

# Farmer's Advocate and Home Journal

WESTERN CANADA'S AGRICULTURAL WEEKLY

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Vd. XLVI

WINNIPEG, CANADA, APRIL 27, 1910

No. 918

## For nothing I will tell you all about Cement



These pictures show you plainly how simple a matter it is to change a decrepit frame house into one of cement-stone.



You may have my expert advice without charge. I can

save you considerable money.

I charge nothing.

**YOU** pay nothing for what I tell you.

And the reason I offer you my services for nothing is simply that the companies that employ me want the farming community awakened to the value that cement—of the right kind—has for every farmer. Even if they never sell you any cement, they want you and your neighbors to be informed on the uses of cement—and the ease and simplicity with which you can cheaply use it.

### No High-Priced Labor Necessary

I can soon show you that it does not require an expensive mechanic to use cement-concrete instead of lumber for ANY purpose. I make the whole subject so plain and simple that you yourself could easily renovate your frame house, barn, hen house, wagon shed. I will tell you how to make a hundred farm utilities from cement quickly and cheaply—more cheaply than you could with lumber. And bear in mind the fact that you are charged nothing for this "Education in Cement Using." You will not be bothered to buy anything, either. There are no "strings" to this talk of mine—not one. Just write me and ask questions.

### Cement Endures—Lumber Decays

That alone is the biggest reason why you should overcoat your house and barn with cement, as I will tell you precisely how to do. Cement is almost indestructible. Buildings exist in Great Britain and elsewhere that were built of cement by the Romans two thousand years ago. For cement rightly used—as I will show you how to use it—makes structures fireproof; wetproof; decay-proof; warmer in winter; cooler in summer. And it is ECONOMICAL—much more so than lumber, for ninety-nine uses out of a hundred.



- Verandas
- Box Stalls
- Driveways
- Fence Posts
- Well Curbs
- Feed Yards
- Barn Floors
- Cellar Walls
- Root Cellars
- Horse Blocks
- Chimney Caps
- Chicken Houses
- Watering Troughs
- Curbs and Gutters
- Windmill Foundations
- Storage Water Tanks

### Read This List of a Mere Few of the Uses Cement has on the Farm

Then write to me for particulars of how to build these things from cement—doing the work yourself, if you like, in spare time. Don't wait to write because you are not just ready to make any improvement to your buildings. Talk it over with me if you only need a few fence posts or a watering-trough. Even on those small items I can save you considerable. Just write me to-day.



For the asking, you are welcome to use my knowledge. You can inform yourself fully on the whole big question of the use of cement for practically every use you are putting lumber to now. I will instruct you fully, in plain language, in the use of cement for making anything from a fence-post to a dairy-barn. And I can show you how to save money by using cement for any building purpose instead of using wood. Simply tell me your name and address and mention what sort of a structure you think of building or repairing—whether a residence, a poultry house, or even a drinking-trough. You have nothing at all to pay for the advice and instruction I will promptly send you. Write to me before you buy another bill of lumber for any purpose. Be sure to.

**ALFRED ROGERS**  
The Cement Man

Why not write me to-day? Accept my free services, make use of my knowledge to any extent; and you will not be under the least obligation or expense if you do. We want you to KNOW cement; and I will do all I can to help you KNOW it.

**ALFRED ROGERS** THE CEMENT MAN  
307 Stair Building, Toronto

On  
The  
Flour  
The  
Bread  
Depends



On  
The  
Bread  
The  
World  
Depends

### AS YOU TAKE IT

Tough times for timber wolves are looming up in the future. The latest scheme for ridding the White River cattle country of these four-legged marauders is to let the Indians do it. And this appears to be the best notion yet.

When it comes to trapping or shooting wolves and locating their dens an Indian knows what a white man would never find out, so now the plan is to invite the Utes up from the reservation in the southern part of the State and their cousins from over in Utah and turn them loose to start a wolf massacre in Rio Blanco and Garfield counties.

The idea originated with Charles T. Limburg, of Leadville, a prominent cattleman and banker. He has taken the matter up with the office of the State Game and Fish Commissioners, where the possibilities of his suggestion were recognized at once. Various schemes have been devised for getting rid of the big gray wolves which slaughter so many yearling steers in the White River country every summer, and so many deer in the winter.

The wolves of the White River timber country are exceptionally large and fierce. A head of one of them shows them to have heavy, capacious jaws and long, keen teeth which look as if they could snap a dog's backbone in with a single crunch. It looks as if it were up to the Indians, and it is believed that they will enjoy the outing with great pleasure, particularly since it means getting all the food they want while they are away from home, with the chance of bounty money thrown in.—Denver Republican.

\* \* \*

In his earlier years as an illustrator and painter Frederic Remington, who died a few days ago as a result of an operation for appendicitis, used to say that when he died he wanted some one to carve on his tombstone: "He knew the horse." Probably he long ago formed other views as to a suitable synopsis of his career, yet it is as a painter of horses that most people know and first think of him. He first fixed his personality on the public mind by his representations of horses, which even gave rise to a considerable controversy as to whether he used a camera or whether on the other hand he painted horses in impossible postures. It remained for an improved camera to demonstrate that

Remington had seen correctly and accurately. One admirer wrote of him: "He knows a horse from the prick of his ears to the frogs of his feet." Another wrote: "He knows every hair on a pony, and you need only to put Remington the writer and Remington the artist together to make the greatest pony that ever galloped up and down the pages of a book with a cowboy on his back."

Remington was known as an illustrator, a writer, a painter and a sculptor. He had been a clerk, a cowboy and a football player. He was a hard worker, a good player and devoted to the open air.

Fred Remington was born in New York state. His father was a newspaper man and political factor whose editorials had a rank of their own among county newspapers. His home was at Canton, St. Lawrence county, and there his son was born on October 1, 1861.

\* \* \*

He was a sewing machine agent of the most aggressive type. For twenty minutes the lady of the house had been awaiting an opportunity to say she already possessed one.

At last he paused. Only long enough, however, to thrust a card into the lady's hand.

The bit of pasteboard was certainly a novelty.

"My name is Sellem," it read, "of the firm of Bland and Co., sewing machine manufacturers, and I intend to prove to you that it is madness to defer purchasing one of our unequalled machines."

After a long description of the machine came the following:

"You may plead that you are unable to work a machine. I will remove that objection in fifteen minutes, or in three lessons. Will call next Wednesday."

When the agent called again, a six foot man opened the door and blandly remarked:

"You're the sewing machine man, I suppose?"

"Yes; I called last week, and—" "Yes, I know," interrupted the big man. "You don't know me, I suppose? My name's Bury, of Bury and Keepem, undertakers, and I intend to prove to you that it is madness to defer purchasing one of our unequalled coffins."

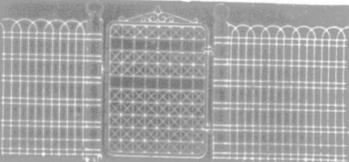
The agent began to edge away.

"You may plead that you are scarcely qualified for a coffin," the big man went on. "I will remove that objection in ten seconds."

But the agent simply tore from the house.

### Peerless Lawn Fence

Is Strong and Attractive. All the wires are uniformly crimped, large gauge, steel spring wire, heavily galvanized and coated with white enamel paint. Never sags, never rusts. Improve your property with a Peerless Fence. Cheap as wood and more handsome and durable. Also full line of farm and poultry fence and gates. Write for information. **THE BANWELL HOXIE WIRE FENCE CO., Ltd.** Dept. M, Hamilton, Ont., Winnipeg, Man.



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The "BT" Stanchion is made in five sizes and can be used with frame construction if desired. Write for free catalogue, giving full information and showing how the stable should be laid out.

### Beatty Bros., Fergus, Canada.

We also build Hay Carrier Goods and Litter Carriers.

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**MANITOBA GYPSUM CO., Limited**  
WINNIPEG, MAN.

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

Beautiful Scenery, Mild and Equable Climate, Excellent Boating, Fishing and Shooting. Good Hotels and Schools. Free sites, cheap electric power and low taxation given by Nelson to manufacturers coming in. In Competition with the World Kootenay Fruit has obtained First Prizes

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

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WE make three styles of Brantford Roofing, because it is not reasonable to expect one style to meet all roofing requirements. So we ask you to send for samples. Choose the style you decide exactly meets the requirements of your particular job. Then you are sure of satisfaction.

## Brantford Roofing

**BRANTFORD ASPHALT** Roofing has a silicia finish. It is our biggest seller.

Brantford RUBBER is a smooth surface roofing, but contains no "India Rubber."

Both ASPHALT and RUBBER are made in three thicknesses.

Brantford CRYSTAL is made in heavy weight only. It has a mineral surface of rock crystals. It requires no painting.

The pure wool felt, which is the foundation of these three styles, is made to our own specifications. It costs 33 1-3 per cent. more than ordinary felt.

The Asphalt we use for the saturation is 99 per cent. pure. So called "Trinidad" Asphalt is only about 45 per cent. pure.

We spare no expense in the making of Brantford Roofing. It is the highest grade roofing on the market to-day. If you want that kind of a roofing look for rolls bearing the trademark shown below.



## BRANTFORD ROOFING COMPANY LIMITED

BRANTFORD, CANADA

Winnipeg Agents: General Supply Co. of Canada, Ltd., Woods Western Bldg., Market St., East.  
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**Pumps 800 to 1,000 Gallons Per Hour**  
Gives FIRE PROTECTION! Runs Light Machines!

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Throws a stream as high as a house or barn, or 60 feet on the level. Beats any "bucket brigade!" Gives protection day and night.

### Fuller & Johnson Farm Pump Engine

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Nothing to build—no "extras" to buy. It is a complete Portable Power Plant. Gets busy inside of 15 minutes after you get it. Fits any pump. Out-pumps largest windmills! Air-cooled, without fans or attachments. As high grade as best automobile engines. Starts or stops on the instant. Cannot freeze or overheat. A child can operate it. Think of it! All for a few cents a week! Gasoline costs only a few cents a week. Engine saves time, muscle and money.

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OF CANADA  
ESTABLISHED 1864

Paid up Capital, \$6,000,000 Total Deposits (Nov. 30) \$49,471,594  
Reserve and Undivided Profits, \$4,602,157 Total Assets (Nov. 30) \$66,600,151

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<b>MANITOBA</b>	Brandon	Carberry	Gladstone	Griswold	MacGregor	Morris	Napinka	Neepawa	Oak Lake	Portage la Prairie	Russell	Souris	Winnipeg																								
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<b>ALBERTA</b>	Acme, Tapscot	P. O. Medicine Hat	<b>BRITISH COLUMBIA</b>																																		
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Shingles are subject to decay just like any other unprotected wood.

You don't want to be putting on new shingles every few years. But that is what you will have to do unless you preserve and protect them with *Stephens* Shingle Stain.



*Gives long life to the roof by reason of the creosote and Manitoba Linseed Oil (acclimated) it contains; and provides an inexpensive and effective method for improvement in appearance.*

Write us for descriptive booklet No. 19 and handsome color cards. 19

**G. F. *Stephens* & Co. Ltd.**  
WINNIPEG, CANADA

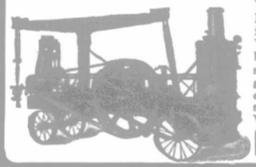


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**BUTTER TUB**

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All live grocers have them or will get them for you

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FULLY WARRANTED  
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SELLS LIKE SIXTY  
SELLS FOR

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**THE HARMER IMPLEMENT CO.**  
Winnipeg, Manitoba.  
WESTERN JOBBERS.



# FARMER'S ADVOCATE

## AND HOME JOURNAL

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No. 918

### FARMER'S ADVOCATE AND HOME JOURNAL

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Published Every Wednesday

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## EDITORIAL

### Arbor Day

Next week Manitoba has a holiday on which those interested in public schools and other institutions are instructed to lend their best efforts toward beautifying surroundings by a judicious planting of trees, shrubs and flowers. At this season of the year the farmer usually requires full force on the fields. However, it is easily possible in every locality to find an old horse or two and suitable outfits with which the boys and girls can do what hauling of trees or other planting material necessary. Besides, there are few districts in which a man or two of rather mature years cannot be located who are willing to assist the teacher and pupils in the good work.

This is a work that calls for attention. Our rural schools in particular in too many cases have a somewhat repulsive appearance—at least there is nothing about them that attracts the children of the neighborhood save possibly a kind and enthusiastic teacher. School trustees have great responsibilities, and one of these is to see that nothing is left undone that tends to make the school surroundings what they should be. Each trustee should set aside a few hours at least to see that something worth while is done next Monday in the line of planting trees, plants and flowers in the school grounds.

### Harrow the Growing Crop

Following a month's glorious spring weather came the expected storm. The middle of April brought rain, sleet, snow, wind and frost. With fifty per cent. of the seed in the ground and much of the wheat above ground perhaps many will consider that great damage is sure to result. However, liberal precipitation accompanying the drop in temperature will have avoided crop injury unless hot days and cold nights follow.

But the moisture problem needs attention. Some predict a hot, dry summer. The effect of the recent storm on the seeded area will be to leave a more or less compact surface with a crust on top. Spring rains have given the soil ample moisture and the thoughtful farmer will conserve that supply by running light harrows over the growing crop after it is well established to break this crust and replace it by a dust mulch that will serve as a blanket to check undue evaporation. Land that has been well farmed will not suffer much except in case of a most abnormally dry season.

### Frozen Wheat \$1.28

Superintendent G. H. Hutton reports results in the steer feeding experiment just concluded at the Lacombe Experimental Farm. One of the most interesting statements in the report is that frozen wheat, ground and fed to steers running in an open corral and marketed in the form of beef, had a value of \$1.28½ per bushel. This frozen wheat cost two-thirds of a cent a pound, and mixed with some barley and oats and fed in conjunction with timothy and prairie hay it sold at the price above noted, a price that is some advance on what frozen wheat was selling for in Alberta during the past season.

The results of this test show that winter feeding in Alberta is a highly profitable line of animal husbandry, just as other experimental farm feeding tests and private enterprise in winter feeding have shown that the winter fattening of cattle is an industry that is worthy of a good deal more attention than it receives. A profit per head of \$16.97 on steers that cost an average of \$41.36 each is not to be despised. There are farmers in that part of Alberta of which the Lacombe district is central, who could sell their grain to better profit in the form of beef than they are doing by selling it at the going prices, which in that section are about 85 cents for number two northern, 25 cents for oats and 36 cents for barley.

### Selling the Brood Sow

Hog receipts on live stock markets recently indicate that prevailing high prices have a tendency to induce farmers to dispose of almost their entire holdings. Perhaps some "need the money," but the situation in meat supply points to high prices—though perhaps not as high as at present—continuing for some time. Instead, therefore, of including brood sows and young females of good promise in the loads to market, these animals should be kept at home and bred judiciously to help fill the demand for hogs and incidentally derive some of the benefit of enhanced prices.

Ten cent hogs look good—particularly following a most unsatisfactory market condition. When the price goes above that figure there

is a great temptation to dispose of every animal that is marketable. No doubt many sold a few weeks ago and now regret having done so. Sooner or later a break in hog quotations will come and then again the tendency will be for those who have hogs left to rush them to market, thus augmenting the slump in prices offered.

It is safe to count on profitable figures. The men who make biggest profits are those who study conditions consistently and fit the hogs for market before allowing them to leave the farm. Others occasionally may make a big haul by going into hog raising spasmodically, but persistence, with a few hogs always on hand and a constant readiness to breed more sows when occasion warrants it, is more satisfactory.

### The Milking Shorthorn

Recent contributions to our columns reveal a lively interest in the milking Shorthorn—or, as some are inclined to call her, the dual-purpose cow. While dairy breeds always will stand in high favor with those who undertake milk production on a large scale, a great proportion of the farmers of the Canadian West do not care to keep cows in such numbers as would warrant anyone in calling them dairymen. These men want only five to ten cows, from which they endeavor to raise as many calves, and in addition try to sell cream or butter and derive cash returns at a season of the year when other farm products are not ready for market. Whether such farmers should adopt a recognized dairy breed or try to improve the milking qualities of the Shorthorn is a question that the man whose interests are at stake must decide for himself. The records of herds and individuals of the dairy breeds are always on hand. We also have records of individuals and herds of milking Shorthorns. Any man of ordinary intelligence can arrive at a solution of the problem as it relates to his particular conditions.

In any event the milch cows of the Western Canadian farm can stand improvement. Too many of them do not pay for their keep. No matter what breed you select be sure you make use of a sire that will give progeny superior to the foundation stock. When a start is made do not change your breed choice, except under extreme provocation.

### Prizes at Fairs

Referring to the editorial on "Popular Features at Fairs" in our issue of February 16, Edwin Jacobs writes to say that he disagrees with Fair Manager's advice and also with our remarks concerning the same. He agrees that to pay special attention to something that is popular in a district is encouraging something that does not need any encouragement in that particular district.

## HORSE

### Observations on Horse Subjects

The Miller bill suffered something of a resurrection in the closing days of last week. We are assured in advices from Ottawa, that the measure as finally accepted by parliament is shorn of the rather radical features which were chiefly objectionable in the original bill, and that Mr. Miller's amendments to the criminal code will encourage rather than kill legitimate sports, of which horse racing certainly is one. One thing the amended Miller bill does is to limit race meets, and another is to put down the tipster evil. Both these features of modern horse racing require attention. A limit needs to be placed on the time of a meet, for it was getting so that the race meets in some cities lasted nearly the entire season, and when the horde of tipsters, touts and race-track following struck town and began to get in their work it was small wonder that a gambling craze struck the community, and clerks and other small salary earners were busy wagering their "simoleons" on the ponies to the loss of their boarding housekeeper and employer, and to their own undoing. The Miller bill, in the form adopted by parliament, cannot be objected to by race-horse lovers or honest followers of the racing sport. Horse racing, or rather gambling on horse races, needs to be restricted in some way, for in these modern days a lot of evils have grown up around what should be one of the most acceptable of sports. Removing those evils in the fullest way, without interfering with the sport itself, should be the plan followed by horse race reformers.

\* \* \*

American writers on horse subjects are crediting woman with what they term "a returning interest in good horses." It seems—although we do not notice it so much in our smaller cities, and not at all in towns and country communities, we having fewer of the "sinful rich" to bother about—well, it seems that the "big wigs," so called, are going back to the horse, and they are going back because their wives or daughters will it so. Woman, it is said, drives or motors chiefly to display her choice of milliner's and costumer's creations, to display such natural charms as Providence may have endowed her with and to observe what kind of an exhibit of fashion other women are putting up, none of which objects can be attained by riding in the back seat of a tonneau, wrapped in a rubber coat and swathed in yards of veiling. Nor does an auto, rolling down the avenue, attract as much attention as a well matched, well mannered, nicely actioned team of carriage horses, properly accoutred and hitched to a proper vehicle. One lone cob in a gig can take the "shine" off a six thousand dollar motor, and a carriage pair will attract the attention of everyone on the street, while several dozen of somebody's this year's model, sixty-horse-power, six cylinder, six thousand dollar motors might whirl by in a cloud of dust and burnt gasoline, unseen. Woman wants

"But," says Mr. Jacobs, "you draw attention to the general-purpose horse and ask: Should fair boards encourage the production of animals, the breeding of which should not be supported? I consider the general-purpose horse is the most useful horse in the Northwest to-day and he will be for some years. Where there is one tiller of the soil in a position to keep heavy horses for farm work and a driving team for the road there are 99 who are not. At a rural show I consider the prize list should be formed to encourage competition in every kind of farm stock. The more varieties at a show the more there is to draw public attention. Racing and side-shows should be kept out."

Our critic is right in most of what he says. We agree that the general-purpose horse is a very useful animal. But is there a definite standard as to what constitutes a general-purpose horse, or as to what breed or breeds can be used in producing this class of horses? The history of horse breeding in the past shows that enough of this type are produced despite efforts made by agricultural papers and horsemen to encourage the breeding of heavy horses or light horses. Any man can afford to have heavy horses to do the work and a pair of drivers for the road if he secures the proper type of heavy females and breeds right. The difficulty is that few have desirable mares and many who have them think more of getting in a large acreage of wheat or oats than they do of breeding those mares consistently to a sire that will ensure an improvement. We do not object to offering prizes for general-purpose teams at a fall fair, but surely the production of this class of animal should not be encouraged by turning an undue proportion of the prize money that way.

### Municipal School Boards

EDITOR FARMER'S ADVOCATE:

With much interest I studied the letter submitted by J. J. Dougan, who represented British Columbia at our recent trustees' convention. Perhaps I am the more interested, as to myself and others was committed the task of defending the existing system of rural schools in the debate at convention.

As a working farmer I feel at considerable disadvantage to Mr. Dougan, who is a most able and agreeable speaker and writer. He furthermore has practical experience on both sides, yet his great argument is that used by my opponents at the convention—the inefficiency, particularly in equipment, of the rural school. This is often not the fault of the trustees, and if they had the "enlarged powers" which Mr. Dougan tells us were given to the municipal boards, probably these things would not be. Here I contend is the unfairness in the comparison. By creating another system and giving it greater powers, greater results are produced.

Give us under the system now obtaining these larger powers and the opportunity and improvement these would bring, and if improvement is not made, then condemn.

Mr. Dougan gives due recognition to the interest and devotion of trustees and people in Manitoba to their public schools. He is always kindly, and I am sure every trustee listened to him with pleasure. I can, however, say that we are a busy people. Our own affairs absorb much of our time, and the beautifying of our school grounds, not being a pressing necessity, is largely neglected. There is also generally prevalent a feeling that having a board of trustees this board, so long as they do not loosen the purse strings too much, may be left to do everything,

and as this means putting their own hands to the work only absolutely necessary work is done.

In Manitoba one great objection to municipal school boards is the segregation of foreign element in some of these municipalities. They would dominate the board, and in some places they are badly advised, and would in the larger area act as in the smaller, to the detriment of their children and annoyance and hurt of the English-speaking folk in the district. The children of these people attending the rural school where they are in the minority make splendid pupils, but in some districts where they control the situation their ultra-conservative ideas would prevail.

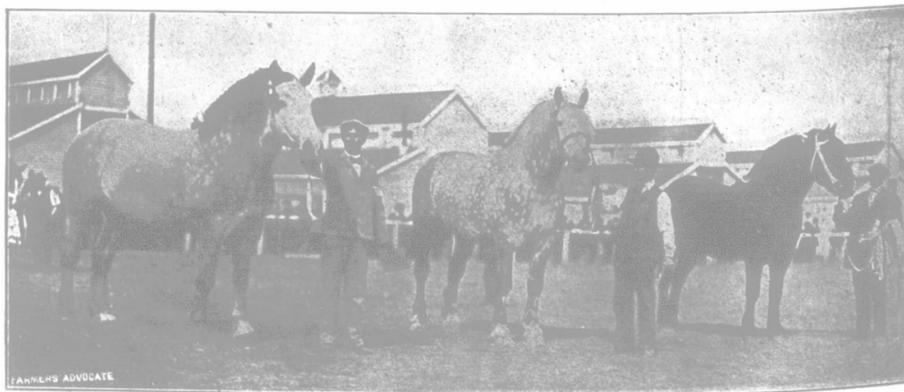
Why should municipal boards be more progressive than rural? Our municipal councillors often are, or have been trustees, are of the same class, but the trustees do have a real advantage in that they are better acquainted with the district, can judge the amount of financial burden their locality can carry, are better known in the district, more available, and are generally ready to advance faster than the majority of the rate-payers, who after all would rule the municipal board, as they now do the rural.

Rural schools will always be at some disadvantage, as compared with town and village schools in the competition for teachers, but in Manitoba all municipal schools could not be in villages even were it desirable, and the advantages Mr. Dougan gives in his summing up would apply equally to consolidated schools. In fact, to argue for municipal is to argue for consolidation. This our people are ready for, as soon as the difficulty of transportation is overcome—the one and real difficulty to its general enthusiastic adoption, notwithstanding that the minister of education has said this is no problem, and that given a contract the driver of the school van will get there, as the mail carrier gets there. The mail carrier does not always get there the same day, and often not till hours after time, and I have seen mail carriers travelling under conditions such as no school children should be submitted to. There have been days since I returned from convention when the vans could not have got through in this district. Consolidation is in places a success under united rural boards, proving that no change of board system is required, and that the introduction of this question is only an unnecessary complication.

The Winnipeg daily papers do not treat our trustees' convention seriously. The proceedings were poorly reported, and in some cases conclusions were misrepresented. This is regrettable, as scores of boards in the country were not represented, and this garbled press report gives them wrong impressions regarding the usefulness of the convention, which though only in its infancy I am persuaded will be of incalculable value to the trustees and to the system of education in the province, by broadening the outlook of the trustees, by formulating reforms and stimulating the interest of all concerned.

Man.

J. H. FARTHING.



THREE WINNERS IN THE FOUR-YEAR-OLD CLASS OF PERCHERONS AT CALGARY  
First, Garon, owned by Geo. Lane; second, Dentiste, owned by W. W. Hunter; third, Gracieux, owned by A. C. Rider.

a cleaner form of conveyance than the motor car, one in which she can dress better in and make more of a "show off" with in the streets. With these ultra-rich, too, it is largely a question of expensiveness in the turnout and as prices are running these days, automobiles are cheaper than horses, consequently they want horses.

\* \* \*

A farmer asked us the other day if we thought he ought to buy an automobile, and since we know something of the man's financial standing and knew that he was going to buy an auto anyway, whatever advice we offered, we didn't speak much against it. As a matter of fact, why shouldn't a farmer own an automobile if he wants one and can afford it? If we were farming in this year of grace, 1910, we would have all the conveniences and luxuries of civilization which our financial condition and the kind of farming we were carrying on permitted us to obtain, and if we deemed an automobile essential to our peace of mind we would get one. There are a lot of people living in this country, who, because they are "only farmers" think that most of the good things of the world have been denied them. As a matter of fact more farmers are earning automobile-owning incomes these days than are being earned by a lot of the people driving motor cars. Nor can we see that farmers in owning cars and using them instead of horses will be "knocking" the horse industry any more than they did by buying bicycles when the craze for that form of conveyance was on. The horse industry these days is in condition to stand a lot of "killing."

EQUITANT.

Breed from Sound Sires and Dams

It has been stated that progress in the improvement of horses can only come from the exclusive and continuous use of purebred stallions. But that is not enough. It also is highly important to be sure that the stallions used are sound, and as important and necessary that the mares with which they are mated are sound. It is a fundamental principle in breeding that "like produces like." We may then most reasonably expect to obtain sound animals by employing nothing but sound breeding stock.

It also would seem logical to expect that if we use unsound sires and dams their progeny may prove equally unsound, or if one parent is unsound its unsoundness may offset the soundness of the other parent and at least endow the offspring with a tendency to like unsoundness. We cannot afford to run chances. Breeding animals of both sexes should be of the highest obtainable quality and character. Even if such ideal conditions obtain there will be many disappointments in breeding, but there assuredly will be less if unsound and unsuitable sires and dams are excluded from our operations. It is not positive that, in every instance, an unsound stallion or an unsound mare will transmit like unsoundness. It is quite probable, however, that such will prove the case and many actual experiences are on record to show that unsound breeding animals do produce offspring that in time become similarly unsound. As the tendency in that direction is a well known fact it is certainly poor policy to knowingly use unsound stallions or mares. The presence of any one of the following diseases or unsoundnesses should be deemed sufficient reason for refusing to use a stallion:

- Cataract; amaurosis (glass eye), periodic ophthalmia (moon blindness).
  - Laryngeal hemiplegia (roaring or whistling).
  - Pulmonary emphysema (heaves, broken wind).
  - Chorea (St. Vitus' dance, crampiness, shivering, string-halt).
  - Bone spavin, ringbone, sidebone, navicular disease.
  - Bog spavin, curb, with curby formation of hock.
  - Glanders, farcy, maladie du coit, urethral gleet, mange and melanosis.
  - Hereditary tendency to sidebones.
- Of these diseases or unsoundnesses, sidebones are the most common. Some horsemen strenuously object to this disease being made the cause

for the official rejection of an affected stallion, and the stallion laws of some states do not include sidebones as a hereditary disease requiring rejection, but experience shows that sidebone is a disease, the tendency to which is readily transmitted from sire or dam to progeny. In a circular issued in 1908 by the department of agriculture of Victoria, Australia, it was stated that 20.78 per cent. of all the draft horses examined were affected with this disease.

The total percentage of draft stallions found unsound and refused licenses in Victoria on account of the various diseases mentioned were as follows: sidebones, 9.36; ringbone, 1.68; bone spavin, 2.01; bog spavin, 0.67; curb, 1.34; cataract (eye), 0.11.

In the circular above mentioned some interesting facts brought to light by these examinations of stallions furnishes almost incontestable proof of the hereditary character of some of the unsoundnesses previously mentioned. In the case of sidebone, convincing evidence of its transmissibility from sire to sons and from sons to grandsons, and so on, has been furnished.

In one case twelve male (entire) descendants of one sire were examined, and all but one of them found to have sidebones.

In the second case ten direct descendants were examined (nine males [entire] and one female) and of these, eight (seven males and one female) were found to have sidebones.

These facts may be more clearly represented thus:

Examined.	Rejected for sidebones.
Sire A... 5 Sons .....	5
4 Grandsons .....	4
3 Great grandsons .....	2
Total .. 12	11
Sire B... 5 Sons .....	4
4 Grandsons .....	3
1 Granddaughter .....	1
Total .. 10	8

—From Wisconsin Bulletin 186, "Improvement of Wisconsin Horses."

\* \* \*

The advisability of putting two-year-old fillies to the stud is a matter of controversy. If a filly is well grown, and is not required for work it is certainly the best plan to begin her to the business of her life as early as possible. The chances are that she will then become a more regular breeder and make a better mother than she would do if allowed to continue a maiden life for a year or two longer.

STOCK

Winter Cattle Feeding at Lacombe

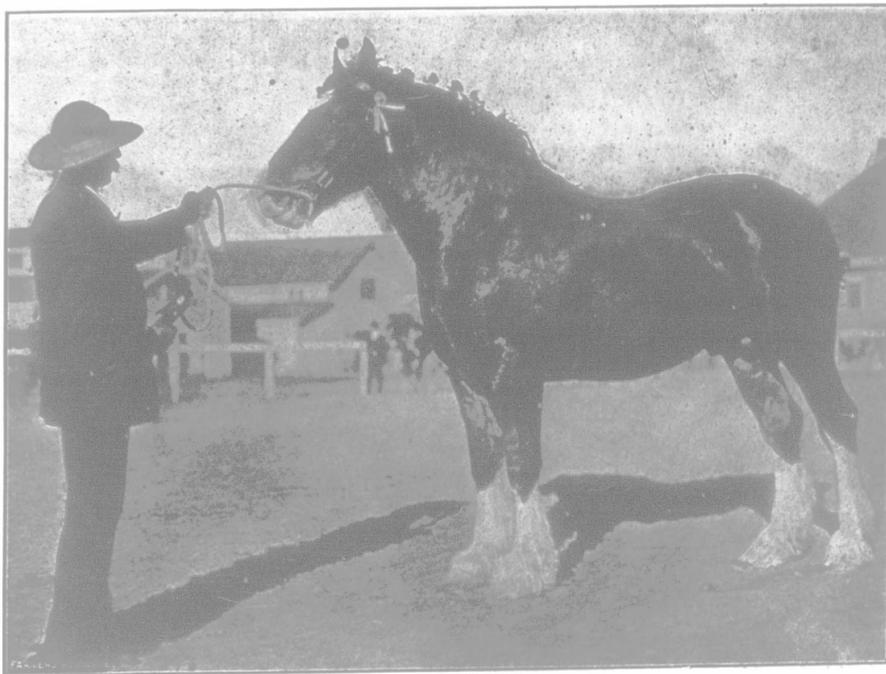
An experiment in cattle feeding, the marked success of which may have a great effect on the live stock industry in Alberta, has recently been completed at the experimental farm at Lacombe. Eighteen steers, of ordinary grade stock, were fed for 109 days. They increased in weight on the average about 190 pounds in that time, and sold at a profit of from \$14 to \$16 a head over purchase price, and cost of feed and care.

