.40; export steers, 1150 to 1250 pounds, \$5.90 to \$6.40; light steers, \$5.10 to \$5.40; cows, \$3.35 to \$6.15; heifers, \$3.40 to \$6.10; bulls, \$3.25 to \$5.25; native wethers, \$5.25 to \$5.65; native ewes, \$4.25 to \$5.15; lambs, \$6.15 to \$7.40; hogs, \$6.85 to \$7.40.

HOME JOURNAL

A Department for the Family

People and Things the World Over

No woman can legally enter a bar or a music hall where liquor is sold after June 1. Such is the law just passed in Washington State, a law which also refuses these privileges to drunkards and felons.

* * *

The Gowganda Tribune, "a journal with determination," is the title of Ontario's newest newspaper, Vol. 1, No. 1, being dated April 10. It is published on the spot by Alf. W. Law, formerly of West Toronto, and is a very well gotten up issue of eight pages of quarter size, on good brown paper.

* * *

Persons afflicted with consumption may no longer marry in New Jersey. Neither may persons having any transmissible disease. A law forbidding such marriages which modern health authorities have been urging for years, was passed in the closing hours of the legislature's session and was signed by Gov. Fort. There was bitter opposition to the law on the ground of the constitutionality but it finally passed by a comfortable majority.

* * *

Much interest is being shown in the English Church pageant which takes place in the grounds of Fulham Palace in June. Among the notable features will be an episode having a particular bearing upon the Welsh history, "The 'Alleluia' Victory," which promises to be one of the most dramatic incidents in the pageant. This episode is being undertaken by members of the Church in Wales resident in London, and one of the features will be the singing of a great choir provided by Welsh Churchmen.

* * *

The centenary is being celebrated this year of Lord Byron's first visit to Greece. The Greeks, among whom the name of the great English poet who died for Greece and for her cause is as greatly beloved and venerated as the names of their national heroes, are preparing to celebrate this anniversary in a peculiar way. The Parnassos, which is the first literary society in Athens, will appoint a commission in order to choose from Lord Byron's works all the poems relating to Greece, and to arrange a competition for the translation of these fragments into modern Greek. The poems will then be published.

* * *

Dr. Edgar Geil, of Doyleston, Pa., sketches of whose recent explorations along 1,800 miles of the Great Wall of China have recently appeared in the English illustrated papers, has this week arrived back in New York. Dr. Geil traced the wall to the north border of Thibet. Two hundred miles of it has never before been mapped. He also reports evidences of the existence of at least ten great walls apart from the famous one. Dr. Geil confirms reports of the existence of a wild race of Chinese pigmies in the mountains north of the wall where they have dwelt for two thousand years.

* * *

Twice this year, in February and again last week, has been witnessed the amazing spectacle of Niagara Falls dry, a thing that has not occurred before in the memory of the white man. Owing to heavy winds prevailing the ice on Lake Erie was driven down and packed in a solid dam along the lower end of the lake. But before the falls went dry the gorge below the falls was flooded to a height of 40 feet above the water's normal level because of the ice from Lake Ontario

filling the gorge and blocking the outlet from the whirlpool. The tracks of the Great Gorge route were, with few stretches excepted, covered from the lower steel arch bridge to Lewiston. In the lower stretches of the river, where the ice was packed the hardest, every boathouse, every fishing shack, with its traps, often the sole capital of the owner, every private pumping station that supplied the summer homes that line the shores, every private landing and the piers of both the International Railway and the Niagara Navigation Company at Lewiston and Queenston, were buried beneath thousands of tons of ice. At Niagara-on-the-Lake the wharf was overwhelmed and all the bathing houses were swept off their foundations. On the Ontario side the Power Company's power house, which was thought to have been out of reach of any possibility of flood, the water poured over the window-sills.

—World Wide.

Trouble in Turkey

There are very few dull moments in Turkey. At present what appears to be a serious revolution is disturbing the country. The young Turk party, who some time ago demanded a constitution and constitutional government, has resorted to violence in the attempt to make the Sultan keep the promise made at that time. The committee telegraphed their ultimatum to Abdul-Hamid in the following dispatch: "You are a perjurer, for, having sworn to respect the constitution, you organized its abolition. We invite you to abdicate and await your reply." Up to date the Sultan's reply to this demand has not been very definite, though it is reported that he will abdicate upon certain conditions.

The indefiniteness of his reply is in no doubt due to the fact that several divisions of the troops have declared in favor of supporting the ruler rather than upholding the constitution. The young Turks army is closing in gradually around Constantinople but have not yet decided to attack the city. In the meantime, though Constantinople is the center of the actual revolution, the interior of the country is faring even worse. There are general massacres of Armenians by the Turks, the troops in some cases taking part in the outrages instead of suppressing them. Hundreds have been killed and thousands have had their homes pillaged and destroyed. Two American missionaries were murdered at Adana and fears are felt for the safety of others.

Limitation of Armaments

The universally-discussed subject of Britain's immediate place in the naval world has been the occasion of grave discussion in our own parliament of late, as to whether Canada shall raise a "defensive" navy, whose primordial cause for existence shall be that it may co-operate, in case of a crisis, with the Imperial navy. This step, staved off for so long, seems inevitable. Canada is not wanting in loyalty to the motherland, and no other among the colonies would be more ready to respond to that motherland's need. At the same time, in every mind not inflamed by distorted views of military and naval prowess, there must exist only deepest regret that the present trend of affairs throughout the world renders such unheard-of measures of defence necessary. Germany has set before her a programme for an immense fleet of war monsters, such as the world has never seen before. Britain, Mistress of the Seas, must keep in advance; the United States, France, and even little Japan, fearful for their own territory and their own interests, follow in the wake. Without check somewhere, Germany must go bankrupt, the United States, France, Japan, and, if once she is drawn into the vortex strongly enough, Canada. Money in countless millions will be required, not only for the building, but for the maintenance

of those fleets, and the airship fleets which loom in the immediate future, and the terrible burden must be borne, to a great extent, by the men and women who work for a living, and who find the matter of subsistence, with a very little over for the comforts and pleasures that make life a pleasant thing, about all they can manage.

Nothing but limitation of armaments can stem this tide, and to that Germany has refused to consent. It would seem that, were the nations really at one on the subject of liberty and peace, a general boycott might force Germany to such a concession; and yet, complications of commercial interests would be likely to block the first step towards such an action; after all, commerce, the grand machine for money-getting, rules the world.

Things may readjust themselves, but for the present people everywhere stand helpless before the immensity of the problem, and the universal spirit of helpless rebellion finds issue in the press. Little wonder is it that Christianity is becoming a by-word among the Jews and the heathen, in regard of such preparations, or that the following letter should have been written by a shrewd and far-seeing rabbi to the *New York Tribune*, in reply to an editorial statement made by that periodical, that "The realization of universal peace is an impossibility, unless all nations become in substance a single nation."

"Does not your editorial mean," writes the rabbi, "that religion, and especially Christianity, since the great modern nations are Christians, is a failure? If Christianity, which is nothing if it is not the religion of peace on earth and goodwill to man, is not able to bring about that for which it stands, either it is a failure, or else it is misinterpreted. If it is misinterpreted, why are not its ministers and leaders strong enough to interpret it correctly?"

"The real crux is this: That Christianity of to-day is not the old, original Christianity. It is not Jesusism, for it is not the religion which Jesus preached. How an effort once was made to carry back what was called Christianity nearer to the teachings and example of Jesus, with the result known in human history as the great Reformation, you and your readers know. But is it not time to carry it back yet further to the ideals of Jesus, and make Christianity the religion which he personally preached, and which he personally practised?"

"Your point that the difference of nations must always continue is not well taken, in my humble opinion. At this very moment an invitation has been placed in my hands for the International Peace Festival, on the 24th of this month. The patrons include the President of this great country, and the ambassadors, envoys, and plenipotentiaries of no less than twelve great nations of to-day. Shall this movement be encouraged, or shall we say it is all hopeless and we are helpless; that nations will never be united, and that every religion, not excepting Christianity, is a failure?"

"I say that it is time for the press and for the pulpit, the universities and the public schools, the colleges and the institutes, to unite in the fight against the crime, cost and curse of war; that a boycott of a nation that will not submit to arbitration, no matter how abominably brutal and inhuman a boycott may be, is preferable to the abominably brutal and inhuman crime, cost and curse of war."

"Your editorial, therefore, 'One Nation or Many?' means really, 'Is Christianity a Failure?' Restore it to its first principles of peace and goodwill, and the abolition of war, respect for the direct command of God, a world-consciousness of the three R's—Reverence, Righteousness, and Responsibility—will result. Is it not worth your trying?"

"That will mean the establishment of God's kingdom on earth. I believe in that kingdom."

—Farmer's Advocate, London.

THE

TO BE WITH

For to me to live
die is gain.
chose I wot not
strait betwixt two, h
depart, and to be wi
is far better.—Phil.

"Beside the dead I
And felt a Present
Lo! it was Jesus
He smiled, 'Be r

"Lord, Thou has
we know,
Restore again to
'This one who die
He smiled, 'She

"Asleep, then, as
But Thou can'st
keep
Her prisoned eyes
He smiled, 'She

"Nay, then, tho'
wake,
And look upon so
Restore her to our
He smiled, 'She

"Alas! too well v
Nor hope again
Until the stream
cross!"
He smiled, 'The

"Yet our beloved
The while we ye
near,
Albeit with Thee
He smiled, 'And

"Dear Lord, hov
that they
Still walk unso
Thee;
Nor sleep, nor wa
He smiled, 'Abi

"Anxious Mother
what I think of He
shall "know each o
ber what relation e
in this life." She
think it was a "pl
hears some people
"state" or condit
is a little disappoi
of opinion; although
if the heart is bea
new and wonderful
comes dear. Pala
satisfying to one w
the sight of a dea
with Christ is to b
our hearts are one

As for the que
shall know each o
the past, in the ne
veil of death, I do
in my own mind.
all earthly love is
Him to His dear c
in its nature, ete
thing in the infinit
would be very poo
survive death, or
der memory of the
tells us of the lov
can rest on that,
fully satisfy our hu
would be terribly
man fellowship we
destroyed.

I don't know wh
given above, but t
questioning hearts
they must speak t
they fit the lock o
which seems to sh
who have passed c
door is flung open
through into the l

We see that thos
through that door
they are "not dea
sleep," they are
they seem to be fa
with Christ, and H
therefore they al
If we abide constan
certainly in clos
them. As for the
they can see us, th
be of very little c

THE QUIET HOUR

TO BE WITH CHRIST

For to me to live is Christ, and to die is gain. . . . What I shall choose I wot not. For I am in a strait betwixt two, having a desire to depart, and to be with Christ, which is far better.—Phil. I., 21-23.

"Beside the dead I knelt for prayer,
And felt a Presence as I prayed,
Lo! it was Jesus standing there,
He smiled, 'Be not afraid!'

"Lord, Thou has conquered death,
we know,
Restore again to life,' I said,
'This one who died an hour ago.'
He smiled, 'She is not dead!'

"Asleep, then, as Thyself did say,
But Thou can'st lift the lids that keep
Her prisoned eyes from ours away.'
He smiled, 'She doth not sleep!'

"Nay, then, tho' haply she doth wake,
And look upon some fairer dawn,
Restore her to our hearts that ache:
He smiled, 'She is not gone!'

"Alas! too well we know our loss,
Nor hope again our joy to touch,
Until the stream of death we cross!"
He smiled, 'These is no such!'

"Yet our beloved seem so far
The while we yearn to feel them near,
Albeit with Thee we trust they are.
He smiled, 'And I am here!'

"Dear Lord, how shall we know
that they
Still walk unseen with us and
Thee;
Nor sleep, nor wander far away?"
He smiled, 'Abide in Me!'

"Anxious Mother" wants to know
what I think of Heaven, whether we
shall "know each other, and remem-
ber what relation each one was to us
in this life." She says she used to
think it was a "place," and now she
hears some people say that it is a
"state" or condition. I fancy she
is a little disappointed at the change
of opinion; although we all know that
if the heart is beating fast with a
new and wonderful joy, any place be-
comes dear. Palaces are very un-
satisfying to one who is homesick for
the sight of a dear face, and to be
with Christ is to be in Paradise, if
our hearts are one with His.

As for the question whether we
shall know each other, and remember
the past, in the new life beyond the
veil of death, I don't feel any doubt
in my own mind. God is Love, and
all earthly love is a rich gift from
Him to His dear children. Love is,
in its nature, eternal—the greatest
thing in the infinite universe—and it
would be very poor if it could not
survive death, or if it lost the ten-
der memory of the past. The Bible
tells us of the love of God, and we
can rest on that, sure that He will
fully satisfy our hungry hearts, which
would be terribly disappointed if hu-
man fellowship were interrupted or
destroyed.

I don't know who wrote the verses
given above, but they answer many
questioning hearts. We feel that
they must speak the truth, because
they fit the lock of the heart door
which seems to shut us from those
who have passed out of sight. The
door is flung open, and we can look
through into the brightness beyond.
We see that those who have passed
through that door are with Christ—
they are "not dead," they "do not
sleep," they are "not gone." Though
they seem to be far away, they are
with Christ, and He is here with us—
therefore they also are very near.
If we abide constantly in Him, we are
certainly in close fellowship with
them. As for the question whether
they can see us, that seems to me to
be of very little consequence. We can

be in closest fellowship with friends
who are out of our sight, and they
also can be in close touch with us,
without seeing us.

We look up into the sky and say
that Heaven is there, but if we begin
to measure the distance by miles—
with mathematical, materialistic pre-
cision—just think how infinitely far
away it would seem to be! Take
the most powerful telescope that you
can conceive of, look through it, and
you will see into the depths of in-
finite space—but no telescope could
possibly help us to see the golden
gates of Heaven, nor the sunny fields
of Paradise. In our desire to make
the life beyond the grave seem a
reality, we must not lower it by ma-
terialistic thoughts. If we do, we
shall be forced to seek the spirit-
world at an immeasurable distance.
When Elisha prayed that God would
open the eyes of the young man, that
he might "see," the prayer was
answered, and, "behold the mountain
was full of horses and chariots of fire
round about Elisha."

"And everywhere, here and always,
If we would but open our eyes,
We should find through these beaten
footpaths
Our way into Paradise.
Dull earth would be dull no longer,
The clod would sparkle—a gem;



ALONG THE SHORES OF LAKE ERIE.

And our hands, at their commonest
labor,
Would be building Jerusalem."

It is a great mistake to attempt to
reach spiritual realities with our phys-
ical senses—one might as well try to
grasp the reality of courage, faith,
hope, or love, by sight or hearing or
touch of the hands. We are spirits,
living in bodies. In Paradise we
shall learn the lesson, which we dimly
apprehend here, that we can and do
enter into fellowship with each other
without the help of the senses. In
Heaven, when soul and body are re-
united, God will provide perfect satis-
faction for both bodily and spiritual
desires. If He leaves us in the dark
now, it is probably because the things
which He has provided for His chil-
dren are beyond their comprehension.
The eye of man has not seen, nor his
ear heard, anything fit to be compared
to the glories which God has prepared
for hearts that love Him. It would
be impossible to describe the beauty
of the flowers or the songs of the
birds to one who had always been
blind or deaf. His conception would
be very different to the reality.

God does describe Heaven, in beau-
tiful, sacramental, symbolic language.
The golden streets, the gates of
pearl, and foundations of precious
stones, speak to the imagination.
God's evident love of beauty; the
harmony of coloring we see in the
sky, in the earth and water, in the
feathers of birds, and the grace of ani-
mals, above all in the human form,
which is the favorite study of artists,
make us feel sure that Heaven will
perfectly satisfy our love of beauty.

We know that Heaven is a "state
or condition," because the most per-
fect place imaginable could not make
any one happy if his soul were black
with unrepresented sin. No one
could possibly find himself in Heaven
unless he was cleansed and made pure;
even if he were permitted to enter
the open gates and walk along the
golden streets. He would be utterly
miserable, being out of harmony with
God and all his surroundings.

But I should be very unwilling to
believe that Heaven is not also a
"place." When we enter there we
shall have bodies as well as souls,
and our Lord expressly declares that
He has gone before to prepare a
"place" for His disciples. He has
also promised to "come again" and
receive them unto Himself, saying:
"Where I am, there ye may be also."
He speaks of making a new heaven
and new earth, as though great
changes might be expected in the ex-
isting order of things.

We cannot understand; yet we can
surely trust our Lord's love to dis-
appoint us in nothing, but to do for
us far more than we could ask or
think. Wherever in space the heaven
may be into which His bodily pres-
ence ascended visibly, and from which
He shall visibly come again at the
Last Day, we know that He is most
truly with us still—and yet He went
away.

If we try to understand mysteries
too deep for us, we at once discover
new difficulties. If our present ideas
of place are to govern heavenly
things, how can we—each of us—kneel

was not bound by the laws of gravi-
tation, or hampered by the laws of
space.

But I must not make this article
too long. The subject is beyond my
powers to understand or make clear,
but I would remind "Anxious
Mother" that we can trust where we
cannot understand. I know that "to
die is gain," because we shall be more
perfectly in open fellowship with our
Lord when, with clear spiritual vi-
sion, we "see Him face to face," and
know even as also we are known. Let
us never forget that He sees us al-
ways:

"Thou, all unseen, dost hear my
tired cry,
As I, in darkness of a half-belief,
Grope for Thy heart, in love and
doubt and grief;
O, Lord, speak soon to me—'Lo,
here am I!'"

DORA FARNCOMB.