The object of the experiment was to discover whether a better outlet for rough grain, could be found by feeding it to cattle than by putting it on the market. G. H. Hutton, the superintendent of the farm, is quite sanguine over the results obtained, and he is firmly convinced that much greater profits can be had by feeding grain to cattle than by marketing it direct. The steers were sold to the highest bidder at a record price, 5½ cents per pound, live weight, with an allowance at the point of shipment of five per cent. shrinkage. The price was from ¼ to ½ cent above the price usually paid for the best beef. The steers when slaughtered dressed out 61 per cent., fully justifying the purchaser paying the price he did.

These cattle, when purchased for the purpose of the experiment, were quite an ordinary lot, but when sold at Lacombe the average weight of the herd of eighteen was 1,318 pounds. They were fed on chopped grain, a mixture of barley, wheat and oats, the wheat being frozen and rough grain. Of this mixture of grain, which could not be sold on the market at an average price of more than 35 cents a bushel, each animal consumed probably from 16 to 18 pounds a day. The animals ran loose in a corral throughout the winter and were given hay and sufficient water. All who are acquainted with conditions in Alberta must acknowledge that no more important experiments of agricultural interests could have been carried on and it is to be hoped that Mr. Hutton will continue this line of work at the Lacombe Experimental Farm.

Superintendent Hutton states: "I am firmly convinced that the cattle produced in Alberta are especially suited to winter feeding, and that large profits are to be had from the practice. Any farmer can secure the same, if not better results than this experiment shows."

Mr. McPhail, manager of the abattoir that bought the cattle, says: "If more stockmen, instead of putting cattle on the market in the



MASTER MACQUEEN, A WINNER IN THE AGED STALLION CLASS AT CALGARY—OWNED BY JAMES CLARK.

Subjects

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A. C. Rider.

fall, when so much grass beef goes on the market and prices are low, would feed through the winter and put their cattle on the market in the spring increased in weight, when prices are high and good cattle scarce, they would find much greater profit in their business."

The following tables give the results:

Number of steers in lot	18
Gross weight weighed in	20337 pounds
Average weight per head weighed in	1130 "
Number of days fed	109 "
Gross weight weighed out Mar. 30.	23720 "
Average weight weighed out Mar. 30.	1318 "
Total gain in 109 days	3383 "
Average gain per head	188 "
Average daily gain per head	1.72 "
Average cost per 100 pounds gain	\$7.42
Value per bushel of frozen wheat fed and marketed as beef	\$1.28½
Interest on investment for buildings and necessary shelter	00.00

#### COST

18 steers of weight 1130 pounds at 3.658 cents per lb.	\$744.01
26,216 pounds prairie hay at \$6.00 per ton	78.65
9,123 pounds timothy hay at \$7.00 per ton	31.93
20,810 pounds frozen wheat chop at ¼ of 1 cent per lb.	138.73
145 pounds salt	1.75
The cost of 222 hours labor and interest (\$18.75) on money invested in cattle is not figured, but it is more than covered by value of manure available for application on the land.	
<b>Total cost</b>	<b>\$995.07</b>

#### RECEIPTS

Sold 18 steers, total weight 23,720 pounds, less 5% at \$5.75 per 100 pounds	1355.70
Profit on gain of two pigs following steers during last 6 weeks of feeding	4.75
<b>Total receipts</b>	<b>\$1300.45</b>
<b>Total cost</b>	<b>995.07</b>
<b>Total profit</b>	<b>\$305.38</b>

Average profit per head	\$16.97
Note—Loss of one steer, 1,130 pounds at 3.658 cents, plus value of hay and chop consumed, less 51 pounds.	\$49.69
Hide at 5 cents	2.55

Profit of \$305.38, less \$47.14

Average profit per head after covering this loss

\$14.35

### Hogs of Proper Type

EDITOR FARMER'S ADVOCATE:

I was very much interested in an article in your issue of March 23, under the heading of "Doubts Value of Bacon Type" and signed by "An Ohio Canadian." This correspondent has used up nearly two columns of your valuable paper finding fault with the type of hog that is being raised in Canada, and quotes figures to show that they have a type of hog in the United States that they have not got here; but he very carefully omits to tell us what kind of a hog it is, and also says that the quarantine laws are almost prohibitive. If this is as good a hog as he says I think he would be wise in having some shipped in for breeding stock, so long as the quarantine was not altogether prohibitive.

I do not write this letter for anything except to gain information on this subject. If this man has anything good to offer let him tell us, and tell us over his own signature. I am an interested hog-raiser.

Man. D. E. COLLISON.

\* \* \*

The potency of a sire probably depends as much upon his general care as upon the food he eats. One of the chief reasons why many sires are not as potent as they should be is the fact that they get practically no exercise, except during the stud season. A horse makes a better sire if he gets regular exercise at all times.

### Interest Your Neighbors in Purebred Stock

The little valley of La Perche, France, is known the world over as the home of the Percheron horse. Guernsey and Jersey Islands in the English Channel are recognized throughout the civilized world as the home of the Guernsey and Jersey cattle. If a buyer in any part of the world wishes to get high type animals of several of our breeds of cattle, hogs and sheep, he goes to certain counties in England, Scotland, or Continental Europe, where in each locality these special breeds of animals have been extensively bred for generations.

There are certain districts in Western Canada that are becoming noted in the same way. Clydesdale horse breeding is general in the districts contingent to Brandon, Man., and Regina, Sask. If one wishes to purchase a draft horse of this breed he thinks instinctively of these centers, and he very likely visits the breeding establishments in these districts before buying. There are other districts, noted or becoming noted, in other lines of purebred livestock. It is to the interest of every breeder wherever he may be located, to lend every effort to interest his neighbors in the same line of stock as he is breeding, if not in that line, then in some other. Get them interested in some breed of purebred livestock; get them to make exhibits at the fairs; get your district known as a purebred livestock center, and you will help yourself and your neighbor more than you can in any other way. Livestock breeding is an industry that thrives best where competition is keenest. Don't be afraid to interest your neighbor in the same line as you are engaged in, for his success will help you to do business.

### Report of Swine Commission

In the report of the commission appointed to investigate the swine industry of the United Kingdom and Denmark, notice of which is contained in our issue of last week, a chapter is devoted to what is termed "Lessons for Canadian Swine Raisers and Packers," in which is discussed certain points in connection with the production and marketing of hogs. After reviewing the condition of the swine industry in England, Scotland, Ireland, Denmark and Holland, the commission draws these lessons for the producer:

Everywhere the ideas of pig feeders agree with those of the most successful Canadians in regard to the best age to wean litters. Nowhere were breeders found weaning at less than six weeks, and most breeders leave the litters on the sow until two months old.

Both in Denmark and Ireland the results of feeding experiments agree with those carried out at Canadian stations in that the cost of gain per pound increases with age and live weight. In Denmark especially it is confidently believed by feeders that hogs that are kept thrifty and growing from the time they are weaned until ready for market at five and a half to seven months old, weighing about 200 pounds, are more

profitably fed than those given longer time to finish or carried to heavier weights.

The value of milk and whey in pig feeding was everywhere exemplified. The commission saw very few pigs being fed without one or the other, and nowhere were these foods fed without a care for the greatest profit.

Roughage in the form of roots or other green fodder is considered an essential part of the successful pig raiser's food supply. These, it is generally believed, help materially to maintain thrift in breeding and growing stock. Nowhere can these be cheaper grown than in Canada, and no pig raiser can afford to be without them.

Another lesson gathered in each country visited is the importance of carefully grading the ration according to the age of the pigs and the object in view. Everywhere young pigs were fed on easily digested food rather light in character and with only a small percentage of green food. As the pigs get older roughage is increased to cheapen the ration and strengthen and keep in tone the digestive organs. As the finishing approaches the ration is made stronger, which hastens the fattening and assures a high quality of meat.

In the matter of marketing the report has this to say: Co-operation it would seem should be a good solution for much of the buying difficulty in Canada. It ought to do away with the flat rate system of paying alike for all kinds, good and bad. It would do more, it would stimulate competition which is limited to a minimum in many sections.

Can co-operation in Canada succeed?

Some say: "No, it has been tried and failed." Was it not a poor kind of co-operation that failed? The intention of organizers was of the best, much hard work was done; farmers put in a lot of money and well equipped factories were put in operation; business connections that promised well in the Old Country were made and co-operation in the bacon industry was launched, but it did not last. Where was the weak point? It was not in the hogs, for there were plenty and of good bacon type; it was not in the factories, for these have proved their own success in the hands of proprietary firms; it could not have been the market, for this has never ceased to grow for the Danes and others who send on the good bacon in regular quantities. Was the system of co-operation defective? It would seem so, at least for the disloyal members who soon commenced to bite at the dangerous bait of rival houses who received every encouragement to cast their bread upon the waters, to be gathered in larger loaves in the not too distant and very certain future. No, co-operation did not prove a success in the pig business, nor could such a brand of it have succeeded in any business in which it might be tried. It would have as surely failed in Denmark with such poor staying material. The early organizers in that country saw the rocks ahead and added a penalty clause to the rules. It required only a little patience and honor to teach the Dane that co-operation was the correct method and since then it has proved not only to the Danish, but



HAMPSHIRE DOWN YEARLING WETHERS, GRAND CHAMPION PEN AT SMITHFIELD SHOW LAST YEAR.

to the Canadian farmer as well, that wisely conducted co-operation is a sound principle.

A successful co-operative society requires a strong leader and a faithful membership. Unless a community is made up of such a class, who will bind themselves for a term of years to supply all their marketable hogs to their own factory and stand firmly and loyally by the interests of their organization, it need not hope to make co-operative curing a success. Given such men, with a desire to follow pig raising as an important branch of their agriculture, a co-operative association will work in Canada as it does in Denmark. The initiative must, however, come from the pig raisers and be carried through as a remedy to a grievous situation. Having come into contact with a large class of farmers who are growing rich through co-operative bacon raising the commission confidently recommends it to the pig raisers of Canada who will do their duty towards it.

Summarized the recommendations of the commission are as follows:

1. The adoption, on the part of the packers, of an attitude of sympathetic co-operation between themselves and the producers whereby every possible encouragement would be given farmers to increase the quantity and improve the quality of their hogs. This would involve a constant, earnest desire and readiness to afford every facility on their part in co-operation with the producers, to investigate and solve problems which may give rise to dissatisfaction. It would require the adoption of a careful grading of the prices of hogs through the year, guarding against discouraging low levels. It would require the control of buyers and the recognition of quality in the prices paid for hogs.

2. The co-operation of farmers in engaging a salesman for their hogs, as is carried out by the Eastern Counties Farmers' Association of England.

3. The adoption of the system of selling swine on the open market as applied to cattle and sheep. By the co-operation of neighbors car loads could be sent forward at regular intervals.

4. The establishment of co-operative packing houses as conducted in Denmark and Ireland.

### The Bacon Hog

EDITOR FARMER'S ADVOCATE :

In your issue of March 23rd appears an article championing the thick hog as against the bacon type, written by "Ohio Canadian." There is no country in the world that puts as high a class on bacon on the English market as the Danes, and probably no country of the size puts as much on the market in proportion. Danish hogmen are buying their grain, some of it from this country, and they are doing it with the bacon hog, and these men are shrewd enough to adopt the thick hog if they could do better. Prof. Shaw, formerly of the Minnesota Agricultural College, stated in Qu'Appelle once in my hearing, when a man at his back said: "I like the Berks; they are so much more easily fed."—"That is not our experience at the college, where we weighed the feed and the pigs. We found that we could make a pound on one as easy as on the

other." And the Yorkshire has gone into the Northern States in large numbers and they have gone there to stay. To say that a sow dressing over 500 pounds with 53-pound hams is the kind that is wanted is contrary to facts, as the buyers offer 1 cent less per pound. To prove this put the two kinds on the counter of any shop and see how many will buy the thick, as long as any of the other is in sight.

As to the weights quoted I have seen the bacon hog at those weights at the same age, but to say that all bacon hogs, or all "meat hogs," can be made those weights is another matter. While we may differ in our opinions as to the kind of hog that is best to grow, I believe we all know what a bacon hog is supposed to be like. But when the Brandon Winter Fair puts out a prize list offering certain prizes for bacon hogs of not more than 220 pounds live weight, and then sends 600 miles south in the corn belt, fat hog country to get a judge to place the awards, there is something wrong somewhere. And the Brandon butcher said they did not want the thick hog, as it was not suitable for their trade. At Regina Fair, when killed the heaviest carcasses brought only 11 cents, while the others went 11½ to 12¼ cents, and they were all of the bacon type.

"BACON TYPE."

### Feeding Value of Timothy

EDITOR FARMER'S ADVOCATE :

Would like to know exactly the effect of timothy on dairy cows, cattle, horses, swine and sheep, as it is held here that timothy is not good for dairy cows and cattle?

Alta.

J. L.

Timothy is not a hay of high feeding value for dairy cows, cattle or sheep. Horses relish it, and do well on it, and the hay is preferred over most others by nearly all horsemen. For feeding cattle other than dairy cows, timothy is not much thought of and has probably about the same value as corn stover or good oat straw. As a feed for sheep is it not satisfactory.

A good many feeding tests have been made with timothy, and a summary of some of them many answer your question best. Timothy is a poor dairy feed, an unprofitable feed for cows, and should be replaced by leguminous hay. For fattening cattle numerous tests show it to be about equal to corn stalks. It is inferior to corn silage or clover, and is said to tend to the production of intestinal fat. For horses it is the most common fodder, and for them has considerable feeding value. Sheep do not relish timothy, and do not thrive well on it.

Chemical analysis shows that timothy hay is not rich in nutriment, and common experience in the older settled parts of the country is that the value of this hay is usually over-rated. It is richer in proteid matter than ordinary prairie hay, has slightly more protein than field-cured corn stalks. It is advisable in all cases to substitute the leguminous hays—red clover, alsike, alfalfa—for timothy. All classes of stock do better on clovers than on grasses.

## FARM

### Topics For Discussion

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

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

May 4.—What has been your experience in corn growing in the Canadian West? Give particulars as to preparation of soil, most satisfactory varieties, method of sowing and summer cultivation. Compare this crop with other fodder crops.

May 11.—What advice have you to give as to methods of farming that can be followed to avoid summer-fallowing? Discuss in detail your system or any system that you know will remove the necessity of putting the land under summer-fallow at regular periods.

May 18.—In grading country roads on the prairie how can earth grades best be constructed over sloughs? What width is desirable when such grade is completed in order to avoid dangerous ditches on the side? Give suggestions as to culverts and the economical handling of men and teams?

May 25.—What is your opinion of the advisability of painting outbuildings and board fences? Give particulars as to most satisfactory kind of paint and best method of application. Also mention approximate cost of thoroughly painting a given area of wall or fence.

### Discussion on Root Growing

Two articles are published herewith in answer to the question: What advice have you to offer on the production of field roots, such as turnips, mangels and sugar beets? Field roots are not grown to the extent they should be, and we believe the information offered re the preparation of the soil, seeding and general cultivation of roots may influence some to consider the merits of these crops in connection with the particular line of farming in which they are engaged. It may not be to the interest of the grain farmer to produce roots, but it is in the interest of the live stock raiser or dairy farmer to give more attention to the root crop. The prizes are awarded in the order in which the articles appear.

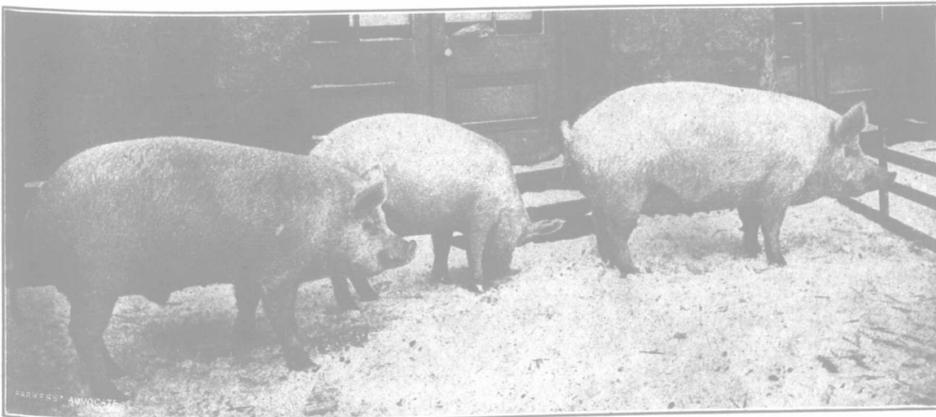
### Mangel Growing in Manitoba

EDITOR FARMER'S ADVOCATE :

Mangels thrive best in deep, rich, loam, and the first care should be to provide soil conditions that will be most favorable for the growth of the crop. I have been growing from one to four acres of mangels each year for the past seven or eight years and will outline briefly my method.

My land has been cropped for a number of years and I find it necessary to manure fairly heavily to get best results. Rotted barnyard manure at the rate of 10 loads or more per acre is spread on the mangel land after plowing in the fall. The plowing is done a little deeper than ordinarily. In the spring I disk and harrow the patch just as early as it can be worked, and at intervals throughout the season run over it with the harrows to check weed growth and hold as much moisture as possible.

I seed usually about May 20, sowing with the



THE KIND THE WEST NEEDS—PURE BRED YORKSHIRES, WINNERS AT ONTARIO WINTER FAIR IN DECEMBER.

grain drill and making the rows about 30 inches apart. I believe it would be better to have a special seeder, but the area sown hardly warrants the purchase of such yet. I use about 12 pounds of seed per acre. I have seen larger quantities than this recommended, and have had good crops from using 4 or 6 pounds of seed per acre, but find it safer, one year with another, to use a liberal quantity of seed. Last spring I tried soaking the seed in warm water for half a day before sowing and got a quicker and stronger germination than I ever did before, but the soaked seed was a little more difficult to sow.

When the rows are up so they can be fallowed, the horse cultivator is started and kept going up to harvest. The plants are thinned to about 12 inches in the row, and harvested by hand. I store in a bin in the basement.

In brief, mangels require a rich, well prepared soil, should be sown towards the end of May in rows about 30 inches apart, thinned to 12 inches in the row, well cultivated all season, and harvested before there is danger of frost damage in the fall. They make the best winter succulence for dairy cows; in fact, I would not try to keep cows without mangels to feed them. I find the yellow intermediate varieties the most generally satisfactory.

Man.

M. B. JOHNSON.

### Directions for Growing Turnips

EDITOR FARMER'S ADVOCATE :

In the growing of such roots as turnips, mangels and sugar beets, my practice has been as follows: I manure the land, using well rotted manure, for strawy manure will cultivate up, plow in the fall and harrow every few days in the spring until May 24 or June 1, for mangels or sugar beets and sow with a drill 30 inches apart in the rows. As soon as the rows can be seen I cultivate between them. When the plants are about 3 inches high they are then thinned to 15 inches apart in the rows, and afterwards cleaned of weeds.

I use the same method for turnips, except that I find it safer to continue harrowing the land until about June 20, by which date the fleas are all gone and one is pretty sure to get a crop. I sowed earlier than this last year, and had a nice stand of young plants, large enough to cultivate, but the fleas damaged them so badly that I harrowed them all up and re-sowed on the 21st of June, from which sowing I had a fine crop.

I thin turnips to 12 inches apart in the rows. I prefer turnips to either mangels or sugar beets, as they are hardier and will stand considerable frost in the fall without injury, and by clipping off the tops with a hoe you can harrow them over a couple of times and have nothing further to do but tumble them into a wagon and haul to the pit. A pit for turnips requires only to be a hole in the ground covered with poles and a little straw and about 6 inches of earth. Leave plenty of openings for ventilation, and do not be afraid of the turnips freezing. Let the top ones freeze, if they must; it won't hurt them. Watch the ones at the hole where you dumped them in, because there will be some soil mixed with them, and they are sure to heat. Feed these first. I have not had much luck with mangels or sugar beets. I am going to sow two acres of turnips this year, as I find them excellent feed for cattle and pigs.

Man.

D. E. COLLISON.

### New Style of Plow

EDITOR FARMER'S ADVOCATE :

I am experimenting with a plow with a view to lightening draft on that most important of farm implements.

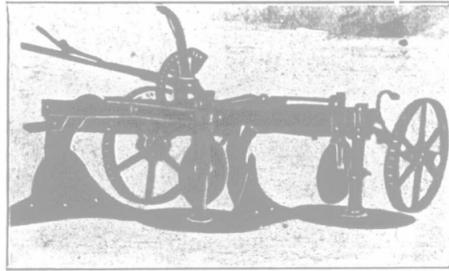
I have often thought when plowing in the fall, when the land is dry, that there is a maximum of power expended for a minimum result, in plowing. There is too much useless friction and too much power wasted. There is a heavy side pressure against the landside caused by turning the wheel, and there is additional side pressure exerted by the slant behind the share. Some years ago I had a disc plow, but was

not satisfied with the work done and discarded it. Last summer I was struck by a plan by which I could use a rotating share which would reduce friction and at the same time cut a level furrow instead of the objectionable scoop of the ordinary disc plow, and I have had a plow made or rather adjusted to my design.

A flat disc cuts horizontally in place of the ordinary share. The diameter of disc is double the width of the furrow to be cut; one-half cuts while the other half is in the bottom of the preceding furrow. It is something like a rolling coulter running horizontally instead of vertically, and will rotate for the same reason that the coulter does. The disc revolving as it does, works easier than any share at present made, and the cutting side pressure will be opposite to, and will neutralize the turning side pressure, thus avoiding friction.

One objection to the plow is that it will be less steady than an ordinary plow, as it will have a tendency to swing to the right on meeting an obstruction. There are several ways of overcoming this difficulty. The best way, I think, is to have strong rolling coulters with stiff shanks set well ahead of the share disc. These will act as a guide, and being well ahead in the solid land will take the side thrust when needed, and cause no side pressure.

I have the discs ground on the underside only, as this will allow a tilt forward, which lets the



Plow designed to decrease the draught.

mouldboard underneath the disc at the back, and also allows a tilt down to the landside, enabling the "idle" half of the disc to run high and clear of the bottom of the previous furrow. The standard is set over from the center to allow a full half of cutting surface to the disc.

I would like to have the opinion of brother farmers on this plow. It will be thoroughly tested this season.

Sask.

HUGH MONAGHAN.

### Wheat Yields and Fungi

In August, 1909, after some nine years' study upon the wheat crop of North Dakota and the Red River Valley I announced that the cause of deteriorated yields in the wheat crop of the Northwest was not primarily due, as usually conceived, to a deteriorated nitrogen condition of the soil, but rather to the presence of numerous root rot and blight-producing fungi, which attacked the crop after the same manner as the wilt fungi attack the flax crop. I also called attention to the fact that the use of fresh barnyard manures containing straw from diseased fields, when spread upon the land by the manure spreader, is a very destructive process, rapidly scattering the wheat diseases to new lands and injuring those lands for wheat cropping. Numerous papers commented upon this information, and in some cases not very favorably.

Numerous experiments by culture methods in the green house, supplementing those of our field plots, are now so far completed as to furnish conclusive evidence that these first statements were well founded. Extensive pot experiments were planned in which 20 inches square of soil were used. The soil taken to fill these boxes was taken from old wheat lands which no longer raised any plump wheat and had had approximately forty continuous crops. In some cases the soil was treated with various chemical disinfectants, and in some cases sterilized under high steam pressure. Healthy seeds, modified hot water treated, planted in the sterilized beds, produced healthy, strong, heavy stooling plants

with good roots and underground stems. The same seed planted in the old wheat lands which had not been sterilized produced feeble plants, the underground stems early evidencing decay, the cortex of their roots sluffing off. Shrivelled seed, internally diseased, treated, produced diseased plants, even in well sterilized soils, but these grew much stronger than from the same seed untreated and planted in unsterilized soil. In this case young roots are stunted or killed almost as soon as formed and no stooling occurs.

The characteristics of the diseases are so definitely shown in the crop that photographs taken of the roots and stems plainly show the results of the experiment. All persons who have seen these experiments no longer question that the chief cause of deteriorated yield and shrivelled seed in the old wheat lands of the Red River Valley is due to fungus infested lands and fungus infested, "deteriorated" seed.

These experiments, associated with numerous field observations and laboratory studies lay bare a real cause and a real reason for proper crop rotation and seed selection and treatment. They also prove conclusively why it is that formaldehyde treatment is always beneficial, even though there is known to be no smutty wheat in the seed.

Bulletin 87, dealing with wheat and flax diseases in an educational manner, also discusses the subject of seed selection and seed treatment, and shows the results of breeding for disease resistance in flax. The following quotation from page 163, of that bulletin deals with these root rots and blights of wheat:

"New studies conducted by this department have demonstrated the fact that the wheat crops are quite commonly attacked by three or four types of minute fungi not heretofore recognized as definite wheat parasites. These parasites not only attack the wheat heads and grains, but gain entrance to the interior of the grain and bring about blighting and shrivelling, and also live over in the soil after the manner characteristic of flax-wilt and flax-canker fungi. It is, therefore, important that seed treatment and rotation of crops be followed for exactly the same reason as given for the prevention of the diseases of flax. As the wheat crop is much more general in its distribution than flax, it will be more difficult to gain as definite immediate results.

"Treatment: (1) Obtain home-grown seed of pure variety. (2) Select the brightest, plump, and heaviest type of berry possible. (3) Grade this grain by means of a heavy wind-blast, preferably vertical, in such manner as to eliminate the light weight, shrivelled kernels. Treat the seed as recommended for smuts of wheat, either by the formaldehyde method or the modified hot water method. As these diseases of wheat often attack the grains internally it is possible that some new method of seed treatment will yet supplant the ones now in common use, though these are extremely efficient. (4) Sow the treated grain upon soil that has not lately been occupied by wheat. The rotation should be of such nature as to introduce one or more thorough cultivations of the soil, such as that necessary to develop a proper corn or potato crop. (5) In fertilizing with barnyard manure any land which is to be sown to wheat, use thoroughly composted manure, that the diseases which are resident upon the wheat straw commonly used in animal bedding may be killed by the composting process."

The classification and description of the types of fungi which are the cause of these wheat diseases are in part given in the annual report of the North Dakota Experiment Station for 1909, and will be more fully given in a bulletin to be issued during the coming season.

The value of these facts rests in the new points of view regarding the well-known desirability of proper crop rotation, seed selection and seed treatment.

H. L. BOLLEY.

N. D. Agricultural College.

**Beef-Ring Charts**

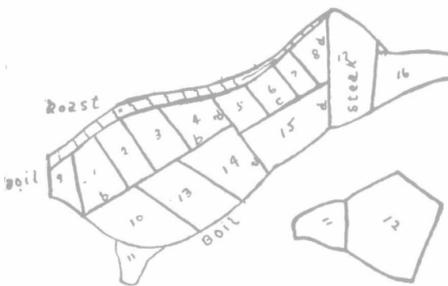
As summer approaches the usual enquiries regarding beef-ring charts reach the office of THE FARMER'S ADVOCATE. Farmers are rapidly realizing that this is an ideal way to provide choice beef at a minimum cost. When a neighborhood adopts the beef-ring method for one season it is seldom that any difficulty is found in continuing the good work in the future.

No doubt several satisfactory charts are in use for cutting up the beeves, so that when the season has ended each member has received a whole carcass. Sixteen and twenty-share rings are most common. In many localities shareholder arranges with a neighbor to take half of his share in case his family is small.

The customary arrangement is for members to agree to provide an animal each for slaughter on successive weeks, said animal to be a steer or heifer, not more than two or perhaps three years old, and to dress not less than 300, or in some cases 400, and not more than 500 pounds, exclusive of head, heart, liver, feet, tail, fat of internal organs, etc., which parts, along with the hide, go to the owner of the animal. The services of a competent butcher are secured to kill the animal and apportion the carcass according to a fixed chart, cuts being supplied in turn, so that by the close of the season each member has received a whole animal. At the end of the season, settlement is made among the members, according to the weights of the animals slaughtered, on the basis of a fixed, stated price for beef, from or to those who go below or above the average.

SIXTEEN-SHARE CHART.

Butchers have different charts for cutting into shares. A chart for a sixteen-share beef-ring, commonly used, is as follows:



This chart represents one-half of beef lying on table ready for saw. Before letting this half down divide it in the middle by running a saw across at "a," between roasts 4 and 5, leaving two ribs on hind quarter. After laying both quarters on the table, divide fore quarter at line "b."

- No. 9. Represents neck. Saw neck off, leaving three joints on it.
- No. 1. Represents roast No. 1. Saw roast No. 1 off, leaving three joints on it.
- No. 2. Represents roast No. 2. Saw roast No. 2 off, leaving three joints on it.
- No. 3. Represents roast No. 3. Saw roast No. 3 off, leaving three joints on it.
- No. 4. Represents roast No. 4. Saw roast No. 4 off, leaving four joints on it.
- No. 11. Represents front shank. Saw front shank off above upper joint.
- No. 14. Represents second rib cut. Saw it off, leaving five ribs on it.
- No. 13. Represents first rib cut. Saw it off, leaving four ribs on it.
- No. 10. Represents brisket.
- No. 12. Represents shoulder, which lies directly under brisket, as represented in chart. Then take the hind quarter, and divide at the line "d."
- No. 15. Represents flank. Cut flank off at line "c."
- No. 5. Represents roast No. 5. Saw roast No. 5 off, with three joints on it.
- Nos. 6, 7 and 8. Represent sirloin. Divide these three to as nearly the same weight as possible.

No. 17. Represents steak. Cut steak into slices, giving a slice to each person.

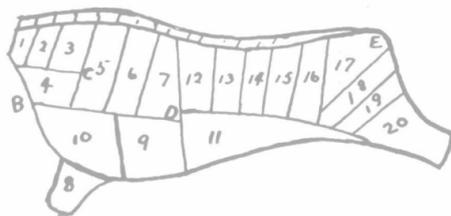
No. 16. Represents hind shank after steak is taken off.

After this half of the beef has been cut up it is divided between the first eight persons, as shown by time-table, giving each person a roast, a boil piece, and a slice of steak. Then the other half of the beef is taken down and cut up in the same manner.

When individuals decide they cannot handle a whole share they arrange with a neighbor to go halves. With a sixteen-share ring, and animals up to three years and an average dressed weight of about 400 pounds, one share gives a fair supply for two small families. It can be seen, therefore that the number of shares will have to be governed by conditions, and that the chart will have to be made out accordingly. A competent butcher will find little difficulty in dividing the carcass in such way that each member will receive justice.

TWENTY-SHARE CHARTS.

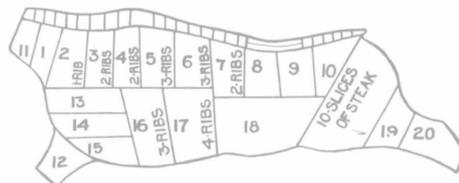
A successful chart for a beef-ring of twenty members is as follows:



This chart shows how the beef should be cut. To give each party a boil and a roast it must be divided after the beef is cut down in halves. Cut across between numbers 7 and 12, leaving four ribs on the hind quarter. After laying the front quarter on the table for cutting up, cut off front shank No. 8; then cut from line B, making two pieces, numbers 10 and 9; then take off neck, No. 1; then take off roast No. 7—three ribs in it; roast No. 6, two ribs; roast No. 5, two ribs; then cut across the line to C, taking piece No. 4, boiling piece; then, No. 3, two ribs in it; leaving piece No. 2. After cutting up the two fore quarters, let down the hind quarter on the table, and cut from line D, leaving flank No. 4; then cut roast No. 12, three ribs in it; then follow along 13, 14, 15, 16; then cut across line E, rump roast No. 17; then cut off Nos. 18 and 19, leaving hind shank No. 20.

The numbers that go together are: 1 and 18; 2 and 16; 3 and 12; 4 and 13; 5 and 17; 6 and 20; 7 and 11; 8 and 15; 9 and 14; 10 and 19.

Another twenty-share chart is as follows:



The cuts as distributed are as follows from each half of beef:

Roast.	Boil.	Steak.
1.....	14.....	1
2.....	13.....	2
3.....	19.....	3
4.....	16.....	4
5.....	17.....	5
6.....	18.....	6
7.....	15.....	7
8.....	12.....	8
9.....	20.....	9
10.....	11.....	10

An American milling company have perfected a system for making "alfalfa flour." Certain portions of the plant are ground into a powder and mixed with wheat flour. The mixture is said to make a palatable bread.

**DAIRY**

**Ration for Cow Carrying Calf**

EDITOR FARMER'S ADVOCATE:

Allow me briefly to express my appreciation of the up-to-dateness of your valuable paper. I take especial interest in the "Topics for Discussion" each week, and as a dairyman I wish to express my thanks for the two really good articles on dairy herd improvement in your number dated April 6. J. E. Frith says: "If the cow carrying the heifer calf is fed a proper ration it is possible to change the percentage of butter-fat in that calf." I would like to ask Mr. Frith what he considers a proper ration.

Sask. JOHN HUBBARD.

**Shorthorn Cow's Record**

A registered Shorthorn cow, Rose of Glenside, owned in Pennsylvania, has just completed a year's semi-official record, in excess of all previous Shorthorn records, and one of the largest made by any cow. From March 3rd, 1909, to March 3rd, 1910, she gave 18,075 pounds milk, and 735 pounds butter. Rose of Glenside is 9 years old, and has produced seven calves. She is descended from a line of heavy-milking Shorthorn cows; her dam has a record of 9,470 pounds milk in one year, and her grandam has a record of 10,043 pounds in one year, and an average of 9,137 pounds per year for six years. Her sire, Belle Boy 2nd, is from a cow with a milk record of over 9,000 pounds in a year, and is sire of Henrietta Clay 2nd, 10,286 pounds milk in one year, as a three-year-old heifer.

This cow is owned by Glenside Farm, May & Otis, proprietors, Bradford Co., Penn. She is a cow of large size and good conformation. At the end of her year's work she weighs 1,450 pounds. Cost of grain to produce 1 quart of milk, 85-100 cents—an extremely low figure. Best day's milk, 62.8 pounds; average daily record for entire year, 49.5 pounds milk, 2 pounds butter. And yet some writers claim that there are no milking Shorthorns!

**Prepare Now For Next Winter's Feeding**

Regularly each winter we receive inquiries from farmers who want to know what they can feed their cows to maintain the milk flow. Usually follows a list of the feeds available: prairie hay, straw, oats and possibly bran. From these a ration is required to be compounded that will keep the cows giving milk in profitable quantities. To compound such ration from such feeds is an impossibility, and as there are no other feeds procurable it is altogether likely that little profit will be shown from the dairy herd during winter.

The time to think about compounding a winter ration for dairy cows is not next fall, but now; not when the grass fails and the milk yield falls away, because the cows are on a straw diet, but now when it is possible to make provision for next winter's feeding, by seeding some crops that will produce succulence and milk-making nutrients for next winter's feeding.

A crop of roots requires some little labor to raise, but makes the best milk producing material that can be incorporated into the winter ration. A piece of land can be sown to a mixture of oats and peas, and a lot of nutritious hay easily produced. Peas are strongly nitrogenous, are easily grown with oats and the two grains cut green and properly cured make a hay that is richer than common prairie hay, and better than oat sheaves or any of the other usual fodders, as a cow feed.

**Seven Stones in Herd Building**

1. Milking clean to obtain all that a cow can give, and to prevent early drying off.
2. Use of purebred sire from strain of large producers, to acquire good qualities and perpetuate dairy tendencies. Of what value is a "scrub"?
3. Regular and careful feeding—as to time, quantity and quality; adjusting the grain ration to the production of milk and butter-fat; to get

the utmost value for the foodstuff grown or purchased.

4. Providing succulent feed as roots, silage and soiling crops, to sustain and prolong the flow of milk.

5. Culling out poor cows—no one wants them either to feed or to breed from. Beef them.

6. Good care—including kind treatment, and everything conducive to comfort, cleanliness and health so as to give the cow an opportunity to work to the best advantage. Better methods, not necessarily much outlay of cash.

7. Keeping records—all the foregoing naturally hinges on records. A knowledge of each cow's performance and capacity is the prime necessity for increasingly profitable production. A mere estimate may be far astray and give no basis on which to work intelligently. Guess work is not business-like, but a careful record supplies information of the utmost value at every turn. Record forms are supplied free on application to the dairy commissioner, Ottawa.

C. F. W.

### Cooling Milk for Cheesemaking

A seven-page bulletin on "The Cooling of Milk for Cheesemaking," by J. A. Ruddick and G. H. Barr, has been issued by the Dominion Department of Agriculture, and may be obtained by managers of cheese factories and creameries for their patrons on application to the Dairy and Cold-storage Commissioner, Ottawa. Following are the recommendations offered:

1. Evening's milk, intended for the manufacture of cheese, should be placed in the cans as soon as possible after milking. In warm weather, the milk should be cooled by surrounding the milk cans with cold water, or water and ice. A tub made from a barrel cut in two will serve the purpose, or a special tank made to hold several cans. If the supply of water is limited, ice may be used with advantage. Where there is plenty of cold well water, ice is not absolutely necessary, except when the milk is to be kept over Sunday. Do not dip or pour the milk.

2. The cover should be placed on the cans as soon as the milking is finished, and left there for the night. There will be no clotted cream on the surface of the milk when the milk is cooled and the can is covered.

3. It is advisable to deliver the evening's and the morning's milk in separate cans, but if for any reason the two milkings must be delivered in the same can, and the morning's milk is not cooled the evening's milk should be cooled to 60 degrees or under. If the two milkings are delivered in separate cans, or if the morning's milk is cooled to 75 degrees, the evening's milk need not be cooled lower than 65 degrees under ordinary circumstances. The morning's milk need not be cooled when it is delivered in a separate can, and it should not be dipped or aerated in any case.

4. When milk is to be kept over Sunday it should be cooled to 50 degrees or under.

5. A thermometer should be used to determine the temperature. Use only the special dairy thermometers, made wholly of glass, and known as "float" thermometers.

#### GENERAL NOTES

Covering the Cans.—Our advice to put the covers on the cans as soon as milking is finished is contrary to what has been the usual practice among cheese factory and creamery patrons. It has been popularly supposed that the milk should be left uncovered to facilitate the escape of "animal heat," "animal odors," and so on. On the other hand, in the high-class dairies, where milk is bottled for direct consumption, the practice is to put the milk in a tightly-stoppered bottle as soon as possible after milking. Our experiments proved that the best results were obtained by covering the milk. It protects it from insects, dust, falling leaves, or other dirt which may find entrance, and thus carry to the milk many injurious germs of one kind and another. It also prevents the evaporation from the surface of the milk that causes the formation of a tough, leathery surface on cream, much of which is lost in the process of cheesemaking.

Water for Cooling.—The quantity of water that is required to sufficiently cool a given quantity of evening's milk depends on several conditions, such as the temperature of the water itself, whether the evening is a cool one or a warm one, and at what hour the milk is delivered at the factory in the morning. The latter point is important. Milk that is delivered at the factory at 6 a. m., as is the practice at many factories, does not require as much cooling as it would if delivery were delayed two or three hours.

Generally speaking, if deep well water is available, at a temperature of 50 degrees or under, a quantity equal to that of the milk will be sufficient for the purpose. If the water is warmer a larger quantity will be required. If the supply of water is limited, ice can be used in it to good advantage. One pound of ice has a cooling power in this connection equal to 8 to 10 pounds of the coldest well water.

Water is a better cooling medium than is air. Thus, if the milk cans are surrounded with water at a temperature of 50 degrees, cooling is effected more quickly than if the cans are surrounded with air at the same temperature. Quick cooling is important.

### Bath For Cows

A recent newspaper note reads as follows: "A bath for cows is a new idea. In a lecture at Ann Arbor, Mich., recently on 'The Need of Pure Milk,' Rev. Caroline Crane startled her audience by saying: 'Dairymen should bathe their cows every day and wipe them off with Turkish towels. Almost anyone would be willing to pay 10 cents a quart for milk if he could be sure it was pure. Most of us would pay 12 cents. Then dairymen could afford baths for their cows.'"

No doubt our good lady friend in her enthusiasm over cleanliness had a faint recollection that in some way or other water was used in connection with the milking of cows in up-to-date stables. Perhaps some acquaintance knew of a stable where parts of the cow were washed before the milker began his work twice each day. Feeling that with the human race a thorough bath, combined with liberal use of the Turkish towel was essential, the dimness of her memory led her to suggest a similar process in the dairy stable.

However, the statement credited to this well-meaning reverend lady cannot be let pass unnoticed. Her effort to impress the value of cleanliness in all operations connected with the dairy should be appreciated. Summer is approaching; flies will be numerous; milk and cream will sour quickly and strict attention to details is essential. By seeing that the cow's udder and flanks are clean before milking is started, much will be done to avoid contamination of the freshly-drawn milk with dirt and

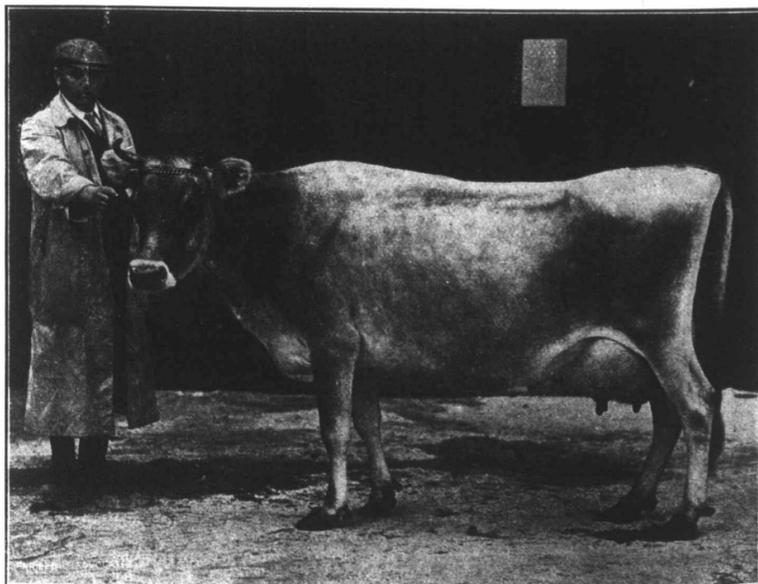
dangerous bacteria. It may not be necessary to give the cow a bath every morning, but a judicious use of a cloth and some water is not to be laughed at.

### Good Herd From Modest Start

EDITOR FARMER'S ADVOCATE:

I think the greatest drawback to the Western farmer is the poor milking qualities of the dairy cows. The question naturally comes: How can we get better? A man will not sell a good cow, and most farmers cannot afford to buy registered stock, so it is up to us farmers to improve the quality of our young stock by introducing a good milking strain into our herds. At present this is an important question with me, as I want to get a good dairy herd as soon as possible. I cannot afford to buy 20 or 30 good milk cows, as it would take a small fortune.

In the Old Country we used to select a bull calf from the heaviest milker, and breed the rest to him. This system gave good results with two or three crosses. Still if a man uses a purebred bull of a milking strain for three years he has lost most of his grade blood, and his young stock are more valuable at the milk pail, and from a selling point of view. I think I have learned by experience that you cannot lose money by improving the male stock. In a new country you cannot dairy until the railways are built and markets opened up. Then is the time to start to replace ranch stock by milk-producing cows. I have over 40 head, good grades and very poor grades, and my intention is to buy or build a good profitable herd of dairy cows. I tried an experiment with two sisters of a good grade cow. The first was by a registered bull of a milk-breed. She got with a bull and came in at the age of 21 months. She milked 9 months. In six months she gave four gallons and over of good milk a day. I will weigh this cow's milk this year and give results at a later date. This cow's sister came in by a grade bull and gives not half the amount with more feed. Now I am selecting good grade cows from five years up, as it does not pay to spend good time on grade heifers, because you get only one good one out of ten. I bought a young registered Holstein bull and he will soon double in value. I also have a herd of good milk cows ready to breed. I considered that by breeding to a grade I would breed down—away from the dairy—so I bought another three-year-old Holstein bull. Some people think I am wasting good money, but I will have 20 calves next year of half Holstein blood. I will take care of these 20 calves, feed good, breed at one year and eight months old to my other registered bull, and I will have very little grade blood left. These first 20 calves will pay for the two bulls. Then I have the next year's calves, which are worth double. If a man figures out what he can



JERSEY COW, VANILLA 2ND, FIRST IN INSPECTION CLASS AT LONDON DAIRY SHOW LAST YEAR.

do in five years in the building up of a dairy herd, his past experience consists of regrets.

But blood is not all in dairy cows. They must be raised so as to develop at the proper age with a good constitution and not ruined by over-feeding, but fed enough to develop strong, healthy cows. By good care and feeding a man reaps what he has sown.

Alta. WM. GILBERT.

## FIELD NOTES

The Ontario department of lands, forests and mines will dispose of 500 beaver skins to be secured in Algonquin Park. These valuable skins will go to the highest bidder and the proceeds of the sale will help fill the Ontario treasury.

\* \* \*

British political matters are quiet. Premier Asquith is credited with a stronger position than he had when parliament convened. The budget is assured of passage in both commons and lords, and as soon as it is disposed of, which will be before April 27, the government will introduce legislation to curb the lords' veto power.

\* \* \*

A Montreal despatch says that Sir Wm. Macdonald, the millionaire tobacco manufacturer and noted philanthropist, recently moved from small and poorly equipped offices to a modern building. The despatch says that in over 40 years Sir William has not had telephone or typewriter in use. He has now all modern fittings.

### Plowing Match at Carroll

Arrangements have been made to hold the annual plowing match at Carroll on Wednesday, June 15. The competition will take place on the farm of J. V. Patterson. Fred H. Carroll is secretary.

### Saskatchewan Meetings

A series of meetings beginning June 13 is being arranged by the extension department of the Saskatchewan department of agriculture, under the supervision of F. Hedley Auld. Over half a hundred meetings will be held in new districts, and agricultural experts will give practical talks.

### Buttermakers Meet

The Alberta buttermakers held their annual meeting at Innisfail, April 19 to 22. Almost half a hundred enthusiastic dairymen gathered to hear live dairy topics discussed. Cream grading and butter quality proved to be interesting matters. Further details of the sessions will be given in next week's issue.

### Saskatchewan System of Farmers' Institute Meetings

"You missed it by not being at the institute meeting! Why weren't you there? I wouldn't for a hundred dollars have missed getting some of the facts Mr. Motherwell and Mr. Campbell gave us."

"It slipped my memory, or I surely would have been there. The facts Mr. Fraser, the speaker at last year's meeting, gave us on soil cultivation were worth eight bushels an acre to me. I wouldn't have got more than thirty bushels of wheat to the acre if he hadn't put the case for cultivation as he did—and as I got 38½ bushels of No. 1 Northern Red Fife per acre this year, I can appreciate the value of these institute meetings."

This conversation which occurred not long ago speaks volumes. That the benefits to farmers of being able to ask questions on farming problems, of recognized authorities, at these institute meetings, can hardly be reckoned, is true. Thirty-eight and a half bushels of wheat from an acre is pretty fair proof of the efficacy of this first-hand method adopted in Saskatchewan of diffusing light on farming methods.

Hon. W. R. Motherwell, commissioner for agriculture; George P. Campbell, Ellisboro, and others went on circuits in different parts of the province of Saskatchewan, discussing face-to-face with the men themselves the farming problems of the West. These clear-headed discussions by leading agriculturists are well worth reviewing. All who were at the meetings referred to can profit by running over again some of the points discussed—and those not there will get a share in the benefits.

The pitfalls the old-timers stumbled into in the early days were dealt with by Mr. Motherwell—sowing too shallow, sowing too deep—sowing too thin in moist soil, too thick in dry land, etc.

Mr. Motherwell used a chart illustrating clearly the relative advantages of shallow sowing, deeper,

and very deep sowing. The ideal depth to sow, if we could count on sufficient moisture following seeding was shown to be an inch or an inch and a half. This is because cereals root naturally at that depth. But allowance must be made for drought following seeding. This makes it prudent to sow from two to four inches. At the same time it was emphasized that the shallower sowing, if moisture conditions are good immediately after seeding, hastens maturity from three days to a week or more. The seed sowed only an inch deep is near the warmth of the sun's rays, and germinates quickly if the soil is moist. It wastes no time in getting its leaves above ground, and is a strong plant from the first. If frost nips it off early there is still strength to be drawn from the parent kernel, and the chances are good for further vigorous growth. Seed sown at a depth of six inches is too far from the warmth of the sun—and although in moist soil, the lack of warmth delays germination. Even after germination the plant has a long way to go before it reaches the surface. Its nature compels it to root again an inch from the surface, which takes a little more of its time and strength. When it finally gets above the surface it is a spindly plant compared to its shallow-sown brother. If frost nips it back it is so far from its parent kernel, and so much of that kernel has already been used in nourishing the plant while getting to the surface, that its chances of recovering from any setback are slight compared to those of the stocky, shallow-sown brother. And as if all these handicaps were not enough, the deep-sown seed is up against a fight with smut that the shallow-sown knows little about. Investigation shows that smut germinates better five or six inches down in the cold, dark, moist soil, than in the light and warmth only an inch below the ground.

The conclusion reached was that if the soil is moist and well cultivated, from an inch and a half to two and a half inches is deep enough to sow any grain. If the soil is not abundantly supplied with moisture nor well cultivated, from two and a half to four inches is the safer depth—deep enough to be in the moisture, not so deep as to be out of reach of the warmth of the early spring sun.

The question of the amount of seed to sow was gone into. It was pointed out that thick sowing, say two bushels of wheat per acre, hastens maturity a week or more. But no hard and fast rule can be laid down. If frost is feared, sow thick. If drought is more of a menace than frost sow thinner. Less seed should be sown on fall or spring plowing than on summer-ferow or well-cultivated breaking—simply because there is less moisture. The fallacy of sowing more on stubble land than on summer-fallow or breaking, because it wouldn't stool so well on stubble land, was shown. If sufficient moisture was in the stubble lands the grain would stool. It is because there is not enough moisture that it does not stool. It produces all the plants the moisture permits. To try to compel the land to bear a heavier burden than the moisture will stand, by sowing thick, won't work out successfully. On stubble land sow not more than a bushel and a half of wheat, or less if it is extra dry. It will stool out enough plants to make up for this thinner sowing if moisture conditions warrant it, but will take a little longer to ripen on account of the time spent in stooling. Two bushels of wheat to the acre is not too much to sow if you have well-cultivated land, well-stocked with moisture. It will hasten ripening. But as moisture is the chief thing in deciding what to sow, and as you can't be sure of your moisture, it was said that a bushel and a half or a bushel and three-quarters is safer than sowing two bushels.

Hon. Mr. Motherwell encouraged the farmers to

"butt in with questions," and not a few availed themselves of the chance. Questions were asked often, and were carefully and satisfactorily answered. Mr. Motherwell further discussed tree-planting as a means of beautifying farm homes on the prairie. As well as being shelter, a well cultivated tree-belt is a good fire-guard. The advice given was that a shelter-belt should be planned with a view to future needs. Most are made too small. Five or six acres would in time be found to be none too large an area to have protected by a shelter-belt. It must eventually accommodate an extensive garden, lawns, yards and buildings.

The gardening and fruit-growing possibilities of the farm were emphasized. The advantages of rural telephones, especially to the women of the farms were spoken of, and the importance all-round of farmers installing rural telephone systems as soon as possible was urged. The necessity of more attention to stock-raising was touched on, especially the breeding of enough farm-horses for one's own use. The profitable side of dairying and hog-raising was mentioned, as well as poultry-keeping, but the difficulty of the labor involved in dairying and other stock-raising was freely admitted.

A clear and live discussion of fall-plowing versus spring-plowing was given. A chart was exhibited graphically showing how the stiff, dry stubble turned under in the fall breaks the important connection between the surface soil and the subsoil, thus preventing capillary action from giving moisture to the dry surface soil. This mass of stiff stubble also helps any moisture remaining in the surface soil to evaporate. Fall-plowing is usually handicapped by the soil being hard and dry. Harrow it as you will the clods won't work down. This rough surface still further helps the escape of moisture. But as most men have to do some fall-plowing, the oft-repeated and much-needed advice was again urged, *i.e.*, to harrow thoroughly as you plow.

The gains of spring-plowing were clearly shown. The soil is moist, the stubble, even if not burnt (though burning was advised) is usually more easily reduced than in the fall, and a third of the harrowing will get better results than harrowing after fall-plowing. Great emphasis was placed on the necessity for harrowing at least the same day as you plow, if you can't follow the plow immediately with the harrows. The moisture that evaporates from an acre of freshly-plowed, moist land on a dry, windy day is appalling. This may mean many bushels of grain less per acre. We must prevent this wasteful evaporation by thorough cultivation immediately after plowing. No special form of land-packer was recommended.

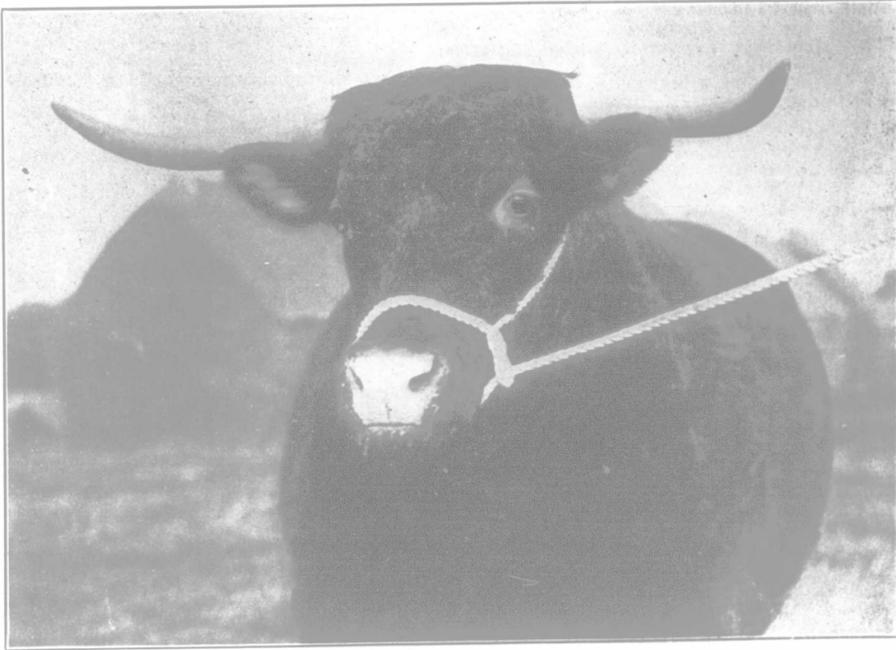
The question was asked Mr. Motherwell: "Will not a heavy drag-harrow do all a packer can?"

Hon. Mr. Motherwell replied: "I will admit that I have not a packer on my farm, but I use the harrows unmercifully. They accomplish the two-fold object so much desired, *viz.*, that of packing the subsoil and creating a dust-mulch on the surface."

#### THE SMUT PROBLEM.

As important a thing as any treated of was "smut." The investigations of the chemical laboratory prove that each of the myriad specks of dust in a single smut-ball is a complete organism in itself, and able to grow like any other plant. If one tiny speck of smut goes into the ground with a wheat grain the smut germ reaches out its dirty fingers as soon as it germinates, gets hold of the wheat plant, enters into its very life-blood and starts its work or corruption. It pushes up to the light within the very fibre

(Continued on page 643).



DEVON STEER OWNED BY HIS MAJESTY THE KING, CHAMPION AT THE SMITHFIELD SHOW LAST YEAR.

# OUR WEEKLY MARKET REVIEW

The crop situation in America is unchanged since last report. The severe storm of sleet and snow followed by low temperatures, which broke over the Northwest towards the close of the previous week, is not believed to have done any serious harm, except to such crops as were above ground in some sections.

American markets were active on the fluctuating movements of the week, and profit taking was the order. Reports do not, however, indicate that a keen demand exists for actual wheat. American millers report difficulty in getting flour orders, the sentiment of the entire country being apparently in favor of lower wheat prices.

It is difficult to see how conditions on this continent are going to strengthen the wheat situation, and the outlook in Europe, considered from any standpoint, can be construed in no way but bearish. Despite some strengthening in values towards the close of the week, due to a concerted bull campaign, the market shows no symptoms of sensitiveness to bull efforts, and it is probable that, in the course of the present week, bear sentiment on the part of the buying public and bear activity on the part of those who are speculating on the selling side, will reduce prices still more.

In live stock markets high prices are maintained. Cattle and hogs in Winnipeg are at figures that tend to make farmers wish they had retained animals that were rushed to market in an unfinished condition.

## GRAIN

Wheat opened with a sharp decline in prices. Bullish news in plenty there was to stimulate buying. A second winter had broken over the Canadian and American spring wheat country and reports of rain and flood were on hand from the winter wheat country, but there was apparently abundance of wheat for sale and all world's markets reacted strongly. The close of the week however saw a slight advance.

Russian shipments were again away ahead of the week before and more than double what they were a year ago. Other shippers were about in the same volume as the preceding week and the total about one hundred per cent. better than the same week in 1909. Canadian visible was half a million bushels less than a week ago and two and a quarter millions better than a year ago.

### CANADIAN VISIBLE.

Canadian—	Last week.	Previous week.	Last year.
Wheat	9,626,926	10,285,172	8,371,587
Oats	6,424,812	6,872,900	3,794,661
Barley	898,494	937,632	462,468

Total wheat in store, Fort William and Port Arthur, on April 15, 1910, was 7,376,661.10, as against 7,232,483.40 last week, and 7,670,571.30 last year. Total shipments for the week were 587,564, last year 618,948.

### WORLD'S SHIPMENTS.

American	1,728,000	1,800,000	1,664,000
Russian	5,696,000	3,736,000	2,056,000
Danube	504,000	416,000	424,000
India	440,000	400,000	312,000
Argentina	2,152,000	2,304,000	2,344,000
Australia	1,438,000	1,896,000	168,000
Austria-Hungaria			40,000
Chili, N. Af.	392,000	360,000	40,000

Total wheat taken by continental countries, 5,680,000, last week 4,568,000, last year 3,928,000. Floating quantities of wheat and flour 50,760,000, last week 51,272,000, last year 43,648,000. Decrease 512,000. Corn 4,193,000, last week 4,111,000, last year 6,232,000. Increase 82,000.

### WORLD'S CROPS.

European crop reports are generally favorable. In Great Britain the outlook is considered to have improved. French reports are optimistic; the Russian outlook on the whole is favorable, rains having helped the growing crop and conditions in all the southern provinces are regarded favorably. Other European countries report in similar tone.

Modern Miller, under date of April 22, says that the crop outlook is bullish. Favorable crop prospects are reported from most of the winter wheat country, notably the soft winter wheat sections. There are, however, increasing claims that the crop is not holding its own, the plant not showing the vitality needed to forward seasonable growth. Insect life is more evident than usual, chinch bugs being reported in many localities, and also flies.

Australian wheat shipments were 1,320,000 vs. 1,536,000 previous week, and 831,000 last year. Indian shipments 976,000 previous week 440,000, last year 200,000.

Broomhall predicts that the shipments next week from India will be 104,000 (this quantity to be shipped from the port of Kurrachee).

Wheat, including flour, exports from the United States and Canada for the week ending April 21, as reported by telegraph to Bradstreet's aggregate 1,289,272 bushels, against 1,836,266 bushels the previous week, and 1,555,578 bushels this week last year.

Trade in Canada displays some little irregularity. The reports from the eastern section of the Dominion are satisfactory, but those from the west indicate that unfavorable weather has superinduced a slight falling off in the demand for seasonable goods. However all advices agree that prospects are bright.

Montreal reports that travellers are sending in better orders, that conditions in the wholesale dry goods trade have improved and that favorable conditions have brought out a number of sorting orders. Pork products are easier and the supply of hogs has increased. On the other hand, receipts of cattle are light and prices are higher. Recent warm rains have benefited farmers in their seeding operations. City collections are satisfactory. Retail trade is good. Toronto states that unfavorable weather has hampered trade in spring lines, but that building material continues active. Farm products are firm and fresh meats are higher.

### CLOSING OPTIONS, WINNIPEG

Wheat.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
April	100½	100	100½	100½	101	101½
May	100½	100½	100½	100½	101½	101½
July	101½	101½	101½	101½	102½	102½
October	193½	93½	93½	94	94	95

Oats—	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
April	33½	34	34	33½	33½	34½
May	34½	34½	34½	34½	34	33½
July	35½	35½	35½	35½	35	34½

Flax—	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
April	211	211	211	212	212	212
May	214	214½	214½	214	214	215
October	165	167	165	164	165	166

Wheat—	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
No. 1 Nor.	100½	100	100½	100½	101½	101½
No. 2 Nor.	98½	98½	98½	98½	99½	99½
No. 3 Nor.	96½	96½	97	97	97½	97½
No. 4 Nor.	93	93	93	93	93½	93½
Rej. 1, 1 Nor.	96½	96	96½	96½	97	97
Rej. 1, 2 Nor.	95½	95	95	95	95½	95½
Rej. 2, 1 Nor.			95	95	95½	95½
Rej. 2, 2 Nor.	94	93½	93½	93½	94	94
Rej. 1 Nor, for seeds	95½	96	95½			

Oats—	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
No. 2 white	33½	34	34	33½	33½	33½
Barley—						
No. 4	44	44	44	44	44	44

Prices for live stock in Winnipeg are attracting interest from all sides. Hogs stand firm at \$10.50, although some predict a decline this week. However, supply and demand do not warrant such prediction. Cattle also bring encouraging prices. Early last week a choice lot brought \$6.00, while on Wednesday, \$6.25 was paid. The average figure, however, is around \$5.00. Bulls brought as high as \$4.75, although some big rough fellows went as low as \$3.50.

No.	Hogs.	Ave. Weight.	Price.
372	Medium hogs	211	\$10.65
41	"	209	10.60
170	"	208	10.50
4	"	205	10.25
1	Sow	340	9.00
1	"	550	8.50

No.	Cattle.	Ave. Weight.	Price.
32	Steers and cattle	1124	\$6.00
9	"	903	5.75
59	"	1077	5.50
17	"	945	5.67½
3	"	1325	6.25

6	"	1104	5.25
2	"	1325	5.00
9	"	1008	4.50
1	Cow	1325	5.25
3	"	1093	4.75
3	"	1120	4.00
3	Bulls	1383	5.50
1	"	1275	5.25
1	"	1850	5.00
1	"	1920	4.75
1	"	1050	4.25
2	"	1193	4.00
3	Calves	150	5.00
1	"	185	4.75
5	"	184	4.50
3	"	200	4.00

## CALGARY

Increased shipments arrived at the Calgary stock yards during the past week or two, a number of good butchers' cattle coming in. The northern branch lines have brought down a number of good cattle. Steers sell, per lb., 4½c. to 5c.; cows, per lb., 3½c. to 4c.; hogs, per lb., 9½c.; sheep, per lb. 5½c. to 6c.

## TORONTO

Quotations at Toronto last week were: Exporters, \$6.70 to \$7.35; prime butchers, \$6.50 to \$7.30; common, \$5.90 to \$6.50; stockers and feeders, \$4.25 to \$6.00; cows, \$4.75 to \$6.20; calves, \$5.50 to \$7.25; sheep, \$6.00 to \$7.00; rams, \$5.00 to \$6.00; lambs, \$4.00 to \$8.50 each; hogs, select, fed and watered, \$9.35, and, f.o.b. country points, \$9.10.