Editor "The Quiet Hour":

In your issue of March 18th, a sub-
scriber asks for one or two "bless-
ings" suitable for mealtime. In
answering a question such as this,
your reader would like to know what
was in Subscriber's mind that
prompted the question? Was it
that the food would be of more bene-
fit to him if he prayed the Lord to
bless it?—or was it for a form of
words that would imply nourishment
for his spirit as well as for the body?
—or was it to know whom he should
ask? As this is very important, I
will assume this was his reason, and
as there is diversity of ideas on this
point, it is necessary for me to be
careful what I say. I am aware
some would say, "Ask God," mean-
ing a personal Deity, who hears our
petitions through another personal
divine Being—but I would say, and I
think that Scripture teaches, that
"Blessed is the man whose God is
the Lord"; the name Lord implies
all of Deity revealed to man, and is
the fulness thereof, "the true God
and eternal life," the "I am." That
Name is above every other name as a
revelation of the attributes of divini-
ty recorded in the Bible, therefore
He says, "Ask of Me and it shall be
given unto you, come unto Me, etc.;
therefore any form of words is ac-
ceptable, when the mind and heart are
directed to Him as the Giver of every
good and perfect gift. Ask Sub-
scriber to continue the blessing in us-
ing that he has manifested in provid-
ing his blessings for body and spirit.

JNO. BROADFOOT.

Huron Co.

THE HOLY CITY

Last night I lay a-sleeping,
There came a dream so fair:
I stood in Old Jerusalem
Beside the temple there,
I heard the children singing,
And ever as they sang
Methought the voice of angels
From heaven in answer rang:
Methought the voice of angels
From heaven in answer rang:

Jerusalem! Jerusalem!
Lift up your gates and sing,
Hosanna, in the highest,
Hosanna to your King!
Hosanna, in the highest,
Hosanna to your King!

And then, methought my dream was
changed
The streets no longer rang,
Hushed were the loud hosannas
The little children sang.
The sun grew dark with mystery,
The moon was cold and chill,
As the shadow of a cross arose
Upon a lonely hill.
As the shadow of a cross arose
Upon a lonely hill.
Jerusalem! Jerusalem!
Hark how the angels sing,
Hosanna, in the highest,
Hosanna to your King.

And once again the scene was
changed,
New earth there seemed to be,
I saw the Holy City
Beside the tidelss sea.



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dvocate, London.

to me. We mean ore long. He is preparing for it looks so nice to eggs hanging about low is going lively, ravines are full of overflowing their

ostly all the farm- with their spring ready for seeding. for the farmers to ing their grain in t either hailed or th a farmer's great interest in ve to see the gold- the gentle breezes. eople in England's a farm in sum- taken up with it ve the city. We good crops, so I ain. I did not into such a long lease forgive. eceive letters from bers, and I will

ERN MAIDEN.

G BE DONE AT E?

ten,—I wonder if er girl into that ngle Nook. My Advocate," and I ok and would like er if I'd be wel-

give some space ner for a talk on local merchants me time ago I per entitled "Be rict," and I sent same, but it did it. I must say r local merchants blame if mail-or- ouses get the they think should nt in the home There is a reahy, as usual, a lot of kicking on, and we hear ne side of the a. First of all d merchants keep small stock of and some are just a few pieces of and empty dry oxes. Even ne- articles are not sometimes sugar be got for love ney during the eason. As to until fall for the hey are not very to do that, in hey will tell eir store is run sis. Where is the m and the mail- should like to the latter you quality for your ive the merchant when he keeps groceries, and we othes sometimes, s the local mer- you an article n if you are giv- order? When it e in return then ad of you, and ot very civil or ve a full pocket- will continue to merchant's trade led change in the FAIR PLAY.

to your letter that there are stion, and before ent finally, both To the on- ocks like a very on which there n both sides. I ne of the mer- ern towns who Advocate" will and that the

farmers and farmers' wives will give their experience also. Both sides can present good, thoughtful arguments without bitterness or offensive personalities. I hope we shall get a goodly number of letters on the subject.—D. D.)

EDUCATING A DEAF CHILD

Dear Dame Durden,—I see that a number of the Ingle Nook members have requested me to give them my name and address as I was inquiring a short time ago about a deaf and dumb institution for a little girl five years old. This little girl went deaf when about one year old, her deafness being caused by her head rising on the inside. Two years ago I took her to Calgary to be examined by a specialist there. He informed me that she would never hear. The only thing I could do would be to educate her. As she has always been very delicate, I have not yet sent her away to the deaf institute. She has indigestion, but is gradually improving. She is lively enough, but when she gets a little too much to eat she cries with her stomach at night. Perhaps someone could tell me what would be good for her, or could give me some information in regard to how to teach her. She is quick to learn, but as I never was used to a deaf person, it makes it awkward for me to try to teach her things. Thanks in advance for any information on this subject.

W. E. JOHNSON.

Garrington, Alta.

WILLING TO RECIPROCATE

Dear Dame Durden,—I have long been a silent reader of the Ingle Nook, and have often thought of writing, but have not liked to do so until now, when I could enclose a recipe for mince-meat. I came from England in May, 1906, to a farm in Alberta. I have two children, a boy five years old, and a little girl of two, so I find there is always plenty to do. But the Ingle Nook has been such a help in many things that I was determined to write.

I see a verse of the Holy City has been printed. I would like to see it all very much.

Do you think the Ingle Nook would mind me being called— FLOSS?

(You can claim that name as no one appropriated before you. You ought to be able to help carry out that good suggestion of Mary's of giving some incident or description connected with your life in the Old Land. We shall expect to hear from you. I am saving the mince-meat recipe, as several have already appeared. It was kind of you to send it.—D. D.)

ABOUT THE HOUSE

Oats for Boot-trees.—A pale clerk departed with a large paper bag of oats under his arm.

"No," said the feedstore man, "he doesn't eat 'em for breakfast food. He uses 'em for boot-trees."

"Oats for boot-trees?"

"Sure. Every night, as soon as he gets home, he takes off his wet and muddy boots, laces 'em up, and fills 'em with oats. What happens? The oats, like blotting paper, absorb all the moisture out of the leather and swells accordin', plumpin' the boots out splendid, restorin' 'em to their original shape, takin' every wrinkle away.

"So in the mornin', the man empties his oats back into the bag, and, no matter how slushy yesterday's walkin' had been, he now puts on a pair of perfectly dry, new-lookin' boots.

The thing that is usually an instant give away in the home-made "tailored" garment is the pressing. Let one who has had long experience in making trousers, coats, and vests for a family of boys, and gowns for their sisters, explain this important work.

If neither press-board nor goose, such as tailors use, is available, lay the work on ironing-board without

the padding used in ordinary ironing. Moisten the seam by dipping fingers in water and applying as needed. The iron must come several degrees short of the scorching-point. Then press long and hard; bear on with might and main. This is necessary on account of lightness of iron. Every now and then lift the iron and bring it down with force on the seam, re-moistening the seam if it does not press out flat and smooth and stay so. Press till the seam is more than dry. All bastings should be removed before pressing.

The method of gilding a picture frame is as follows: The plain wooden moulding is first given a coat of oil paint, and from four to ten coats of fine whiting mixed with fine glue are put on, each in its turn being smoothed with fine sandpaper. This done, a coat of gold-size is given to those parts which are not to be burnished, but those which are, receive only a coating of clear animal size. The gold leaf is then laid on, and burnished where desired. Instead of real gold leaf, Dutch metal,

which is simply copper beaten like gold-leaf, is sometimes used, as is also the so-called gold paint, which is finely powdered brass or similar alloy mixed with size.

An easy way to wash blankets: Instead of rubbing and wringing blankets I now make a soap jelly by shaving one bar of soap into a quart of water. After stirring in three tablespoons of borax I set the mixture on the stove until it dissolves, afterwards allowing it to cool. I then soak my blankets all night in cold water to which I have added a quart of soap jelly. In the morning I shake the blankets up and down in tub when all dirt comes out, if necessary, I rinse once or twice in cold water and hang on line without wringing.

A common shingle cut the shape of a shovel, thick end for handle, makes a great convenience for taking hot pans, etc., from oven. A hole in handle for string to hang up behind stove when one knows just where to get it in a hurry.



The Western Wigwam

A GOOD INVESTMENT

Dear Cousin Dorothy,—The name of the corner has been changed since I wrote to you last. I like the name Western Wigwam better than Children's Corner.

I have been dragging in the fields for about a week. I caught two gophers and put them in a box, but they gnawed a hold in the box and got away. I went to school in the winter, but I have quit since spring came. It is four miles to the school-house, and I am in grade four. I liked my teacher very well. I built the fires at the school-house last winter. I got 25c. a morning for it, and I made \$16.50. With \$16.50, I got a suit of clothes, two pair of shoes, a collar and a hat.

The river has not risen much this spring. I think I like it up here better than down south. We have got quite a lot of wheat to put in this spring. We have got two little calves, about three weeks old; one was born one day and the other the next day. I will be thirteen years old the 22nd of this month. I sent to T. Eaton's for a bat and glove and they sent me a ball instead of a bat, so I have got two baseballs now.

Sask. (b). FIDDLER.

CHOOSE ANOTHER PENNAME

Dear Cousin Dorothy,—This is my first letter to the "Farmer's Advocate" I like the Western Wigwam for the name of the Children's Corner. We live near town. We have 45 hens, 15 roosters, 3 horses, 2 cows, and a lot of pigs. My father keeps an office. I am nine years old, and I am in the second class. My teacher's name is Mr. L.

Sask. (a). PEARL ENRIGHT.

EASTER EVENTS

Dear Cousins and Editor,—I have long been a silent reader of the Western Wigwam, and have finally made up my mind to write. I think it is a very interesting corner. I read that Philadelphia died. I know that it would bring a lot of trouble and sorrow to her parents. Her letters were always very interesting. We have had quite a cold winter, but

summer is almost here now. The people are planting grain, and preparing the land for sowing the grain. We had a concert over at our school. It was mostly for grown folks. The children only had two songs and one drill. I wasn't in the drill, but I was in both of the songs. Tomorrow is Easter. Have you got your rabbit nest made yet? My little sister made her's. I got three Easter post-cards already. How many did you get? I am looking for more post-cards. I am twelve years old, and five feet and three inches tall. How tall are you, Cousin Dorothy? I am going to practice up drawing with pen and ink as drawing is my greatest pleasure. Next time I write to the Western Wigwam, I am going to send a story. I haven't read many books, although I like to read continued stories and other stories that are interesting. We are writing a story in our school books about "Goody Two Shoes." Our teacher reads a little of the story about every other evening.

Alta. (a). CROCUS.

ON THE DISC

Dear Cousin Dorothy,—This is my first letter to you Indians. We are having chilly weather here now. I have been driving four horses on the disc for the last five days. My friends write to your club, and I thought I would write too. I have been working away from home for a year, and like it fine, but the place I am staying now is the best. I have stayed here for ten weeks.

Alta. (b). A POOR FARMER'S BOY.

NOT FORGOTTEN

Dear Cousin Dorothy,—Have you quite forgotten Oriole? I have been silent so long I am almost ashamed of myself, but, really, I have had very little time, for we have about two months and a half to study in. Isn't that awful?

I am so sorry to hear of Philadelphia's death. I always watched for her letters, and wished I knew her personally. You seem to be having a lot of trouble over the drawings. Why doesn't Kit Allen send some more, as

30,000 Head of Cattle

every year are obtained from one of our ranches alone for making BOVRIL. This number is supplementary to large numbers slaughtered in Australia and New Zealand to provide the raw material for BOVRIL.

To save cost of transportation the first processes in the manufacture of BOVRIL are carried out where the cattle are raised at our own factories on our Cattle Ranches.

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Grass Seeds

Timothy, Brome, Red Top Clover, etc., Fancy Imported Stock. Very Low Prices.

Cleaned Grain

Suitable for seeding purposes. Send for samples and prices.

Potatoes

We are always open to handle these in any quantity. Correspondence solicited.

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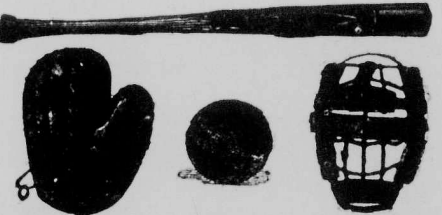
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For selling only \$1.50 worth of our Vegetable and Flower Seeds. You can have any one of the above illustrated articles of Jewelry—Lady's Gold Brooch set with 8 flashy brilliants, with pearl and colored stone centre, pair Man's Gold-plated lever Cuff Links with pretty cut stone setting, or Lady's Gold-plated Ring, brilliantly set with small diamonds and large cut stone centre. The seeds are assorted varieties, in 5c. (small) and 10c. (large) packages. Are fast sellers. Send at once—your name and address. A post card will do. THE RELIABLE PREMIUM CO. Dept. 11, Waterloo, Ont. 25

A Woman's Sympathy

Are you discouraged? Is your doctor's bill a heavy financial load? Is your pain a heavy physical burden? I know what these mean to delicate women—I have been discouraged, too; but learned how to cure myself. I want to relieve your burdens. Why not end the pain and stop the doctor's bill? I can do this for you and will if you will assist me.

All you need do is to write for a free box of the remedy, (Orange Lily) which has been placed in my hands to be given away. Perhaps this one box will cure you—it has done so for others. If so, I shall be happy and you will be cured for 2c. (the cost of a postage stamp). Your letters held confidentially. Write to-day for my free treatment. MRS. F. E. CURRAH, Windsor, Ont.



BOYS! Baseball Outfit FREE

This handsome outfit, exactly as illustrated above, given free for selling only \$2.75 worth of our easy-selling Picture Post Cards, English and Canadian Views, or Collar Buttons. Send us your name and address and we will mail you the Post Cards or Collar Buttons, whichever you wish to sell. Post Cards sell 6 for 10c. Collar Buttons, set of 4, for 10c. Write at once—a post card will do. THE RELIABLE PREMIUM CO. Dept. 11, Waterloo, Ont. 12

You cannot possibly have
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food. Fragrant, nutritious and
economical. This excellent Cocoa
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health, and enables it to resist
winter's extreme cold.

COCOA

Sold by Grocers and Storekeepers
in 1/2-lb. and 1-lb Tins.

EE SPEAKING FROM EXPERIENCE EE



THE DOCTOR: "Ah, yes, restless and feverish. Give him a Steedman's Powder and he will soon be all right."

Steedman's Soothing Powders

EE CONTAIN NO POISON EE

A dear old country gentleman and his wife paid a visit to the seaside. While the simple pair were walking on the beach one evening they suddenly noticed the revolving light of a lightship.

The old lady gazed at it with open eyes for some minutes, then she turned to her husband with a puzzled look.

"Well," she exclaimed, "if the man in that ship hasn't lit that light this forty times, and it has gone out every time!"

Enthusiasm and Fat

These two, like oil and water, mix poorly. This does not imply fat men and women never get enthusiastic. They do down deep inside. But what does it amount to? Their fat doesn't get excited. They can't transmute their enthusiasm into energetic action, so they might as well keep calm.

Thus it is that fat people generate much steam for life's work, only to find the load too much for the horsepower, and as a result thousands of both sexes get just so far and no further. "Much they care," says the uninitiated slim one. But they do care. They care keenly for financial, mental, social, business, fall hunting, straight-front and comfort reasons, and that is why Marmola Prescription Tablets have been so heartily welcomed by the overweight classes. The reason is not far to seek. Marmola Prescription Tablets take off about a pound a day, in most cases, without interfering in any way with the taker's table tendencies or his love of ease. To some, possibly, their absolute economy appeals. Thus one large case costing seventy-five cents at any drug store or of the makers, The Marmola Company, Detroit, Mich., direct, is said in itself alone to contain enough tablets to make a decided change in anyone.

But these are merely surface reasons. Marmola checks the formation of fat, by curing the fat-forming tendency. The fat just slips away, as it were, without a sign of a wrinkle. Thus the work these tablets do is not injurious. It is natural. That is the real reason these tablets are so much appreciated. They are safe.

drawing seems to be one of her special talents?

We seem to be going to have a late spring. It is snowing a little to-day, and is quite chilly; but there are some encouraging signs, for the meadow larks and robins are back as well as ducks, geese, and crows.

I notice that the old style of writing letters, e. g.: "My papa has twenty-four cattle, eleven horses, etc." is dying out, for which I am very glad, though few of the members send original stories. I think I have sent my share, but just to keep the ball rolling, I am sending another. Why don't some of the members bestir themselves and send some? Wishing you and the members every success, I am, as ever,

ORIOLE.

Man. (a).

SHELTERED BY TREES

Dear Cousin Dorothy,—I have not written to your club before, but I have been an interested reader. I am very glad you are going to have a button, and I would like to win one for remembrance.

We live near a quarry, but it is not being used now. It has two quite large ponds, which are very deep. We live on a farm of 180 acres. The house is surrounded with trees. There is a bluff each side of the lane, and on the east and west side of the stables. It is seven miles from our place to Winnipeg. I have three-quarters of a mile to go to school, and I am going to drive my pony. There is bush on one side of the road nearly all the way to school, which shelters me from some of the winds. There are a lot of wild flowers growing out here, as the violet, crocus, dandelion, daisy, ox-eye daisy, sunflower, primrose, purple aster, lady-slipper, rose, lily, and many others.

PRIMROSE.

Man. (a).

TELL US ABOUT YOUR IRISH HOME

Dear Cousin Dorothy,—This is my first letter to the Western Wigwam. I could never get up enough courage to write until one of the boys said he would like more of the fellows to write. We live near a river, and have lots of fun swimming in the summertime. There are a great many gophers around here this year, and I have caught some with a string. We came out from Ireland about five years ago. There is a much milder climate over there than we have here. I guess I will close now as it is eleven o'clock and I must get to bed.

CHARLES S. FINLAY.

Alta. (a).

KEEPING HER PROMISE

Dear Cousin Dorothy,—I expect you think I have forgotten about the Indian dollie, but I have not. I just finished it to-day, and will send it on next mail with this letter. Her name is Mary Louise Brighteyes. The snow is nearly gone, and we are glad to see the spring birds come again, and the gophers as well. Since the roads have got bad, I ride my pony to school. I know Katie Houle very well. She is her mother's only daughter, and stays home to help her mother, as there are so many boys in their family.

I had my photo taken with my family of four dolls, and five with little Mary Louise. I wanted a picture of her before she starts her long journey to your wigwam. I hope she will not be lonesome. I wonder if some of the chatters could give me the words of the "Sugar Maple" song?