## CHICAGO

Following are the prevailing prices for live stock at Chicago: Prime steers, \$8.25 to \$8.60; choice heifers, \$6.65 to \$7.50; select feeders, \$6.50 to \$7.00; cows, \$5.75 to \$7.25; choice calves, \$7.75 to \$8.40; hogs, heavy, \$9.40 to \$9.50; light, mixed, \$9.20 to \$9.25; pigs, \$8.70 to \$9.00; choice lambs, \$9.20 to \$9.60; wethers, \$7.75 to \$8.15; yearlings, \$7.90 to \$8.35; ewes, \$7.40 to \$7.75.

## BRITISH

Latest cables from England show that cattle prices hold firm with a tendency to advance. Figures quoted are: Canadians, 14½c. to 15½c.; Americans, 15c. to 15½c.

## Events of the Week

Samuel L. Clemens (Mark Twain), the leading American humorist of the century, died on April 21, at the age of 75 years.

In the estimates passed by parliament last week was an item for \$500,000 for construction work of the Hudson's Bay Railway.

A by-law was carried in Moose Jaw last week granting to an Ottawa syndicate a franchise for the building and operating of a street car system in the city.

Gold was discovered last week at the mouth of the Salmon River, Alaska, and a small-sized rush to the new diggings was in order. The find is reported to be exceptionally rich.

The playing schedule of the Western baseball league was announced last week. The series calls for 118 games, opening May 4, and continuing till August 31.

The first appointment in the Canadian navy was made the other day when commander W. B. McDonald, son of Senator W. J. McDonald, of Vancouver, was appointed to command H.M.S. Niobe, recently acquired by the Dominion.

Much regret is expressed in English sporting circles over the defeat of the King's colt, Minoru, in the city and suburban race. Minoru was the Derby winner of 1909 and the favorite for this race. A rank outsider at 25 to 1 outdistanced the field and romped home a winner, the rest being merely a bunch of also rans.

The Grand Trunk Pacific gave orders the other day for box cars, for delivery on its Western lines next fall, that will be the largest ever seen in the West. These cars will have a carrying capacity of 100,000 pounds. The largest box cars of the C. P. R. carry 80,000 pounds normal, but when necessary these cars can be loaded up to 88,000 pounds with perfect safety. The large grain cars are of steel frame construction and will be used for the handling of grain from points in the West to the head of the lakes and from lake ports in the east to tide water. Twenty such cars will be capable of carrying a load of a thousand tons.

# Home Journal

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## People and Things the World Over

A man's conduct toward others is determined by his respect for himself, not his respect for them. His respect for himself is the measure of his respect for others.

Franz Hals' "Portrait of a woman," which brought the record price of \$137,000 at the recent Yerkes art sale, has been purchased by Henry C. Frick, the Pittsburgh iron master.

Thaddeus W. Tyler, the original "village smithy" is dead at Lynn, Mass. It was while watching him at work over his forge and anvil, that Longfellow was inspired to write: "Under the spreading chestnut tree the village smithy stands."

Miss Elizabeth M. Dare, of Bowshot Farm, England, has won more than one hundred prizes, medals and certificates for her butter making. She won the silver medal for milking at the recent Bath and Southern Counties Show, in a contest open to farmers' wives and daughters throughout the kingdom.

The sword of Oliver Cromwell was the most important sale at the Yerkes mansion, where the American Art Association disposed of the last of the household belongings, and went to E. H. Lithfield, of Brooklyn, for \$1,500. It was formerly in the Warwickshire Museum. It is cast with medallions, the pommel corresponding. The broad blade is panelled, and bears the arms and motto of the Commonwealth.

The contract for the Laura Secord monument has been awarded to James Munro, of St. Catharines, Ont. It will be a square block of marble twelve feet high, with a seven-foot square base carved liberally with maple leaves, and bearing a bronze medallion of the "heroine." The cost is \$2,000. A year is given in which to complete the work. The memorial will be placed at Queenston Heights, within a few feet of General Brock's monument.

Saleswomen throughout the United States have been sending congratulations to B. F. Hamilton, of Saco, Me., who has just attained his ninety-first birthday. Mr. Hamilton was the first merchant to employ saleswomen and the people of this town, men and women, boycotted his store in consequence. Many of the leading church women called on him personally and remonstrated earnestly against what they called the sin of placing women in a position of such publicity as behind a counter for the purpose of selling goods.

His Grace, the Archbishop of Westminster, head of the Roman Catholic Church in Great Britain, and suite have signified their intention of attending the Eucharistic Congress, that will be held in Montreal next September. It is probable that His Grace will be accompanied by the Duke of Norfolk, the leading lay head of the Catholic Church in England. While in Canada this distinguished party will visit Ottawa, Toronto, Hamilton, Niagara Falls and other important places. His Grace has accepted the invitation extended by President Chas. M. Hays, for himself and suite to be the guests of the Grand Trunk on their Canadian tour.

Yielding to popular sentiment, virtually all the cities and towns of British Columbia are remodeling their hotel and saloon regulations to bring them into complete accord with both the spirit and the letter of the new provincial license law. The law aims particularly at prohibition of liquor being supplied to drunkards, or to those who by their indulgence in drink either distress their families, deprive them of comforts, or waste or lessen their own estates. All liquor selling is prohibited after 11 p.m. daily, and from that hour on Saturdays until 5 o'clock Monday mornings. Restaurants are no longer to be permitted to sell liquor with meals during closed hours for hotel bars, and no boxes are permissible hereafter in restaurants or cafes.

WHAT OUR LORD WROTE IN  
THE DUST

We have saved the soul of the man  
that killed,  
We have turned to shrieve the thief;  
We restored the pride of the man that  
lied  
And we gave him our belief;  
But for her that fell have we fashioned  
hell  
With a faith all stern and just—  
It was so of old; and no man has told  
What our Lord wrote in the dust.  
We have sighed betimes for our brothers'  
crimes  
And have bade them be of cheer,  
For the flesh is weak, and the soul  
grown meek  
May yet read its title clear.  
But we draw away from the one astray  
As the truly righteous must.  
She is cursed, indeed!—and we did not  
read  
What our Lord wrote in the dust.  
For the men who thieved, and who  
killed and lied—  
Who have slain the woman's soul—  
We have worked and prayed, and have  
seen them made  
All clean and all pure and whole.  
But we drive her out with a righteous  
shout  
In our Pharisaic trust.  
So the man goes free—but we do not  
see  
What our Lord wrote in the dust.  
—Chicago Evening Post.

A bill providing for shorter hours for women and children who work in the cotton and woollen mills of the province of Quebec has been introduced. It proposes 58 instead of the present 60 hours of toil per week, and will prevent children between 14 and 16 working in factories unless they can read and write.

A picture "painted" by a donkey has been shown at the Paris Salon des Independants, an exhibition which makes it a rule to accept every canvas sent in. Some students concocted the joke at a Montmartre cafe in consequence of a bet that it would be impossible to hoax the managers of the exhibition. An easel and a canvas were set up and a number of pots of paint placed near by. Then a donkey was brought in, a brush was attached to its tail and dipped into a paint pot. The brush was placed on the canvas, and one of the students beat the donkey, which brandished its tail violently—and the groundwork of the picture was completed. Then the brush was dipped in paint of another color,

and the process was repeated until the canvas had been covered with weird color mixtures. The "completed" canvas was entitled "And the sun went down beneath the Adriatic," sent to the exhibition, and promptly accepted. A commissioner of oaths was present at the painting of the "picture" in order to be able to attest to the manner in which it was prepared. His affidavit has now been published, and the managers of the exhibition are furious.

## Mothers' Day

For some years in the United States the second Sunday in May has been observed in a special manner as Mothers' Day, and last year for the first time in Canada. The idea is a beautiful one and the manner of celebrating it simple and within the possibilities of any community. We hear much of the honor and dignity of motherhood and we have seen more of the unselfishness and self-sacrifice of mothers, but until now no one has thought to set aside a day for commemorating the authors of this great and uplifting influence. In a country community, the day may be observed by having a sermon and music in the church service bearing upon The Mothers. Care can be taken that the shut-in mothers are remembered in some way, and the aged and weak brought to the service if possible. But in more districts in Western Canada than perhaps in any other part of the world at the present time are found men and women who are separated from the good mother—thousands of miles, or perhaps the ocean itself between them and her. She can be reached by a letter between now and the second Sunday in May. Perhaps it is a good many weeks since she had a letter from her son or daughter in Canada, and she has grown heartsick waiting for the message that neglect has kept her from getting.

Celebrate Mothers' Day by writing her a big "gossipy" letter—all about yourself and your hopes and plans. Nobody else can be as interested in the minute details of your affairs as she is and will be to the day of her death. Write now.

## Not a Fair Trial

About a year ago Sir Christopher Furness devised a method of working whereby the shipyard of Furness, Withy & Co., at Hartlepool, England, was to be run on co-operative lines. The employees to whom the offer was made accepted co-partnership conditionally. The provision was that the workmen should receive nine per cent. interest annually on any sums however small that they invested in the business in addition to the regular wage. They agreed never to go on strike, but to settle disputes through the medium of a council composed of representatives chosen from the management and the working staff. Now at the end of the year the employees, strange to say, are the dissatisfied ones. They complain that some of their expectations have not been realized. But the chief grounds for objection are brought forward by the leaders of the labor unions to which the men belong. They do not say that the men are being unjustly treated or that the scheme is too favorable to the employers, but offer this as a reasonable excuse that "such profit-sharing systems break up trade unions, with the principles of which they are inconsistent." It would seem that the workman was made for the union, not the union for the workman. But it seems a pity that a longer time could not have been given for the experiment. A year is but a short period of trial for so big an undertaking.

## Hope's Quiet Hour

### THE VISION DRAWS US NEAR OUR FELLOWS

(From "The Vision of His Face," by Dora Farncomb.)

To walk with God, means to walk also close to our nearest and dearest friends. I don't believe He ever intends to separate friends, though He often removes them from sight. To really walk with God is to be one with Him, and to feel His Life in every part of our being. Then we can, in Him, reach out at any moment and touch the heart or hand of one we love, and who is also one with Him. "In Christ, His chosen ones are near each other, though continents and oceans may divide them," and even Death—the Great Divider—has been robbed of his terrors. Christ has conquered him and has a right to say, "If a man keeps My saying, he shall never see death." As our Living Head is very really on this side of the Veil, as well as on the other side, to be one with Him means that we, too, are on the other side as well as on this.

"Christ with him, and Christ with me,  
And so together still are we."

Even when they were visibly beside us, it was really the soul rather than the body that we reached out to touch, in the gladness of holy fellowship. If love were dead, what possible satisfaction could there be in such outward signs of 'the sacrament of friendship' as the clasp of a hand or the sight of a face. It would give pain instead of joy to have the outward sign, if the inward grace were absent. And it is a truism that the real person is always out of sight—as regards our bodily sight—and can only be seen and touched by spiritual senses.

"I have not seen thee, though mine eyes  
Hold now the image of thy face;  
In vain, through form, I strive to trace  
The soul I love: that deeper lies."

Those who walk with eyes lifted to their dear Master's face, find that the hearts and spirits of their friends—who are like-minded—are mysteriously linked with their own. Our nearest and dearest are always beside us. Reaching up to God continually, for us, they pour new strength and joy into our lives. We rest confidently on their love, and walk always side by side with them in the sweetness of real fellowship. If you know the joy of having friends who are drawing you ever higher into clearer fellowship with the Friend whose love "passeth knowledge," then keep fast hold of these messengers from God. Such a friendship is not an easy thing to hold, for true love must always include sacrifice. If you are trying to take all and give little, then you are cultivating selfishness instead of friendship. Give strong love and earnest prayers, and anything else that friendship may demand. But, if you have a friend who is like Christ, and who is helping you to grow like Christ, never let him "slip unawares" out of your life—though it may cost you all you have, even to life itself, to hold fast to him. For such a friendship is eternal in its nature. Though you may be far apart in body, prayer can keep you always close to a friend; and a bodily parting is a very small thing when hearts are one. "We have for ever," there is no hurry. God's best gifts go on ripening through all eternity. Those whom God hath joined together, in holiest friendship, can never be parted by distance or death; so long as each is faithful to the other.

The best way of teaching those who are "on the other side of Christ," is to minister to Him through His "brethren," who are still visibly near us. And gloomy service is hardly worth offering or accepting. If you can't realize anything of the joy of Paradise, if you find it impossible to share in the blessedness of those who are worshipping God face to face, then pray earnestly that your eyes may be opened.

"Dear hands, unclasped from ours, are clasping Thee;  
Thou holdest us forever in thy Heart;  
So close the One Communion—are we  
In very truth apart."

Distance or death will be a stern test of the worth or friendship; but, if the hearts are loyal and true, any outward parting can only serve to draw them closer together. The little irritating faults, which spoiled the perfect beauty of fellowship, fade into insignificance; our souls at their highest and best, can reach out and touch those other souls at their highest and best. The living links which bind their hearts to ours, grow stronger day by day. We can rejoice in bright, ever-growing beauty; the desire to keep up with them, in their upward climb, fills each day with interest; and we learn to give thanks—for them as well as for ourselves—for God's refining pain which keeps us always near to Him and near to His friends.

The Vision of His Face helps us to overcome evil with good, and be loving and gentle even to those who are unkind or unattractive. When we feel hurt at some unkindness, we can look



THE NARROWS BETWEEN THE WATERTOWN LAKES

up to Christ and see how lovingly He is regarding the soul that seems so unattractive in our eyes. He wants to see it grow daily more beautiful; He is earnestly trying to refine and purify it; He is carefully perfecting it. When we realize that truth, the coldness of our hearts will change into warm affection, we shall forget the little injury or wrong; remembering only that, as our Master loves that brother who has hurt our feelings, we must love him too.

Our Elder Brother warns us that if we wish to come to Him for daily bread, if we wish to retain the power of seeing His Face, we must not be satisfied to come alone. We must earnestly try to bring our brothers nearer to Him. Pressing close to our Elder Brother, we discover that all who are near of kin to Him are our brothers too. How can we bear to hurt Him by any rude or irritable word or look?

Then there are friends whose spirits and hearts are linked with ours in the wonderful mystery of the Communion of Saints. They are very near us when we are alone in the quiet hours of the night, though they may be far away in body. We can touch their hands, as we slip ours into our dear Lord's; we can send messages straight to their hearts, through His; we can tell Him how earnestly we desire their perfecting. The friends who are constantly holding up our souls in prayer to God, help us mightily. They bring down His great light to purify and glorify us. They look at us through His eyes, and so are able to see, not only

the best that is in us, but also an ideal, possible best which is not yet ours. Inspired by their trust, we reach out after the ideal holiness which they desire for us.

If we do not fail our comrades, there is little fear they will fail us. What we give in good measure will be rendered back richly and generously. If we give our friends love and prayers to help them on their way, they will not fail to entreat God for our perfecting:

"One friend in that path shall be,  
To secure my steps from wrong;  
One to count night day for me,  
Patient through the watches long,  
Serving most with none to see."

### THE VISION OF HIS FACE

This book—by the author of "Hope's Quiet Hour"—contains eighteen chapters (224 pages). It is bound in cloth, with gilt lettering. Sent postpaid for one dollar by THE FARMER'S ADVOCATE.

One reader of THE ADVOCATE wrote concerning it:

"The book arrived Friday. I read the preface and introduction Saturday morning, and said to my daughter: 'How remarkable! That is just my experience.' Well, I have read ten chapters, and I must say that I think it is better, fuller, richer than I expected. I am pleased, edified and comforted in reading it. I give this one to my daughter, then I want six more (money enclosed), as I have seven children. 'Your brother in Family of Christ.' E. T."

desire to get there arouses our courage to tackle our difficulty, and desire is half the victory. Remember that with a chisel and a hammer you could get through a solid brick wall. A prisoner sometimes works his way through a stone wall with the help of a nail. His strong desire to get out, in connection with the faith in his power, to do so, did it. Don't look at your trouble, look at your goal, and remember that "you can."

E. A. W.

Prof. Herman V. Hilbrecht, of the University of Pennsylvania, whose researches at Babylon and Nippur were the subject of attack by Rev. Dr. John P. Peters, of New York, but who was vindicated by the university, has just deciphered the fragment of a tablet bearing an account of the deluge. The tablet was found in 1899, in the lowest strata of the oldest part of the ruins of the temple Library of Nippur. It is of unbaked clay and measures 2½ inches at its greatest width and 2¼ inches at its greatest length.

Prof. Hilbrecht has just made public his translation: "(I declare unto) thee that the confines of heaven I will loosen, a deluge I will make and it shall sweep away all men together; but thou (the Babylonian Noah) seek life before the deluge cometh forth;

Dear readers of the Quiet Hour:—The purpose of this column is to inspire others to lead a more ideal and fuller life, and, as my heart goes out towards others, I would like to talk to every one of you readers occasionally. There is a great deal of matter written that does not penetrate or arouse the reader. It simply runs off like water on a duck's back. I want to get into actual touch with you—with your very soul. I want to wake you up. We are all more or less liable to feel a little discouraged at times. It is an easy matter to be brave and full of hope when things go right, but when things go a little wrong, we are liable to weaken a little in faith and lose heart. But the reason we get downhearted is not because of the difficulties that embarrass us, but because of our lack of faith. Peter lost faith in his own powers when he saw the big wave coming towards him. A few words of encouragement helped this man over the short distance. Do not let us forget our inherent power to overcome. Like the bird that is hypnotized by the sight of danger in the eyes of the snake, so are we hypnotized by the sight of our trouble. It grows larger and larger (only in our mind, however), and we get into it deeper and deeper, till at last we are sure there is no way out of it.

So far we have done nothing but look at our trouble and hold up our hands in utter helplessness. Fear has paralyzed us. When we cease looking at our trouble, and look at our surroundings, our trouble soon dwindles down to its normal size. When we see the clear path beyond our trouble the

for to all living beings, as many as there are I will bring overthrow, destruction, annihilation, . . . build a great ship and . . . total height shall be its structure. It shall be a houseboat carrying what has been saved of life . . . with a strong deck to cover it. The ship which thou shall make into it bring the beasts of the field, the birds of heaven and the creeping things, two of everything instead of a number . . . and the family . . ."

The Semitic dialect inscription and certain grammatical peculiarities of the text show, according to Prof. Hilbrecht, that it was written between 2137 and 2005 B.C. The King James version of the Bible gives the date of the flood as 2448 B.C. The oldest tablet heretofore known containing an account of the flood was the Layard tablet of 650 B.C., now in the British museum.

The Layard tablet was a pagan story of a deluge brought about at a Council of the Gods who decided to destroy mankind. One of the Gods was moved to save his protegee—the Noah of the story—and sent a dream of warning. This God excused his betrayal of the secret to the other deities by the explanation that he had not told, he had only "whispered through the mat"—that is, through the wall of the house on the other side of which his protegee slept and to whom this dream was thus conveyed.



FRUIT SCENE EIGHT MILES FROM CRANBROOK, B. C.

## The Ingle Nook

### INGLE NOOK NEWS NOTE

The only children now left in the shelter at Regina are Freddie, aged three, and Teddy, aged nine. The latter is the quiet, studious boy who is very fine in his execution of any piece of work.

### WANTS A BOY

Dame Durden:—Could you or any of the members tell me where I can get a boy from twelve to fourteen years old who would help me with the poultry and the chores and make himself generally useful? He would be treated as one of our own, and have a good home. I have two little ones of my own and have more to do than I can manage.

I am enclosing a good recipe for furniture polish: One pint turpentine, 1 pint water, 2 ounces castile soap, 2 ounces white wax, 2 ounces beeswax. Put the beeswax into the turpentine till dissolved and the white wax and castile soap into the water on the stove till it is dissolved. Then mix all together and shake well in a bottle.

—Floss.

(The information about turkey raising has come from several members. There are two letters in April 13th issue, and others in April 20th. If you do not get these issues let me know and I'll see that they are sent to you, though I think if you do not get your paper regularly now it will be the fault of the postal arrangements.)

I do not know where you could get a boy of that age, unless perhaps from the secretary of the Children's Aid Society, Edmonton, Alta. I wish you all good fortune in your search.—D.D.)

### A SPECIAL CALL FOR GIRLS.

Dear Dame Durden:—So many of our friends of the Ingle Nook have been writing that it is with rather an accusing conscience I again put in my appearance. It is so long since I have been here with my pen that doubtless some will have forgotten my old pen name "Seventeen." My first letter was written over three years ago, so you see I am a little over seventeen at the present. Although I have been a silent member, nevertheless I have garnered much help and instruction from our corner.

Our friends will be so busy during the summer, but aren't you glad to have the dear old summer days again? Just at present it doesn't look or feel

like a spring day. The wind is whistling and blowing, the snow is falling and in general we are having a blizzard, which I think must have forgotten to come in January.

Have you got your flower beds planted, Ingle Nookers? The warm days which we have just had made one feel like taking the hoe in hand, didn't they? And made you feel like renovating everything even down to your last year's summer hat.

How nice it is to be able to doff our furs for a while, and begin making and thinking about our summer dresses! But as a little advice, dear members, don't think too much about your wardrobe. I often think the more we worry and perplex ourselves about our looks and what we are going to wear, the more puzzled we become. Of course it is nothing but natural that we like to look our best, and nothing but natural we should plan and think about our wardrobe, but don't let this occupy all of our thoughts.

No true woman but loves the adjuncts of the toilet table, but is this all? Do these outward signs of refinement, refine and cleanse within? In many cases they do and I am sorry to say in many they do not. Do not always judge people at first sight. It is almost always the safest plan to know a person thoroughly before we pass judgment on them. In many instances though we need but a glance, and it suffices.

Probably I am taking too much of your valuable space, Dame Durden, so had better draw my letter to a close. How I like to read the letters in our nook, and would like to meet you all personally. Well, I must close this rather lengthy epistle, so wishing all the members a happy and prosperous summer, I remain sincerely,

"SEVENTEEN."

(I think on the very day you wrote your letter I was thinking of you and of the other girls of the Ingle Nook. I wondered if we could not have a Girls' Day in the Nook—a regular reunion of the young folk, not with any idea of shutting out the mothers, but to give them one issue where they would be entertained without any effort on their part. Do you think that would be a good idea?)

We have so many girls on our list. Here are just a few who have joined us, though some of them have written only once: Amethystis, Alberta B.,

Blue-eyed Yankee, Bridget, Britannia Lass, Bronze Crown, Chrysanthemum, Daisy Bell, Dagmar, Dairymaid, Egyptian Queen, English Manitoban, Experienced Cook, English Rose, Farmer's Niece, Grace S., Gladiola, Heather, Isabel, Inexperienced Girl, Ivy Leaf, Irish Girl, Kiddy, Lillian L., Maid Marion Madeleine, Maple Leaf, Minnehaha, May Rose, Mother's Helper, Nan, Norah Killeen, Prairie Maiden, Priscilla, Queen Mab, Seventeen, Teddy, Violet, Victoria, Yankee Girl, Zephyr.

Now, won't you each one write a paragraph or two on any subject—books, clothes, hobbies, poetry, friends, cooking, furnishing a girl's room, or anything else girls are interested in—and have them all in here by May 21st? Don't wait till the last minute but do it now, and we'll have a joyful girls' re-union in the issue of June 1st.

Will everyone answer the roll-call and please DAME DURDEN?)

### A CHARMER

When Cleon weds with Phyllis  
His kinsfolk all aver,  
"We see no charms in Phyllis;  
Why do you marry her?"

"I know she is not pretty,  
And Phyllis knows it too;  
She's not extremely witty;  
Her stocking is not blue.

"She hasn't any money,  
Her people are just 'folks,'  
But—she thinks I'm very funny  
And she giggles at my jokes.

"Let me impress upon you  
The bliss that it invokes,  
To have a wife that's willing  
To giggle at your jokes."

### AN OPENING FOR MUSICAL GIRLS

Dear Girls:—I mean just now the girls who love music and who are taking lessons. Do you ever feel like giving it up in disgust, feeling that no matter how hard you try, nor how long you practice you will never be anything but an ordinarily good player? The fact that not more than one in ten thousand students of music does attain distinction and real fame in the chosen profession is very cold comfort to the disappointed. But when the lone one has made a great name as a pianist and the other nine thousand nine hundred and ninety-nine have accepted their possession as talent, not genius, there is still a great deal in store for them if they choose to look for it. Life need not necessarily be unworth living even then.

In the first place there is the pleasure that the ordinary—even the mediocre player can give to friends and acquaintances, especially if she is willing to do her best and above all does not have to be coaxed—to need coaxing is a mark of conceit, not modesty. A girl who has learned to play hymns for grandma, old songs for mother and marches for father, ragtime and popular airs for brothers and nursery jingles for the little people, is more than repaid for lessons and practice in the delight she brings.

But there is another and more practical form in which she can use that talent which refused to grow into genius as the ugly duckling grew into a swan in the fairy tale. That is as accompanist to those who sing and play. A player who can accompany well is almost as rare as a great singer or a great player. It does not require the great musical ability that is necessary in the other branches of the vocation. What is necessary is an adaptability and an ability to keep the sense of the importance of one's own performance in the background. The player of accompaniments must have a musical soul; she must know enough to play correctly, yet not to cling slavishly to the music as written. It is her part to adapt the music before her to the wishes of the singer or player; to follow not to lead, but to follow so closely that the audience cannot detect the order. Haven't you heard a good vocal or violin solo quite spoiled by the accompanist who insisted on thumping at the wrong moment, or who played without any regard to the actions of what was fondly supposed to be chief performer? A poor accompanist has it in her power to spoil the best efforts of a Melba or a Patti; a good one can add very much to the success of even famous singers. Of course, there isn't great notoriety in it, but there is a chance for a girl with a love of music and an adaptable mind and modesty to make good in a line of pleasant work that is distinctly not overcrowded. And it is work in which progress can be made without expensive musical tuition. Play with all your heart and mind—rather than with your strength—for the people in your locality who like to sing. Even if your playing is far better than their singing do not consider that your best is wasted. Play for the amateur violinist or cornetist, or even for Johnny and his beloved mouth organ.

DAME DURDEN.



#### A HOOSIER SCHOOLMASTER

Dear Cousin Dorothy:—Hello! here I am again with all the news on the end of my tongue! I go to school every day, and we have a dandy teacher. His name is Mr. H—. He came from Indiana.

My brother wrote to your Wigwam and got a pretty button, so I wanted one too.

I have two elder sisters and one of them gets up in the morning and makes the breakfast, and papa helps her, and the other sister stays in bed till breakfast is ready, then papa calls her. Mamma is not very strong, so she does not make breakfast. I wash the breakfast dishes in the morning before I go to school.

Siss.

#### REGULAR ATTENDANTS

Dear Cousin Dorothy:—My two sisters and brothers and myself were driving five miles and a half to school this winter, and have gone regularly since the 11th of January. In the summer time we girls have to do the milking. We milk four or five cows. We have been in Canada three years next April. We all like the country. I am in the fifth grade at school. We have just started taking Candian history since Christmas. I like it better than grammar. Most of our neighbors around here have telephones, but we haven't. I will be thirteen years old on the 19th of April. We live seven and a half miles from Sperling, a little town about nine years old.

MILK-MAID.

(Did you know that there are four Myrtle Browns in our club?—C. D.)

#### ANOTHER HENTY LOVER

Dear Cousin Dorothy:—This is my second letter to the Wigwam. My first letter must have reached the waste-paper basket, as I did not see it in print, but my badge arrived safe and I think it is very nice.

How many of the wigs like to read books? I am very fond of books myself, especially Henty's. I do not care much for Algers. Have any of you read "Mark Hale, Shoemaker"? It is a splendid book.

I am going to write on my entrance this year. The school is a mile from us and we walk.

There are not many drawings come out in the paper, so I am sending one. I have forgotten the rules, so I do not expect to see it in the paper. I have forgotten if it was Indian ink it had to be drawn with or only ordinary black ink.

We had a valentine box at our school. The valentines were put in a box and on valentine day they were distributed.

Hoping this letter will not share the fate of the other, I remain,

HARKIE JOHNSON.

#### FROM SNOWBIRD

Dear Cousin Dorothy: My cousin takes THE FARMER'S ADVOCATE, and gives it to us to read. I like reading the letters in the Advocate very well. I go to school in the summer and have two miles to go. Our teacher's name was Miss D—. School is not going now. It stopped on the 29th of October for the winter. We have five horses and one colt. Their names are Nellie, Daisy, Bing, Bill, Paddy and Tom. We have eleven head of cattle. I have three brothers and two sisters whose names are: Lottie, Charles,

Essie, Mary, Ruth and Alick, and my name is Phebe. We had a very mild winter this year. We live twelve miles from Medicine Hat, seven miles from Seven Persons, three miles from Bull Head. We have one dog and his name is Towser. We have about 77 chickens. My sister is writing a letter to the Wigwam, too. I will close with some riddles. If a man was up in a church steeple with a pair of scissors and a goose, how would he get down?  
Ans.—He would cut down off the goose.

SNOWBIRD.

#### A BRAVE MOTHER

Dear Cousin Dorothy:—I have been wanting to write to your paper for a long time, but have not got at it. We live on a farm, four miles west of Olds. I go to school very near every day, and I am in the fourth class. I am going to tell you a story of one day we went fishing. It was a foggy morning and we did not know whether to go or not, but some of our neighbors that were going came and so we went. There were four families going, and so we had to have quite a lot of rigs. When we got over to the river the men crossed over and fished, while the women got things ready for dinner. We put a hammock in the trees, and put the little ones in it. There was a steep bank just west of the landing place, and we got some stones and made a kind of stove and put on a fire to boil the water. We spread tablecloths on the ground and put the dinner things on them. After dinner the men were off fishing again. The boys were playing and the women were talking. My cousin and my brother were running down the bank to the edge of the water and my brother went so fast he could not stop himself and went head first into the water. One of my friends told us he had fallen into the water and my mother plunged in and got him out. There were poles sticking into the water, or she could not have gotten out. A woman hitched up a horse and drove them off to a place near the river to get dried clothes on. When we went home we stopped and got them, and drove on home.

LOTTIE HOLMES.

#### FROM THE LAST WEST

Dear Cousin Dorothy:—This is my first letter to the children's page. I live away in the north. We had to cross Lesser Slave Lake on the ice when we came here. We are a long way from Edmonton, which is our nearest railroad point. My father has taken the FARMER'S ADVOCATE ever since I can remember, and we think it is a fine paper. I am eleven years old, and have three sisters and one brother. Three of us go to school, which is one-half a mile from our place. I would like to join your club, and will write again if I see this letter in print.

Alta. ALBERTA L. McCUE.

#### TRAPPING MUSKRATS

Dear Cousin Dorothy:—This is my first letter to your interesting club. We do not have school here in the winter. It stopped the first of December, and began the first of March. We live two miles from the school house. I have two brothers and two sisters. There is a lake about a mile and a half from our place, and my brothers went over there this winter to trap muskrats, and they only got fifty-five rats, but the year before this year they got a hundred and twenty. I enclose an address I gave you for a button.

Sask. IDA BERT.

## YOU GET FULL WEIGHT



Is weighed BEFORE wrapping, and each pound package contains 16 full ounces of Tea. The weight of the wrapper is extra.



#### A CAMPING EXPERIENCE

Dear Sir:—This is my first letter to your club, and I think it is very nice. I live three miles from the Red Deer river, and last winter I and my brother went down there camping. We never got down there until sundown, then we had to scrape the snow away and pitch the tent. But the stove pipes wouldn't go up until it was very late, so we didn't get very much sleep that night. We stayed there two days and had enough of roughing it too. When we got home I was sick, but got over it soon and went to work again. I do lots of hunting and trapping in the summer, and take care of the cattle in the winter. I go to the lake and cut the ice and take the cattle with me.