The first verse is:

When you see the farmer trudging
With his dripping buckets home,
You may know the days of sugar-making
They have fully come;
When the fragrant odor pours
Through the open kitchen doors,
And the eager children rally
Round the fire crying "MORE."

bubble, bubble, bubble, bubble,

bubble, goes the pan;
Furnish better music for the season if you can.

See the vapor billows,
Watch them ebb and flow,
No sweeter joys than these we sugar-makers know.

DORA L. BATTY.

(What a nice, kind, Wig, you are! And Mary Louise Brighteyes is a darling. She arrived quite safely, and has a position where I can see her every time I raise my eyes. The girls in the office were asking if they could play with her. I can't put in words how kind it was of you to take so many careful stitches for me.—C. D.)

WHAT HAVE YOU READ?

Dear Cousin Dorothy,—This is my first letter to the Western Wigwam. I enjoy reading the letters very much. My papa has taken the "Farmer's Advocate" since the new year. I go to school every day, and I am in the fourth book. I have only one-quarter of a mile to walk. I am very fond of reading books. I have five brothers and two sisters. I was twelve years old the twenty-first of December. We have about fifty books in our school, and on Fridays we take books home to read.

ESTHER WESTLUND.

Alta. (a).

AN INVETERATE BOOKWORM

Dear Cousin Dorothy,—I was so sorry to read that Philadelphia is dead. It seems a pity, indeed, that her bright, young life should end so soon. I enjoyed her letters very much, and think she was one of the cleverest members of the Western Wigwam.

I like Fizzle Top's way of greeting us. Where is Georgina Thompson? She seems to have forgotten us. I would like to see another story by Georgina. I am sending a story called the "Doll's House." Oriole writes splendid stories. There is quite a number of authors in the Wigwam now.

I am very fond of reading, and have read more stories than I can remember. Mamma says I am an inveterate bookworm. My favorite authors are: Augusta J. Evans Wilson, Louisa Alcott, Sara McLean Greene and Laura E. Richards. I am especially fond of Augusta Wilson's books, as her heroines are exceedingly clever, and I like to read about clever people. Have you ever read any of her books, Cousin Dorothy? If you are thinking of getting books, girls and boys, get some of the following, and you will not be disappointed: "Beulah," "St. Elmo," by Augusta Wilson; "Little Women" and "Good Wives," by Louisa Alcott; "Hildegard" series, by Laura Richards; "History of England," by Charles Dickens; "Swiss Family Robinson," "Black Beauty," "Uncle Tom's Cabin," and "Mary, Queen of Scots." I have read a few books that I would not read a second time. These were by Laura Jean Libbey. I think her books are positively sickening. And "Beautiful but Poor" is another senseless book, also I do not like "Jane Eyre," although Charlotte Bronte was a famous author.

Ladner, the place in which I live, is a country town, situated on the Fraser River, I live in the country, some distance from the town. It is very pretty here in the summertime. About four or five miles from Ladner there is a bay called Boundary Bay, where numbers of people from Ladner and New Westminster camp out in summer. I like to drive there, and see the tall evergreen trees, the sandy road and hills, and the sparkling blue water of the bay. Then there is another bathing place called Chuwassen, which is an Indian reserve. There are only a few Indians on it, because many of the old ones have died and only a few, I have heard, live to be men and women. The Indians here do not live in wigwams, but have fairly good houses, and make their living by farming. Sometimes they sell blueberries and clams.

Could we have a debate, please, Cousin Dorothy? I think it would be fine. What do the members say?

It is surprising how much the Western Wigwam has improved. Once there was so much repetition about the letters I did not care to read them. They were nearly all about how many horses, cows, pigs and chickens papa had, and that the teacher's name was Miss A—, or B—, or McL—. Now they are all interesting, with a few exceptions. Now, I must close. If I write again, I will describe an Austrian wedding. Till then, adieu.

B. C. (a). VIOLETTE.

(Your letter was a fine one, and we are glad to get the story, too. I quite approve of your taste in books, except Augusta Wilson's. Her heroines are too clever altogether to be natural. They are not girls; they are walking encyclopedias and dictionaries. I'm glad you find those of the author you mention sickening. You have a healthy mind. No one but a grown person can properly appreciate Jane Eyre, but you can read it again when you are older. Come again.—C. D.)

THE DOLL'S HOUSE

By Violette.

Millie Stanton stood at the kitchen window looking at the rain. It was certainly coming down in earnest. The large drops beat incessantly against the glass, and there were puddles everywhere, almost, in the garden.

Millie sighed, and then turned around. She was not fond of staying in the house, and reading, playing the organ or making fancy-work like her sister, Agnes, who was reading "The Life of Bronte." Millie turned her dark brown eyes on her scornfully.

"Always reading or practicing," she cried impatiently, "Agnes, do drop that book. What shall we do? We can't go outside, but perhaps we can do something lively inside. I hate to sit still."

There was a great difference between the sisters. Millie, the elder sister, was a beauty of the robust type. She had a healthy brunette color, frizzy, black hair, which she dressed very becomingly, parting it in the middle and drew it down over each ear. She had a low, straight forehead, arched eyebrows of the surprised type, a Roman nose, and a strong figure.

Agnes was slender, colorless and delicate. She had the appearance of a girl who was constantly in the house. She had an intellectual face, but certainly not a pretty one. The massive forehead was out of proportion to the thin face. Her eyes were grey, and her hair was black and straight. She let her deep-set, thoughtful eyes rest on Millie for a moment, then she said:

"Suppose we make a doll's house," "Just the very thing, Aggie," said Millie.

They got a box and put a partition in it. Then they papered the walls and ceilings and painted the floors. The next day they moved the dolls in. First, they put in a stove, with an oven, three cooking pots on top of it, and a dustpan and two baking pans hung on the back of it. Next, a cigar box, which Millie had covered with wall paper and put shelves in, on which were arranged the tiny china dishes. Then a piano, a table—over which Agnes spread a handkerchief—and four chairs. Up in the little chamber Agnes put a home-made bed, with little pillows, mattress and covers; and another cigar box served as a trunk. The little girls did not even forget to put up pictures. Agnes cut out photographs of framed pictures, pasted a piece of cardboard on the back of them, and hung them on a tack suspended by a thread. And, now, I think I have made quite a picture of a doll's house. I wonder if any of the cousins will make one? I should like to hear about their success.

Well, I will close my story now, with best wishes to Cousin Dorothy and my Indian cousins. Oh, I forgot to say I made a little doll-house

just like the one I'm making, but I did not stove. Perhaps, if I will tell the cot more happy times Stanton spent with Misses Leone and I they called them.

The Gold

By WILLIAM KUI

Copyright by L. C.

"Well, I am ready any day! The King to the dogs fast Governor commissi- Jesuits to act as r- the petulant remark of La Serre.

A strong prejud army against the A opposition to the troops in his villages. They de phytes, and many shared in the lucra water to the India zealous in stopping the officers complai over-protection of

The famous "K as he was called, at dignity a seemed to assert h ent in the Council scornful looks of n had not escaped hi

The keen black lips, and high sw the Abbe would ha plumed hat of a r His loose black r freedom, reminded senator of Venice quailed at any poli if required for State.

The Abbe held i roll of wampun treaties made by r nations of the W alliance and aid t tio, as they call New France.

"My Lord Gov Abbe, placing his table, "I thank the missionaries t appear less as ch cation than as bassadors, althoug we have done wil glory and the among the heath wampun are tok we have made wit warlike tribes of bear to the Gover ance from the Mi of the great va Riviere, which th am commissioned they are at peace at war with his time forth foreve the arms of Fran the Belle Riviere, lands and wate panage of our sc Alleghanies to Louisiana. The the Mississippi; Winnebagoes, and dred bands wh rivers and lakes warlike Ottawas the Algonquin to Lake Erie,—in sh the Iroquois have to ta the field nor shall require to be d aga the Five Nations. che of these Quebec, and rati al Council the send by me and aries, my brothe

The Abbe, wi manner of one l speech and usag rolled the belts, fathoms in leng end to indicate t liance of the France. The A meaning, and wi out the totem: chiefs who had s

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HOUSE

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my story now. Cousin Dorothy ns. Oh, I for- little doll-house

just like the one I have been describ- ing, but I did not have a piano and stove. Perhaps, in the near future, I will tell the cousins about many more happy times Millie and Agnes Stanton spent with their dolls, Misses Leone and Lyndall Chester, as they called them.

The Golden Dog

By WILLIAM KIRBY, F. R. S. C.

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"Well, I am ready to turn pedlar any day! The King's army will go to the dogs fast enough since the Governor commissions Recollects and Jesuits to act as royal officers," was the petulant remark of another officer of La Serre.

A strong prejudice existed in the army against the Abbe Piquet for his opposition to the presence of French troops in his Indian missionary villages. They demoralized his neophytes, and many of the officers shared in the lucrative traffic of fire-water to the Indians. The Abbe was zealous in stopping those abuses, and the officers complained bitterly of his over-protection of the Indians.

The famous "King's Missionary," as he was called, stood up with an air of dignity and authority that seemed to assert his right to be present in the Council of War, for the scornful looks of many of the officers had not escaped his quick glance.

The keen black eyes, thin resolute lips, and high swarthy forehead of the Abbe would have well become the plumed hat of a marshal of France. His loose black robe, looped up for freedom, reminded one of a grave senator of Venice whose eye never quailed at any policy, however severe, if required for the safety of the State.

The Abbe held in his hand a large roll of wampum, the tokens of treaties made by him with the Indian nations of the West, pledging their alliance and aid to the great Ontario, as they called the Governor of New France.

"My Lord Governor!" said the Abbe, placing his great roll on the table, "I thank you for admitting the missionaries to the Council. We appear less as churchmen on this occasion than as the King's ambassadors, although I trust that all we have done will redound to God's glory and the spread of religion among the heathen. These belts of wampum are tokens of the treaties we have made with the numerous and warlike tribes of the great West. I bear to the Governor pledges of alliance from the Miamis and Shawnees of the great valley of the Belle Riviere, which they call the Ohio. I am commissioned to tell Ontario that they are at peace with the King and at war with his enemies from this time forth forever. I have set up the arms of France on the banks of the Belle Riviere, and claimed all its lands and waters as the just appanage of our sovereign, from the Alleghanies to the plantations of Louisiana. The Sacs and Foxes, of the Mississippi; the Pottawatomes, Winnebagoes, and Chippewas of a hundred bands who fish in the great rivers and lakes of the West; the warlike Ottawas, who have carried the Algonquin tongue to the banks of Lake Erie,—in short, all enemies of the Iroquois have pledged themselves to take the field whenever the Governor shall require the axe to be dug against the English and the Five Nations. Next summer the chief of all these tribes will come to Quebec, and ratify in a solemn General Council the Wampums they now send by me and the other missionaries, my brothers in the Lord!"

The Abbe, with the slow, formal manner of one long accustomed to speech and usages of the Indians, unrolled the belts of wampum, many fathoms in length, fastened end to end to indicate the length of the alliance of the various tribes with France. The Abbe interpreted their meaning, and with his finger pointed out the totems or signs manual—chiefs who had signed the roll.

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This Washer Must Pay for Itself

A MAN tried to sell me a horse once. He said it was a fine horse, and had nothing the matter with it. I wanted a fine horse. But, I didn't know anything about horses much. And, I didn't know the man very well, either.

So I told him I wanted to try the horse for a month. He said, "All right, but pay me first, and I'll give back your money if the horse isn't all right."

Well, I didn't like that. I was afraid the horse wasn't "all right," and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now, this set me thinking.

You see, I make Washing Machines—the "1900 Gravity" Washer. And, as I said to myself, lots of people may think about my Washing Machines as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn't write and tell me. You see, I sell all my Washing Machines by mail. (I've sold 200,000 that way already.)

So, thought I, it's only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash clothes, without wearing them, in less than half the time they can be washed by hand, or by any other machine.

When I say half the time I mean half—not a little quicker, but twice as quickly.

I know it will wash a tubfull of very dirty clothes in Six minutes. I know no other machine ever invented can do that, in less than 12 minutes, without wearing out the clothes.

I'm in the Washing Machine business for Keeps. That's why I know these things so surely. Because I have to know them, and there isn't a Washing Machine made that I haven't seen and studied.

Our "1900 Gravity" Washer does the work so easily that a child can run it almost as well as a strong woman. And it don't wear the clothes, nor fray the edges, nor break buttons, the way all other washing machines do.

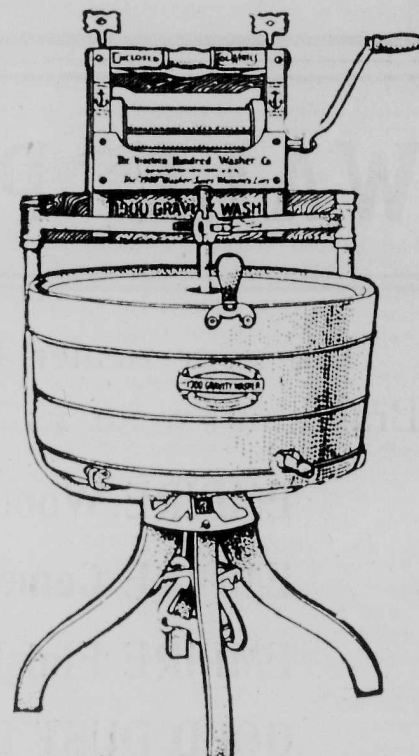
It just drives soapy water clear through the threads of the clothes like a Force Pump might.

If people only knew how much hard work the "1900 Gravity" Washer saves every week, for 10 years, and how much longer their clothes would wear, they would fall over each other trying to buy it.

So said I to myself, I'll just do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only, I won't wait for people to ask me. I'll offer to do it first, and I'll "make good" the offer every time. That's how I sold 200,000 Washers.

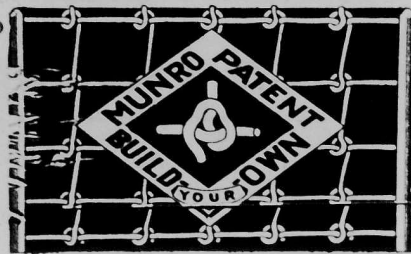
I will send any reliable person a "1900 Gravity" Washer on a full month's free trial! I'll pay the freight out of my own pocket. And if you don't want the machine after you've used it a month I'll take it back and pay the freight that way, too. Surely that's fair enough, isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is? How could I make anything out of such a deal as that if I hadn't the finest thing that ever happened for Washing Clothes—the quickest, easiest and handsomest Washer on Earth. It will save its whole cost in a few months, in Wear and Tear on clothes alone. And then it will save 50 cents to 75 cents a week over that in Washerwoman's wages. If you keep the machine, after a month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 50 cents a week till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.



Now, don't be suspicious. I'm making you a simple, straightforward offer. You don't risk anything, anyhow. I'm willing to do all the risking myself! Drop me a line to-day and let me send you a book about the "1900 Gravity" Washer that washes clothes in 6 minutes. Or I'll send the machine on to you, if you say so, and take all the risk myself. Address me this way:—A. W. V. Bach, Manager, "1900" Washer Company, 357 Yonge street, Toronto, Ont. Don't delay. Write me a postcard now, while you think of it. 1533

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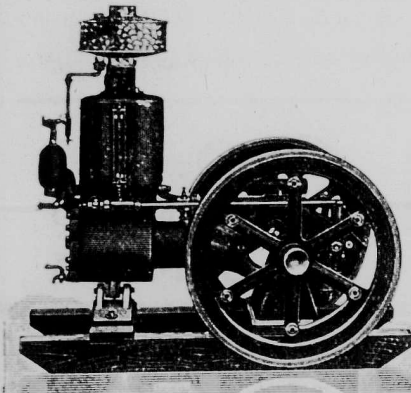
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usually a bird, beast, or fish,—of the Council looked at the wampums with intense interest, well knowing the important part these Indians were capable of assuming in the war with England.

"These are great and welcome pledges you bring us, Abbe," said the Governor; "they are proofs at once of your ability and of your zealous labors for the King. A great public duty has been ably discharged by you and your fellow-missionaries, whose loyalty and devotion to France it shall be my pleasure to lay before His Majesty. The Star of Hope glitters in the western horizon, to encourage us under the clouds of the eastern. Even the loss of Acadia, should it be final, will be compensated by the acquisition of the boundless fertile territories of the Belle Riviere and of the Illinois. The Abbe Piquet and his fellow-missionaries have won the hearts of the native tribes of the West. There is hope now, at last, of uniting New France with Louisiana in one unbroken chain of French territory.

"It has been my ambition, since His Majesty honored me with the Government of New France to acquire possession of those vast territories covered with forests old as time, and in soil rich and fertile as Provence and Normandy.

"I have served the King all my life," continued the Governor, "and served him with honor and even distinction,—permit me to say this much of myself."

He spoke in a frank, manly way, for vanity prompted no part of his speech. "Many great services have I rendered my country, but I feel that the greatest service I could yet do Old France or New would be the planting of ten thousand sturdy peasants and artisans of France in the valley of the far West, to make its forests vocal with the speech of our native land.

"This present war may end suddenly,—I think it will: the late victory at Lawlett has stricken the allies under the Duke of Cumberland a blow hard as Fontenoy. Rumors of renewed negotiations for peace are flying thick through Europe. God speed the peacemakers, and bless them, I say! With peace comes opportunity. Then, if ever, if France be true to herself and to her heritage in the New World, she will people the valley of the Ohio and secure forever her supremacy in America!

"But our forse far and near must be preserved in the meantime. We must not withdraw from one foot of French territory. Quebec must be walled, and made safe against all attack by land or water. I therefore will join the Council in a respectful remonstrance to the Count de Maurepas, against the inopportune despatches just received from His Majesty. I trust the Royal Intendant will favor the Council now with his opinion on this important matter, and I shall be happy to have the co-operation of His Excellency in measures of such vital consequence to the Colony and to France."

The Governor sat down, after courteously motioning the Intendant to rise and address the Council. The Intendant hated the mention of peace. His interests, and the interests of his associates of the Grand Company, were all involved in the prolongation of the war.

War enabled the Grand Company to monopolize the trade and military expenditure of New France. The enormous fortunes its members made, and spent with such reckless prodigality, would by peace be dried up in their source; the yoke would be thrown off the people's neck, trade would again free.

Bigot was far-sighted enough to see that clamors would be raised and listened to in the leisure of peace. Prosecutions for illegal exactions might follow, and all the support of his friends at Court might not be able to save him and his associates from ruin—perhaps punishment.

The parliaments of Paris, Rouen, and Brittany still retained a shadow of independence. It was only a shadow, but the fury of Jansenism

supplied the lack of political courage, and men opposed the Court and its policy under pretence of defending the rights of the Gallican Church and the old religion of the nation.

Bigot knew he was safe so long as the Marquise de Pompadour governed the King and the kingdom. But Louis XV. was capricious and unfaithful in his fancies; he had changed his mistresses, and his policy with them, many times, and might change once more, to the ruin of Bigot and all the dependents of La Pompadour.

Bigot's letters by the Fleur-de-Lis were calculated to alarm him. A rival was springing up at Court to challenge La Pompadour's supremacy; the fair and fragile Lange Vaubernier had already attracted the King's eye, and the courtiers versed in his ways read the incipient signs of a future favorite.

Little did the laughing Vaubernier foresee the day when, as Madame du Barry, she would reign as Dame du Palais, after the death of La Pompadour. Still less could she imagine that in her old age, in the next reign, she would be dragged to the guillotine, filling the streets of Paris with her shrieks, heard above the howlings of the mob of the Revolution: "Give me life! life! for my repentance! Life! to devote it to the Republic! Life! for the surrender of all my wealth to the nation!" And death, not life, was given in answer to her passionate pleadings.

These dark days were yet in the womb of the future, however. The giddy Vaubernier was at this time gaily catching at the heart of the King, but her procedure filled the mind of Bigot with anxiety: the fall of La Pompadour would entail swift ruin upon himself and associates. He knew it was the intrigues of this girl which had caused La Pompadour suddenly to declare for peace in order to watch the King more surely in his palace and the name of Vaubernier was equally odious to Bigot, and he was perplexed in no small degree how to act.

Moreover, he it confessed that, although a bad man and a corrupt statesman, Bigot was a Frenchman, proud of the national success and glory. While robbing her treasures with one hand, he was ready with his sword in the other to risk life and all in her defence. Bigot was bitterly opposed to English supremacy in North America. The loss of Louisbourg, though much his fault, stung him to the quick, as a triumph of the national enemy; and in those final days of New France, after the fall of Montcalm, Bigot was the last man to yield, and when all others counselled retreat, he would not consent to the surrender of Quebec to the English.

To-day, in the Council of War, Bigot stood up to respond to the appeal of the Governor. He glanced his eye coolly, yet respectfully, over the Council. His raised hand sparkled with gems, the gifts of courtiers and favorites of the King. "Gentlemen of the Council of War!" said he, "I approve with all my heart of the words of His Excellency the Governor, with reference to our fortifications and the maintenance of our frontiers. It is our duty to remonstrate, as councillors of the King in the Colony, against the tenor of the despatches of the Count de Maurepas. The city of Quebec, properly fortified, will be equivalent to an army of men in the field, and the security and defence of the whole Colony depends upon its walls. There can be but one intelligent opinion in the Council on that point, and that opinion should be laid before His Majesty before this despatch be acted on.

"The pressure of the war is great upon us just now. The loss of the fleet of the Marquis de la Jonquiere has greatly interrupted our communications with France, and Canada is left much to its own resources. But Frenchmen! the greater the peril the greater the glory of our defence! And I feel a lively confidence."—Bigot glanced proudly round the table at the brave, animated faces that turned towards him,—"I feel a lively confidence that in the skill, devotion,

and gallantry of the around this council-table able to repel all our bear the royal flag to in North America."

This timely flattery upon the susceptible officers present, who approved by vigorous table, and cries of Chevalier Intendant!

"I thank, heartily, Abbe Piquet," continue glorious success in ce warlike savages of the to fast friends of the Royal Intendant I ple all my help in the est his proposed fort and Presentation, for the viding the power of th

"That is right we Devil said it!" reman St. Luc, to the Acadia him. "There is bell-r and he rings well if p Pity so clever a fello knave!"

"Fine words bttte Chevalier La Corne, Acadian, whom no e soften. "Bigot sold This was a common opinion in Acadia.

"Bigot butters his well, Colonel," replied Luc; "but I did not have gone against the is the first time he Versailles! There: thing in the wind! somewhere, or another case! But hark, I again!"

The Intendant, af some papers, entered i the resources of the C ber of men capable of the munitions and mat the magazines, and strength of each di Province. He m figures with the dexte dian juggler throwing the end brought out force in the Colony c of prolonging the war against all the powers

At the conclusion Bigot took his seat. a favorable impressi Council, and even his opponents admitted whole the Intendant l an able administrato Frenchman.

Cadet and Varin chief warmly. Bad both in private life a duct, they lacked neit nor courage. They p country—but were rea it against the national

Other officers folle sion,—men whose name familiar, or destined t our in New France,— Luc, Creleron de Bi Philibert, the Chevali the De Villiers, Le Pierre, and De Lery supported that view of taken by the Governi tendant. All agr necessity of completi Quebec and of makin stand at every point against the threaten case of the sudden pa peace by the negotiat Chapelle—as really ha terms of uti posside vital importance tha hold fast to every shr tory, both East and

Long and earnest ve tions of the Council of ports of the comm from all points of the carefully studied. Pl defence and future cor cussed with reference and weakness of the accurate knowledge of designs of the English the disaffected remn wellian republicans in whose hatred to the C weighed their loyalty, up a traitorous corre purposes of their c governors of New Fra

political courage, the Court and its... of defending the... Church and the... ation.

safe so long as... padour governed... kingdom. But... pricious and un... he had changed... his policy with... nd might change... in of Bigot and... La Pompaour.

the Fleur-de-Lis... alarm him. A... at Court to... our's supremacy... ange Vaubernier... the King's eye... sed in his ways... gns of a future

ing Vaubernier... as Madame du... gn as Dame du... h of La Pompa... uld she imagine... the next reign... d to the guillo... s of Paris with... ve the howlings... volution: "Give... my repentance!... the Republic!... der of all my... tion!" And... given in answer... adings.

ere yet in the... however. The... s at this time... e heart of the... edure filled the... nxiety: the fall... uld entail swift... associates. He... gues of this girl... Pompaour sud... ace in order to... surely in his... of Vaubernier... Bigot, and he... all degree how

essed that, at... and a corrupt... a Frenchman... success and... her treasures... ready with his... risk life and... got was bitter... supremacy in... loss of Louis... is fault, stung... a triumph of... d in those final... after the fall... the last man to... hers counselled... consent to the... the English... ouncil of War... ond to the ap... He glanced... pectfully, over... raised hand... the gifts of... of the King... ncil of War!"... with all my... His Excellency... fference to our... maintenance of... our duty to... cillors of the... ainst the tenor... of the Count... of Quebec... be equivalent... the field, and... e of the whole... s walls. There... ent opinion in... int, and that... id before His... patch be acted

war is great... he loss of the... la Jonquiere... our communi... Canada is... esources. But... r the peril the... our defence!... confidence,"—... ound the table... ed faces that... I feel a lively... kill, devotion.

and gallantry of the officers I see around this council-table, we shall be able to repel all our enemies, and bear the royal flag to fresh triumphs in North America."

This timely flattery was not lost upon the susceptible minds of the officers present, who testified their approval by vigorous tapping on the table, and cries of "Well said, Chevalier Intendant!"

"I thank, heartily, the venerable Abbe Piquet," continued he, "for his glorious success in converting the warlike savages of the West from foes to fast friends of the King; and as Royal Intendant I pledge the Abbe all my help in the establishment of his proposed fort and mission at La Presentation, for the purpose of dividing the power of the Iroquois."

"That is right well said, if the Devil said it!" remarked La Corne St. Luc, to the Acadian sitting next him. "There is bell-metal in Bigot, and he rings well if properly struck. Pity so clever a fellow should be a knave!"

"Fine words butter no parsnips, Chevalier La Corne," replied the Acadian, whom no eloquence could soften. "Bigot sold Louisbourg!" "This was a common but erroneous opinion in Acadia."

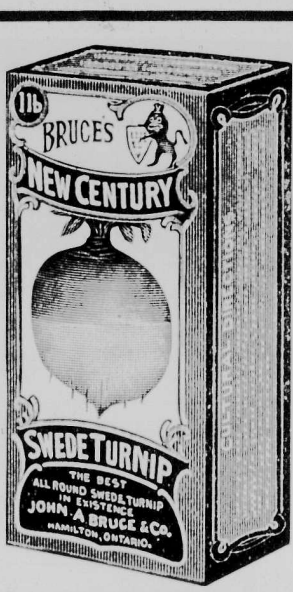
"Bigot butters his own parsnips well, Colonel," replied La Corne St. Luc; "but I did not think he would have gone against the despatches! It is the first time he ever opposed Versailles! There must be something in the wind! A screw loose somewhere, or another woman in the case! But hark, he is going on again!"

The Intendant, after examining some papers, entered into a detail of the resources of the Colony, the number of men capable of bearing arms, the munitions and material of war in the magazines, and the relative strength of each district of the Province. He manipulated his figures with the dexterity of an Indian juggler throwing balls; and at the end brought out a totality of force in the Colony capable unaided of prolonging the war for two years, against all the powers of the English.

At the conclusion of this speech Bigot took his seat. He had made a favorable impression upon the Council, and even his most strenuous opponents admitted that on the whole the Intendant had spoken like an able administrator and a true Frenchman.

Cadet and Varin supported their chief warmly. Bad as they were, both in private life and public conduct, they lacked neither shrewdness nor courage. They plundered their country—but were ready to fight for it against the national enemy.

Other officers followed in succession,—men whose names were already familiar, or destined to become glorious in New France,—La Corne, St. Luc, Creleron de Bienville, Colonel Philibert, the Chevalier de Beaujeu, the De Villiers, Le Gardeur de St. Pierre, and De Lery. One and all supported that view of the despatches taken by the Governor and the Intendant. All agreed upon the necessity of completing the walls of Quebec and of making a determined stand at every point of the frontier against the threatened invasion. In case of the sudden patching up of a peace by the negotiators at Aix La Chapelle—as really happened—on the terms of uti possidetis, it was of vital importance that New France hold fast to every shred of her territory, both East and West.



Bruce's New Century Swede Turnip

Sales season 1901, when first introduced 16 lbs.; 1906, 9370 lbs. The best all-round variety. It is one of the few Swedes that resist mildew, the best shipping variety, and for cooking purposes cannot be excelled by any other Swede. It is a purple-topped variety resembling Westbury, of splendid uniform growth, of fine quality, a heavy cropper and the roots are clean and of handsome shape. In sections where large quantities are grown for the American market, the Growers and Shippers will have no other: one-fourth pound, 12 cents; one-half pound, 18 cents; one pound, 30 cents; four pounds for \$1.15 postpaid.

Bruce' Mam. Inter. Smooth White Carrot

Sales season 1891 when first introduced 14 pounds, now 1352 pounds. The best of all field carrots and invaluable for horses. This grand half long Carrot is of large size, solid, productive, of finest quality, a splendid keeper, and has the advantage of being much more easily harvested than the old long varieties. One-fourth pound, 17 cents; one-half pound, 33 cents; one pound, 55 cents. Postpaid.

Send for our handsomely illustrated 100 page catalogue of Vegetable, Farm and Flower Seeds, Plants, Bulbs, Poultry Supplies, Garden Implements, etc.—FREE.

J. A. BRUCE & Co. Seed Merchants Established 1850 Hamilton, Ont.



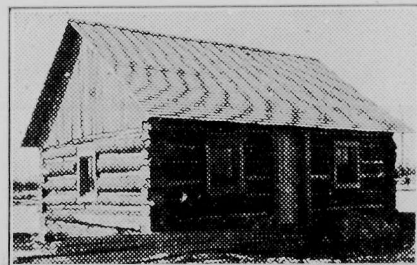
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Where the people are progressive, independent, intelligent and prosperous.

VILAS COUNTY, WISCONSIN

offers great opportunities for the man of moderate means who wants to make a home for himself; for the laborer in the city who wants to get out to the free and open country and become independent and prosperous; for the farmer who is renting a high-priced farm and is tired of giving most of his earnings to the owner; for the farmer's boy who wants a place of his own; for the investor who wants a safe and sure profit on his investment; for the family who wants a summer home near the beautiful Eagle Waters, a chain of twenty-five pretty lakes extending over fifty miles in length.

WE ARE NOW BUILDING HOUSES



for those who buy land of us—good substantial log structures, 16x22 feet, roofed, floored, chinked and plastered, so that a man can move his family right up and start farming at once. House and 80 acres for \$1000, small cash payment and balance to suit.

We will sell 40 acre farms for \$10 down and \$10 a month—no interest, no taxes, and if buyer dies before payments are completed, we give the farm free to his family.

Make your plans to go to Eagle River, Vilas County, on the Chicago & Northwestern Railroad and see for yourself what we have and what we are doing there. Our representatives will meet you and take you right out to any piece of land you want to see and we will pay car fare from any point within 500 miles, if you buy land.

Vilas County, Wisconsin, has been proven good land for farming, dairying and stock raising. Fertile soil, invigorating climate, adequate drainage, active ready markets, good roads, near to railroad, schools and churches.

The price of this land ranges from \$8 to \$15 an acre.

Call or write for map and book and full particulars.

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LADY'S OR MAN'S WATCH

Given free for selling our Vegetable and Flower Seeds. Do not miss this chance. Watches are guaranteed silver nickel, man's given for selling \$3.00 worth, and lady's for selling \$3.50 worth. Seeds are all assorted varieties, both flower and vegetable sell in 5c, small and 10c, large packages, and sell very fast. Send your name and address. Write to-day. A post card will do. The Reliable Premium Co., Dept. 11, Waterloo, Ont. 27



VALUABLE JEWELRY FREE

BOYS and GIRLS—Your Chance!

Any one of the above illustrated articles of Jewelry—Lady's Gold Brooch set with 4 Ruby brilliants, with pearl and colored stone centre, Man's gold-plated lever Cuff Links with pretty cut stone setting, or Lady's Gold-plated Ring, brilliantly set with small diamonds and large cut stone centre—given free for selling only 4 boxes of Dr. Snyder's Famous Vegetable Pills at 25 cents each. The pills, the greatest remedy known for Indigestion, Catarrh, weak or impure blood, and also for all Liver and Kidney Troubles. They sell very quickly. Send your name and address and we will mail you the Pills. Write at once. A Postal Card will do. The Reliable Premium Co., Waterloo, Ont. Dept. 11 27

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I CAN GET IT. No matter where your property is located or what it is worth.

If I did not have the ability and facilities for promptly disposing of your property at a good price, I could not afford to spend \$25,000 a year in advertising that I can do so. My office is a veritable clearing house for real estate and properties of all kinds and my whole energies are centered on finding people who want cash for their real estate or real estate for their cash. And I Do Find Them. My advertising each month brings me hundreds of enquiries from people who want to buy and sell. In the average business day I sell more properties than many real estate brokers sell in six months. But before I can sell properties I must list them. I want to list yours and Sell It. If you want to sell any kind of real estate in any part of North America, send me a brief description, including your lowest cash price. If you want to buy, tell me your requirements.

Upon receipt of the necessary information, I will write you fully and frankly, stating just what I can do for you, and how, and why I can do it. Please enclose a 2-cent stamp for reply, and address,

THE REAL ESTATE SPECIALIST

BOX H.

14-16 PRINCESS ST.

WINNIPEG, CANADA.

The lamps were lit and burned far into the night when the Council broke up. The most part of the officers partook of a cheerful refreshment with the Governor before they retired to their several quarters. Only Bigot and his friends declined to sup with the Governor; they took a polite leave, and rode away from the Chateau to the Palace of the Intendant, where a more gorgeous and more congenial company awaited them.

The wine flowed freely at the Intendant's table, and as the irritating events of the day were recalled to memory, the pent-up wrath of the Intendant broke forth. "Damn the Golden Dog and his master both!" exclaimed he. "Philibert shall pay with his life for the outrage, or I will lose mine! The dirt is not of my coat yet, Cadet!" said he, as he pointed to a spatter of mud upon his breast. "A pretty medal that for the Intendant to wear in a Council of War!"

"Council of War!" replied Cadet, setting his goblet down with a bang upon the polished table, after draining it to the bottom. "I would like to go through that mob again! and I would pull an oar in the galleys of Marseilles rather than be questioned with that air of authority by a botanizing quack like La Galissoniere! Such villainous questions as he asked me about the state of the royal magazines! La Galissoniere had more the air of a judge cross-examining a culprit than of a Governor asking information of a king's officer!"

"True, Cadet!" replied Varin, who was always a flatterer, and who at last saved his ill-gotten wealth by the surrender of his wife as a love-gift to the Duc de Choiseul. "We all have our own injuries to bear. The Intendant was just showing us the spot of dirt cast upon him by the mob; and I ask what satisfaction he has asked in the Council for the insult."

(To be continued.)

WANTS AND FOR SALE

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

WANTED—Stockmen and others to get their printing done by THE FARMER'S ADVOCATE Mail Order Job Printing Department. Prices Quoted. Sample sent on application. Address Mail Order Dept. THE FARMER'S ADVOCATE, Winnipeg.

REGISTERED HOLSTEIN HEIFERS and bulls for sale, heavy milking strains, prices right. John Gemmill, Pilot Mound, Man.

FARMERS write me for prices on Fence Posts. Direct from the bush and get the best. J. H. Johnson, Malakwa, B. C.

SCOTCH TERRIERS and white-haired fox-terriers \$8.00 up. Enclose stamps for reply. Bradley-Dyne, Sidney, B. C.