Alta. HAROLD WALKER (15)

#### A HOMESTEAD STORY

Editor Boys' Club:—My father has taken the ADVOCATE for four years and would not do without it. I saw the new Boys' Club in this wonderful paper and thought I would write telling the story of our homesteading in Alberta four years ago.

My father loaded a car of stock, machinery, etc., thirty miles northeast of Toronto, and two weeks from that time he arrived fifty miles east of Lacombe in Alberta. From there he had forty-eight miles to come with the wagons to the homestead. There were four or five men from the same place and they started together. Everything went along smoothly until they got within twelve miles of our homestead. It was a Saturday evening, and it grew quite dark, so they thought it would be wise to camp for the night. They went to roost on the ground under a tent cover, and woke on Sunday morning to find it was snowing with full force. They had to hold the horses out on the prairie to let them eat grass. This was the latter end of March. On Monday morning they started for the place they longed for, and reached it at noon.

Then my mother, sisters, brother and I started for Stettler. When we reached it there were two bachelors had two rabbits all nicely cooked and waiting for us, and I tell you it smelt and tasted good! Then we came out to the homestead and broke up a little prairie at a time. If the rest would like to hear the story about Raw Gold, I would be glad to write it out for the Boys' Club.

Alta. THE HOMESTEADER.  
(The editor would like to hear the story, and I'm sure the members would, too.—Ed.)

#### THE ATTRACTIONS OF A RANCH

Editor Boys' Club:—May I come again to your charming club? I think it has proved itself a success, and I hope it will continue to do so. I like Blake Morden's letters and I hope he will write often. He appears to be well acquainted with trapping, and I would like to correspond with him, if he has not too many correspondents already.

It has been very warm weather, but not many new birds have arrived yet. I like the new heading. I think it looks very appropriate.

How many of the readers of this club are fond of books? I have just finished reading "In The Wilds of Africa," which was very interesting.

I think we should get a stick-pin with the club's initials on it. I think a badge or button is too large to wear.

I would like to correspond with some boy that lives on a ranch who is about my age (fourteen). I would like to live on a ranch.

GRAYDEN WOODS.

(I am glad you introduced the subject of books. It would be interesting to know what kind of books our club members like best. "The White Company," by Conan Doyle, is my favorite book of adventure. What is yours?—Ed.)

There is no problem of increased cost of food if you eat more

## Quaker Oats

An ideal food; delicious; appetizing; strengthening.

Compared with other foods Quaker Oats costs almost nothing and yet it builds the best.

GROCERIES!

GROCERIES!

GROCERIES!

THE CHOICEST

WHY YOU SHOULD ORDER

We have one of the most up-to-date grocery stores in Winnipeg. Our mail order staff are careful, and will look after your interests and see that only the best of everything you order is shipped, and shipped promptly. Our immense list of customers means a big turn-over every day and consequently our stock is always fresh and prices reasonable. We are content with small profits and quick returns.

SEND US A TRIAL ORDER AND BE CONVINCED.

Table listing various grocery items such as Sugar, Tea, Coffee, Beans, Peas, Apples, and Soap, with their respective prices and quantities.

DUNGAN & HUNTER

GROCERS

519 LOGAN AVE.

WINNIPEG

CRUSADE AGAINST TUBERCULOSIS

The year 1909 will be marked in the calendar as a red letter year in the history of the crusade against consumption. The movement received a great impulse from the congress of distinguished physicians which was held in Washington, U. S., in the autumn of 1908 to consider further measures to be taken to stamp out this dreadful enemy to the life and happiness of mankind.

Canada in common with the rest of North America, perhaps we should say the whole civilized world, has participated in the renewed and increased activity which resulted from the deliberations of the congress.

Never since the organization of the Canadian Association for the Prevention of Tuberculosis has there been such activity displayed in Canada in this fight for life. Older branch associations have been reinvigorated, new associations have been formed which are showing in many cases a vigorous activity. Several new institutions for the relief and treatment of consumptives have been opened and the demand for our literature has been larger than ever. Take it all in all, 1909 was a year of great progress in the work of the association.

The tenth annual meeting will be held in Montreal on the 7th of June next and preparations are being made to make this one of the best, if not the best meeting in the history of the association.

TRADE NOTES

INTEREST IN FRUIT LANDS

Beautiful scenery and absence of prairie monotony have had much to do with drawing settlers to British Columbia. Recent years, however, have developed a new and more practical attraction in the form of capability to produce fruits of all kinds in quantity. Valleys in all parts of the Pacific provinces are found to comprise valuable fruit lands. In some cases irrigation is essential while in others the annual rainfall and the natural qualities of the soil make it possible to secure good returns without irrigation.

In the southern part of the province, just west of the Rocky Mountains, in what is known as Southeast Kootenay, wonderful progress has been made during the past few years. This triangular valley had been found to be capable of producing heavy crops of fruit of superior quality. Many varieties of apples, pears, plums and cherries, and the smaller fruits have been grown to perfection.

But this development is only well begun. Great areas still are unplanted. Up to the present the production has not been sufficient to meet local demand. Then there are the vast prairies of the great West that provide a market that British Columbia cannot hope to meet.

THE PASSING OF THE HORSE

A handsome catalog, issued by the Gas Traction Company, whose advertisement has appeared in our columns, discusses "Modern Farming—The Passing of the Horse." In addition to a volume of valuable information on the cost of threshing and plowing, the booklet contains interesting particulars showing the gradual advancement in farm machinery and a thorough description of Gas Traction Engines. This company now has a well equipped factory at Winnipeg and is in position to help to supply the rapidly increasing demand for traction power. Every farmer should have this elaborate catalog.

GASOLINE TANKS

The Red River Metal Company, 51-53 Aikens Street, Winnipeg, have just issued a new catalog, illustrating a complete line of their goods. These consist of gasoline, water and oil metal tanks, cistern tanks, troughs, feed cookers, etc. Last summer a large number of farmers and threshermen purchased their tanks and they gave universal satisfaction. Any reader of THE FARMER'S ADVOCATE contemplating the purchase of a tank this spring, should write this company for their catalog, which is free to interested parties. When writing be sure and mention this paper.

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A RANCH

I say I come up? I think so, and I hope I like Blake. I hope he will be to well and I would m, if he has mts already. weather, but arrived yet. I think it

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Here is a fence high enough for horses, close enough for hogs, strong enough for cattle—a splendid barnyard fence. It is made of No. 13 Galvanized Steel Wire, doubled and twisted. The stays are placed 12 inches apart, and securely interlocked to prevent slipping.

Joints are flexible, allowing the fence to conform to uneven surfaces without cutting or lapping.

Put up in rolls of 10 and 20 rods. Sold in four different heights, the 26-inch being commonly used for hogs.

Height.	PRICES	Price per rod.
50 inches	.....	\$0.60
42 inches	.....	.55
34 inches	.....	.45
26 inches	.....	.40

## STUDY THE EATON CATALOGUE

Page 207 will give you prices and description of woven wire fencing, lock stay fencing, coiled wire fencing, fancy lawn fencing and gates, together with all necessary tools for fence construction.

The Eaton Catalogue contains matter of greatest interest to farmers and grain growers generally. In it you will find lowest prices on almost every tool and implement you need about your farm. Your own personal needs and those of your family are also provided for, giving opportunity for the economical purchase of all farm and home supplies.

A copy of the catalogue will be sent you on request. Mail order purchases may be made from the Eaton Catalogue, with every assurance of satisfaction. Your money and all transportation charges promptly refunded if not entirely satisfied with any purchase.

## EATON BINDER TWINE PRICES

Per 100 Pounds for Delivery from Distributing Points  
Write for Prices Laid Down at Your Station

For Delivery	From Winnipeg	From Brandon	From Regina	From Saskatoon	From Calgary or Edmonton
<b>Golden Manila</b> 550 ft.	<b>8.59</b>	<b>8.70</b>	<b>8.92</b>	<b>9.02</b>	<b>9.23</b>
<b>Eaton Standard</b> 500 ft.	<b>8.09</b>	<b>8.20</b>	<b>8.42</b>	<b>8.52</b>	<b>8.73</b>

### EATON TWINE IS GUARANTEED

Should your crop be destroyed by Hail, Rust, Frost or Excessive Rain, or should the Twine you buy from us prove unsatisfactory for any reason, return it to us, and we will refund your money and pay all transportation charges.

**THE T. EATON CO. LIMITED**  
WINNIPEG CANADA

The following are some of the lines we are constantly printing

ORDER BOOKS, STATEMENTS, INVOICES, BILL HEADS  
LETTER HEADS, ENVELOPES, NOTE HEADS, ETC.

**THE FARMER'S ADVOCATE, LTD.**

JOB DEPARTMENT

PHONE MAIN 9096 or 9001

14-16 PRINCESS ST.

## GOSSIP

The Holstein Friesian Association of America has granted \$100 in cash to the Alberta Provincial Exhibition, Calgary, to be awarded as prizes in the Holstein classes.

A bulletin bearing on the fishery resources of British Columbia has just been published by the bureau of provincial information. Some interesting information is given as to the development in the past twenty years or so in the fishing business. In 1876 the total value of the salmon canned in the province was \$46,840; 1886, \$770,536; 1896, \$2,875,170; 1906, \$3,008,532. The bulletin is well illustrated and interestingly written and contains matter of interest to any who may be concerned in the development of the Pacific coast province.

### CAN'T DO WITHOUT IT

I have taken THE FARMER'S ADVOCATE for thirteen years. It is the best agricultural paper we have. I don't see how a farmer can do without it—Frank Childs, British Columbia.

### SELLING BROOD SOWS

The short hog supply is treated as follows by the *National Stock Yards Reporter* in a recent issue:

Within a few weeks we have seen record prices for hogs. Back of this fact an economic operation is likely to proceed, which, instead of reducing the price of hogs in the future will operate to increase it.

When the price of apples advances in any considerable degree, it operates to bring into existence more apple bearing trees. Exactly the opposite tendency arises when the price of live stock advances. This is due to the fact that the high prices offered for live stock tend to induce owners to sell, not only the animals which are not useful for breeding, but also those which are required for production. In other words, the tendency at this time is to induce owners of brood sows to part with them because of high prices for hogs.

The effect, it will be seen, is not like that which follows the advance in the price of apples, for the apple producer cannot sell his trees. Recent receipts of sows at the big markets indicate that better judgment is becoming prevalent among stock raisers and hog raisers, and that they have begun to realize that, in selling the sows, they are selling the seed wheat of a future highly profitable crop; or it may be that the diminution of receipts is due to the actual depletion of the number of sows fit for market.

While it may be true that at some points receipts indicate that producers are beginning to hold back their sows it is not strictly apparent here. One of the big local packers claims that during the past six weeks their aggregate kill showed 50 per cent. females, while for the same period last year the percentage of sows slaughtered was only 44 per cent. This packer says that since last November their records show a steady increase in the percentage of sows slaughtered. If this be indicative of general condition it should seem that the "liquidations, policy on the part of producers is being persisted in.

It is interesting in this connection to observe that Secretary of Agriculture Wilson points out that the depression of hog prices caused by the panic of 1907, induced farmers to sell breeding sows so as to diminish what, from then existing prices, they were led to regard as a line of unprofitable production. The present high prices of hogs Secretary Wilson indicates are largely due to the fact that hog production has diminished by reason of the scarcity of breeding animals.

It is something like the irony of fate to be brought face to face with the condition which exists at this time where in high prices instead of low prices, as in 1907, are at work and tending to again impair the hog raising industry by reducing the number of breeding sows. None of those who philosophically study the recent advance in the prices of foodstuffs hold out confident hopes that prices generally will

**STANDARD NINE SIZES IN ONE**  
Is the only EARTH AUGER that Really Works

**NINE POINTS OF ADVANTAGE**  
1—Enters hard earth. 2—Has Expansion blade. 3—Holds fine, dry sand. 4—Does not bind in hole. 5—Opens to discharge contents. 6—Does all conditions of earth. 7—Double "V" point cutting blades. 8—Saves half of the time and effort. 9—Nine sizes in one. Price \$2.50 to \$5.00. If not at Dealers, we deliver. Send for Catalog No. 11 Standard Earth Auger Co. 1129 Newport Ave., Chicago, U. S. A.

## LEARN ENGINEERING

Do you want to know how to take care of and run any kind of boiler and engine? Our course by mail teaches you fully the care, construction and operation of all kinds of boilers and engines, and fits you fully for the examination for engineer's license in any province.

Courses also in Commercial Work, Public and High School subjects, etc. Ask for anything you need.

**CANADIAN CORRESPONDENCE COLLEGE LIMITED**

Dept. F., Toronto, Canada.

materially decrease. That being the fact, obviously, it becomes highly sagacious as a business policy for the farmer to retain his breeding animals, especially sows, which multiply rapidly.

The hog has done much to increase the prosperity of the western farmer. When drouths come and crops fail the hog is the income producer for the farm. Year in and year out the porker is absolutely to be depended upon as a money maker. Many farmers have foolishly sold off brood sows the past year, being frightened at 60 cent corn, when as a matter of fact had they bred their sows and fed the corn they would have netted 75 cents to \$1.25 per bushel for the grain.

Those farmers who are prone to dispose of brood sows in years of high-priced feed should stop and weigh the situation carefully before doing what they will later have cause to regret.

Many Missouri hog shippers while at the yards last week informed us that farmers in their localities are now realizing the gravity of the situation and are saving and breeding all the sows possible. Two or three Illinois shippers from different countries in that state said that the heavy marketing of brood sows had cut down supplies so seriously that it would take several seasons to bring the "hog population" back to normal.

### PIONEER IN ROOFING

One of the pioneers in the prepared roofing business is the Brantford Roofing Company, Limited, and to this company must be given a large share of the credit for the success of the prepared roofing industry in Canada. The high quality of this company's products has created a feeling of public confidence and has won an enormous trade. The Brantford Roofing Company devote their entire energies to the manufacture of asphalt roofings, and as they have had many years of experience this speaks volumes for their belief in the superiority of asphalt as a roofing material. This company state that the asphalt they use is an exceptionally high-grade of asphalt, which has been refined until it has become 99 per cent. pure. They also have long-fibred pure wool felt made according to their own rigid specifications, as they say the ordinary commercial felt is not good enough for the purpose. In addition to a thorough asphalt saturation the felt is given a heavy coating of asphalt into which is firmly embedded crushed feldspar asbestos fibre, mica and other materials noted for their fireproofing and waterproofing qualities.

At their factory at Brantford, Canada, they make nine different styles of

asphalt roofing, and two thicknesses of saturated felt for sheathing or exterior surfacing. This line of surfaced goods can be used in any climate, and on pitch or flat roofs, or on the sides of buildings, and has been very successful in resisting the action of weather, acids and gaseous vapors, as well as a complete protection against flying firebrands and burning cinders.

Like other progressive manufacturers, the Brantford Roofing Company are liberal advertisers, and their advertisements, many of which appear in THE FARMER'S ADVOCATE, are always interesting and instructive.

**NEW CANADIAN COINAGE**

The bill to revise the currency act, which was put through the House of Commons recently will revolutionize the Dominion's monetary system, in so far as the familiar coins of the present day go. It provides for the coinage in the mint at Ottawa of these coins:

Twenty dollars, ten dollars, five dollars and two and a half dollars, gold pieces; one dollar, fifty cent, twenty-five cent, ten cent and five cent, silver, and one cent bronze coins.

All the gold coins will be new to Canadians. Whenever a Canadian has needed gold heretofore he has been compelled to use either the British sovereign or the American eagle. Hereafter, however, when a Canadian goes abroad he will not be subject to the indignity of having his country's bills, or those of banks which are probably more reliable than those of many banks of the United States, refused.

The Canadian gold coin—call it how you will—and here is a great opportunity for the word-coinage artists, because it is quite apparent that just as we speak of the solid British gold piece as the sovereign and as we describe the American gold coin as an eagle or its half, so hereafter will the financiers of the world have to reckon with the gold coinage stamped with the name "Canada," and which will at the same time bear upon its obverse the figure of the empire's sovereign.

The chief change in the silver coin is the creation of a Canadian silver dollar, which is designed to meet the wishes of the Pacific provinces.

Another important amendment to the old currency act was a provision that hereafter no man can offer in exchange for a debt more than 25 one cent pieces.

Another important point was that while the Ottawa branch of the Royal Mint was willing to coin the gold of Canada into any form in which it could be legally desired, it was still willing to do as it had done, coin British sovereigns out of Canadian gold; but the finance minister made it clear that the new standard would apply, so far as Canada itself was concerned.

An interesting feature of the discussion was as to the name of the five dollar gold piece. It was suggested that it should be called a beaver, but the finance minister said that the name, popularly, would have to be coined by somebody outside the government. So far as the government was concerned the five dollar piece and its partner, the \$2.50 piece, would be known by that title until somebody suggested another name.

**TURNER'S WINNERS**

J. A. Turner sends the following report of Balgreggan stock that won honors at the recent Calgary spring show. These animals were either bred, imported, owned or got by stallions bred by Mr. Turner. Royal King first in aged Clydesdale stallions, and also champion male, any age. Sonsie's Best, bred at Balgreggan, took third place in the same class. Wealthy Prince, Economist, Allanfearn and Marquis of Huntley, were placed second, third, fourth and fifth in three-year-olds. Sonsie's Stamp, first prize two-year-old, was got by a stallion bred by him, and second prize in this class was imported by him last November. The first prize seven-yearling stallion, Middleman, was bred by him and got by "Medallion" (a full brother to Silver Cup and imported by Mr. Turner). The first prize for Clydesdale females, three years and over, was won by Proud Beauty, by Baron's Pride. She

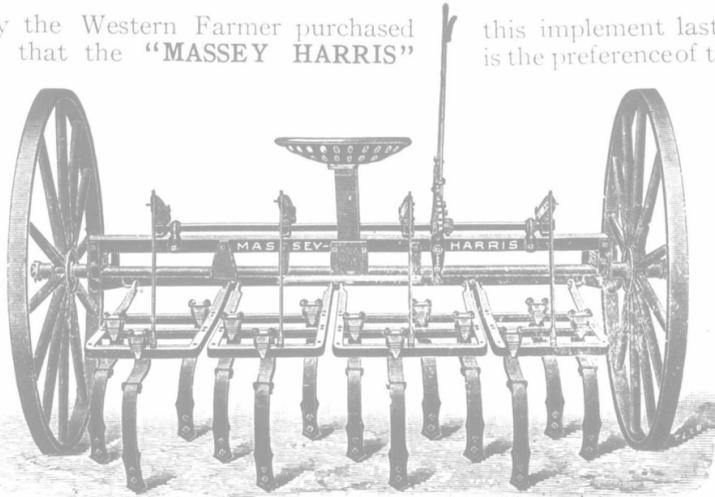
**1909 WAS A RECORD BREAKER FOR SALES OF OUR NEW No. 7 CULTIVATOR**

The way the Western Farmer purchased this implement last season signifies that the "MASSEY HARRIS" is the preference of the West

Be the Cultivation shallow or deep it is always uniform

A single lever raises gangs or applies pressure. Each gang has independent action.

Cultivator is nearly all high Carbon Angle Steel.



Wheels are extra strong, have large diameter and broad face.

Re-enforced steel spring teeth.

Adjustable hitch overcomes neck weight.

Regular points are reversible, giving double wear.

Buy a "MASSEY-HARRIS" and Sign the Death Warrant of all Weeds on Your Farm

**THE GAS TRACTION ENGINE KING OF ALL GENERAL-PURPOSE FARM TRACTORS**

**FIND OUT ALL ABOUT THE GAS TRACTION ENGINE**

We can't tell you all about our engine in an advertisement. We would like best for you to see it yourself. If you are in Winnipeg at any time come to our factory at Elmwood and examine it. Right at once you had better send for our free book, "The Passing of The Horse." It tells a lot about our engine and contains some mighty interesting reading. Send for it to-day.

**FREE**



**Send for this Booklet**

**CONSIDER THESE STATEMENTS CAREFULLY**

We say the Gas Traction Engine will stubble plow 25 acres per day. Several farmers have broken over 40 acres of virgin prairie sod in one day.

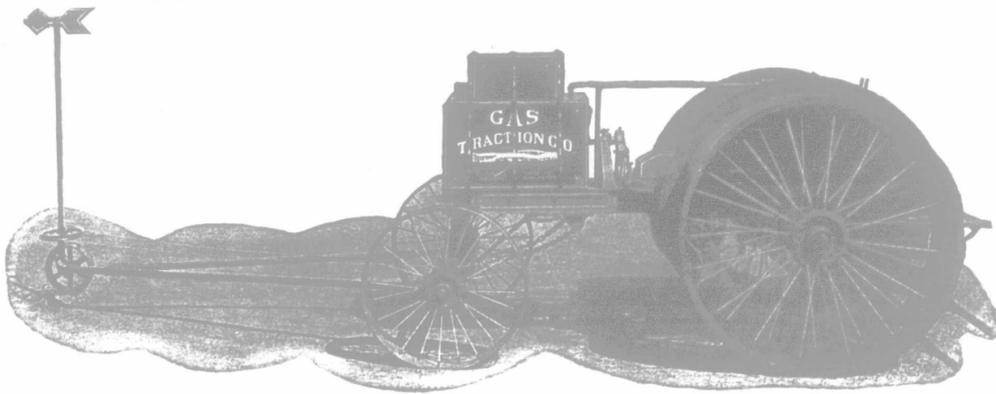
We say our engine can pull 6 to 8 breaking plows and from 8 to 10 stubble plows. It has pulled 12 stubble plows. We allow 1 1/2 to 2 1/4 gallons of gasoline per acre breaking, but we have affidavits saying it has been done on one gallon per acre. Affidavits from farmers using the Gas Traction Engine show the cost of plowing per acre to be under 30 cents, and as low as 24 cents.

These are only a few of the interesting proven facts we can give you regarding our engine.

**THE GAS TRACTION ENGINE PRODUCES RESULTS**

It will give big results to you, helping you to do good farming quickly and cheaply—that's the one aim of The Gas Traction Engine. Its thorough construction assures unlimited endurance. Its perfect and practical design lets it do work done by no other farm tractor. It weighs only 14,000 pounds—never injuriously packs the soil. It has power, endurance, and is built for economical operation.

The Gas Traction Binder Hitch permits use of Binders in multiple with Traction Engines. A wonderful invention. Every power outfit should have one. Write us for particulars.



**The Gas Traction Co. Grain Exchange Building, Winnipeg**

Note:—WE MANUFACTURE AT ELMWOOD, WINNIPEG.

# Hear Slezak

sing "Celeste Aida" in the

## Edison Phonograph

The New York Tribune says:

"Mr. Slezak dominated every scene, and his clarion voice rang out superbly in the climaxes. He sang the Celeste Aida with effectiveness, and the Nile scene with fire and passion, yet always with regard for phrase."

The New York American says:

"It is but a trifling with words, of course, to say that he was the greatest Rhadames that ever appeared on the American Stage. The house was crowded and the standees out in force; yet it was Slezak, not Caruso, who sang the principal tenor role."

These comments represent the consensus of opinion of all who heard Slezak at the Metropolitan in the role of Rhadames. Could you ask for better evidence of the fact that Slezak is the greatest lyric tenor since the days of Tamagno?

He sings the "Celeste Aida" and the great arias from Verdi's "Otello" exclusively for the Edison Phonograph. The Slezak Records are Edison Grand Opera Amberols—playing longer than any other Records made.

The **AMBEROLA**, the newest and highest type of Edison Phonograph



combines the rich, tonal beauty of the Edison Phonograph with a cabinet that is a masterpiece of craftsmanship. It is charmingly designed and finished and comes in either Mahogany or Oak to harmonize with surroundings in any home. It plays both Standard and Amberol Records. It has drawers for holding 100 Records. The price is \$240. Other types of Edison Phonographs, \$16.50 to \$162.50. See and hear the Amberola at your dealer's—and be sure to hear Slezak sing "Celeste Aida."

Edison Grand Opera Records . . . . . 85c and \$1.25  
Edison Standard Records . . . . . 40c  
Edison Amberol Records (play twice as long) 65c

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

\$\$\$\$\$ Thousands of Dollars \$\$\$\$\$

Last year we distributed upwards of **TWO HUNDRED THOUSAND DOLLARS** among our patrons for CREAM.

We are prepared to double that amount this year. How much of this are YOU going to get?

Have you any CREAM, EGGS or BUTTER to sell?

Write us at once and we will make you a proposition. Do it to-day.

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**The Brandon Creamery & Supply Co., Ltd.**

BOX 2310

Brandon, Manitoba.

The following are some of the lines we are constantly printing

APPEAL BOOKS AT-HOME CARDS  
BUSINESS CARDS, POST CARDS  
DODGERS, WINDOW CARDS, WINDOW  
BILLS, INVITATION CARDS, WEDDING  
INVITATIONS, DELIVERY BOOKS, ETC.

**The FARMER'S ADVOCATE, Ltd.**

JOB DEPARTMENT

Phone Main 9000 or 9001

14-16 Princess St.

afterwards was awarded the Clydesdale female championship. She and the first prize two-year-old filly, Poppy, by Baron o' Buchlyvie, were imported by him.

In Hackneys the stallion, Woodlands Sensation, was awarded first prize, while his young stallion, Seaham Mason was placed third, as he was somewhat nervous, being shown to a disadvantage at night inside the rink.

### WINNIPEG MOTOR CONTEST

Progress is being made in regard to the motor contest to be held at the Winnipeg Industrial Exhibition, July 13-23. Prof. A. R. Greig, of Saskatoon, and Prof. L. J. Smith, of Winnipeg, will be the judges. Dr. A. W. Bell, manager of the exhibition, has sent out the following notes regarding the competition:

Engines will be rated according to the brake horse power developed in the maximum half-hour test. The engines during this time will be carefully watched by the judges to see that everything possible is being done to get the utmost power out of the engine. The judges will also take careful measurements of the engine, calculating therefrom its horse power, which will serve as a check on any manufacturer trying to hold his engine down in order to get into a lower class.

Engines developing over 20 horse power and under 21 brake horse power will be placed in the 21 brake horse power class. This will apply to the other classes as well.

The fuel consumption will be based on the cost of fuel consumed. This will be the price of fuel in Winnipeg at the time of the contest.

No other fuel will be allowed to be used except that furnished by the association. In the case of the internal combustion engines either kerosene or gasoline may be used, this being left to the discretion of the manufacturer.

The plowing will take place in tough gumbo sod on a level piece of ground. In all probabilities the furrows will be one mile in length and each engine must make one round per hour, and must have sufficient fuel and water capacity to last for that length of time. The idea is to replenish at the end of each round.

Fuel and water will be measured, but will not form a part of the score. It will, however, serve as a check to determine whether or not the engine is working up to its full capacity.

It is contemplated if possible to arrange for a mile course in the hauling competition. You will readily recognize in a competition of this kind and in a city that is growing so rapidly as Winnipeg, that it is not convenient to secure a course in which the first engines competing in the whole competition have not a slight advantage. However, we are trying to arrange our course in such a way this year that the last engine will have practically the same kind of track as the first engine.

Penalties will consist mainly in the losses of time occasioned by stops. However, an engine that has a breakdown through faulty construction, etc., will in addition to the loss of time receive the requisite demerit marks in addition to the loss of time. So many unforeseen things may happen to an engine that it would be impossible to provide definite penalties that would cover each and every one of them; consequently this must be left somewhat to the discretion of the judges.

In the plowing contest the cost of fuel will be reduced to a basis of dollars and cents. Labor will not be taken into account. In a competition of this kind every plow manufacturer who attaches his plow behind an engine is going to provide sufficient help, so that he can make his plows do the best possible work. He will therefore, oftentimes provide two men for the plows where the average farmer would not have over one and would be satisfied with a somewhat inferior job. If the steam and gasoline engines were all in the one class, there might be more reason for taking the cost of labor into consideration, but as each is in a class by itself the cost of labor does not enter into the proposition to the same extent. A careful account will, however, be kept of the cost of labor, due consideration being paid to just how much of this labor the farmer will em-

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**Dominion Express**  
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Payable everywhere

**Rates for Money Orders**  
\$5.00 and under . . . . . 3c  
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" \$10.00 to \$30.00 . . . . . 10c  
" \$30.00 to \$50.00 . . . . . 15c

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Issued in all Stations of the  
Canadian Pacific Railway Co.

**Hamilton Cream Separator**  
A Trial Offer



\$18.00  
to  
\$49.00

We say the Hamilton is the best Cream Separator sold in Canada today. Don't take our word for it. Get one on our special 30-day trial offer. Prices only one-third to one-half what others charge. Thousands now in use in Canada. Write before you go to bed for catalogue "A". It tells about our 30-day offer.

HAMILTONS', Somerset Bldg., Winnipeg

**RESPONSIBLE MAN**  
with team and wagon wanted who can give bond, as salesman for our Extracts, Stock, Poultry, Powders, Liniments, Spices, Talcum, Soap, etc. Write for permanent work in your own county. **George Hassall, Sec.,** 221 Main St., Keokuk, Iowa.

**WHEELER & OARLE**  
**ENGINEERS BRAZIERS**  
**MACHINISTS**

Machine and Foundry Work of Every Description

If you have trouble in replacing broken castings, send them to us and have them repaired. We operate the only

**CAST IRON BRAZING**

Plant in Western Canada, and make a specialty of this class of work.

153 Lombard St.

Winnipeg, Man.

**A Churn For Women**



This is our "LEADER" CHURN—made of the best White Oak—which won't chip or peel like glass or crockery—absolutely sanitary—and may be operated by foot or hand. If your dealer does not handle Leader Churns, write us direct. 53  
**CUMMER-DOWSWELL LIMITED, - Hamilton, Ont.**

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Hamilton, Ont.

### A Physician's Testimony

Dr. Snow, late Senior Surgeon, Cancer Hospital, London, Eng., said:—

"Scientific nutrition like **BOVRIL** will do more to stay the ravages of any malady than a century of progress in drug treatment.

Well fortified by nourishing food you can resist insidious or sudden attack of disease.

**BOVRIL** is a highly concentrated food. Immediately it is taken it is transformed into energy and strength. No other food so quickly stimulates and invigorates the system as

## BOVRIL

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### DRY FARMING

Is the knowing how to master farming problems in countries of slight or uncertain rainfall.

**DRY FARMING IS A SUCCESS**

Dry Farmers who are successful MUST UNDERSTAND their Soils, Climatic Conditions, Seed Breeding, Tillage and an hundred things that can only be KNOWN by making CAREFUL, THOROUGH STUDY of the situation.

**DRY FARMING METHODS**

If applied in every State of the Union WOULD ADD MILLIONS OF DOLLARS to America's Agricultural Production.

If you are in a semi-arid district, or where frequent drought or "worked-out" soils make success a problem, you should be a member of the

**DRY FARMING CONGRESS**

It costs but \$1.50 a year!

And its Official Publications are sent only to members.

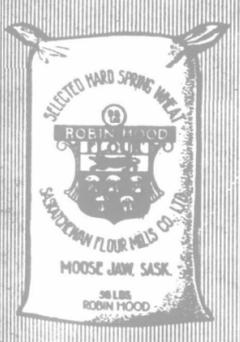
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JOHN T. BURNS,  
Secretary of the Congress, Spokane, Wash.

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Our Money-Back Guarantee

Give Robin Hood Flour two fair trials. If you are not satisfied with it then, your grocer will give you back your money. What could be fairer? Will you try it!



MULTI HARD SPRING WHEAT  
ROBIN HOOD  
SASKATCHEWAN FLOUR MILLS CO.  
MOOSE JAW, SASK.  
30 LBS. ROBIN HOOD

Advocate Ads. for Results

ploy on his farm. This will be done for the benefit of the manufacturers, but will not in any way form a part of the score.

The quality of work done in plowing will to a certain extent be taken into consideration, but only in so far as the engine is responsible; for example, straightness of furrow, evenness of depth and finishing at the ends.

Careful score will be taken of the amount of water consumed in the plowing contest, as the water problem is a vital one to the farmer who uses a plowing engine.