FOR SALE—Twenty Veterans' Land Grants, immediate delivery. P. Whimster, Portage la Prairie, Man.

320 ACRES—24 miles from Station, 280 acres cultivated, house and barn, \$25.00 per acre, \$2000.00 cash, balance crop payments. W. C. Presnell, Choice Saskatchewan farm lands, Dundurn, Sask.

POTATOES—"Maple Leaf," \$1.00. "Dollar Finder," \$2.00. "Victory" (new), \$3.00 per bushel. John C. Walker, Holland, Man.

FOR SALE—One Spanish Jack, registered, a good one, also Vick's Early Seed Potatoes. J. T. McPee, Headingly, Man.

FOR SALE—Stud Shire "Curlew" (574). Two-year-old. Reared in Range. Parents prize-winners. W. S. Black & Son, (Hardisty Station), Puffer, Alta.

FOR SALE—South African Land Grants, Half-breed Scotch and farm lands. S. A. Scrip is good for 320 acres in Manitoba, Saskatchewan or Alberta. Wire or write, G. S. Wyman & Co., 24 Aikens Bldg., Winnipeg, Man.

WANTED—Someone going to B. C. to make up car lot settlers' effects. Write A. A. Young, Cypress River, Man.

FOR SALE—The Clyde Stallion Wawanesa Chief (3211) Sire Jubilee Prince by the World's Champion, Prince Patrick, dam, Annie Rooney, 8 years, a very handsome thick active horse, a sure and excellent stock-getter. Others from 2 to 4 years and several Clyde fillies. Prices reasonable. Also French Coach Stallion, "Mercier", winner at Calgary of first and second in progeny class, and 1st, 2nd, and 3rd for best light foal by any registered light stallion. Bow River Horse Ranch, Cochrane, Alta.

FOR SALE—Registered Aberdeen Angus bull fit for service \$60. Worth double the money. P. Hay, Lintrathen, Man.

CASH—For your Real Estate, Home or Business, no matter where it is located or what it is worth. I can sell it for you in the shortest possible time. I co-operate with over 10,000 experienced Real Estate Salesmen in every part of North America. If you desire a quick sale send description and price. If you want to buy property of any kind anywhere, tell me your requirements. I can save you money. Address The Real Estate Specialist, Box H, c-o Farmer's Advocate, Winnipeg, Manitoba.

FOR SALE—South African Veterans' Land Grants, good to select 320 acres in Manitoba, Saskatchewan or Alberta. Inter-Ocean Real Estate Co., 24 Aikens Building, Winnipeg.

FOR SALE—One-fourth section, forty acres under cultivation, newly broken, good buildings, good fences around property. Three miles from Rathwell, Man. Bargain for quick sale. Price \$2200. Terms easy. Apply FARMER'S ADVOCATE.

WANTED—Whole section to rent on shares for a term of years all broken with good house, out-buildings and water. Box 61, Sedley, Sask.

SABLE COLLIE PUPS for sale from good working stock, \$5.00. G. Goddard, Cochrane, Alta.

FOR SALE—We have a number of rebuilt, threshing engines, Portable and Tractor, in first-class order we can sell much below their value. Write for particulars. The John Abell Engine and Machine Works Company, Ltd., 760 Main St., Winnipeg, P. O. Box 41.

FOR SALE—Improved large English Berkshires. Young pigs ready end of May. Six dollars each can supply pairs not akin, also White Wyandotte eggs, one dollar per thirteen. Alex. Porter, Alexander, Man.

PORTRAIT AGENTS, write us; reliable men we start in business of their own and give credit. Merchants' Portrait Co., Limited, Toronto.

HEINTZMAN PIANO, cabinet grand, slightly used, good as new, only \$220.00. Bell organ, six octaves, piano case, in use only twelve months, bargain at \$67.00. Easy fall payments. The Winnipeg Piano Co., 295 Portage Ave., Winnipeg.

COLLIE PUPS, sable and white, from registered stock, from \$6.00 up. A finely-bred bitch, 3 years old, \$15.00. Gustav Hesse, Bienfait, Sask.

CANARIES FOR SALE—All kinds of birds. The Canadian Bird Co., 178 Vaughan street, Winnipeg.

Lost, Strayed or Impounded

This department is for the benefit of paid-up subscribers to the FARMER'S ADVOCATE, each of whom is entitled to one free insertion of a notice not exceeding five lines. Over this two cents per word.

STRAYED from 36-29-21 West of 3rd, three-year-old Bay Broncho with saddle and head collar, white points, brand E on left shoulder. A reward of \$5.00 to any person giving information of same. George Delday, Saskatoon, Sask.

BUFF ROCKS—Blue Andalusians, Black Langshans, Brown Leghorns and Indian Runner Ducks. Eggs 10 cents each. Bradley Dyne, Sidney, B. C.

EGGS FOR SETTING—From pure-bred S. C. White Leghorns and Barred Rocks; have some fine pens of winter layers; city address C. H. Baird, 265 Portage Ave., Winnipeg.

PRIZE WINNING White Wyandotte eggs for sale, \$1.00 per dozen, \$3.00 per 4 dozen, \$6.00 per hundred. Also young and old birds in fall. Rev. W. Bell, Abernethy, Sask.

BARRED ROCK EGGS—15 for \$2. County Champions. Two pens of select females, headed by a Bradley cock and a Hawkins cockerel. Nine chickens or another setting at half price. W. R. Barker, Deloraine, Man.

CHOICE BARRED PLYMOUTH ROCKS, \$1.00 and \$1.50 per setting. Five dollars per hundred. W. H. Tebb, Langenburg, Sask.

SINGLE COMB—White Leghorns. Eggs from two pens (not related) large birds. Heavy winter layers, \$2.00 per setting. Three for \$5.00. A. C. McLeeman, Crystal City.

C. W. ROBBINS—Breeder. Laying strain Buff Orpingtons. Eggs, \$2.00—15. Chilliwack, B. C.

RHODE ISLAND REDS—White Plymouth Rocks and White Wyandottes. Western raised from imported prize-winning stock. Eggs, \$2 and \$2 per 15; \$10 per 100. Day old chicks a special price. Geo. W. Bewell, Abernethy, Sask.

White Wyandottes—Duston Strain. Prize-winners wherever shown. Cockerels \$2.00. Eggs \$2.00 per 15, Box 1063 Regina, W. W. Rothwell.

BARRED PLYMOUTH ROCKS—My favorite "B" Strain are the champions of Western Canada. Write for my show record and be convinced. Eggs \$2.00 per 15. Mrs. A. Cooper, Treesbank, Man.

FISHEL STRAIN WHITE PLYMOUTH ROCKS—\$2.00 Cockerel at head of pen. Eggs \$2.50 per 14. R. D. Moonie, Abernethy, Sask.

BREEDER'S DIRECTORY

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

BANTING STOCK FARM—Clydesdales, Shorthorns, Tamworths, T. E. M. Banting, proprietor, Wawanesa, Man., Phone 85.

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

HOLSTEINS—A. S. Blackwood, De Winston, Alberta. Stock for sale.

GUS WIGHT, Evergreen Stock Farm, Napinka, Man. Clydesdales, Shorthorns and Berks. Write for prices.

T. E. WALLACE, Portage la Prairie, Man. Breeding Shorthorns of various ages for sale.

D. SMITH, Gladstone, Man., Shires, Jerseys and Shorthorns, Yorkshire hogs and Pekin ducks.

WALTER JAMES & SONS, Rosser, Man. Breeders of Shorthorn cattle and Yorkshire and Berkshire swine. Four yearling Shorthorn bulls at rock bottom prices. Now booking orders for spring pigs.

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

H. C. GRAHAM, Lea Park, Alta.—Shorthorns—Scotch Collies and Yorkshires, for sale. 1-4-09

JAS. BRAY, Portage la Prairie. Choice Hereford cattle and Berkshire swine for sale. 20-4

JAMES A. COLVIN, Willow Dell Farm, Sedgewick, Alta. Breeder of Shorthorns and Berks-shires.

W. J. TREGILLUS, Calgary, Alta. Breeder of Holstein cattle and Yorkshire swine.

HEREFORDS—At half price from Marples' famous Champion Prize Herd. Calves either sex; Heifers, Cows, Bulls. Good for both milk and beef. J. E. Marples, Poplar Park Farm, Deleau, Man.

SHETLAND PONIES and Hereford cattle, finest in Canada, also Berkshire pigs. J. E. Marples, Poplar Park Farm, Deleau, Man.

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

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

Questions & Answers

LAME MARE

Mare has shown slight lameness in one hind leg for a year. When walking, jogging slowly or going quite fast she goes sound, but when going at a smart jog she goes slightly lame. She stands sound. J. S. S.

Ans.—It is not possible to diagnose this trouble with reasonable certainty without a personal examination. I would advise you to show her to your veterinarian. I am of the opinion she is not lame, but has acquired the habit of hitching when going at a certain gait. With very few exceptions a lame horse will show more marked symptoms when jogging slowly with a free head than at any other gait. Even if this mare is really lame, the symptoms are so peculiar that it is doubtful if a veterinarian would be able to diagnose.

CEREBRO-SPINAL MENINGITIS

Eight-months-old colt, fed on first-class hay, bran, grain and silage, and good spring water, and turned out every day in yard where spoiled silage was thrown (but he was not seen eating it), took cerebro-spinal meningitis, and died in three days. What caused the trouble? Is there any cure, and how should he have been treated? A. B. D.

Ans.—If you are correct as regards the quality of the food and water given to the colt, he must have eaten some of the spoiled silage, as the disease is caused by either food or water of poor quality and containing decayed vegetable or animal matter. Treatment in well-marked cases is seldom successful. It consists in administering a purgative to remove all unabsorbed matter from the stomach and bowels, and following up with iodide of potassium three times daily. For a colt of his age the dose would be about 20 grains.

UMBILICAL HERNIA

Yearling colt has a rupture the size of a hen's egg just in front of the sheath. It has been this way since last summer. Is there any possibility of the colt out-growing it? E. C. B.

Ans.—This is an umbilical or navel rupture. It is possible it may disappear without interference, but it seldom does so after the patient is a year old. It would be better to get your veterinarian to operate. In some cases a truss composed of

leather or canvass, arranged around the body so as to keep the bowel pressed back into the abdominal cavity for five or six weeks will affect a cure. It is hard to keep the truss from shifting, but it can be done. There is less danger of evil results from an operation, which, in some cases, is followed by a fatal case of tetanus. There is no special truss made for the purpose. A man must exercise his own ingenuity in applying one and keeping it in position.

GRAVEL ROOFING

How much material is required per square yard for a gravel roof, and how is it put on? R. J. McG.

Ans.—The mode of constructing a gravel roof will be to first cover the boarding, or, in case of a fire-proof roof, the smooth top of the concrete, with dry resin-sized felt, with a lap of two inches, tacked only often enough to hold it in place. Over this are laid three full thicknesses of tarred felt, each sheet lapping two-thirds of its width over the preceding one, the whole covered with a uniform coat of pitch mopped on. Upon this coating, two layers of tarred felt are tacked, each lapped about twenty-two inches, and the whole mopped over, and a thick coat of pitch flowed on. As the durability of the roof depends upon the paper, only the best should be used, and the pitch should not be so hot that it will destroy the life of the paper. Upon the finish coat of pitch is spread immediately a coat of clean white sand, completely covering the whole, as a protection. Every care should be taken regarding the flashing of vulnerable parts. The grade of the gravel roof should not exceed 3-inch to a foot. If much steeper, the heavy coat of tar will run in hot weather, and, settling down, will gradually fill the gutters.

SORE NECK

I bought a horse three months ago. His neck is sore and itchy. When the collar is taken off, the neck seems greasy. I have discovered that he has been this way for six years. G. S.

Ans.—It is probable an operation will be necessary to cure this chronic trouble. There is probably a fistula

That

Known as "be
the best roofing



which will have to be and its walls dissected following, and if it does cure, get your veterinarian: Take 2 ozs. form water, mix, and dress daily with it.

CEMENT FOR WALL AND LIME, SAND AND PLASTER

1. How much sand, ment would it take to crete wall under a ho 24 ft., and how thick also, how deep should of wall be, and would bedded in the foundat one from center of cient?

2. How much cemen to build a cistern 6 x the cistern wall need t a finer proportion of c it more water-proof? glad if you would tell tion in which the ing be mixed.

3. What is the pro of lime and sand and l for house walls and putty?

Ans.—1. Concrete house should be at thick, and for 7 feet building 18 x 24 ft., tents of the wall wou cubic feet; allowing t tractors count on, 12 material being needed feet of wall. In other 610 cubic feet of mate provided. For such ment to 16 of sand a is satisfactory. Prob to 3 of sand would proportions must be r ing to the nature of t use of the cement doe quantity of sand and the former fills the in latter. Therefore, most 23 cubic yar gravel, and 61 cubic f barrels of cement. require what may be the foundation to level. This depends c the soil. Care must vide a solid foundation it is not necessary to low the cellar floor, it may be wise to g For foundation 12 inc foot deep, you would feet of sand and gr cement at the proport about 2 barrels of ce stone can be used to keeping down the qua cement and gravel.

2. Three inches is ness for cistern wall, part to sharp sand concrete cistern 6 feet diameter, you would cubic feet of sand and half of cement. In a you will need about sand and almost half ment for the bottor should be plastered w

TORY

pawa, Man.—Shorthorn 24-4

rk, Alta.—Shorthorns—rkshires, for sale. 1-4-09

Prairie. Choice Here-ire swine for sale. 20-t

low Dell Farm, Sedge- of Shorthorns and Berk-

gary, Alta. Breeder of orkshire swine.

price from Marples' ze Herd. Calves either ls. Good for both milk les. Poplar Park Farm.

1 Hereford cattle, finest ire pigs. J. E. Marples, au, Man.

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ROOFING
al is required per gravel roof, and R. J. McG.

of constructing a to first cover the se of a fire-proof p of the concrete, l felt, with a lap tacked only often place. Over this l thicknesses of eet lapping two- over the preceding ed with a uniform on. Upon this of tarred felt are about twenty-two ole mopped over, f pitch flowed on. f the roof depends y the best should ech should not be l destroy the life n the finish coat mmediately a coat sand, completely as a protection. be taken regard- vulnerable parts. ravel roof should a foot. If much coat of tar will r, and, settling y fill the gutters.

NECK
three months ago. nd itchy. When off, the neck seems iscovered that he for six years.

G. S.
able an operation cure this chronic probably a fistula

That "EASTLAKE" Steel Shingle of ours

Known as "best for barns" for the past twenty-five years. Now known also as the best roofing for any building, any where.



Quickest to lay—economy in labor; longest to stay—economy in durability.
Always proof in all climates against fire, lightning, rust and weather.

Give us the measurement of any roof you wish to cover. We will send complete estimate of cost.



The METALLIC ROOFING CO., Limited
TORONTO and WINNIPEG

which will have to be cut down on and its walls dissected out. Try the following, and if it does not effect a cure, get your veterinarian to operate: Take 2 ozs. formalin and 6 ozs. water, mix, and dress the neck twice daily with it.

CEMENT FOR WALL AND CISTERN—LIME, SAND AND HAIR IN PLASTER

1. How much sand, gravel and cement would it take to build a concrete wall under a house about 18 x 24 ft., and how thick should it be; also, how deep should the foundation of wall be, and would it need a tile bedded in the foundation, or would one from center of cellar be sufficient?

2. How much cement would it take to build a cistern 6 x 6 ft.? Would the cistern wall need to be faced with a finer proportion of cement to make it more water-proof? I would be glad if you would tell me the proportion in which the ingredients should be mixed.

3. What is the proper proportion of lime and sand and hair for plaster for house walls and material for putty? G. W. T.

Ans.—1. Concrete foundation for house should be about 10 inches thick, and for 7 feet high under a building 18 x 24 ft., the cubic contents of the wall would be about 490 cubic feet; allowing for waste contractors count on, 125 cubic feet of material being needed for 100 cubic feet of wall. In other words, about 610 cubic feet of material should be provided. For such wall, 1 of cement to 10 of sand and sharp gravel is satisfactory. Probably 7 of gravel to 3 of sand would do, though the proportions must be regulated according to the nature of the gravel. The use of the cement does not lessen the quantity of sand and gravel, because the former fills the interspaces of the latter. Therefore, you require almost 23 cubic yards of sand and gravel, and 61 cubic feet, or over 15 barrels of cement. In addition, you require what may be taken to build the foundation to the cellar floor level. This depends on the nature of the soil. Care must be taken to provide a solid foundation. In some soils it is not necessary to go one foot below the cellar floor, while in others it may be wise to go much deeper. For foundation 12 inches thick and a foot deep, you would need 84 cubic feet of sand and gravel, and with cement at the proportion of 1 to 12, about 2 barrels of cement. Broken stone can be used to advantage in keeping down the quantities, both of cement and gravel.

2. Three inches is sufficient thickness for cistern wall, with cement 1 part to sharp sand 5 parts. For concrete cistern 6 feet deep and 6 feet diameter, you would need about 30 cubic feet of sand and a barrel and a half of cement. In addition to this, you will need about 7 cubic feet of sand and almost half a barrel of cement for the bottom. The inside should be plastered with a mixture of

NEW SCOTCH CLIPPER HIGH LIFT GANG PLOW



When walking along with this plow you can lift the bottoms and release them again without climbing on seat. When riding you can do the same, without getting off seat. Never need to stop the horses until work is completed. Our agent in your locality will show you this up-to-date, strongly-constructed light-draft plow.

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PARIS, ONT. Western Branch WINNIPEG, MAN.

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YOUR NOTE LOOKS GOOD TO US.

To protect credit buyers from exorbitant prices, charged by discriminating retailers, we will accept notes from responsible parties, payable November 1st, at only 4 per cent added to our low cash price, which we quote for this season, F.O.B. Winnipeg as follows:—

Standard, 500 ft. "Cricket Proof"	8c
Standard Manila, 550 ft. "Cricket Proof"	8½c
Manila, 600 ft. "Cricket Proof"	9c

Let us book your order NOW subject to cancellation or additions according to crop conditions. We were the originators of the liberal crop damage proposition. Remember, we want your business, and will treat you right. Cash or note.

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The use of paint is an economy. It protects and beautifies. It makes buildings last longer and look better. But be sure and get the right kind of paint or varnish for your purpose. Ask your dealer for

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1 cement to 2 sand, requiring about 4 cubic feet of sand and 2 cubic feet or half a barrel of cement. Then it is well to use a whitewash brush and paint the inside with sloppy mixture, made of 1 part cement to 1 part fine sand. You, therefore, would need 40 or 45 cubic feet of sand, and 2½ or 3 barrels of cement.

3. Coarse plaster for house walls is made from 2 parts lime paste, 4½ parts sand and one-third part hair. Fine dressing is made by slaking lime and mixing to a paste and then to a cream, and allowing it to stand until the water evaporates, leaving it ready for working. Hard finish for house plaster is composed of 1½ to 2 parts of the latter to ½ part plaster of Paris. These are many grades of putty. Soft putty is made from 10 lbs. whitening and 1 pound of white lead, mixed with the necessary quantity of boiled linseed oil, adding to it ½ gill of high-grade olive oil.

BUTTER FROM CREAM
How many pounds of butter would there be in 105 lbs. of cream, testing 24% butter-fat? W. W. S.

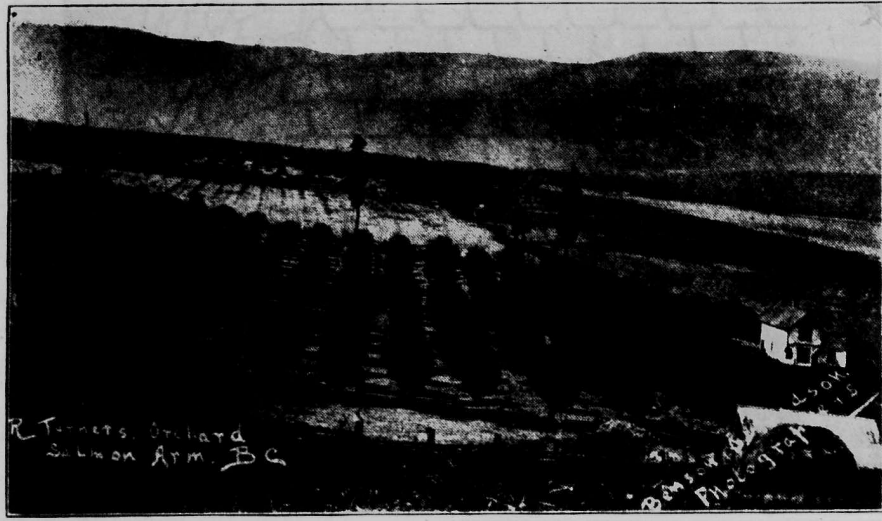
Ans.—The amount of butter that may be made from a sample of cream will depend upon the thoroughness of the churning, amount of salt added, and the amount of moisture which the buttermaker succeeds in incorporating with the fat (though this should not exceed the legal limit of 16 per cent.). The rule of the dairy breed societies in calculating the amount of butter that may be made from a given amount of milk is to add one-sixth to the quantity of fat in the milk. On this basis 105 lbs. of cream, testing 24% fat, should churn 29.4 pounds of butter, though it may vary from this one way or the other.

SOOT IN CHIMNEYS
Can you tell me of a chemical used to put in stoves that will eat the soot out of chimneys?

Ans.—We know of no chemical that is used in the stove for the purpose of removing the soot from the chimney. I know it is the practice in some cases to use some very inflammable material which will cause the flame or partially burnt parts of carbon to get into the chimney and set fire to the soot there and thus burn it up. For instance, sometimes straw, large amounts of paper, or even fat, are placed in the stove, which, on burning, make sufficient heat to ignite the soot in the chimney. If the chimney is properly made, there should be no danger in burning the soot out, provided no particles are allowed to fall on the shingles of the roof. With a slate or iron roof, or at a time when the shingles are wet or covered with snow, there should be no danger in following this plan of cleaning the chimney.

RINGBONE, TONGUE LOLLING
I have a pony, four years old, which has a ringbone. Veterinary blistered it, and the pony has been turned out nearly three months, but it is not sound yet. Is there any hope of making him go sound? Also,

SEE THAT YOUR TICKET READS **Stop Over at SALMON ARM.**
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Mild Climate; Productive Soil; Abundance of Rainfall; Best of Shipping Facilities; This is YOUR opportunity. Close investigation invited; for information write.

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The Surety Company is issuing these bonds, and back of them is their two million dollars of assets. It is a matter of keen satisfaction to us that they were willing to stand behind Congo Roofing.

You are immune from any responsibility other than giving the roofing ordinary care.

Write to-day for samples of Congo and full information.

Remember, that with every roll of Congo you get a genuine Surety Bond.

MILLER-MORSE HARDWARE CO., Winnipeg
E. G. PRIOR & CO. LIMITED, Victoria, B. C.

The Advocate is the Best Advertising Medium

what is the cure for a tongue loller? Mare has just commenced to loll her tongue when working; makes her look dead tired, and he does it as soon as he leaves the stable.

B. C. K. B. D.

Ans.—There is no certainty as to the cure of ringbone, as a cure depends upon the extent of the disease, and the structures involved. Firing and blistering, with a long rest may bring about a cure in favorable cases. As a last resort "neuretomy," the operation of removing a piece of the nerve which supplies the foot with sensation, may be done; but, although this is an operation which usually yields good results, sometimes the outcome is disastrous. For tongue lolling, wear a nose band tight enough to keep the mouth closed and prevent the tongue being protruded, also have her teeth attended to.

KNUCKLING

Kindly give me a remedy, if there is any, for a horse with weak ankles. When the horse is standing, he is apparently all right, but when he is walking, he will, at times, knuckle, so to speak, with his hind ankles. It does not appear to distress him particularly, but I am afraid that it might become chronic. I first noticed it on the horse last fall after he had been changed from doing comparatively nothing to hard breaking.

Man. M. S. F.

Ans.—Excepting cases where knuckling is hereditary, it is generally caused by a too long toe. The hoof is allowed to grow to an inordinate length, until the toe interferes with the proper action of the fetlock joint. The excessive length of toe acts as a lever when weight is put on the limb, which forces backward the pastern bone (os sufraginis), and this allows the long bone (cannon) to slide forward, thus creating a partial dislocation of the joint. The remedy is: keep the toe well lowered down and shortened, and raise the heel of the shoe. Never allow the toe to grow long, but attend to the feet once every four weeks, no matter whether the horse is idle or working. If this does not afford the desired relief, the fetlock joints may be blistered, and the animal given a run at pasture.

MARE CEASES TO BREED

I have a mare, thirteen years old this spring. The last time she had a foal, which is two years ago, the afterbirth didn't come for ten hours after she had foaled. She didn't seem to be sick for all that, but it seems that I cannot get her in foal any more. Kindly let me know what is wrong with the mare, and can it be cured?

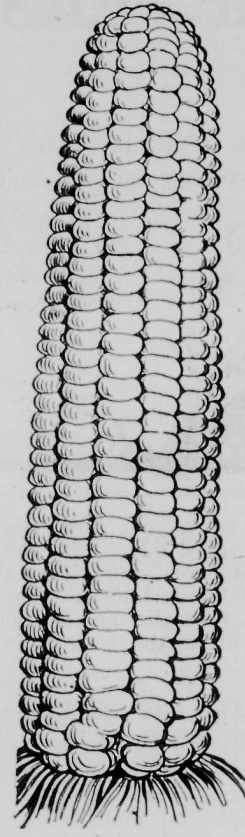
Man. A. G.

Ans.—It is very difficult to say what the cause of the trouble is with your mare without examination. But retention of the membrane at the last foaling would not, of itself, be the cause, there must be some other condition. For instance, injuries received during foaling, when force has been used in extracting the foal, sometimes causing abrasions and lacerations of the maternal organs. The resulting inflammation may cause adhesions, and deformities, such as occlusion of the opening from the vagina into the womb (os uteri), or the neck of the womb may be turned to one side. In either of these conditions it would be impossible to get the mare with foal until the abnormal condition had been overcome. It frequently happens that the ovaries are diseased and undergo a degenerative change. It is best to have her examined by a veterinary surgeon. He would diagnose the disease, and possibly apply the remedy.

HAY IN A STACK

A agrees to stack hay for B for 75c. per ton, each ton to measure 7 1/2 feet square. Stack No. 1 is 108 feet long, 15 feet wide, 24 1/2 feet overthrow. Stack No. 2 is 38 feet long, 15 feet wide, 27 feet overthrow. Stack No. 3 is 96 feet long, 14 feet wide, 26 1/2 feet overthrow. How

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It is the table corn par excellence—just what you gardeners want for your select trade, the sweetest of all, very early—white kernels and good size ears. We are the only seed men in Canada growing on their own fields, vegetable, flower and field seeds. It is of vital interest to you.

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The first remedy to cure Lump Jaw was

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and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durably bound, indexed and illustrated. Write us for a free copy.

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much hay in each stack is 7 1/2 feet square, 2 feet is this? Alta.

Ans.—The quantity stack is estimated by assuming that 500 sent one ton. The stack at the bottom overthrow, the result squared and multiple of the stack, which, gives the cubical containing this total by 500, cubic feet taken to re weight. Working the this method, stack No. 1, 8 tons (and No. 3, 18 1/2 tons.



A train of 68 cars of

ton to be a block 7 1/2 you will be a little estimate of the number stacks. This would be 422 cubic feet, 421.87 cubic feet, might be said, however 500 is used more the number of tons of in stacks, than of the ty. It is assumed certain amount of hay and some at the sides fit for sale, hence so ance is made for this this, though, where t to the number of ton than the quantity of



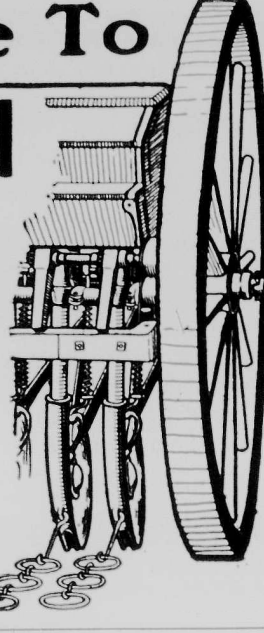
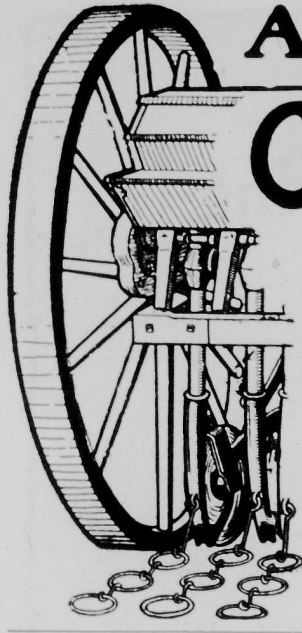
A trainload of Settlers

in the stack, we would take a smaller quantity 422 cubic feet per to very far from correct fact, that this volume many sections as equivalent, that is you each way. Figuring stack No. 1 contains 9 1/2 tons, and No. 3,

G O S S

OAT-GROWING IN THE DISTRICT
Editor "Farmer's Advocate"
As you are probably

All Soils Look Alike To Champion Disc Drill



Take the "Champion" into a particularly "dirty" field, where vine roots, corn roots, weeds, tangled grasses or straw manure abound. If you've never before seen it work, you'll marvel at the way its sharp, carefully tempered steel DISCS either cut through or roll over everything that may lie in their way. They will not gather anything before them. You'll marvel at the way the high-grade, cutlery steel SCRAPER (designed after years of experimenting) keep the discs scrupulously clean. Each hour you'll grow more enthusiastic over the manner in which the FORCE FEED MECHANISM produces its steady, even flow of seed—and never a seed even slightly bruised. The DUST PROOF BALL BEARINGS, on each disc—which require oiling but once a year—they'll interest you, too. And the high wheels, with low down grain box—you'll quickly see this means an EASY Machine to operate. Perhaps you'd like to read about the "Champion" Disc and "Champion" Hoe Drills, so write for special drill catalogue H8

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N. B.—If you buy from us you purchase from a company that is familiar with soil conditions in every part of Canada and a company whose policy is to give you the greatest value for your money.

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Write us, or your dealer, for sample of *Brantford Asphalt Roofing*. Place it in water for sixty days. When you remove it, rip open with heavy knife, and you'll find inside—the vital part—perfectly dry, life-like, solid—as before test. Just think of severeness of this test! The result is evidence you cannot overlook. Then make this test with any other Roofing. You'll find the wood pulp—jute or cotton-cloth insides soaked—softened—lifeless. It cannot withstand severe weather, which is, at its worst, not one-twentieth so severe as *Brantford's Test*. Wood pulp is like paper. It acts like paper, when soaked—welts away. How could you expect such a foundation to fight off Roofing Enemies! For resistance, it must depend upon animal fat, grease, or other refuse coating, themselves veritable mines of danger. They evaporate—wear off—expose shameful foundation to awaiting enemies. This coating cannot prevent penetration—protect defenceless insides from harm. But *Brantford Asphalt Roofing Foundation* is one sheet of evenly-condensed, long-fibred *pure Wool*, with life and body of its own. A secret mixture of *Asphalt* is forced into it, soaking every fibre. After mixture dries, foundation possesses resisting power no amount of soaking or bending can effect.

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After special Water-proof Coating, into which Silica Sand is rolled under pressure, is applied, becomes a solid mass of resistance. It is weather, acid, alkali, frost, water-proof. Cannot freeze, crack or melt. Wonderfully pliable. Brantford has but one cost—first. Write for free Book and Samples.

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THE MANURE SPREADER

Are you Saving Money, or are you Losing it by being without One?

You believe that money spent for a mowing machine or a binder is well invested. Still you use these machines only a few days in the year.

You use the hay rake, because it saves you time and labor.

These are valuable machines. They are now counted indispensable by most farmers, even though they stand unused over eleven months in the year.

But a manure spreader is a still more valuable machine. Its purpose is to keep up the fertility of the soil. It is the machine you use *all seasons*, and the one on which the real usefulness of all your other farm machines depends.

If you have not already done so, you should consider now the advisability of having an I. H. C. manure spreader on your farm.

You will have choice of two different spreaders in the I. H. C. line—the Cloverleaf, endless apron spreader, and the Corn King, return apron spreader. Each of these spreaders handles the manure in all conditions perfectly and will give you long satisfactory service.

These spreaders are not ordinary. Their frames are made of air dried wood stock. They have serviceable, tractive power producing wheels, beaters that are unsurpassed for tearing the coarsest manure into the smallest pieces and applying it uniformly, aprons that deliver the manure to the beater with the least possible friction and

in a uniform manner. Any one of these machines will, if given proper care, last a lifetime.

The labor of spreading manure is greatly lessened by using one of these I. H. C. spreaders. Not only is the labor lessened, but it is changed into agreeable work.

But the strongest reason for using an I. H. C. spreader is the increased value you get out of the manure. The best authorities agree that manure spread by an I. H. C. spreader has at least double the value of manure spread by hand.

The I. H. C. spreaders pulverize and make the manure fine, and spread it evenly over the ground just as thick or as thin as may be required. The manure is placed upon the ground in a condition that is at once available for plant life. All is washed by the first shower into the soil—none is wasted.

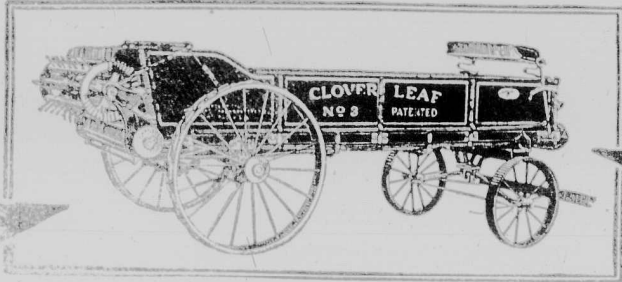
The good effects upon the crop are immediate and the permanent benefit to the land is greater than when the manure is spread by hand. There is no question but that land manured by an I. H. C. manure spreader will give an increased yield of from two to ten bushels per acre over land where manure is spread by hand.

Consider the labor saved, the more agreeable work, the better crops, the more fertile condition of the land—is not an I. H. C. manure spreader the machine you should have?

Are you not losing money instead of saving money by being without one?

Call on the International local agent and investigate one of these machines. He will supply you with catalogs and particulars, or if you prefer write nearest branch house.

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INTERNATIONAL HARVESTER
COMPANY OF AMERICA
(INCORPORATED)
CHICAGO, U.S.A.

The other day, at Winnipeg, a burly Iowan asked the immigration officials to take charge of his purse while he was taking a run around town. There were twenty-five thousand dollars in greenbacks in the wallet, and the rather startled official persuaded the man to deposit it in one of the banks. He had just sold his farm near Des Moines, Iowa, and carrying the long green right with him in his pants pockets to invest in farming land here. Thousands of these settlers have five thousand dollars a piece or more, and a conservative estimate of the amount of actual cash coming over here in settlers' pockets this year is \$70,000,000. That is only a thousand dollars each for the seventy thousand reported to be coming.

A very large proportion of the settlers coming in from the south come unaccompanied by their families. Many of them are family men, but they are here alone to look over the land, invest their capital, and get things in shape, for bringing their wives and children later. They are pretty shrewd fellows as a rule.

The illustrations show a train-load of settlers, and another train-load of their effects that arrived in Winnipeg recently, from St. Paul, Minnesota. These men are bound for Saskatchewan, to settle on the land of the Luse Land Company. It took sixty-eight cars to carry the goods of this party, and more still are to follow.

SWAMP FEVER AND ITS TREATMENT

Swamp fever or infectious anemia of horses has caused considerable loss in the last three years in the south-eastern and central portions of Kansas, and is still present in some sections. It seems to be most prevalent during wet seasons, in low-lying badly drained sections, and during the summer months.