The pressures allowed will in all probability be those determined by the Alberta Law for Pressures, which is now in force. This has, however, not been thoroughly decided upon, but will be in a very short time.

The association has secured a half-section of land for this competition in close proximity to Winnipeg, and as we have to guarantee the plowing of the entire amount of land, it is the intention of the committee to give each engine a certain amount of land to be plowed, and this will be one of the conditions of entry that the contestant must complete his work. Just what area will be given to each contestant cannot be definitely determined until all of the entries are in. The plowing test will doubtless not extend over a less period than six hours for each engine and may run more than that, thus giving each contestant an excellent opportunity to demonstrate just what his engine can do. The land allotted to each engine will be in proportion to its horse power.

We are also arranging for a four-horse team to do one or two days' work on the plowing contest field. This forms no part of the competition, but is simply provided to furnish the manufacturer with a comparison between horse and mechanical plowing, working under exactly the same conditions.

Steam engine classification is:

1. Up to 60 brake horse power.
2. 60 to 90 brake horse power.
3. Over 90 brake horse power,

providing there are three or more engines entered in their respective class. In all sections entries are limited to one from a firm. The entry fee for each engine entered is \$25.00.

### SASKATCHEWAN'S SYSTEM OF FARMERS' INSTITUTE MEETINGS

(Continued from Page 633)

of the wheat plant. It is nourished by the wheat plant, like a traitor in a camp. When the wheat heads sprout out a fight takes place for supremacy. So evenly is it contested that sometimes a single head is half smut, half wheat—so fiercely does each strive to reproduce itself. It has already been mentioned that deep sowing favors the germination of smut, and shallow sowing does not.

The appalling fact of the number of smut germs in a single smut-ball explains why even a few smut-balls in a drill may reproduce smut in a whole field of grain, if they break. It shows the necessity of immersing grain instead of sprinkling it. Immersion enables a man to skim off the smut-balls as they float to the surface. Sprinkling does not do this—and the unbroken smut-ball, though well dosed with blue-stone or formalin, is unhurt by this treatment, as it has a water-proof coat! So unless it is floated to the surface and removed it is very apt to break during seeding and get in its deadly work in spite of chemicals. Any treatment of grain for smut is effectual only in killing smut that has already been broken from the smut-balls, and will not necessarily kill smut inside the balls. Great care must be taken, not only to clean every smut-ball out of the seed, but also to make sure that everything the seed is to come in contact with from the time it is treated until it is in the ground, has been thoroughly freed from smut, by the use of either blue-stone or formalin. Grain bags that are to be used to carry seed after being treated, should be immersed in a solution of either blue-stone or formalin, if they have been used previously to carry grain having any trace of smut.

Mr. Motherwell drew attention to the short courses for farmers that will be inaugurated next winter in Sas-

## FLAX FOR SEED

PURE AND CLEAN  
EARLY CORN FOR FODDER



S. B.'S SEEDS STAND ALL TESTS  
Yielded 110 bushels per acre at Brandon Experimental Farm, 1909.  
Write for Catalogue and Prices.

Dakota Dent No. 100, Golden Dent, Northwestern Dent, North Dakota White Flint, Longfellow Yellow Flint, all the best for the Canadian West, and to make them better our crops were grown the farthest north of any corn offered in Canada. In Dakota and Minnesota they ask 50c. per bushel more for corn grown like ours than we are asking.

**ORLOFF OAT**—the earliest of all—equal to barley as a cleaning crop—the hardest—the kind for the new settler—the only kind for "breaking." Yield-

## Steele, Briggs Seed Co

WINNIPEG, CANADA Limited.



Note this Special  
It is Big Value

G 2324—Semi-Princess Dress made from fine quality English Lawn in one piece, with two piece effect. Two panels of fine Hamburg embroidery insertion down front. Neck and sleeves are also finished with embroidery insertion and French Valenciennes lace. Shoulders of dress are tucked back and front, and two panels of Hamburg embroidery insertion run in Prussian effect across front of waist. The skirt has the over-skirt effect, with a 20 inch kilted frill. This dress would be remarkable value at \$5.00 in any retail store in Canada. We have purchased an enormous quantity in order to sell at the price, and we offer it to you at the very low price of

**\$2.98**  
Postage 22 cents.

This dress is made in white only. Sizes 32 to 44 bust.  
This dress is taken from our catalogue and is typical of the values shown therein.

Montgomery, Ross & Company  
32 MCGILL COLLEGE AVE.  
Box 110, Station B. MONTREAL

**Horsemen** Now is the time to prepare a catalog of your stock. Write to us for prices, giving size and number you require.

## SELF-DESTRUCTION

Every act, every thought, every rush of passion, every emotion, every movement of muscle or mind uses up some of the substance of our bodies, just as every step in walking helps to wear out our shoes. Food repairs the loss to some extent, but the power to digest food grows less, with use, from year to year. That is the reason, sooner or later, we must die.

Now take note. The faster you live, the more you waste; the more you throw away, the sooner you come to the end.

Once more. The great waster, the great thief of life is illness. Then you may lose in a month what might have lasted a year, and (remember) not merely of flesh and strength, but of the power to get it back.

Here is where Mother Seigel's Syrup does its wonderful work. It gives you back lost power. Not all of it, for then you could live for ever; but most of it. Convincing proof of this is afforded by the case of Mrs. John W. McGregor, of McLarty, Algoma District, Ont. Writing on January 25, 1910, Mrs. McGregor says:

"At the early age of fifteen I began to suffer distress after eating. The action of my bowels was irregular. I could sleep only by snatches. My face

was pale, and frequently I had severe pains in my back. In 1888 I first began to use Mother Seigel's Syrup, and I found that it helped me. I used the Syrup with the best results, and I have had no further need of it for twenty-six years! I have unbounded confidence in this remedy!"

Mrs. McGregor had no further need for Mother Seigel's Syrup, because it restored her stomach, liver and bowels to healthful working order, and for twenty-six years they have done their digestive duty. The cures effected by Mother Seigel's Syrup are not only sure and speedy, but permanent too! Mrs. McGregor has proved this! Prove it yourself!

Mr. John Stewart, of Piper's Glen, Inverness Co., N. S., writing us on January 31, 1910, says he owes the present good state of health to Mother Seigel's Syrup, and proves the assertion by stating the following facts:

He says: "A few years ago I was troubled with indigestion and loss of appetite, which very soon began to assume a serious aspect. After suffering for some time, your preparation was recommended to me as a possible help, and I commenced to take it. The syrup did me a great deal of good, and in a short time I was entirely cured."

The \$1 bottle contains 2½ times as much as the 50 cent size.

A. J. White & Co., Ltd., Montreal

## INDIGESTION

MEANS:—

TORTURING PAIN. WRETCHED DAYS.  
CHRONIC WEARINESS. WAKEFUL NIGHTS.

It means being "done up," "played out," bowled over," "good for nothing," all the day and every day. It means starved blood, starved muscles, a starved body and a starved brain; in short, it means ruined health and a broken-down system unless you root it out without delay.

## MOTHER SEIGEL'S SYRUP

Mother Seigel's Syrup is the standard remedy for indigestion in sixteen countries. Its unrivalled reputation is backed by nearly forty years' unbroken success in curing indigestion, biliousness, constipation, and all diseases arising from a disordered condition of the stomach, liver and bowels. Mother Seigel's Syrup is made from the extracts of certain roots, barks and leaves which exert a remarkable curative and tonic effect on the stomach, liver and bowels, and has no equal as a digestive tonic and stomachic remedy. This is the testimony of tens of thousands of persons whom it has cured after all other medicines had miserably failed. Here is a case in point:—"Five years ago I began to feel out of sorts; felt weakness and lack of energy I had never felt before. I lost my appetite, and when I did eat a little I always had pains in my back and chest. I had headaches, giddiness, unpleasant breath and coated tongue. I began taking Mother Seigel's Syrup and in one month was completely cured."—George Morris, 18, Cathedral Street, Montreal. 28.6.09.

### GIVES

STRENGTH  
TO THE  
WEAK.

ENERGY  
TO THE  
LANGUID.

COMFORT  
TO THE  
DYSPEPTIC.

### GOOD DIGESTION TO ALL

Sold everywhere.

A. J. WHITE & Co., LTD., MONTREAL.

katchewan's new Agricultural College at Saskatoon. Special attention will be given to instruction in the use of the increasingly intricate mechanical appliances used in farming. There will be a residence in connection with the Agricultural College to accommodate all students.

#### CONSERVING MOISTURE.

George P. Campbell discussed "Breaking and Summer-fallowing." He drove home the necessity of conservation of moisture above all things. It is the thing to be aimed at if we want big crops. A crop is like so many pumps pumping moisture out of a field, and the moisture must be there for them to pump if the stalks of grain are going to produce good heads. In both breaking and summer-fallowing one must keep constantly before his mind this great necessity of stopping the escape of moisture. Thorough cultivation is the great means for doing this.

The sooner after the frost is out of the ground one can start breaking, the more moisture one can keep from escaping. But it was pointed out that the moment the sod is turned over both sun and wind start robbing it of moisture. This loss must be stopped, and the moisture saved for the growing of next year's crop. It can only be stopped by packing the sod and making a dust-mulch on top at once.

"Pull your horses off your plow at 4 o'clock," was Mr. Campbell's counsel, "and disc what you have done. Don't give your disc more than one notch set, and give your breaking two light strokes. Then use a scrubber. You will then have packed your sod and made a shallow dust-mulch over it. This will prevent the all-important moisture from escaping."

He hammered home this necessity of discing, breaking lightly the same day you break it; also the importance of getting all breaking disced and ready for next year's crop before the end of July—before the rush of haying and harvest is on, when it is apt to get pushed to one side in the pressure of so many things. Then the wasteful evaporation of moisture is stopped, and all rain that falls is held. That backsetting is the gilt-edged way of handling breaking was admitted. The time it takes and the fact that the crop from it takes longer to ripen, are drawbacks to be considered, and which weigh heavily with most. Breaking about four inches was said to be sufficient. The usual way of discing was criticized, viz., cutting breaking to pieces with the disc, and leaving a mass of clods exposed to the heat and wind, instead of having a fine dust-mulch on top. If the disc is not set in too deep, and it is aimed to cut not more than two inches down, a fine dust-mulch will be formed, and the under sod will simply be packed, but will not be otherwise disturbed. Better crops will result, and it isn't as hard on horses.

Though Mr. Campbell dealt with other important questions, especially the uses of summer-fallowing, I wish to draw special attention to what he said about the growing of soft wheats (such as Preston) in the Northwest, and the serious effect it is having on the price of our whole wheat crop. Mr. Campbell told us our No. 1 Northern wheat sold this fall in Liverpool for nine cents a bushel less than Australian wheat, which is a soft wheat. Our Red Fife cannot be equalled for milling qualities in the world. Yet our wheat brought 9 cents a bushel less than Australian wheat, when in the ordinary course of things it should have brought a cent or two more per bushel. Now the grower of Preston and other soft wheats haul their wheat to the elevator or ship to Fort William and Port Arthur direct, the same as the growers of Red Fife. No difference is detected in the two wheats, and the growers of Preston get the same grade as the growers of Red Fife: soft wheat and Red Fife are dumped into the same terminal elevator bins and loaded into the same boat, and are delivered to the Old Country miller as hard wheat, No. 1 Northern, Manitoba, No. 2 Northern, and so on. The Red Fife takes a certain amount of steaming to remove the bran—much more than soft wheats need. When the miller looks at his rolls he is aghast to find that while some bran is coming off clean, other

## Poor Digestion?

This is one of the first signs of stomach weakness. Distress after eating, sour eructations, sick headache, bilious conditions are all indicative that it is the stomach that needs assistance. Help it to regain health and strength by taking

## BEECHAM'S PILLS

for they are a stomach remedy that never disappoints. They act quickly and gently upon the digestive organs, sweeten the contents of the stomach, carry off the disturbing elements, and establish healthy conditions of the liver and bile.

The wonderful tonic and strengthening effects from Beecham's Pills, make them a safe remedy—they

## Help Weak Stomachs

Sold Everywhere. In Boxes 25 cents.

bran is bringing considerable flour with it. This is the work of the growers of Preston and other soft wheats. The miller is losing flour. He is going in the hole. He doesn't have this experience often before he discounts No. 1 Northern, Manitoba, and comes to regard it with suspicion. He cannot separate the hard wheat from the soft, and when he buys No. 1 Northern, Manitoba, he now knows that he must take chances on getting a combination of hard and soft wheat that requires two distinct modes of treatment, which he cannot give, in order to release the bran. Mr. Campbell urged farmers to do all they could to discourage the growing of soft wheats, which lower the standard of our wheat in the world's markets. Growing oats will solve the difficulty of a man who has gone into Preston to escape frost. This was backed up by the mention of one of the wealthiest farmers in the West, who had in the early days been put almost out of business by frozen wheat-crops, and who had gone into oats in place of wheat, and made money at it. SASK. DAVID ROSS.



## STAG

BRIGHT PLUG  
CHEWING TOBACCO

A lasting chew.  
Ask for it.

### Questions & Answers

#### GENERAL

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

#### POWER FOR SMALL PULLEY

I have been running a circular saw with seven horse-power. Machine jack pulley, 21 inches; saw pulley, 10 inches. I have recently put 4 inch pulley on saw to increase revolutions. Does this make the work harder or easier, or any difference at all to the horses?—M. L. F.

Ans.—The smaller the saw pulley, with the same size jack pulley, the faster the saw will run, and the more power it will take, providing the saw was not running too slow in the first place, which I think must have been the case. If the saw is now running at the proper speed to do good work it should take very little more power than it took to run it before the change was made. If you have a heavy flywheel on the saw-arbor, the saw should not take as much power at it took before, except when you are cutting up large sticks, for the momentum of the flywheel (or balance wheel) will carry the saw through the cut.

M. A. C. L. J. SMITH.

#### PREPARING SOD FOR POTATOES

What is the best tillage before planting potatoes on rye grass sod? The soil is clay loam. It has been seeded down for three years.—A. B.

Ans.—The sod should be plowed about four or five inches deep, directly after haying or earlier, if not used for hay, then disk harrowed and worked down fine during the summer and early fall. If well packed in the fall or spring it will retain moisture. If the cultivation has been thorough this season the soil will be fine and compact by May 15, when the potatoes can be plowed in under every third furrow. If the work has not been well done there is danger of the field being too loose and dry for a good yield.

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

#### OATS ON WEEDY BREAKING

Last year I broke some weedy prairie land and backset it late in the fall. It was very dry, and the backsetting was not done thoroughly, as I could not go deep enough. I intend sowing wheat on this field, but I am afraid of thistles and sunflowers. A neighbor says the roots of these weeds have been cut, and, therefore, they cannot grow. What would you advise me to sow, wheat, oats, flax or 60-day barley?—J. N.

Ans.—As a rule it pays best to sow wheat on backsetting, because it usually gives a large yield of excellent quality, and wheat straw is not as likely to lodge as oat straw. As you state that the land is not in very good condition, I would recommend the sowing of oats. They do not require such thorough cultivation, and with your conditions should not lodge. I would not anticipate any serious trouble from the thistles in this year's crop.

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

#### MORTGAGE ON LAND

A man holds half a section of land which is mortgaged considerably by giving a second party a second mortgage on same as security for a debt. Can the second mortgagee compel the first mortgagee to foreclose, and how long is it before they could sell?—EMERALD.

Ans.—As soon as either of the mortgages are in arrears either of the mortgagees can commence foreclosure proceedings, but neither could force the other to take proceedings. The second mortgagee could only sell the land subject to the first mortgage. The first mortgagee could sell the land and give an absolute title to it. If the land sold for more than the first mortgage, of course the first mortgagee would be obliged to hand over the balance over and above the first mortgage and costs, to the second mortgagee.

## THE CANADIAN LIGHTNING ARRESTOR AND ELECTRIC COMPANY



### BEWARE OF HALLEY'S COMET

MANY ELECTRICAL STORMS ARE PREDICTED FOR 1910.

### WE GUARANTEE PROTECTION

MR. FARMER — Did you ever consider the great amount of damage done to buildings by Lightning? The season is close at hand when you should consider protecting your life and property. It takes years of hard labor to build up a nice home and family. Lightning will destroy it in a few minutes. Now is the opportune time to protect your property from lightning with the

## Townsley System

Manufactured in Winnipeg

We sell through retail dealers. Write us for our free booklet at once for information.

O. W. Townsley, Manager

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## Put Your Feet in a Pair at Our Risk! STEEL SHOES

Will Surprise and Delight You With Their Lightness, Neatness and Comfort Their Almost Unbelievable Durability

We want you to slip your feet into a pair of Steel Shoes—to FEEL and SEE and KNOW how much LIGHTER, NEATER, STRONGER, more COMFORTABLE they are than any other work shoes in existence. Hence we are making this special FREE EXAMINATION OFFER, merely asking a deposit of the price, while you are "sizing up" the shoes. If they fail to convince you IMMEDIATELY you can notify us to send for them at our expense and we will refund your money AT ONCE.

#### The Shoes Must Sell Themselves

We ask no favors for Steel Shoes. Compare them with the best all-leather work shoes you can find.

Give them the most rigid inspection inside and out.

Let them tell their own story. It's no sale unless, of your own accord, you decide that you must have them.

#### Better than the Best All-Leather Work Shoes

Steel shoes are the Strongest and easiest working shoes made.

There's more good wear in one pair of Steel Shoes than in three to six pairs of the best all-leather work shoes. The leather is waterproof. The Steel Soles are wear-proof and rust-resisting.

They are lighter than all-leather work shoes. Need no breaking in. Comfortable from the first moment you put them on.

Impossible to get out of shape. They keep the feet dry. They retain their flexibility in spite of mud, slush or water. They cure corns and bunions, prevent colds and rheumatism—save doctors' bills and medicines.

#### Thousands of Farmers Shout Their Praises

The enthusiasm of users knows no bounds. People can't say enough for their comfort, economy, lightness and astonishing durability. The introduction of Steel Shoes in a neighborhood always arouses such interest that an avalanche of orders flows.

Here is the way Steel Shoes are made: The uppers are made of a superior quality of leather, as waterproof as leather can be tanned.

Wonderfully soft and pliable—never gets stiff. The soles and sides are made out of one piece of special light, thin, springy, rust-resisting Steel. Soles and heels are studded with adjustable Steel Rivets, which prevent the bottoms from wearing out. Rivets easily replaced when partly worn. 50 extra rivets cost only 30 cents and should keep the shoes in good repair for at least two years! No other repairs ever needed! The uppers are tightly joined to the steel by small rivets of rust-resisting metal, so that no water can get between.

The soles are lined with soft, springy, comfortable Hair Cushions, which absorb perspiration and odors and add to ease of walking.

H. M. RUTHSTEIN Sec. and Treas. STEEL SHOE CO. Dept. 427, Toronto, Can. Main Factory, Racine, Wis., U. S. A. Great Britain Factory, Northampton, Eng.



FREE Send for Book, "Sole of Steel," or order Steel Shoes on blank below. Why Wait? Send Now!

No risk! No bother! No obligation! Don't hesitate! Act while this offer is open! Simply fill out the coupon, stating size of shoe you wear. Enclose the price and get the shoes for Free Examination.

For general field work we strongly recommend our 6-inch high Steel Shoes at \$3.50 per pair, or the 9-inch at \$5.00 per pair. For all classes of use requiring high-cut shoes our 12 or 16-inch high Steel Shoes are absolutely indispensable. Shoes can be returned at once if not O. K., and the money will be refunded.

Sizes 5 to 12. Black or Tan Color. 6, 9, 12 and 16 Inches High. Steel Shoes, 6 inches high, \$2.50 per pair. Steel Shoes, 6 inches high, better grade of leather, \$3.00 per pair.

Steel Shoes, 6 inches high, extra grade of leather, black or tan color, \$3.50 per pair.

Steel Shoes, 9 inches high, \$4.00 per pair.

Steel Shoes, 9 inches high, extra grade of leather, black or tan color, \$5.00 per pair.

Steel Shoes, 12 inches high, \$5.00 per pair.

Our Three Great Factories in Racine, Toronto and Northampton, England, Almost Overwhelmed by the World-wide Demand

The success of Steel Shoes is almost startling. Within three years we have established Steel Shoe factories in Racine, Wis.; Toronto, Canada, and Northampton, England. These great factories, running at full capacity, can scarcely keep up with the demand from all over the world. The public is rapidly learning that Steel Shoes are Good for the Feet! Good for the Health! Good for the Bank Account

These shoes are better for the feet, better for the health, better for the pocketbook than heavy work shoes or rubber boots.

You Actually Save \$5 to \$10 a Year by wearing Steel Shoes. \*Figure it out for yourself. One pair will outlast 3 to 6 pairs of ordinary work shoes. They save all repair bills and keep your feet in perfect condition.

Free Examination And Your Money Back Promptly if It Looks Better Than the Shoes

You owe it to yourself to investigate. Get a pair of Steel Shoes for Free Examination by sending the price, which will be returned if you and your own feet are not convinced of their merits.

Steel Shoes, 12 inches high, extra grade of leather, black or tan color, \$6.00 per pair.

Steel Shoes, 16 inches high, extra grade of leather, black or tan color, \$7.00 per pair. [41]

#### MONEY BACK COUPON

N. M. RUTHSTEIN, Sec. and Treas. Steel Shoe Co., Dept. 427, Toronto, Can.

I enclose \$..... for which please send..... pair of Steel Shoes, size..... for

#### Free Examination

If I am not pleased I can return shoes immediately and get my money back at once.

Name..... Address.....

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In Boxes 25 cents.

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## 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.

**FARM HELP** of every description supplied. M. MacNeil, 215 Logan Ave., Winnipeg. Phone 7782.

**SEVANTS SUPPLIED**—Mrs. MacNeil will be leaving shortly to bring to Winnipeg general servants having first-class references. 215 Logan Ave., Winnipeg.

**BRITISH COLUMBIA REAL ESTATE**—Fort George, British Columbia—Grand Trunk Pacific Railway terminal. Centre richest farming area. Banks, business establishments already purchasers. Lots \$150 cash. Farm lands also. Northern Development Co., Vancouver, B.C.

**FRUIT LANDS—OKANAGAN FRUIT LANDS**—grow prize-winning fruits commanding top prices. Low prices, easy terms illustrated booklet. Panton & Emsley, Vancouver, B.C.

**IF YOU WANT WORK** or help of any kind send particulars to THE SASKATCHEWAN EMPLOYMENT BUREAU, PEART BLOCK, REGINA, SASK., "The best in THE WEST."

**FOR SALE**—Good, clean seed barley, raised on new breaking; free from foul seed; also abundance oats, 100 bushels per acre last year; weight, 45 pounds per bushel. For prices address H. O. Hutshins, Box 66, Keeler, Sask.

**WANTED**—End of April, an improved farm near Edmonton and railway. Stock, pigs, poultry, implements, etc. Full particulars, price, etc., to Farmer, FARMER'S ADVOCATE.

**FOR SALE**—Pure "Gold Coin" potatoes, 3c. per pound, \$1.50 per bushel, f. o. b. Lemberg. R. W. Allen, Cristo Farm, Lemberg, Sask.

**TAMWORTHES FOR SALE**—Bosar "King Edward 5786," sow "Belle 5874"; age twenty months. Both prize winners and excellent breeders. W. H. Hicks, Souris, Man.

**BRITISH COLUMBIA**—Send for full particulars; beautiful suburban homesites near Vancouver; full quarter acres; easy terms. Write Western Brokerage Co., 720 Pender St., West, Vancouver, B. C.

**FOR SALE**—Pure "Prairie Flower" potatoes; early variety; good yield; \$1.00 per bushel f. o. b. Macdonald; bags, 10 cents extra. Thos. Walker, Macdonald, Man.

**FOR SALE**—Sixty-day beardless seed barley; clean; 60 cents per bushel; bags free. A. J. Morrison, Grenfell, Sask.

**WE CAN SELL** your property; send description. Northwestern Business Agency, Minneapolis.

**FOR SALE**—Early Rose, Early Ohio, Early Sunlight new Early Short Season and Early Lightning Express seed potatoes, 4 lbs. 50c. or 10 lbs. \$1.00, postpaid. Barred Plymouth Rock and Pekin Duck eggs, \$1.50 per setting. T. E. Bowman, High River, Alta.

**LOCAL AGENTS**—We have some very good openings in Saskatchewan and Alberta for good live men willing to give their whole time or part of same in doing subscription work for the ADVOCATE. Good commission paid to reliable people. When writing enclose references as to character, etc. Address FARMER'S ADVOCATE, Box 3089, Winnipeg.

**PLACE** your orders for fence posts now. Carlot f.o.b. your station. Lowest prices. Direct from bush. Fruit land for sale or trade for stock or improved farms. J. H. Johnson, Malakwa, B. C.

**BRITISH COLUMBIA**—Are you interested in British Columbia? Send postal for free sample copy of Vancouver Daily World and full particulars of their great dot contest. Two premiums of \$25 a month for life are among the prizes. Send at once. The World, Vancouver, B. C.

**WESTERN RYE GRASS SEED** for sale at 8 cents per lb. in bran sacks, f. o. b. Virden. W. Dillon, Box 657, Virden.

**SOUTH AFRICAN WARRANTS**—I will sell two at bottom price. I will buy any number, at market prices, subject to confirmation. E. B. McDermid, Nelson, B. C.

**ORLOFF OATS** for seed. Absolutely clean at 60c. per bushel; bags extra. A. A. Titus, Napinka, Man.

**VANCOUVER ISLAND FARMS**—Comox district. For information in good farming land, mines, fishing, timber, write E. R. F. Bischoe, Real Estate Agent, Comox, B. C.

**WANTED**—Engineer holding third-class certificate wants position on plow engine. Do my own repairing. Sober man. Apply Box 293, Wapella, Sask.

### 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.

**LOST**—Sorel mare, stripe down face, Roman nose; Jimmy mule, buckskin, black stripe down back, halter on, wire cut on right hind foot. Reward \$30.00 for recovery, or information leading thereto. Address John E. McLeod, Thacker, Sask.

**NOVEMBER 10**—One bay mare pony with star in forehead, age four years. Brand O with mark on right jaw and shoulder. \$10.00 reward will be given for information leading to her recovery. Address C. M. Peterson, Rondeau, Sask.

## POULTRY AND EGGS

**RATES**—Two cents per word each insertion; cash with order. No advertisement taken less than fifty cents.

**FOR SALE**—S. C. B. Leghorns and S. C. Wyandottes, eggs at \$1.00 per setting, from select birds. Duncan Vipond, Killarney, Man.

**WHITE PLYMOUTH ROCKS EXCLUSIVELY**—Winnipeg at Winnipeg Poultry Show on six entries, five firsts, one second and all specials offered. Birds and eggs for sale. Correspondence solicited. W. J. Currie, Lauder.

**BARRED PLYMOUTH ROCKS** and Indian Runner Duck eggs, \$2.00 per setting, or 2 settings for \$3.00. A satisfactory hatch, or order refilled at half price. W. R. Barker, Deloraine, Man.

**E. P. EDWARDS**, South Salt Spring, B. C. Eggs for sale from the following breeds, by settings or the hundreds: Buff Rocks, Rhode Island Reds, Black Minorcas, Blue Andalusians, Speckled Hamburgs, White Wyandottes, Pekin Ducks, Indian Runner, Ducks. Stock for sale.

**PUREBRED HATCHING EGGS**—Buff and Columbian Wyandottes, Brown Leghorns and Buff Cochins. Equals of most three-dollar eggs. Fifteen, \$1.50; thirty, \$2.50. J. E. Sinclair, Stonewall, Man.

**PUREBRED S. C. BUFF ORPINGTON** eggs \$1.50 for 13; also Bronze turkey eggs, \$1.50 for 12. Mrs. W. H. Read, Nanton, Alta.

**BUFF ORPINGTON** eggs for hatching, \$2.00 per setting; \$3.00 per 100, from grand flock with free range. Collie pups, \$5.00 each. W. J. Lumsden, Meadows, Man.

**SET FERTILE EGGS ONLY**—Use a Magic Egg Tester; costs only \$2.00, and we will return the money if you are not satisfied. West Poultry Yards, Milestone, Sask.

**EGGS FOR SALE** from prize-winning, purebred White Rock and Silver Spangled Hamburgs. For the balance of the season, \$1.50 per 15 eggs. Roy Hipswell, Stonewall, Man.

**E. P. EDWARDS**—South Salt Springs, B. C. Now is your time to buy Cockerels for next spring. Buff Rocks, Rhode Island Reds, Black Minorcas, Blue Andalusians, Speckled Hamburgs, also a few early pullets.

**ROSE-COMB RHODE ISLAND REDS**—The best in the West. Eggs, \$1.50 and \$2.00 per 15; \$7.00 per 100. Eight chicks guaranteed per setting. Mating list free. Henry H. Pearson, Stonewall, Man.

**EGGS FOR SALE**—Purebred R. C. Rhode Island Reds, \$2.00 per setting of fifteen. Also Hawks' prize strain of White Wyandottes. From pen No. 1, \$1.50 per setting of fifteen; pen No. 2, \$1.00 per setting. Only tested eggs sold. Rev. W. Bell, Abernethy, Sask.

**BARRED ROCKS**—Bred to lay, \$1.50 and \$2.00 for 15 eggs. Mrs. Montague Vialoux, Littlecote Poultry Yards, Sturgeon Creek, Man.

**ROYAL WHITE WYANDOTTES**—The best strain in Western Canada. Eggs, \$2.00 for 15; \$5.00 for 45; \$10.00 for 100. F. W. Goodeve, Stonewall, Man.

**BARRED PLYMOUTH ROCKS**—Large, well marked birds, excellent layers, headed with imported cocks. Eggs: one setting, \$1.50; two settings, \$2.50; three settings, \$3.00; incubators filled, \$6.00 per 100. Elkhorn Poultry Yards, Box 75, Elkhorn, Man.

**BARRED ROCKS**—Purebred, \$2.00 per setting. Roup cure, 50c. guaranteed Lice powder, 40c. Head lice ointment, 25c. Leg bands, \$1.00 per 100. Poultry punch, 25c. Sprays, \$1.00. Humphrey's bone cutter, \$17.50. Book on poultry, 5c. F. Bradshaw, Regina, Sask.

**EGGS FOR SALE**—S. C. B. Leghorns; Regal Strain White Wyandottes; Barred Plymouth Rocks; Special Matings; winners at New York, Boston, Buffalo, Chicago and Guelph. Leghorns, \$5.00; Wyandottes and Rocks, \$3.50 per 15. Lakeside Poultry Grove, Killarney, Man. W. J. Saunders, Prop.

**PRIZE WINNING WHITE HOLLAND TURKEYS**, Washington show, 1909; White Wyandotte, Rock and Leghorns from Experiment Station. Day-old chicks. Hen and turkey eggs. All Saints Cottage, Berwyn, Maryland, United States.

## BREEDERS' 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.

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

**K. McIVER, VIRDEN, MAN.**—Shorthorns, a few two and three-year-old heifers for sale at a little over beef price. Three-year-olds in calf or calved. Write for particulars.

**C. G. BULSTRODE**, Mount Farm, South Qu'Appelle, Sask. Breeder of Berkshire Swine.

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

**W. J. TREGILLUS**, Calgary, Alta., breeder and importer of Holstein-Friesian cattle.

**McKIRDY BROS.**, Mount Pleasant Stock Farm, Napinka, Man., breeders and importers of Clydesdales and Shorthorns. Stock for sale.

**D. P. WOODRUFF**, Caldwell, Alta., breeder of Kentucky Saddlers, young registered stallions of best breeding for sale.

**H. C. GRAHAM**, Lea Park, Alta.—Shorthorns, Scotch Collies and Yorkshires, for sale.

**H. W. BEVAN**, Duncans, Vancouver Island, B. C., breeds the best strains of registered Jerseys Young stock for sale.

**HEREFORDS**—Pioneer prize herd of the West. Good for both milk and beef. **SEETLAND PONIES**, pony vehicles, harness saddles. J. E. Marples, Poplar Park Farm, Hartney, Man.