Symptoms:—About the first symptoms noticed are a general weakness of the animal, it tires very easily and is not able to do any work. The loss of flesh is apparent in spite of the voracious appetite which the animal has at times. The appetite usually remains good until death, but the feed seems to do the animal no good. The temperature is very irregular. Some days it runs quite high, at times to 107 degrees; again it is below normal. It frequently remains high towards the end of the disease. An animal may have several attacks of the trouble, but each succeeding attack seems to be more severe.

The blood becomes thin and the circulation impaired, and frequently there appears a swelling under the chest or abdomen or an enlargement in one or more legs.

Diagnosis:—It is quite easy to recognize the trouble, especially in the advanced stages. The slow progress at the beginning, remittant fever, progressive emacipation and anemia, unimpaired or ravenous appetite, staggering gait and excessive urination are usually all present to a greater or less degree.

Prognosis:—Is very unfavorable, death occurring in from 60 to 80 per cent of the cases. Recovery takes place only when treatment is begun early and when the disease is not too acute.

Treatment:—Is not satisfactory. Absolute rest until fully recovered is one of the primary requisites, and purgatives are to be avoided. For the fever the B. A. I. recommends an antipyretic of quinine 40 grains, acetanilid 2 drams, and powdered nuxvomica 30 grains, four times daily. Cold water sponge baths and frequent copious rectal injections of cold water also aid in reducing the fever. After the fever subsides the following is recommended:

	Drams.
Aresnious acid	2
Powdered nuxvomica	28
Powdered cinchona bark	85
Powdered gentian root	110

"These should be well mixed and one-half table-spoonful given at each feed to the affected animal.

"As in the case of all other in-

You Can
A BOG SPAN THOROUGH
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will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. Will tell you more if you write, \$2.00 per bottle and 4 for \$7.00. Book 4d free.

ABSORBINE, JR., for mankin. \$1 bottle. Reduces Varicose Veins, Varicocele, Hydrocele, Ruptured Muscles or Ligaments, Enlarged Glands. Allays pain quickly.

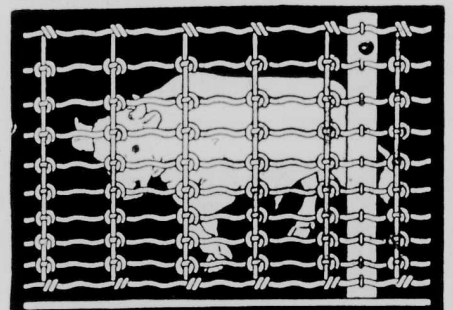
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Every buyer of Peerless Fence becomes a friend of ours because Peerless fence saves him trouble, money and time. **PEERLESS Woven Wire Fence** is made of all No. 9 Steel Wire well galvanized. **PEERLESS FENCE** requires very few posts, and you save money on the net cost of your fence.

PEERLESS
 The Fence That Saves Expense

One of the reasons why **PEERLESS Woven Wire Fence** is better than other fences is because of the **PEERLESS lock**. It holds securely and without damaging the wire, yet there is just enough elasticity to prevent snapping from sudden shocks, changes in temperature or from any other cause. Stock cannot get through it—under it or over it. There are so many advantages in buying **PEERLESS Fence** in preference to others that we have not room in this advertisement to tell you of them.

Your name on a postal brings you our new printed matter, containing much useful information in regard to fencing. Write for it today.

The Banwell Hoxie Wire Fence Co. Ltd., Dept. M
 Hamilton, Ont. Winnipeg, Man.

When answering advertisements mention the Farmer's Advocate

Absolute Cure For Sheep Scab

1/2 of the woollen cloths worn in the world are made from wool obtained from Cooper dipped sheep. Cooper's Dip is used on King Edward's famous prize-winning Southdowns.

It is imported into Australia and the Argentine free of duty, because the sheep-owners know it is an absolute necessity.

Cooper's Dip is the dip officially recognized by the United States Government.

By royal decree, every man in Spain, growing Merino wool, must dip his sheep in Cooper's Dip.

At the Royal Show, England, in the breeds of sheep, every prize-winner used Cooper's Dip.

Last year, enough of Cooper's Dip was used to dip 250,000,000 sheep.

Mention this paper and tell us how many sheep you have, and we will send copy of our book "Sheep Scab and How To Cure It," free of charge.

Cooper's Dip

For sale by druggists and dealers generally or direct from
WM. COOPER & NEPHEWS
 TORONTO.

fectious diseases, the healthy should be separated from the sick horses and thorough disinfection of the infected stable, stalls, litter and stable utensils should be carried out in order to prevent the recurrence of the disease. As a disinfectant the compound solution of cresol, carbolic acid or chlorid of lime may be used by mixing six ounces of any one of these chemicals with one gallon of water. One of the approved coal-tar sheep-dips might also be used to advantage in a 5 per cent solution (six ounces of dip to one gallon of water). The disinfectant solution should be applied liberally to all parts of the stable and sufficient lime may be added to the solution to make the disinfectant area conspicuous.

Precautions:—From the fact that the disease is more prevalent during wet seasons, it is always best to guard against allowing the animals to graze upon swampy lands or to drink from ponds of stagnant water. The spread of the disease has been traced along creeks from one farm to another, which would suggest avoiding these places also. The draining of low, swampy lands is especially recommended.

F. S. Schoenleber, V. S., Kansas.
THE BRONCHO READY FOR THE TRACK

The Broncho, the Winnipeg-owned pacing mare, with a record of 2.00 1/2 for the mile, is in the south at present in the hands of a competent trainer, and is expected to break some American pacing records during the coming summer. The Broncho was the sensation of 1906. She sprang from obscurity to be the wonder of the season on the American track. Then she developed lameness. She was retired and rested up until the following spring. Again, when she went into training, the lameness returned, and her owners had her bred. Last September, after she was through nursing the foal, she was sent south, and has since been in training for the track this season. The lameness is said to have entirely disappeared, and those who know The Broncho best, and have seen her at work, expect to see things doing in the pacing records before the season's close. The Broncho has amazing speed. Her mark was made as a green horse practically. Properly trained and sent over the stretch by an experienced driver there is no telling what may happen.

The C. P. R. report for 1908 gives the following shipments of live-stock from Alberta in that year: Cattle, 87,909; horses, 11,416; hogs, 48,173; sheep, 25,754; making a total of 5,969 carloads. There were shipped from Saskatchewan, 1,183 cattle, 2,220 horses, 445 hogs, and 14,999 sheep, making a total of 810 cars with the total valuation of stock from both Provinces as follows: Horses, \$1,499,960; cattle, \$4,652,624; sheep, \$244,518; hogs, \$437,562. The average price for horses was \$110; for cattle, \$47, showing an increase of \$6 over previous year; sheep, \$6; and hogs, \$9.

THE ORIGIN OF BRITISH HORNLESS CATTLE

Before the Royal Dublin Society recently Prof. James Wilson, M. A., B. Sc., read an interesting paper on the Scandinavian origin of the hornless cattle of the British Isles. He stated in the course of his remarks that till the end of the eighteenth century there were small breeds of hornless cattle in isolated patches round the coasts of England and Scotland and also in Ireland. These breeds were all like each other in color, shape, and, of course, the want of horns. They were generally alike in milking qualities, and even in many small details, such as having short legs, sickle-shaped hocks, narrow chins, and long heads. The date of their arrival in Britain can be fixed by historical and antiquarian considerations as not later than 1066 and not before 850, dates which include the period of the Norse invasions. Cattle of the same kind

You Pay for the Sand On Roofings

When you are offered a ready roofing which is coated with sand, mica, or pebbles, you can make up your mind that you are paying roofing prices for the coating.

For such coating does not help the roof. It is merely a "talking point" to make the roof seem different from what it really is.

Such coating, in fact, is a detriment. For it washes off after a few rains, leaving a roughened surface on the roofing, and choking up gutters and drain pipes.

The reason why coated roofings are offered you is because there are 300 substitutes for the genuine Ruberoid, all looking much the same.

By adding sand to the roofing it is made to appear different—that is all. And you pay for a mere selling feature, when you ought to be getting roofing value.

The First Ready Roofing

Ruberoid roofing has never been coated with sand or similar "filler." It is the original ready roofing by several years.

The secret of its wonderful properties lies in the Ruberoid gum which we use.

This gum is our exclusive product. No other maker can use it. It is this gum which makes Ruberoid heat proof, cold proof, snow proof, rain proof. Resistant to acids, gases and fumes.

RUBEROID
 (TRADEMARK REGISTERED)

Be sure to look for this registered trademark which is stamped every four feet on the under side of all genuine Ruberoid. This is your protection against substitutes which many dealers brazenly sell as Ruberoid. Ruberoid is usually sold by but one dealer in a town. We will tell you the name of your Ruberoid dealer when you send for our free book.

It is this Ruberoid gum which makes Ruberoid so good a fire resistant. You can throw burning coals on a roof of Ruberoid without danger of setting fire either to the roofing, or to the timbers underneath.

It is this exclusive Ruberoid gum which makes Ruberoid flexible enough to stand the strains of twisting and bending which every roof must bear.

Seventeen Years of Service

The first Ruberoid roofs ever laid—seventeen years ago—are still flexible, still weatherproof, due to the life of this wonderful gum which is used in no roofing but Ruberoid.

Ruberoid roofing is suitable for any building—from a woodshed to a large factory or public building.

It also comes in attractive colors—Red, Green, Brown—for use on fine homes.

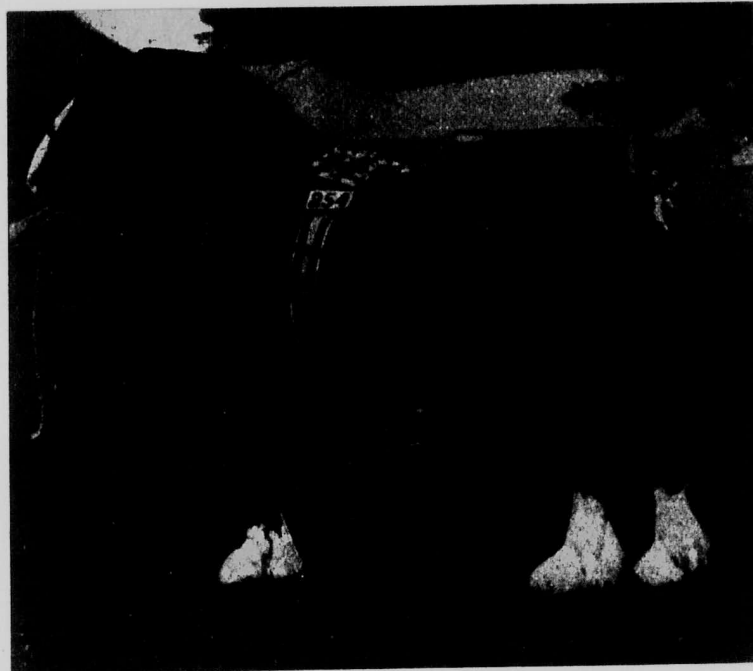
But before deciding on any roofing, for any purpose, send for our free book, "All About Roofings."

This book tells what we have learned in twenty years of roofing tests. It gives the advantages and the disadvantages of shingles, tin, tar, iron and ready roofings.

It is a gold mine of practical information.

To get this valuable book, simply address Department 97, The Standard Paint Company of Canada, Ltd., Montreal.

The Standard Paint Company of Canada, Ltd., Montreal, Canada
 New York Hamburg London Paris



CLYDESDALE STALLIONS

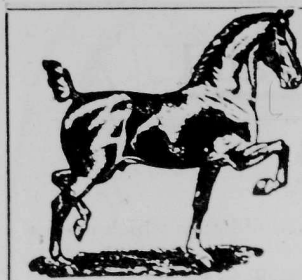
For quick sale I am offering a few personally selected imported Clydesdale stallions. They were bought right and will be sold right. First in the lot is SCOTLAND'S MOTTO by Baron Glasserton. Then there are five other newly imported horses and one Canadian-bred.

These horses have been bought right, through my personal connection in Scotland and will be sold right. Call and see them or write for further particulars.

WM. MARSHALL

NAMAKA

ALBERTA.



UNION STOCK YARDS, HORSE EXCHANGE

WEST TORONTO - CANADA
The Great Wholesale and Retail Horse Commission Market

Auction sales of Horses, Carriages, Harness, Etc., every Monday and Wednesday. Horses and Harness on hand for private sale every day.

The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. North-West Trade a Specialty.

HERBERT SMITH Manager.
(Late Grand's Repository)

10 Imported Scotch Shorthorn Bulls 10

Personally selected from the leading Scotch herds. They are of such noted families as Broad-hooks, Butterfly, Claret, Clara, Roan Lady and Jilt. I also have for sale four bull calves from Imp. sire and dam, and a number of good young cows and heifers. Catalogue being prepared. Write for one. Prices as well as quality will please you. Farm, a mile from Burlington Junction station, G. T. R.

FRED. BARNETT, Manager

J. F. MITCHELL, Burlington, Ont.



Glencorse Yorkshires

Stock from boar, Oak Lodge, Prior 36th, sired by Dalmeny D. C. Imp., bred by Earl of Rosebery, K. G., Scotland, also from the boar Markland Candidate 4th—Imp., in the dam, champion sow at Edinburgh, Scotland, two successive years. Stock not akin, in numbers to suit purchasers.

Glen Bros., Didsbury, Alta.



Cattle and Sheep Labels

Size	Price Doz.	50 Tags
Cattle	75c.	\$2.00
Light Cattle	60c.	\$1.50
Sheep or Hog	40c.	\$1.00

No postage or duty to pay. Cattle labels with name and address and numbers; Sheep or Hog Labels with name and numbers. Write for sample, free.

F. G. JAMES, Bowmanville, Ont.

A SNAP FOR A START IN PURE BRED YORKSHIRES

A large number of young pure bred Yorkshire hogs from prize winning stock. Ready to ship any time in May. Registered for \$7.00 each. Crated F. O. B. Napinka. This offer holds good till June 1st. We also have Shorthorns for sale.

A. D. McDONALD, Napinka, Man.

Bargains in Registered Yorkshire Swine

Mail us \$7.00 and we will ship you a pig and pedigree. They are bred from prize-winning stock and we are going to have a lot of them. First lot weaned and ready to ship, 1st week in April. Don't miss it. Can ship C. P. R. or G. T. P. direct.

Glendenning Bros., Harding, Man.



HIGHLAND and SHORTHORN CATTLE

CLYDESDALE and HACKNEY HORSES

ALL OF THE BEST IMPORTED BLOOD

I am offering twenty-five Highland bulls and thirty females; twelve Shorthorn bulls and five females. I have selected and bred my stock with the express purpose of supplying the Ranchers. Among my Clydesdale horses are winners of many championships, including Baron's Craigie and Miss Wallace, male and female champions at the coast exhibitions.

G. L. WATSON

Highland Ranch, Cariboo Road, B. C.

\$50.00 to \$75.00

will buy a young SHORTHORN BULL from nine months to a year old. Breeding right, good rustlers and most of them from heavy milking cows. I shall be glad to answer correspondence and give descriptions.

J. BOUSFIELD, McGregor, Manitoba

D. McEachran, F.R.C.V.S., D.V.S., Ormsby Grange, Ormsstown, P. Que.

Importer and Breeder of High-class, Pure-bred Clydesdales. Imported and Canadian bred Stallions and Mares will be personally selected to tillage and plow.

Persons in the west can have Canadian breeding mares selected and shipped on commission, saving travelling and other expenses. Correspondence invited.



To Reduce My Herd of SHORTHORNS

I am offering for sale 20 cows and heifers and a few young bulls. My prices are right.

JOHN RAMSAY, PRIDDIS, ALTA

STAR FARM SHORTHORNS

Herd headed by the grand championship bull Alister, (Imp.) This herd won, during 1908, at Edmonton, Alta., Regina Provincial Central, Saskatchewan, Saskatoon and Prince Albert fairs 3 Grand Championships, 6 Championships, 32 firsts, sixteen seconds and twelve thirds. Several animals for sale, a number of prize winners in the lot, also Improved Yorkshire pigs and Barred Plymouth Rocks.

R. W. CASWELL, Importer and Breeder, Phone 375, Box 13, Saskatoon, Sask. G.T.P., C.P. and C.N. Railways.

Yorkshires

Spring Pigs, both sexes, for sale. Few young sows ready for breeding. Also one good boar two years old.

Barker Bros., Okotoks, Alta.



Melrose Stock Farm SHORTHORNS CLYDESDALES

Sold out of sheep. Six young bulls, a few heifer calves for sale, five young stallions, from one to three year old.

George Rankin & Sons, Hamiota, Man.



J. C. POPE

Regina Stock Farm Regina, Sask.

Breeder of Ayrshire Cattle & Improved Yorkshire Swine. Stock of both Sexes and all Ages for Sale.

Mr. A. I. Hickman, 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 breeds of horses, ponies, cattle, sheep and hogs. Correspondence invited. Highest references given.

Brampton JERSEYS

CANADA'S GREATEST JERSEY HERD

Our next shipment for the West leaves here about 1st of May.

We have anything you wish in Jerseys, male or female. Orders for this shipment should be in at once.

B. H. BULL & SON, Brampton, Ont.

The Dispersion Sale

of the FOREST HOME Shorthorns and Clydesdales

will be held at the farm on June 2nd. Further particulars in later issue. For catalogue write

ANDREW GRAHAM, POMEROY P. O., MANITOBA

are, or have been, found in other places settled by Norsemen, as, for instance, Jersey, Normandy, North Holland, Orkney, Shetland and Iceland. Cattle of the same type are still found in Northern Europe, from Norway to the North of Russia. In all probability they are descended from the hornless cattle of the Scythians referred to by Herodotus, and they may be traced back either to Ancient Egypt or Asia. The modern hornless breeds, by crossing with other breeds, have lost nearly every character possessed by their ancestors, excepting their hornlessness. The Jerseys, on the other hand, have retained their shapes, milking qualities, many of them have retained the color—a steely or slaty grey, sometimes called light dun—but they have accepted the gift of horns from some other race.

SWINE IN AMERICA

The most complete work of its kind that we have yet had the pleasure of reviewing. That is our opinion of "Swine in America," fresh from the presses of the Orange-Judd Company, New York, and written by F. D. Coburn, Secretary of the Kansas Department of Agriculture. It is a volume of 700 pages, well printed and rather more appropriately illustrated than the usual run of livestock books. When we say it is appropriately illustrated, we mean that the hundred and thirty-odd engravings in the work have been selected with the idea of illustrating, properly, the matter in the book, not only are typical representatives of the various breeds of swine in America shown, but, in addition, the numerous illustrations of hog houses, yards, feeding methods, troughs, fodder plants, etc., etc., bring out more clearly than written descriptions, however well those descriptions were executed, the ideas which the author desires to convey to his readers.

As regards matter, it might be said that while this has been written largely from the viewpoint of United States conditions, there is in every chapter, except, perhaps, that one dealing with corn as a hog food, something instructive for Canadian hog raisers. This is true particularly of such chapters as those dealing with the breeding of swine, the selection of boar and sow, the weaning of pigs, pasturing and soiling, alfalfa for swine, wheat, hog houses and pens, castration, the most common diseases of swine, and others of like nature. Take, for example, the chapter on alfalfa as a swine food. T. D. Coburn, of Kansas, is recognized in the United States as the first authority on alfalfa growing. He has brought to this work a vast amount of knowledge, gained from experience and observation in the growing and feeding of alfalfa in the leading alfalfa State in the Union. He wrote a book on alfalfa some years ago that is the recognized authority still on this subject in America, and as we are interested in this country in the question of hog-raising on such feeds as alfalfa, rape, roots, pasture and forage crops generally, an authoritative treatise on the whole subject is particularly valuable.

Another part of interest is the department on hog diseases. Our experience in agricultural journalism leads us to believe that the average hog raiser has not enough information at hand on the treatment of the common diseases that affect his stock, or understands the best means of preventing these common disorders. Anyone who reads regularly the "Questions and Answers" department of this paper will notice that seventy-five per cent. of the questions asked on hog-raising relate to some disorder with which the inquirer's stock is afflicted. For this reason a work treating of this phase of hog-rearing should have a place in every farmer's library. This, and the other chapters mentioned, make the book a valuable guide and work of reference on the subject.

"Swine in America" may be ordered through this office at the publisher's price, \$2.50 per copy.

Horse Owners! Use



GOMBAULT'S CAUSTIC BALSAM

A Safe Speedy and Positive Cure

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. IMPOSSIBLE TO PRODUCE SCAR OR BLEMISH.

Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

THOROUGHBREDS

Representative of the best blood in the Stud Book. Stud headed by Kelston, 1st Prize and Sweepstake Stallion at Winnipeg, 1905. Stallion for sale at reasonable price, correspondence solicited.

R. DALE, S. QU'APPELLE, SASK.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste
Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one-hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists, 4 Church St., Toronto, Ontario

W. H. BRYCE

ARCOLA, SASK.

Doane Lodge Clydesdale Colts and Fillies for sale, by Perpetual Motion and Baron of Arcola. Mares kept for service season. Good pasture. Terms \$25.00



SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS

ANY person who is the sole head of a family or any male over 18 years old, may homestead a quarter section of available Dominion 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 alongside 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 patent) 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.

Perfection in A

DOMINION S

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A Record Making C

for the Trap o

Ask Your De

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HAD BACK

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Many Women Suffer From Kidney

Very often they think it "female disease." Their trouble" than they think Women suffer from back-ness, nervousness, irritability, ginning down feeling in the back and they do not have "female disease" ? Why, then, blame all "female disease" ? Most of the so-called "female disease" are no more or less than "Doan's Kidney Pills." Mrs. C. Dupuis, Belleville, writes: "I was unable to work for two years on account of back-ache. I could not get up to my feet. Kidney Pills cured me. My doctors failed to even recommend highly recommend the from kidney trouble."

Price 50 cts. per box or at all dealers or mailed of price by The Doan Bros. & Co., Toronto, Ont.

GRAND TRUNK RAILWAY SYSTEM

TO THE EA

Double Track, Vining Roadbed, Fastern Equipment, Unioning Car Service, Co-employees.

Cook's Meditarr around the World to ship Tickets, along Quebec Steamers and West India Ticket office, 2 Avenue, Winnipeg.

A. E. DUFF, General Agent

Strawberry Plants

From my strawberry and Oshville, Alt delivery. Prices, \$2.00 add 40c. for mail order thousand and express c

JAMES CHECWIN, Le

STOCKM

Have you any stock to sell? Advertise and receive a good price. Farmer's Advocate enters 25 weeks. Why not use this good Write for rates, etc.

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GOMBAULT'S
CAUSTIC
BALSAM

A Safe Speedy and Positive Cure
NEVER ever used. Takes or mild or severe action. Cleanses from Horses. DES ALL CAUTERY IS TO PRODUCE SCAR OR
arranted to give satisfaction. bottle. Sold by charges paid, with Send for descriptive
LAMS CO., Toronto, Ont.

HBREDS
the best blood in Stud headed by and Sweepstake g, 1905. Stallion ble price, corres-

QU'APPELLE, SASK.

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ante—your money make the horse go red by a single 40- occasionally two re- main. Ringbone and cases alike. Write a and a free copy of
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shly bound, indexed s over one-hundred and this book before nness in horses. S., Chemists Toronto, Ontario

BRYCE
SASK.

Clydesdale lies for sale, Motion and cola. Mares vice season. Terms \$25.00

DIAN NORTHWEST
ATIONS
sole head of a family' 3 years old, may home- of available Dominion atchewan or Alberta. near in person at the or Sub-Agency for the y may be made at any ons, by father, mother, or sister of intending

residence upon, and n each of three years. within nine miles of n of at least 80 acres led by him or by his ither, brother or sister. homesteader in good quarter section along- rice \$3.00 per acre. months in each of six ead entry (including n homestead patent) tra.
s exhausted his home- obtain a pre-emption homestead in certain r acre. Duties—Must of three years, cultivate use worth \$300.00.

W. W. CORY,
Minister of the Interior.
ublication of this adver-

Perfection in Ammunition

DOMINION SHELLS

AND
DUPONT POWDER

A Record Making Combination for the Trap or Field

Ask Your Dealer
Loaded by the Dominion Cartridge Co., Ltd. Montreal, Canada

HAD BACKACHE

Was Unable To Do House- work For Two Years

Many Women Suffer Untold Agony From Kidney Trouble.

Very often they think it is from so-called "female disease." There is less "female trouble" than they think.
Women suffer from backache, sleeplessness, nervousness, irritability and a dragging down feeling in the loins. So do men, and they do not have "female trouble."
Why, then, blame all your trouble to "female disease"?
Most of the so-called "female disorders" are no more or less than "kidney disorders," and can be easily and quickly cured by Doan's Kidney Pills.
Mrs. C. Dupuis, Belleview Village, N.B., writes: "I was unable to do my house-work for two years on account of backache. I could not get up the stairs. Doan's Kidney Pills cured me permanently after doctors failed to even relieve the pain. I can highly recommend them to all sufferers from kidney trouble."
Price 50 cts. per box or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The Doan Kidney Pill Co., Toronto, Ont.

GRAND TRUNK RAILWAY SYSTEM
THE SCENIC ROUTE

TO THE EAST
Double Track, Velvet Running Roadbed, Fast Time, Modern Equipment, Unexcelled Dining Car Service, Courteous Employees.
Cook's Mediterranean and around the World tours; Steamship Tickets, all lines, including Quebec Steamship to Bermuda and West Indies.
Ticket office, 260 Portage Avenue, Winnipeg, Man.
A. E. DUFF
General Agent.

Strawberry Plants for Sale

From my strawberry beds at Leduc and Ohrville, Alta., for spring delivery. Prices, \$2.00 per hundred, add 40c. for mail orders; or \$15 per thousand and express charges.
JAMES CHECWIN, Leduc, Alta.

STOCKMEN

Have you any stock to sell? If so, why not advertise and receive a good price for them. The Farmer's Advocate enters 20,000 homes every week. Why not use this good medium at once. Write for rates, etc.

Preparing for Grain Crops in Sask.

[Continued from page 622.]

SUMMER-FALLOW.

"The true worth of properly prepared fallows has been clearly demonstrated in past years in every district of Saskatchewan.

"The work of preparing land for crop by fallowing is carried on in so many ways in different parts of the country, that perhaps a few words on some of the methods employed may be of use to at least some of the new settlers.

"It has been observed in some parts of Saskatchewan that the land to be fallowed is not, as a rule, touched until the weeds are full grown and in many cases, bearing fully matured seed. It is then plowed.

"By this method, which, no doubt, saves work at the time, the very object of a summer-fallow is defeated. In the first place, moisture is not conserved, instead of using the summer-fallow as a means of eradicating weeds, a foundation is laid for years of labor and expense by the myriads of foul seeds turned under.

"The endless fields of yellow-flowered weeds generally Ball Mustard (Neslia paniculata), testify to the indifferent work done in many districts, and, while no weed is more easily eradicated by a good system of fallows there is no weed that is more easily propagated or takes greater advantage of poor work on fallows or of fall or spring cultivation.

"As has been pointed out in my previous reports, early and thorough work on fallows is absolutely necessary to success, and I here repeat the methods and results of tests carried on for some years past.

"First Method.—Plowed deep (6 to 8 inches) before last of June; surface cultivated during the growing season, and just before or immediately after harvest, plowed 5 or 6 inches deep.

"Result.—Too much late growth if season was at all wet; grain late in ripening, and a large crop of weeds if the grain in any way injured by winds.

"Second Method.—Plowed shallow (3 inches deep) before the last of June; surface cultivated during the growing season, and plowed shallow (3 or 4 inches deep) in the autumn.

"Result.—Poor crop in a dry year; medium crop in a wet year. Not sufficiently stirred to enable soil to retain the moisture.

"Third method.—Plowed shallow (3 inches) before the last of June; surface cultivated during the growing season, and plowed deep (7 to 8 inches) in the autumn.

"Result.—Soil too loose and does not retain moisture. Crop light and weedy in a dry year.

"Fourth Method.—Plowed deep (7 to 8 inches) before the last of June; surface cultivated during the growing season.

"Result.—Sufficient moisture conserved for a dry year, and not too much for a wet one. Few or no weeds, as all the seeds near the surface have germinated and been killed. Surface soil apt to blow more readily than when either of the other methods is followed. For the past fourteen years, the best, safest and cleanest grain has been grown on fallow worked in this way, and the method is, therefore, recommended.

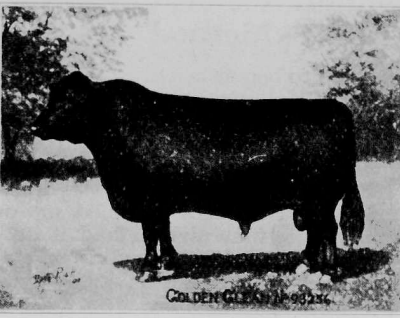
"In the first place, after the rains are over in June or early in July, as they usually are, no amount of work, whether deep or shallow plowing, or surface cultivation, can put moisture in the soil. The rain must fall on the first plowing and be conserved by surface cultivation.

"Weeds, when allowed to attain their full growth, take from the soil all the moisture put there by the June rains, and plowing under weeds with their seeds ripe or nearly so, is adding a thousand-fold to the myriads already in the soil, and does not materially enrich the land."

"During the past two years the term "dry farming" has been applied to

GLENCARNOCK ANGUS

Brandon, Man.



First Prize Yearling Bull at 1907 International Show, Chicago. As a two-year-old this Bull was only beaten once

ROBT. BROWN,
Herdsman.

We have a few good Bulls and Heifers sired by the

CHAMPION BULL
PRINCE OF BENTON

for sale at reasonable prices

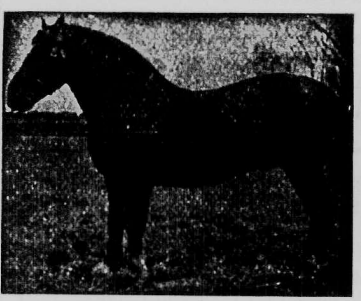
JAS. D. McGregor,
Proprietor.

JOHN A. TURNER

Balgreggan Stock Farm CALGARY

A consignment of Clydesdales, personally selected from the best stables of Scotland, has just arrived home and are now offered for sale.

Experience counts in the horse business, and my customers will get the benefit of my years in the business. No middleman's profits. I deal direct, personally select, and personally transact all my business. The first to come has the largest choice.



"Suffolk Punch Stallions"

Before buying a stallion see our exhibit of imported SUFFOLKS stallions at the forthcoming Calgary Spring Horse Show. Largest and best ever seen in the Dominion of Canada. Prices right. Twelve to choose from. Some imported SUFFOLK mares and half-breds will also be exhibited.

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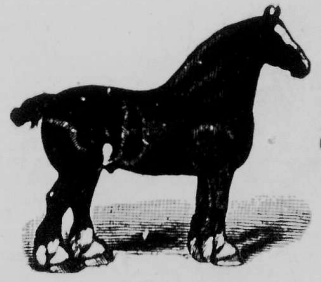
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what was formerly known in the West as "summer-fallowing."

With the exception of the addition of the use of a soil-packer there is no change in the methods formerly employed, when the spring rains and frequent cultivation were depended upon for the packing of the soil.

Packers are, without doubt, most useful instruments on the farm and where from any cause, the soil is loose, they should be used. They are, however, expensive implements and within the means of comparatively few of the new settlers. Fortunately, early plowing and frequent shallow cultivation may be depended upon to produce almost equally satisfactory results in the majority of cases.

CULTIVATION OF STUBBLE.

When farmers summer-fallow one-third of their cultivated land each year, as they should, one-half of each year's crop will be stubble. For wheat the best preparation of this land is to burn the stubble on the first warm, windy day in the spring, and either cultivate shallow before seeding or give one or two strokes of the harrow after seeding, the object to form a mulch to conserve whatever moisture may be in the soil, until the commencement of the June rains.

The portion intended for oats or barley, should be plowed four or five inches deep and harrowed immediately; then seeded and harrowed as fine as possible. In case time will not permit of plowing, good returns may be expected from sowing the seed oats or barley on the burnt ground, and disking it in; then harrowing well.

FALL PLOWING.

With regard to fall plowing it may be said that, as a rule, on account of short seasons and dry soil, very little work can possibly be done in the fall, but if the stubble-land is in a condition to plow and the stubble is not too long, that portion intended for oats and barley may then be plowed, if time permits.

It is, however, a mistake to turn over soil in a lumpy or dry condition, as nine times out of ten it will remain in the same state until May or June, with insufficient moisture to properly germinate the seed, and the crop will very likely be overtaken by frost.

As to the quality of seed to grow,

and the depth of sowing, long experience has shown that the best results are had in Saskatchewan by the sowing of one and a half bushels of wheat per acre or two bushels of barley or oats. Sowing about two inches deep has given the most satisfactory returns, and the seed should be got in as early as is practicable.—Angus McKay, Supt. of Indian Head Farm, in Pamphlet No. 3, Ex. Farm Series.

PACIFIC WHEAT SHIPMENTS

The movement of grain west instead of east is the beginning of a new course of traffic that will have a world effect when the Panama canal is completed, cutting thousands of miles off the ocean trip to Europe and personally benefiting every farmer in Western Canada, particularly in Alberta, where the rail haul to the sea is shortest. The official announcement states that the change from the Atlantic to the Pacific route will allow a quicker return of cars and cut down the cost of handling "empties."

It is good business for the railway, and a big lift for the wheat growers, and will mean very much to Calgary, because that town will of necessity be the gateway through which the new coast-bound traffic must pass. It is in conformity also with the cardinal principle of any railway company to foster the prosperity of the people along its lines, because on their prosperity depends the growth of traffic.

This westward extension of trade is really the crystallization of effects from a cause that has been quietly operating for some time. The center of wheat production has been shifting somewhat rapidly from the Middle States to the more Western States of the union and to the Canadian West, farther and farther from the Atlantic seaboard, and nearer to the Pacific. The haul by rail to the Atlantic has been growing longer and consequently much more costly. A natural relief presents itself in the Pacific route, which is cheaper even though longer, and even though its outlying end is still in the ports of Europe.

That route now passes around Cape Horn—a long loop down one ocean into another and away across to England and the German coast. When it is shortened by the cut across the isthmus to the Gulf of Mexico, it will automatically determine the line of outflow for the wheat of this continent to the old and ever-increasing market on the farther side of the Atlantic. Eastern wheat, both American and Canadian, will continue to go east by rail and water, but western wheat will go out to the Pacific.

The dividing shed will probably be along the eastern boundary of Saskatchewan, in Canada, and in the States along the eastern boundary of California, Oregon and Washington. This means that the bulk of the North American wheat crop, being produced in the western Canadian fields, will soon be moving west, instead of east, even while its ultimate destination remains in Europe.

As yet the trade westward in grain is largely in the form of flour and only a very small percentage of the inhabitants of eastern Asiatic countries have yet learned the taste of wheaten bread, but it is inevitable that when flour has established itself as a food staple in Asia, it will be poured out on those shores in the form of grain, to be milled in or near the area of consumption. This will be particularly true of Alberta hard wheat, which touched the "dollar-three" mark in the market at Port William last autumn.

When the Oriental trade has been squarely established, Alberta wheat, which grades one point harder than the No. 1 hard of the States, will bring its growers the highest bushel price in the world, because Europe will continue to call for it, and the demand in both markets will strain the possibilities of supply.

A high official of one of the American trunk systems says that while San Francisco, Vancouver and Prince Rupert will all derive enormous benefit from the growth of the new trade, the balance will favor Vancouver and Prince Rupert, because of their being some hundreds of miles nearer to Yokohama.

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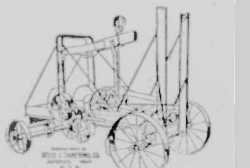


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