**BROWN BROS.**, Ellisboro, Assa., breeders of Polled-Angus cattle. Stock for sale.

**J. MORRISON BRUCE**—Tighduin Stock Farm, Lashburn, Sask., breeder of Clydesdales and milking Shorthorns.

**WALTER JAMES & SONS**, Rosser, Man. All Shorthorn bulls sold excepting some good calves. Prices right. Four Yorkshire and two Berkshire boars fit for service, \$18.00 each.

### CEMENTING SPRING

I have a spring which I want to cement and run the water into a tank. How should the cement be put down so the frost will not heave it? Can I get rid of the waste water by drilling a hole by the side of the tank and running the water into the hole?—J. G. H. Ans.—You should experience no trouble from the frost tending to heave a concrete box about the spring if the concrete is put down to a depth of four or five and one-half feet below the earth's surface. The box should be carefully covered with a close-fitting lid, which should be a foot or two below the ground level, depending on the severity of the winters in your locality. Pack earth well over the cover and the heat of the water coming from the spring will protect the box from frost. In order to box in the spring with concrete you will have to build a form for the outside of the concrete and one for the inside, making the inside form small enough to allow for a wall about three inches thick. Before the concrete is put in the forms, a pipe should be run through the wood down near the bottom to allow for running the water to the storage tank. It would be well to have the pipe high enough so that about one foot of water would collect in the spring before any ran out to the storage tank. The proper proportions for the concrete would be one part of cement to six parts of gravel. For a small job of this kind, it is sufficiently close to measure the cement and gravel by the shovel. Measure out the gravel first, then put the cement on top. Mix the mass dry first until it is of a uniform color. If water stands in the forms, it is not necessary to add water, just dump the cement in dry, tamping as you go, until there is very little water standing in the forms. Then add water to the remainder of the cement and gravel and mix. Have just enough water in the mix so that some will come to the surface of the concrete where it is tamped in the forms. Tamp with a piece of 2 x 4 scantling. A wooden cover should be ample for the top. In fact, a strong, tight wooden box made of white pine and sunk over the spring would do almost as well as concrete. I have seen such a box that has been in use for twelve or fifteen years and it is good for some years to come. Of course I do not know the flow of the spring, but unless your soil contains a great deal of sand and gravel, the waste water could not be drained away by running it into a hole beside the storage tank. It would be best to tile it off to a lower level.

M.A.C.

L. J. SMITH.

### PUMPING FROM CREEK

My stable is situated on bank of ravine through which flows creek about 100 feet from stable. Vertical height from level of creek at low water about 15 feet. Give best procedure to manipulate a pump in stable, and best type of pump. Sometimes there are little weeds in water. Same water is used for drinking and household use.—ENQUIRER, Sask.



## EAST KOOTENAY FRUIT LANDS

### SPLENDID SOIL GLORIOUS CLIMATE

The Fruit industry in South-east Kootenay is destined to become world renowned.

Apple trees are now coming in by the car load. Finer strawberries cannot be seen than those grown in our district.

The climate is unexcelled, both winter and summer.

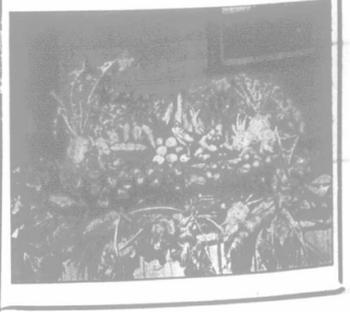
Land is now reasonably cheap, but with the construction of the Kootenay Central Railway this spring we look for a large influx of settlers, and prices are bound to stiffen. Our special offer this week is: 10 acres of IRRIGATED fruit land, 5 of which are cleared and fenced, three acres planted in fruit trees now four years old, two acres in potatoes. A very comfortable four-roomed residence on the property; 25 minutes walk from Cranbrook post office and public school. Splendid location and very best soil, plenty of water. Price, only, \$3,000.00; terms, \$500.00 cash, balance to suit purchaser. This is an ideal ready-made home.

If you are interested fill out the coupon below and mail us at once.

### BEALE & ELWELL CRANBROOK, B.C.

Send to me free and without any obligation on my part full particulars of your ten acres of irrigated fruit land.

Name.....  
Occupation.....  
P.O. Address.....



# BARN ROOFING

The "Eastlake" Steel Shingle is the only absolutely weathertight shingle on the market. Let us tell you why. A shingle to be proof against the severest storms must have at least a three inch overlap. The

## Eastlake Steel Shingle

is the only shingle that has that much. The so-called four-lock shingles have only an inch and a quarter overlap—not enough to keep out the drifting snow and rain, so this proves the "Eastlake" the only waterproof shingle.

The roofing problem solved. Our free booklet, "Eastlake Metallic Shingles," tells how.

"Eastlake shingles can be laid in one quarter the time it takes to lay a four-lock shingle."—The Philosopher of Metal Town.

MANUFACTURERS 1753



Western Canada Factory, 797 Notre Dame Ave., Winnipeg.

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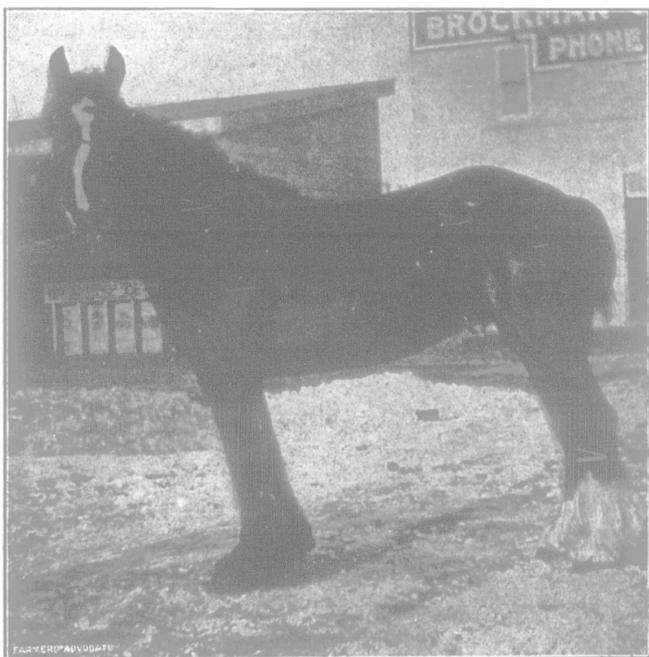
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This question is a little indefinite, but if the object is to place a pump in the stable and get the water supply from the creek which is one hundred feet away and fifteen feet below the level of the stable floor you should have no trouble pumping water under these conditions if the pump is put in carefully. I would run the supply pipe from the creek to the point below the barn just under where the pump is to be set, putting the pipe in as nearly level as possible without bringing the cost of ditching too high. Then screw on an elbow and a short piece of pipe pointing up towards the pump. Next screw on the cylinder of the pump. The lower down the cylinder is, the better will the pump work. The ideal condition is to have the cylinder at water level, for then there is no priming to be done. Next screw on the pipe between the cylinder and the pump base; fasten the base and the pump is ready for work. Be careful to make all joints tight. Put lead or graphite and oil on all pipe threads. If there is no provision for draining the pipe above the cylinder in cold weather, a small hole should be drilled near the

self has been found in prehistoric works and monuments. So far as known, wheat was not grown in America before the discovery by Columbus. The belief most generally held regarding the geographical origin of wheat, is that it once grew wild in the valleys of the Euphrates and Tigris, and from there spread to the rest of the world. Although grown under a very wide range of climatic conditions, the bulk of the world's crop is produced in the temperate zones. The quality of wheat in the different parts of the world changes with the climate, which is the factor that determines largely its geographical distribution. The most northerly point at which wheat has been known to mature on this continent is 65 degrees, 30 minutes, north latitude 200 miles south of the Arctic circle and 1,000 miles north of the International boundary. This was at Rampart, in the Mackenzie Valley. Towards the equator the limits of wheat vary between 20 and 25 degrees north and south latitude.

In the March "Crop Reporter," the monthly bulletin of the United States department of agriculture on crops, the



GOOD AVERAGE HORSE FOR THE PRAIRIES. ONE OF THE MANY BROUGHT WEST RECENTLY.

lower end of the pipe where it screws into the cylinder. On account of there being such a long run of pipe between the cylinder and the creek, it would be better to use the next larger size pipe than the cylinder connections call for and bush it down to the proper size at the elbow just below the cylinder. It would also be well to put a check or foot valve and some kind of a strainer at the point where the water enters the pipe at the creek. A piece of wire netting should do very well for a strainer and should overcome any trouble with weeds, except once in a while they might clog the strainer itself.

The style of pump to buy will depend upon what you want to do with it. If you intend to pump water up into the house, then you will have to buy a force pump; otherwise any common pump will do as long as it has a good cylinder. A common cistern pump would hardly do under these conditions. M.A.C. L. J. SMITH.

### ORIGIN OF WHEAT.

Where did wheat originate; what influences its geographical distribution; what was the world's wheat crop in 1909, and of this what quantity did the Dominion produce? Sask. J. H. S.

Ans.—Wheat is probably a native of western Asia, and its cultivation is very ancient. The Chinese are said to have grown wheat 2,500 years before the Christian era, and the plant is also known by different names in most ancient languages. Furthermore, the grain it-

world's wheat harvest of 1909 is given in countries and continents. All the countries of both America and Europe are represented. Of South America but three—Argentina, Chili and Uruguay—are listed as wheat-producing. Australia, save the northern part, and New Zealand are considerable growers. Africa is represented in the tables by Algeria, Egypt, the Sudan, Tunis, Natal and Cape Colony—a very small fraction of the entire area. In Asia, equally well adopted by soil and climate to Europe as a wheat area, wheat growing centers largely in India and Asiatic Russia. Turkey is a reasonably large grower, and Japan important. In the report China does not figure at all—the only important nation absent from the list.

By continents the production is as follows: North America, 911,000,000; South America, 189,000,000; Europe, 1,143,000,000; Asia, 430,000,000; Africa, 66,000,000; and Australasia, 73,000,000, making a grand total for the world of 3,616,000,000 bushels.

In this production Russia leads with a total for her European and Asiatic possessions, of 783,000,000 bushels; the United States is a reasonably close second with 737,000,000; France follows with 356,000,000; and British India is a strong fourth, producing, according to the latest figures, 283,000,000. Other countries that figure prominently in export production are Canada, the Argentine, Egypt and Algeria. The wheat crop of the Dominion for 1909 was officially estimated in the last report of the census and statistics office, at 166,744,000 bushels.

## Trouble with the Stomach

That can only be cured when liver and kidneys are set right by DR. A. W. CHASE'S KIDNEY and LIVER PILLS.

It is customary to put all the responsibility on the stomach for indigestion and its accompanying discomforts.

This is all wrong, for almost always the liver and kidneys are to blame, and you find among the symptoms constipation, backache, biliousness and headache.

You will be surprised how quickly Dr. A. W. Chase's Kidney and Liver Pills will regulate the liver, kidneys and bowels and get the digestive system into good working order.

If you are in earnest about a cure, don't bother any more with mere aids to digestion, but rid the whole system of poisonous impurities by using Dr. A. W. Chase's Kidney and Liver Pills, and you will know once again the pleasure of living.

This medicine gets at the cause of trouble and makes the cure complete. One pill a dose, 25 cents a box, all dealers, or Edmanson, Bates & Co., Toronto. Write for free copy of Dr. Chase's Recipes.

### NON-SUPPORT OF WIFE.

1. What can be done when a man refuses to support his aged wife and turns her out, though he is plenty able to support her in comfort if he would do so?
2. Can one sue him for support?
3. Is there, or can a bill of separation be obtained in Alberta?
4. Can a wife claim any share of property belonging to husband if it was earned jointly, such as homestead, stock, etc.? Or, can he turn her out and sell the property? The wife has children, but they are not at present fixed so as to care for their mother properly.

WICK.

Ans.—1 and 2. If a man refuses to support his wife he can be prosecuted, and he can also be sued if he is worth it for her support.

3. Yes. A separation may be obtained for non-support or other causes. This will be a civil action.

4. A wife has no dower in Alberta, and she could only claim support from the husband, but a husband could not neglect to support his wife or put her out without being liable to prosecution and a civil action.

## EVERY DAY BRINGS A FRESH PROOF

THAT DODD'S KIDNEY PILLS ARE A BOON TO SUFFERING WOMEN

Mrs. Rousseau tells how they cured her after three years of almost ceaseless pain.

Hintonburg, Ont., April 25—(Special).—Every day furnishes fresh proof that the women of Canada can be cured of ailments which have hitherto seemed to be a part of the inheritance of the sex by the use of Dodd's Kidney Pills. And this place has a living proof in the person of Mrs. William Rousseau, of 37 Merton Street.

"For over three years," Mrs. Rousseau states, "I was very ill. My troubles were painful. I suffered very much with my back. My head ached almost continuously and I scarcely knew what it was to be free from pain. I was very weak and run down. Occasionally my hands would swell up, and this, too, gave me a great deal of annoyance and discomfort. I began to use Dodd's Kidney Pills and very soon commenced to improve. Three boxes cured me completely."

Nine-tenths of suffering women's troubles start from diseased kidneys. The natural way to cure them is to take away the cause, that is, to cure the kidneys. Dodd's Kidney Pills always cure diseased kidneys.



### Kill the Ticks

Ticks are not only distressing to the animal but injure the fleece, and can be speedily destroyed with one part of

## Dr. Hess Dip and Disinfectant

to 80 parts of water. This preparation not only kills the ticks, but destroys the poisonous germs of disease. Dr. Hess Dip and Disinfectant is also excellent for disinfecting barns, cow stables, hog pens, chicken yards, sinks, drains, cellars, cess-pools, etc.

It also kills lice, mites, sheep ticks, fleas and all parasitic skin diseases, such as sheep scab, mange, eczema, etc.

One part of Dr. Hess Dip and Disinfectant to 79 parts of water meets the United States Government requirements for official dipping.

If your dealer cannot supply you, we will. Write for circular.

DR. HESS & CLARK  
Ashland Ohio, U. S. A.

## Don't Judge a Roofing by its Looks

Most ready roofings look the same. The weather alone finds the hidden weakness.

You can't tell by looks which roofing will last or which will go to pieces in a season.

But you CAN do this. You can identify from its 300 substitutes the ONLY roofing which has lasted.



Beware Imitations

# RUBEROID ROOFING

(TRADE MARK REGISTERED)

Fac-simile of the "RUBEROID MAN" on the wrapper and the word "RUBEROID" is stamped every few feet on the underside of the fabric.

Write us for a copy of our FREE BOOK which gives you valuable information about all roofings.

WRITE TO-DAY.

The Standard Paint Co. of Canada Limited

Manufacturers

MONTREAL

Dealers Everywhere

## INTERNATIONAL TRACTORS IN PLOWING CONTESTS

Not for the prizes involved, but to establish beyond question in the agricultural world the superiority of International tractors, we entered the many important plowing competitions held in America and Europe during 1909. Victory after victory for the International was the result. At the exhibition at Amiens, France; at Winnipeg, Manitoba; at Brandon, Manitoba, and at Aurora, Illinois, International tractors left the field victorious in all instances.

These demonstrations of superiority in plowing and hauling contests are duplicated every day in agricultural field work. For instance, a 20-horse power International tractor plowed 1640 acres in one season in the Province of Saskatchewan. Because of its simple, practical, correct design, the International tractor turned over the regulation number of acres every day without any mishap.

If you buy a tractor, do you not want an absolutely dependable tractor that will plow the maximum number of acres day in and day out on a minimum fuel consumption?

The practicability of International tractors cannot be questioned. The engine, the source of the power, is not an untried engine. It's the I H C engine which has been on the market for years, tested under



every conceivable condition and never found wanting. The mounting is the best that brains and money can devise, and the principle of power transmission from the engine to the main drive wheels is the principle used so successfully for years on the big, powerful steam tractors. You see there isn't an experimental feature about International tractors.

International tractors are bringing about a revolution in the methods of tilling. They are bringing a day of greater possibilities for the farmer—increased profits and freedom from slow, hard, tedious work. These tractors are equally serviceable for hauling purposes and delivering power from the belt.

Besides International tractors, the I H C line includes general purpose gasoline engines from 1 to 25-horse power, vertical and horizontal, portable and stationary, adapted for all farm work.

It will be of considerable advantage to you to call on our local agent for catalogues and full information. Write International Harvester Company of America at nearest branch house for these today.

THE  
**I-H-C LINE**

LOOK FOR THE I-H-C TRADE MARK. THIS IS A SEAL OF EXCELLENCE AND A GUARANTEE OF QUALITY.

CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

**INTERNATIONAL HARVESTER COMPANY OF AMERICA**  
CHICAGO (Incorporated) U S A

### FIRE-GUARDS.

Can a man collect damages for a building on the prairie without fire-guard, and if not, how wide must the guard be according to law?

W. J. G.

Ans.—A man can collect damages for a building burned or for damage done by prairie fire, whether his property is guarded or not.

### PROTECTING IMPLEMENTS

We are living in the herd law section of Saskatchewan and would like to be enlightened regarding this law.

1. Can a man run at large a bull, if registered, and if so at what age can he be allowed to run at large?

2. Providing a farmer has carriages, tools, etc., stored carefully away in an implement shed near his dwelling, has he to barricade the building to protect

contents from cattle running out through winter, or is owner of these cattle obliged to pay damages caused by his cattle by reason of them through hunger and thirst having smashed or damaged the machinery?—SUBSCRIBER.

Ans.—1. No, not at any age.

2. Under the fence ordinance a farmer would not be able to recover damages unless his property was surrounded by a lawful fence.

### POWER OF WINDMILL

What horse power will the average 10 ft. windmill, in a wind with a velocity of 30 miles per hour, make?—G. E.

Ans.—The horse power developed by windmills having the same diameter wheel, varies a great deal with the different makes. In general the steel windmill will develop about twice the power that a wooden one will, under the same conditions. Practically all tests of windmills have been made in the United States under wind conditions of less than thirty miles an hour. The following are results of tests of 12 ft. wheels of different makes (no tests of 10 ft. wheels being available), where the wind velocity was twenty miles per hour.

Kind of Wheel.	Diameter.	No. of Sails.	Horse Power.
Wood	12 ft.	96	.357
Steel	12 ft.	18	1.05
Steel	12 ft.	21	.606

A ten foot steel windmill will develop from three-fourths to one horse power when the wind velocity is thirty miles per hour. It is important to see that all friction parts of the mill are kept carefully oiled in order to get the greatest possible power.

### BOILER INSPECTION

1. What are the duties of the boiler inspector in Saskatchewan?

2. Can he condemn an engine and forbid you to use it, and if forbidden to use it for threshing, could it be used for home work?

3. If condemned should he give a written statement to that effect or not?

4. If the inspector comes and without condemning the engine, can he deliberately pound holes in it? After a week or so can he come back and on finding the hole fixed, pound two more holes when he knows it can't be fixed, and leaves no statement or any word as to why he did this, the owner being absent?—R. E.

Ans.—1. Send to deputy minister of public works, Regina, for copy of Steam Boilers' Ordinance.

2. If an inspector condemns an engine you would not be at liberty to use it either at home or away from home.

3. The inspector should give a written statement if requested.

4. No. If any inspector should be guilty of the conduct referred to by you in your last question you should immediately report him to the minister of public works at Regina, and in any event any person has the right to appeal against the decision of an inspector, and the department will take the matter up and have the boiler inspected by someone else.

## Questions & Answers

### VETERINARY

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

### DISEASE OF STIFLE JOINT.

Horse ten years old dislocated patella a year ago; blistered repeatedly with little effect. Still very lame, but in good condition. Would you recommend an operation after so long standing, or would firing and blistering be of any use?—J. B.

Ans.—We know of no operation that is likely to be of any benefit in this case. The lameness has existed so long that by this time certain destructive changes have taken place in the joint, consequently treatment of any kind is not likely to be successful.

### BOAR FLESH AS FOOD.

Does the fact that a hog has been neglected to be castrated render the meat any less wholesome, or is the taste in any way affected?—I. R.

Ans.—There are two principal reasons why the flesh of "boars" is ob-

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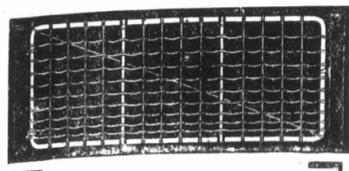
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ected to for human food. One is on account of the specific odor which is observed in sexually mature boars. The other reason is that the flesh of these animals when they have become aged is tough and difficult to digest. The flavor of the meat is also repulsive. It is customary to speak of this abnormal odor, which is especially strong in the meat of the hindquarters of boars, as urinous, because it possesses a certain similarity to the odor of decomposed urine. Leading authorities maintain that odorous meat under all circumstances is an unfit food material.

COLOSTRUM AS HUMAN FOOD.
In the north of England the biestings or colostrum of a cow just calved is usually thought to be quite a treat for puddings, etc. Are there any scientific grounds for objections to this practice, or is it merely sentimental? How often should a cow be milked before

Could Not Sleep In The Dark.

Doctor Said Heart and Nerves Were Responsible.
There is many a man and woman tossing night after night upon a sleepless bed. Their eyes do not close in the sweet and refreshing repose that comes to those whose heart and nerves are right. Some constitutional disturbance, worry or disease has so debilitated and irritated the nervous system, that it cannot be quieted.
Mrs. Calvin Stark, Rossmore, Ont., writes:—"About two years ago I began to be troubled with a smothering sensation at night, when I would lie down. I got so bad I could not sleep in the dark, and would have to sit up and rub my limbs, they would become so numb. My doctor said my heart and nerves were responsible. I saw Milburn's Heart and Nerve Pills advertised and got a box to try them. I took three boxes and can now lie down and sleep without the light burning and can rest well. I can recommend them highly to all nervous and run down women."
Price 50 cents per box or 3 for \$1.25 at all dealers, or mailed direct on receipt of price, by the T. Milburn Co., Limited, Toronto, Ont.

using the milk for human consumption? May I ask for an explanation of the properties of biestings and its origin? Curious.

Ans.—The first milk, or colostrum, secreted after parturition is a viscid, dirty white or yellowish fluid, sweet, but unpleasant to the taste. When allowed to stand for some time it has a thick layer of tough cream. It coagulates at a comparatively low temperature into a semi-solid mass. It is very rich in solid elements—fat cells, leucocytes, epithelium and pus cells. The colostrum corpuscles appear to be only leucocytes or epithelium from the walls of the milk ducts, and undergoing degeneration. The fat cells contain oil, which acts as a natural purgative to the young creature, and is essential to its well being. It is considered to be neither clean nor wholesome as food for human beings. When ingested it is liable to produce violent abdominal pain, and severe diarrhoea, especially in very young or aged persons. Health authorities prohibit the use of the milk for three days before and five days after parturition.

PARTIAL PARALYSIS.
Mare four years old was stricken last June with what appeared like rheumatism. Never thoroughly recovered. Twice during the winter she could not get up without help for a week at a time. She feeds well, and is in good condition, but does not gain strength in the hindquarters. McG.

Ans.—This mare is suffering from "partial paralysis." She may recover if she gets a summer's run on grass, but before you turn her out it would be advisable to apply a blister along the spine. Clip off the hair for two inches on both sides of the back bone, commencing about six inches behind the points of the hips, and continue forward for about eighteen inches; then well rub in for twenty minutes the following blister: Powdered cantharides, 2 drams; biniodide of mercury, 2 drams; fresh lard, 3 ounces. Mix well. Tie her head so that she cannot reach the blistered part. In forty-eight hours wash off the blister with warm water and soap and smear with vaseline every three days. The blister may be repeated in three weeks, if necessary. Give mixed with damp feed, morning and evening, for two weeks, a dram of powdered nux vomica, and in the drinking water, twice daily for two weeks, a dram of iodide of potash.

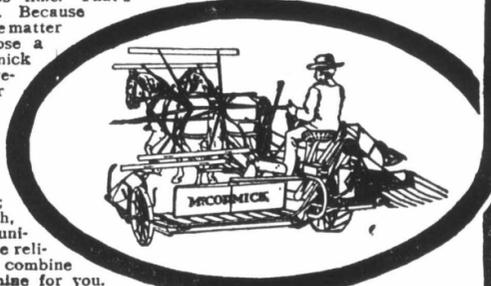


HORTICULTURE

LIME-SULPHUR WASH
For several years past lime-sulphur wash has gradually increased in favor among orchardists. In Ontario this is now the standard remedy for many orchard pests, both insect and fungous. For San Jose and other scales, apple and pear scab, peach leaf curl and several other serious orchard troubles, this treatment applied with a good spraying outfit has given excellent results.
A bulletin recently prepared by H. L. Fulmer and L. Caesar, of Ontario Agricultural College, gives details in full as regards manufacture and use. A comparison is made between commercial lime-sulphur and that which is home boiled. The addition of arsenical poisons to this wash also is considered.
After outlining in detail the composition, analysis and manufacture, Mr. Fulmer gives the following among his summary of conclusions:
Data secured in regard to the home-made washes reveal a large number of formulae and decided differences in the strength of the wash as applied. Sulphur varies from 15 to 19 pounds, and lime from 16 to 24 pounds to 40

START TODAY TO GET READY FOR HARVEST TIME

DON'T put it off any longer. From now on 'till harvest you are going to be busier every day. Your grain is likely to ripen all at once. Then you'll want to cut it quickly. You can't do it unless you are prepared with the best harvesting machines—in proper condition.
To be sure of getting the best machine for your needs—you must make a careful selection. That takes time. That's why we say start today. Because we know if you go into the matter carefully you will choose a McCormick. The McCormick Binder will meet your requirements as no other machine will. It is built to meet the conditions encountered on the Canadian farm. It has stood the test of years. Its capacity to handle grain that is tangled or down; its simplicity, strength, durability, light draft, uniform, good work and the reliable work of its knoter, combine to make it the best machine for you.
Other farm machines of McCormick make a long line, are not less valuable than the Binder. The line includes: Harvesting Machines, Binder Twine, Mowers, Tedders, Hay Rakes and Side Delivery Rakes, Hay Loaders, Disk, Shoe and Hoe Drills, Cultivators and Seeders, Smoothing Spring Tooth and Disk Harrows, Land Rollers and Scufflers. McCormick dealers also handle Gasoline Engines, Cream Separators, Hay Presses, Wagons, Sleighs and Manure Spreaders.
Every McCormick everywhere is recognized by farmers as a leader in its class. But we don't ask you to take our word for this. We say—Start today to investigate you will have time to make a proper decision.
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STANBLEIGH, ALTA.  
I bought 200 eggs in the store at Lloydminster and then put them in a lumber wagon and took a five-day journey to my homestead. Then put Incubator under canvas tent where the temperature ranged from 50 degrees at night up to 95 when the sun was shining in the daytime, and after all this I hatched 114 good, healthy chicks that are doing well. I think your Peerless Incubator about as near perfection as is possible to get.

B. H. TWEDDLE

SANDY POINT, N.S.  
I started the machine with 100 eggs. At the end of ten days I tested out twenty-eight and opening the shells I found every one infertile. This left 72 in the incubator; of these 61 came out fine healthy chickens, and the balance added in the shell or were too weak to get out.

E. HIRST

BRIGTON, ONT.  
From my second hatch with the 120 Peerless Incubator I got 96 strong chicks. I am more than pleased with the machine.

MRS. TINSEN

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You need not even pay the freight on the Outfit—we pay that for you, just to save you bother. We do more than that—we will agree to find you a spot-cash buyer who will pay the highest market prices for any poultry or eggs you want to sell. You needn't worry, you see, over finding a market. So, no matter how far away from a town you live, you are sure of a good customer for all you raise. Sit down NOW and ask for the full details of this rare offer. Use a post card if you haven't a stamp handy. Don't wait any longer. You run no risks at all, first or last, and the profit is waiting for you. Write for the book to-day. Just Address:

START NOW

gallons of water. The popular formula is the old standard (20 lbs. lime, 15 lbs. sulphur and 40 gallons water), and the favorite boiling period is one hour.

Analyses show that the liquid part of the wash consists of a solution of calcium sulphide, calcium thiosulphate and sulphite, and calcium sulphate. The average amount of sulphur in these different forms is 10.41, 3.11 and .37 pounds, respectively, per 40 gallons. The residue or "mud" is composed of lime and very small amounts of free and combined sulphur, together with such substances as iron, aluminium, silica and magnesia, and other impurities in the lime used.

The strength of the wash does not depend upon the formula entirely, but more largely on the thoroughness and rate of the boiling. Weak, slow boiling will produce a weak wash no matter how much sulphur or lime be used. It is this fact which is accountable for the many conflicting opinions held regarding formulae and methods of preparation, etc.

Commercial lime-sulphur solutions contain the same constituents as the home-made washes, except that they lack the "mud" (one exception). They are therefore of similar origin and value. They are 8 to 10 times or more stronger than the home-made washes, and must be diluted accordingly.

The valuable constituent of the lime-sulphur wash is the calcium sulphide (sulphide sulphur), but its effect is ably complemented by the other constituents present. The greatest aid, however, is obtained from the decomposition products—free sulphur and calcium sulphite.

Dry weather during and following the spraying season allows the wash to exert its maximum effect. A heavy rain right after spraying or intermittent showers following every few days will greatly lessen or destroy the benefits of the wash.

From the results of our experiments on the preparation of the home-made wash, we arrive at the following conclusions:

(1) Normal limes, ranging from 48 pounds and upwards of pure CaO per 100 pounds, are suitable for making lime-sulphur wash with a formula of 20 pounds lime and 15 pounds sulphur (or any formula having the proportions, 4 lbs. lime to 3 lbs. sulphur).

(2) Flour and flowers of sulphur are of equal value for making the wash, provided they possess an equal degree of fineness and purity.

(3) Forty-five minutes to one hour is a sufficient length of time to boil the wash, provided the boiling is vigorous.

(4) Increasing the proportion of sulphur to lime up to 1:1, or even higher in case of the use of a pure lime such as Beachville, will increase the strength of the wash and decrease the cost of production.

(5) Steam and open fire are of nearly equal value as sources of heat energy for boiling the wash.

(6) The development of a green color during boiling cannot be taken as an indication of the completeness of boiling with all limes.

(7) If a wash cools and crystallizes before it is applied it is not valueless. Heating up to 60° or 70° C. (140° to 158° F.) and stirring to break up the sediment and crystals at the bottom till the crystals dissolve will render the wash practically as efficient as before.

Experiments carried on in regard to other points show the following:

(a) Home-made concentrated lime-sulphur solutions comparing favorably with the commercial solutions can be made on the farm and at less expense.

(b) Lead arsenate and calcium arsenate can be added to lime-sulphur washes without causing any appreciable depreciation in the strength of the latter.

(c) The formation of crystals in lime-sulphur washes is mainly due to an excess of free lime, but contact with air will also cause concentrated lime-sulphur solutions to crystallize. If lime be added to concentrated lime-sulphur solutions, they will suffer extensive crystallization at once. Lime added to diluted concentrations will soon cause appreciable crystallization. Concentrated lime-sulphur solutions should be diluted first and then the lime added just immediately before spraying.

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**VARIETY OF ONIONS**  
What variety of onions are best  
suited for general crop at Abernethy,  
Sask.? — R. B.

Ans.—Yellow Globe Danvers and  
Large Red Wethersfield are standard  
varieties that keep well.

**GROWING ONIONS**  
A reader at Milestone, Sask., asks  
how he can succeed with onions and  
wants particulars as to thickness of  
sowing and how much seed to the  
acre. This is a rather difficult ques-  
tion. Soils and localities have to be  
taken into consideration. If the soil  
is a nice loam, well worked down and

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treated to a liberal supply of well rotted  
manure the task of growing the crop is  
rather easy. However, preparations  
should have been made last season in  
order to have the land in good tilth and  
free from weeds.

In sowing onion seed the object is to  
have the row well filled with young  
plants, perhaps a plant to the inch of  
row-length or more. As the bulbs  
develop they are thinned as onions are  
pulled for selling in bunches. Allow-  
ing about 18 seeds to one foot of row,  
it requires four or five pounds of seed  
to sow an acre. This amount is for  
sowing in rows about 15 inches apart.  
If the land is in good condition, thin-  
ning needs to be done sufficiently to al-  
low the plants to develop to full ma-  
turity without crowding. On a rich,  
mellow soil, with constant care in cul-  
tivating and keeping down weeds a good  
crop is assured, unless damage results  
from maggots or other cause.

**INSTRUCTIONS IN BEEKEEPING—II**  
The latter part of spring, in summer,  
and in early fall, there are three kinds  
of bees in a hive. At other times there  
are but two kinds; that is, under nor-  
mal conditions. To name them, first is  
the queen, then the workers, and,  
lastly, the drones. The queen is some-  
times incorrectly called the "king bee."  
This would denote her sex as male, but  
"she" is of feminine gender. Every  
once in a great while there are reported  
another kind of bees, not belonging to  
any of the mentioned classes. They  
are simply freaks of nature, as the oc-  
casional multiplied calf or duck, and need  
not be considered.

In a certain sense the queen is the  
important personage of a colony. She  
is mother of all three kinds of bees.  
There are conditions when worker bees  
will take upon themselves the duty  
of laying eggs. Such eggs, or some of  
them, will hatch, too, but the resultant  
bees are never anything else but drones.

To consider the evolution of "her  
majesty," first, the egg is laid by an-  
other of her kind. So far as appear-  
ance is concerned, this egg looks exactly  
like those from which worker bees and  
drones develop. But the cell in which  
a queen bee develops is considerably  
different from either drone or worker  
cells. It is about the size and looks  
like the end of a medium-sized peanut.  
It is generally believed that the con-  
struction of the cell and the food fed  
the queen larva is what makes a queen  
bee, and not any difference in the eggs.

Three days from the time an egg is  
laid in the queen cell, it hatches into  
a tiny larva, or worm, as commonly but  
incorrectly called. For the first three  
days of the larval state, a queen larva  
is said to be fed the same food given  
worker larva. After this, the food is  
said to be richer; at any rate, it is  
different, as can be ascertained by  
taste and observing the consistency of  
the two kinds of food.

After the queen larva has been fed  
by the nurse bees for five or six days,  
the cell is sealed. Before sealing the  
cell, a considerable quantity of "royal  
jelly," as the queen food is called, is  
yet put into the cell. Upon this the  
queen larva develops fully, when at  
about fifteen days from the time the  
egg was laid she emerges from the cell.

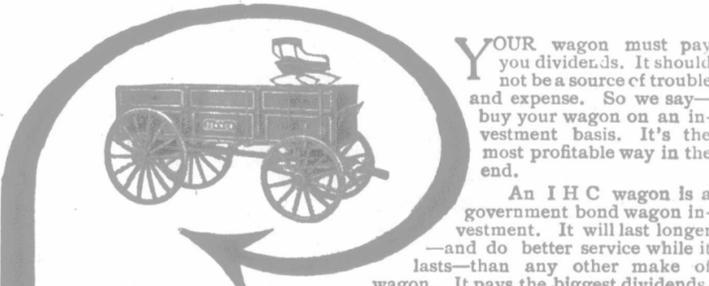
But at her maturity she is not yet  
in the right physical condition for her  
life-work. The next step is the mating  
with the drone. It is not until this  
sexual act has taken place that a queen  
can lay eggs that will develop into  
worker bees. It is in about a week  
after her emergence from the cell that a  
queen flies from the hive to meet or  
mate with a drone, as the male bee is  
called. They mate in the air, while  
on the wing. If the mating has been  
successful, the queen will commence  
to lay in two or three days after her  
"wedding flight." Then her real life-  
work commences. Unless she is killed  
accidentally by the apiarist, or she  
in some way becomes faulty, a queen  
lays eggs till her supply is so much re-  
duced that she no longer can keep up  
the strength of the colony. Then her  
infirmity induces the worker bees to  
rear another one to take her place.  
This rearing of a queen is called super-  
seding.

When conditions are favorable, a  
good queen will lay 3,000 eggs every  
twenty-four hours; yes, an extra good

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An IHC wagon is a government bond wagon investment. It will last longer—and do better service while it lasts—than any other make of wagon. It pays the biggest dividends.

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The greatest wagon value in all Canada. Each is a quality wagon—each is up to the IHC standard—not down to any price. Don't be misled by looks—or first price. For paint covers a multitude of wagon sins—and price is too often the only argument used to sell a cheap, inferior wagon.

The best materials are used in the IHC line of wagons. The wood stock is the finest—air-dried; seasoned and inspected at every step—even after the paint goes on. Spokes, hubs, skeins, box, axles, seat, and in fact every part of the IHC wagon is as good as the widest experience, the best materials, the most skillful workmen and the latest improved machinery can make it. Every part is equally good and equally strong. There are no "weak spots" in the IHC line.

Chatham Wagons have a long record for satisfactory service in Canada. Made with hard maple axles, white oak bolsters, sand boards, rims, spokes and oak or birch hubs—they represent the highest standard of wagon construction.

Petrolia Wagons are especially constructed for Canadian service and have proved their merit to thousands of farmers. Be sure to call on the local International dealer. Get a pamphlet and let him show you one of these wagons. You will note the vast difference between wagons of the IHC line and all other wagons. If you prefer, write for a booklet or any other information you want to the International Harvester Company of America at nearest branch house.

**EASTERN CANADIAN BRANCHES—International Harvester Company of America at**  
Hamilton, Ont.; London, Ont.; Montreal, Que.; Ottawa, Ont.; St. John, N. E.

**INTERNATIONAL HARVESTER COMPANY OF AMERICA**  
CHICAGO (Incorporated) U.S.A.



**JOHN GRAHAM**  
THE LARGEST IMPORTER  
IN CANADA  
A few good stallions at attractive prices to clear before the season closes.  
A fresh importation will reach Carberry the first week of May, mostly mares, and I will be pleased to hear from my old or new customers contemplating buying such. They will be up to the usual high standard.

Lord Guthrie in Action  
**CARBERRY, MANITOBA**

When Answering Ads Mention The Advocate



### Glencorse Yorkshires

ALSO FOR SALE

Exquisite-Friesian bull calf, nine months old, the Duke Varcoe Beryl Wayne (7718), dam Duchess de Kai (7158) and litter of registered Shale Cattle puppies.

Glen Bros., Didsbury, 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.

GEO. BARKIN & SONS, Oakmer P. O., Man. On the G. T. F.

SHORTHORNS

### Great Private Sale

Special prices and terms for choice breeding Shorthorns to make room for winter. Come and see them or write for particulars, also prize, winning Barred Plymouth Rocks. Eggs for sale in season.

B. W. GASWELL, Star Farm, Saskatoon, Phone 576. G. P. R., G. N. R., G. T. F.



### McDonald's Yorkshires

A few fine long pure-bred Yorkshire boars on hand. Parrowed April from prize-winning stock. Price \$30.00 each.

Also three young Shorthorn bulls. Apply for prices on bulls. A. D. McDONALD, Wapitaka, Man.

### When Answering Ads Mention the Advocate

### The J. C. Ranch

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

Box 32, JOHN CLARK, JR., Gleichen, Alta.

### CHOICE SHORTHORN BULLS, \$35 to \$70.

All stock registered. These are a nice lot, six to twelve months old. Also a few young SHORTHORN COWS of Dairy strain.

CLYDESDALE COLTS FOR SALE. Yorkshire pigs, both sexes, ready to wean. J. BOUSFIELD, Prop., MACGREGOR, MAN.



MILK FEVER OUTFITS, Dehorners Teat Syphons, Slitters, Dilators Etc. Received Only Award World's Fair's, Chicago, St. Louis.

Write for Illustrated Catalogue. HAUSSMANN & DUNN CO. 392 S. Clark St., Chicago

### Messrs. Hickman & Scruby

Court Lodge, Egerton, Kent, England. EXPORTERS OF PEDIGREE LIVE STOCK of every description. Owing to the rapid increase in business, Mr. L. C. Scruby has been taken into partnership. During the spring months the export of horses of the light and heavy breeds will be a speciality. Write for prices, terms and references.



### J. C. POPE

Regina Stock Farm Regina, Sask.

Breeder of Ayrshire Cattle and Improved Yorkshire Swine. Stock of both Sexes and all Ages for Sale.

### SHETLAND PONIES

Sixteen ponies recently imported for sale. Breeding and quality of the very best. My prices are very reasonable. WM. S. CURRIE, Medicine Hat, Alta.

one may lay even 4,000 or 5,000 for a short time. Is this not a remarkable feat? And the queen does not cackle about it, either! To perform such strenuous work, it is necessary for the worker bees to feed their "majesty" highly-concentrated and predigested food. I think that queens do take some honey direct from the cells, but their life is largely sustained by food prepared and fed them by worker bees.

It is not always that a queen is successful in her mating. Then, she will commence to lay, but not so soon, but the eggs will produce nothing but drones. Such "drone-laying queens" as they are called, are useless, or, rather, a little worse. Generally, the eggs of a drone-laying queen are not deposited in as regular order as those of a fertile queen. But this is not a sure sign of a queen's functional inability. The only way to find out is to wait and see if the worker cells are capped high, as drone brood is capped. Then, if later the bees that emerge are drones, we have to do with a drone-laying queen.

Before a queen has mated, she is termed a "virgin queen." I mention this, as I will make use of this phrase in subsequent articles. I have had much to say about queens, as they are so very important to every colony.

Wisconsin. F. A. STROSCHER.



### POULTRY

### TESTING EGGS

Testing eggs for fertility must of course either be done at night or in a dark room, as it is essential that there should be no light except that which proceeds from the lamp or candle, which is on the opposite side of the egg to the operator. The experienced person will easily test white-shelled eggs after five days' incubation, and the very deepest brown ones at seven days. The novice must learn by experience, and though he may practice on eggs of these ages he should return all to the nest or machine, and go over them in the course of three or four days more, in order to make sure of not rejecting as "clear" eggs that are in reality fertile. It is a very good guide to the novice to look first at a new laid egg. Any that have the same appearance may be considered clear. A slight cloud which floats about and rises to the top, which ever end is held uppermost, is no indication of fertility. A fertile egg at five or seven days shows a beautiful network of red veins, which may be described as like a large spider surrounding the embryo. The testing process is really very simple and easily learned and its advantages are manifold.

Nothing will be found more suitable for testing the fertility of eggs that have been a few days under the hen or in the incubator than a piece of stout cardboard, such as a large book cover, say as large as a page of THE FARMER'S ADVOCATE. Lay an average sized egg on the centre of this, and pencil around the under side of the egg, then cut a hole by the pencil mark, which will then be rather smaller than the egg and prevent its slipping through during the testing process. Each egg should be held up to the tester, with the light exactly opposite the hole.

Nutritious, wholesome food given to well-matured, vigorous stock, kept in the most perfect condition, will ensure healthy germs for the incubation of eggs and the rearing of profitable fowls whether for utility or exhibition purposes. C. F. COOK.

### SELECTING EGGS AND TRAPNESTING

EDITOR FARMER'S ADVOCATE: The question of trapnesting is for the benefit of the mass of poultry raisers who read THE FARMER'S ADVOCATE. I belong to the common and indifferent fellows and consider my environments

### Horse Owners! Use



COMBAULT'S Caustic Balsam. The safest, Best BLISTER ever used. Take the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUSTIC OILS OR FIRING. Impossible to produce scab or blight. 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.

### Your Little Girl Has a Cough

To meet an unexpected cold a bottle of Mathieu's Syrup of Tar and Cod Liver Oil is needed. Keep it in the house. It not only cures the cold but makes the children stronger and less likely to have a second cold.

J. L. Mathieu Co., Props. Sherbrooke, P.Q. Distributors for Western Canada. Foley Bros. Larson & Co., Vancouver. Edmonton, Winnipeg.

Advertisement for ABSORBINE. LAMENESS from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone or similar trouble can be stopped with ABSORBINE. Full directions in pamphlet with each bottle. \$2.00 a bottle at dealers or delivered. Horse Book 9 D free. A. B. BISHOP, JR., for making, of a bottle, removes Painful Swellings, Enlarged Glands, Gout, Wens, Bruises, Yaws, sore Veins, Varicosties, Old Sores, Allays Pain. W. F. YOUNG, P.O.F., 248 Temple St., Springfield, Mass. LYMAN'S Ltd., Montreal, Canadian Agents. Also furnished by Martin Bole & Wynne Co., Winnipeg; The National Drug & Chemical Co., Winnipeg and Calgary; and Henderson Bros. Co. Ltd., Vancouver.

Advertisement for PLEASANT VIEW HERD OF POLAND CHINA SWINE. I will book orders up to 60 head for April and May farrowing. Herd includes Saskatchewan Queen, a sow that has been shown in both American and Western Canada rings and which has never been asked by any judge to take second place. Inspection courted; correspondence solicited; satisfaction guaranteed, and farmers' prices quoted. J. M. STOWE & SONS DAVIDSON, SASK.

Advertisement for Artificial MARE IMPREGNATORS. We GUARANTEE you can get from 2 to 6 mares in foal from one service of stallion or jack. Increase the profits from your breeding stables by using these impregnators. No experience necessary to use them successfully. Prices, \$3.00 to \$5.00 each prepaid. Popular SAFETY IMPREGNATING OUTFIT, especially recommended for impregnating so-called barren and irregular breeding mares, \$7.50 prepaid. Write for CATALOGUE which illustrates and describes our Impregnating Devices, Breeding Hobble, Stallion Brides, Shields, Supports, Service Books, Etc. CRITTENDEN & CO., Dept. 35, Cleveland Ohio, U.S.A.

Advertisement for ORMSBY GRANGE STOCK FARM ORNSTOWN, P. QUE. I have arranged to make a special importation of yearling Clydesdale fillies this spring, for the benefit of those wishing to obtain purebred stock at best price. Those wishing to co-operate with me and save nearly one-half as compared with agents' prices, please write me at once for details. My object is to promote Clydesdale breeding in Canada. D. McEACHERN, F.R.C., V.S., D.V.B.

Advertisement for Glenalmond Scotch Shorthorns. I have for sale some great, thick, robust, young stock bulls and some grand young heifers ready to breed. I can supply ranchers with bulls of a serviceable age at very reasonable prices. My herd won many prizes at the leading exhibitions in Alberta last season. Imported Baron's Voucher, a champion bull in Scotland, heads my herd. Write me for prices. C. F. LYALL STROME, ALTA.

Advertisement for BRAMPTON JERSEYS. Canada's Greatest Jersey Herd. In prizewinners in numbers of sales, in dairy quality, in breeding cows, in breeding sires, in importation, in home-bred animals, in breeding results. Jerseys of all ages and both sexes for sale. B. H. BULL & SON, BRAMPTON, ONTARIO

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

Advertisement for BLATCHFORD'S CALF MEAL. ESTABLISHED AT LEICESTER, ENGLAND, IN 1890. B. Resembles new milk as nearly as possible in chemical composition. Used throughout the world. Halves the cost of raising calves. Prevents scouring. Rapidly matures them. Send for pamphlet "How to Raise Calves Cheaply and Successfully Without Milk." B. STEELE, BRIGGS SEED Co. Ltd., Winnipeg, Man.

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### Troubled With Constipation For Years.

Any irregularity of the bowels is always dangerous to your health and should be corrected at once for if this is not done constipation and all sorts of diseases are liable to attack you.

Milburn's Laxa-Liver Pills cure Constipation and all Stomach, Liver and Bowel complaints.

Mr. Henry Pearce, 49 Standish Ave., Owen Sound, Ont., writes:—"Having been troubled for years with constipation, and trying various so-called remedies which did me no good whatever, I was persuaded to try Milburn's Laxa-Liver Pills. I have found them most beneficial; they are, indeed, a splendid pill, and I can heartily recommend them to all those who suffer from constipation."

Price 25 cents a vial or 5 for \$1.00 at all dealers, or sent direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

### SAVE THE HORSE SPAVIN CURE.



These are no baneful and vicious features attending the use of "Save-the-Horse."

You obtain results without delays, relapses, blistered, fevered, swollen legs or permanently thickened tissue or suspended use of the horse.

NO PROMISE OF RESULTS IMPOSSIBLE TO PERFORM OR FALSE TESTIMONIALS TO MISLEAD YOU. YOU CANNOT MISTAKE THE CERTAINTY OF ITS UNFAILING AND UNEQUALLED POWER OR THE SECURITY OF OUR CONTRACT.

Havre de Grace, Md., Dec. 7, 1909. Troy Chemical Co., Binghamton, N. Y.

Being 1908 I had two horses go wrong, one with a "bone spavin"; she was dead lame. The other with two "hog spavins" and a big knee.

After reading your advertisement week after week I had Mr. Faby order for me one bottle of "Save-the-Horse" which I thought I would just simply try. I used it on both cases, following your directions. I gave them both road work until I had resumed the one bottle only, which took just two months, and to-day I shall say just one year has elapsed since the treatment, that they both are as sound as a new dollar and neither one has taken a lame step since. EDWARD T. WELSH.

Send for copy, booklet & letters from business men & trainers on every kind of case. Permanently cures Spavin, Thrush, Ringbone (except low), Carb, Splint, Capped Hoof, Windpuff, Shoe Bout, Injured Tendons & all Lamenesses. No scar or loss of hair. Horse works as usual. Dealers or Exp. paid.

Troy Chemical Co., 148 Van Horne St., Toronto Ont. and Binghamton, N. Y.

### LABELS

Metal Ear Labels for Cattle, Sheep and Hogs

The old standby for all who have stock liable to stray. No question of identification or dispute as to ownership, for keeping a record of flock or herd, and for general convenience. Do not be without them. Send your name and address for free circular and sample; it is no trouble and may save you much.

F. G. JAMES, Bowmanville, Ont.

### IMPORTATION OF STOCK

Space in the Association cars will be reserved for all stock coming from the East to British Columbia, providing the owners, or importers, make application for definite space before April 30 to R. W. Hodson, Live-Stock Commissioner, Victoria, B. C.

The British Columbia Stock Breeders' and British Columbia Dairymen's Association pay half the transportation expenses.

T. M. Daly, K. C. R. W. McClure  
W. M. Crichton E. A. Cohen  
**DALY, CRICHTON & MCCLURE**  
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Office: CANADA LIFE BUILDING  
WINNIPEG MANITOBA

are similar to a very large percentage of farmers' poultry yards and stock I find few farmers who do not improve their stock by the purchase of new blood each breeding season.

My method of selecting eggs is to do the best I can. Having purchased a few settings of eggs from pure stock a year ago from breeders of reputation, I think I have a fair number of cockerels and pullets that I pronounce my best, as far as my knowledge of poultry goes.

I first of all form breeding pens from my best groups of unrelated cockerels and pullets and set them to laying by feeding them a ration that is supposed to ensure fertile and good eggs for the hatching. I do not use all the eggs by any means. I select eggs of even weight, of uniform shape just slightly oval, smooth surface and having a velvety feeling and absolutely clean when taken from the nests. Of course I expect this season's chicks to be a little better than those of last season so do all my poultry fellows who pay about the same attention to the selection of eggs for hatching. We are not experts, only just an army of practical poultry raisers, with strong determination to please and satisfy our egg and dressed poultry customers and get profitable prices for our trouble.

Some years ago, just about the time trapnesting was coming into notice, with my practical and theoretical knowledge of breeding and my trap-nests I found myself up against an interesting and a many-sided problem in the evolution of my ideal "biddy."

I wanted to produce a hen that would lay an egg every twenty-four hours during for at least three years of her natural life and fancy points thrown in. At the end of the first year I trapped the hen that laid the greatest number of eggs, and it seemed as if success was in sight, but disappointment was the result as far as that hen was concerned. The number was the greatest of the trapped lot, but the quality of her eggs ranged in size from a good-sized pea to a great rough monster of two and a half ounces. They were oval, elliptical, ribbed, blotched, flat-sided, long, short and round, thick and thin-shelled, and not more than a score of the whole lot were of even and uniform size or fit for a fancy market, much less for reproduction purposes. I also trapped a sedate, matter of fact, biddy of good appearance; in fact, one of the best as far as could be judged by comparing her with the rest of the flock, which laid about two-thirds of the number of her number one. Her number was not inspiring, but ninety per cent. of her eggs were choice for market and for hatching. The number of ideal eggs she laid exceeded that of any trap-nested cockerel.

At that time I was furnishing a Montreal caterer to table delicacies about three thousand dozen new laid, not more than seven days' old eggs, per annum at fancy prices; also about three hundred dressed cockerels for similar purposes. The qualifications the eggs were to be new laid, of uniform size, slightly oval, with a plump appearance and even, smooth and firm shells, and above all scrupulously clean. The dressed cockerels were to be broken-necked, dry-picked with empty crops, heads and feet on, undrawn, neatly packed and each case of eighteen birds of the same weight, each not varying more than two ounces. The requirements of good markets for eggs, dressed poultry and eggs for breeding purposes materially changed the complexion of my ideal hen, and new inspirations loomed in sight.

I had learned from practical and accumulated experience in stock breeding, that like does not always beget like with any degree of certainty; that an apparently perfect dam and sire will fail to reproduce any considerable percentage of like in their offspring; that two, three, four or more generations of good type will not in all cases bring forth after their kind, and yet as generations of ideal specimens increase their posterity becomes more definitely fixed and reversions to the unevolved become less and less. These things admitted and applying them to poultry development, we take up the abused trapnest and begin working towards the object of our ambition—an ideal hen. The route will be long and the journey

## GOLDEN WEST STOCK FARM



TROJAN (Imp.), Grand Champion, Dominion Exhibition, Calgary, 1908.

Our new offerings of CLYDESDALE STALLIONS is bigger and better than ever. We have them at all ages and prices, ranging from \$500 up. They are imported and home-bred, sired by such noted sires as Baron's Pride, Everlasting, Acme, Labori, Baron's Gem, Baron Kerr and others. We also have a big selection of MARES AND FILLIES for sale.

Our Clydesdales are all of the heavy draft type.

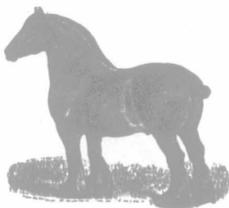
Trojan, grand champion at the Dominion Exhibition at Calgary in 1908, is heading at present our stud. Visitors always welcome and will be met by our rig if notified a few days ahead at Balgonie (Station on C. P. R. main line, 16 miles east of Regina).

## P. M. Bredt & Sons

Edenwold P. O.

Via Balgonie, Sask.

## HORSES



### Shires and Percherons

In looking for stallions or mares, don't buy until you have seen what W. W. Hunter is offering, as he buys and sells every stallion himself.

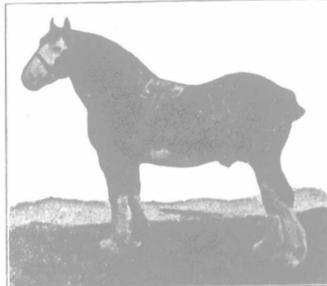
Your first purchase at this establishment means another life-long satisfied customer. Some of the best stallions and mares that were imported to Canada are in the importation which arrived November 20, 1909. Address all correspondence to—

## W. W. HUNTER

OLDS,

ALBERTA

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Copyright "BARON'S GEM" One of the greatest Clydesdale Sires ever brought to the West.

We have added to our well known stud of Clydesdales at the Hillcrest Stud, Condie, Sask., a recent importation of thirty-five head—twenty-three stallions and twelve fillies. Our new importation was personally selected to keep up the high standard of our stud, and we are offering horses with size and quality combined, to a marked degree. They are sired by such horses as Baron's Pride, Hiawatha, Everlasting, Baron's Gem, Royal Edward, Baron o' Buchlyvie and Sir Hugo.

Customers buying from us have no middlemen's profits to pay, as we buy and sell our own horses.

Write for descriptive catalogue. Long-distance telephone in house.

## TABER & PLUMMER

CONDIE, SASK.

## BOW RIVER HORSE RANCH EST. 1860

CLYDES AND FRENCH COACH STALLIONS FOR SALE

Also a few grade mares in foal. \$550 per team.

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Use BAULTS' Plastic Isam

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But that's not all. Every grain of this wheat contains both high-grade and low-grade properties. In separating the high-grade parts from the low-grade the Western Canada Flour Mills put the hard wheat through a process so exacting that not a single low-grade part has the remotest chance of getting in with the high-grade.

Of course this special process is more expensive to operate but it means a lot to Purity flour users—that's why we use it.

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## Seeds!

### Try our English Stock of Seeds Look at this Special Offer

THE BEST VALUE FOR MONEY EVER OFFERED TO THE PUBLIC

To introduce our high-grade standard seeds we are offering (Post Free) the following collection:

ALL PACKETS PUT UP IN LIBERAL QUANTITIES

VEGETABLE SEEDS		FLOWER SEEDS	
Peas, 3 sorts	15c.	Sweet Peas	5c.
Beans, 2 sorts	10c.	Asters	10c.
Beet and carrot	10c.	Stocks	10c.
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Parsley and Cabbage	10c.	Nasturtium	5c.
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THIS \$1.25 WORTH OF SEEDS FOR \$1.00

### PLANTS! PLANTS! PLANTS!

STRONG, HEALTHY, TRANSPLANTED PLANTS

	Per doz.	Per 100		Per doz.	Per 100
Cabbage (early sown)	20c.	\$1 00	Celery	15c.	1 00
Cabbage (late sown)	15c.	75	Tomatoes	25c.	
Cauliflower (Snowball)	25c.	1 50			

Tomatoes, out of 2 1/2-inch pots, 35c. per doz.; 3-inch pots, 60c. per doz.  
Rhubarb Roots, strong, two-year-old, Calgary grown, \$1.50 per doz. \$10 per 100.

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Calgary, Alta.

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Our factory can supply any dealer at once.

He can get Ideal Fence for you. If he won't, write to us and we will send you prices.

You don't want to take any old fence. You want the best. You won't buy a suit of clothes for \$25 when you can get a suit that will wear better and look better for the same money.

Then why be careless buying fence? It is your money you are spending.

Why not set out to get Ideal—the strongest, stiffest, longest-lived fence sold in Canada.

It is chosen by the Dominion Government, by the big Railway Companies, by thousands of shrewd Canadian farmers.

If you intend buying fence this year, you will be wise to ask your dealer for Ideal.

Then you will be on the safe side. You won't be experimenting.

A man can't afford to experiment. A Government won't do it; nor will a Railway Company. They buy Ideal.

Can you spend your money freer than they do? Can you take chances they don't take?

Buy Ideal, Mr. Farmer, and know what you are getting.

In fencing, it is essential that you build for permanency.

We make Ideal Fence of best No. 9 hard steel wire. Stiff, strong uprights; smooth, heavy rust-proof galvanizing.

It is a heavy, permanent fence—more lasting than any other you can buy.

Send to us for information about different kinds of Ideal Fence.

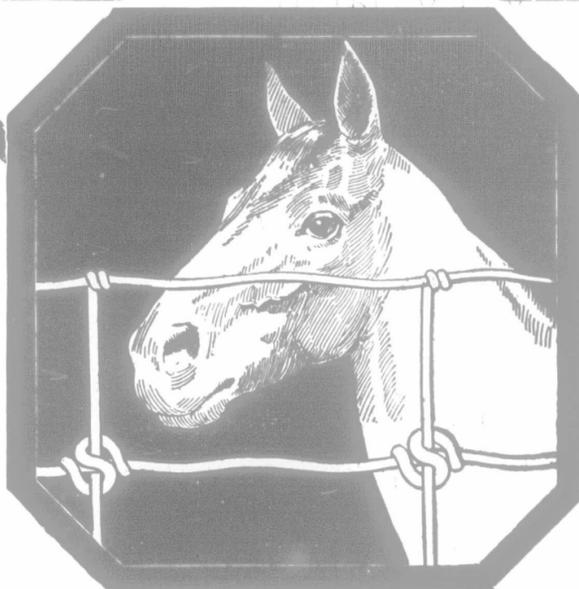
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## IDEAL FENCE COMPANY

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Above all, don't take chances.

Be with the big buyers. Take Ideal Fence and you will know you have the best, most permanent, strong fencing you can buy.

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WE CAN FILL ALL ORDERS PROMPTLY

Just sit down now and write to us for full particulars of the best business proposition you are likely to hear this year. Let us tell you, in plain words, how very little money will start you in the profitable business of poultry-raising The Peerless Way. Let us show you why it will pay you well to

## One PEERLESS user will sell 200,000 fowl this year

Scores and hundreds—ten thousand people in fact—all over Canada, are following The Peerless Way to their profit. More than eleven million dollars' worth of eggs were sold in Canada last year. Yet with all this output prices stay high for every sort of good poultry and eggs. The market is far bigger than the present product—and it grows bigger day by day. Poultry-raising is the best business for any farmer, any farmer's child. Pays better for the time and money invested. Profit is surer. Isn't overcrowded—and never will be.

## Poultry ought to be a side-line on every farm—

The poultry crop is the one crop that never fails. Every farmer certainly ought to make poultry a "side-line," at least—it is a certain profit for him, no matter how bad a year he may have with his other crops. And the Peerless customer need feel no worry about finding a market for all he wants to sell in the way of poultry or eggs. We look after that for him. We find him a buyer who pays the best market prices in spot cash.

## Your credit with us makes it very easy to start—

Your credit is perfectly good with us. You can equip yourself fully for successful poultry-raising, and you don't need ready money to do it. We trust you; and we will make the terms so easy for you that you will never feel the outlay. In fact, a Peerless Outfit pays for itself, and quickly, too.

adopt the Peerless methods, to make use of the advice and aid of the Peerless Board of Experts---pay you well, and profit you speedily.



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

Within a month or so from this very day you could have a poultry-for-profit business well under way. Write and ask us to prove to you that success with poultry, The Peerless Way, is possible for anybody of good sense in any part of Canada. Get the facts about it. They are facts that will probably be new to you. Send for them—it's for your own benefit we suggest that you send for them at once, without another day's delay. Just use a post card, if you haven't a stamp handy—put your name and address on it—say 'Show me—that's all that's necessary.

**LEE** Manufacturing Co., Ltd.  
121 Pembroke Road  
**PEMBROKE** ONTARIO  
CANADA

We carry ample stocks in our big distributing Warehouses at Winnipeg, Regina, Calgary, Edmonton and Vancouver, for the convenience of our Western friends. Address all letters to Head Office at Pembroke, Ontario. They will receive prompt attention.



## PEERLESS users get valuable help and service free

Besides finding a buyer for our customers' poultry products (which we do free of any cost to you) our Board of Experts stands ready always to advise, counsel, help with practical suggestions—free, entirely so, to Peerless users. These practical men have developed the greatest poultry business in Canada—The Poultry Yards of Canada, Limited. Long experimenting in the hatcheries of this great plant brought the Peerless to perfection, and proved it as the one successful incubator for use in every section of the Dominion.

## More than 10,000 PEERLESS users are successful—

Poultry-raising with the difficulties taken out of it—that is the reason why The Peerless Way has proved profitable for over ten thousand people, scattered all over Canada. There is not a reason on earth why it would not do as much for you as it has for the most successful of them. No matter where your farm is you can do well The Peerless Way—and you won't need to depend much on plain farming, either.

## Send right away for interesting offer and FREE very valuable information

You will know why The Peerless Way is the way to get profit from poultry, once you have read the big and plain-spoken free book we want you to ask for. With the book will come an offer to outfit you for poultry-profit on terms that will meet your wishes and fit your means. Please write and ask for this now—make your start now—it will pay you to.