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Any man or boy interested in firearms will find it full of helpful information on hunting, proper care of weapons, notes on sights, ammunition, etc. Why not write to us to-day? Send four cents in stamps to cover postage.  
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Offers Opportunities.

Northern Alberta is the garden land of the West. The district around MILLET is unsurpassed. The town presents many chances for business openings. For full information write:

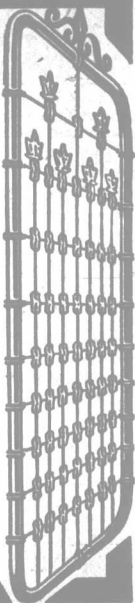
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The heavy, hard wire filling and substantial Samson Locks of Bessemer Steel guarantee at least a quarter of a century's satisfactory service.

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Agents Wanted to sell Samson gates in all localities. Exclusive territory. Write to-day for our good proposition.

**DENNIS WIRE & IRON Works Co., Limited,**  
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Large number of improved farms in Brandon district; also in all parts of Manitoba Saskatchewan and Alberta. Prices right. Terms easy. Address:

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Lightning has no effect on them. They are absolutely fireproof. Rain and snow—heat and cold—can't rust, crack or warp them. The perfect fitting side lock (exclusively Eastlake) makes the roof absolutely leak-proof, and cost of putting on much less.

**OUR GUARANTEE:**

We guarantee Eastlake Metallic Shingles to be made of better material, more scientifically and accurately constructed, to be more easily applied, and will last longer than any other Metal Shingle on the market. Our guarantee is absolute. Our Shingles have been made since 1885.

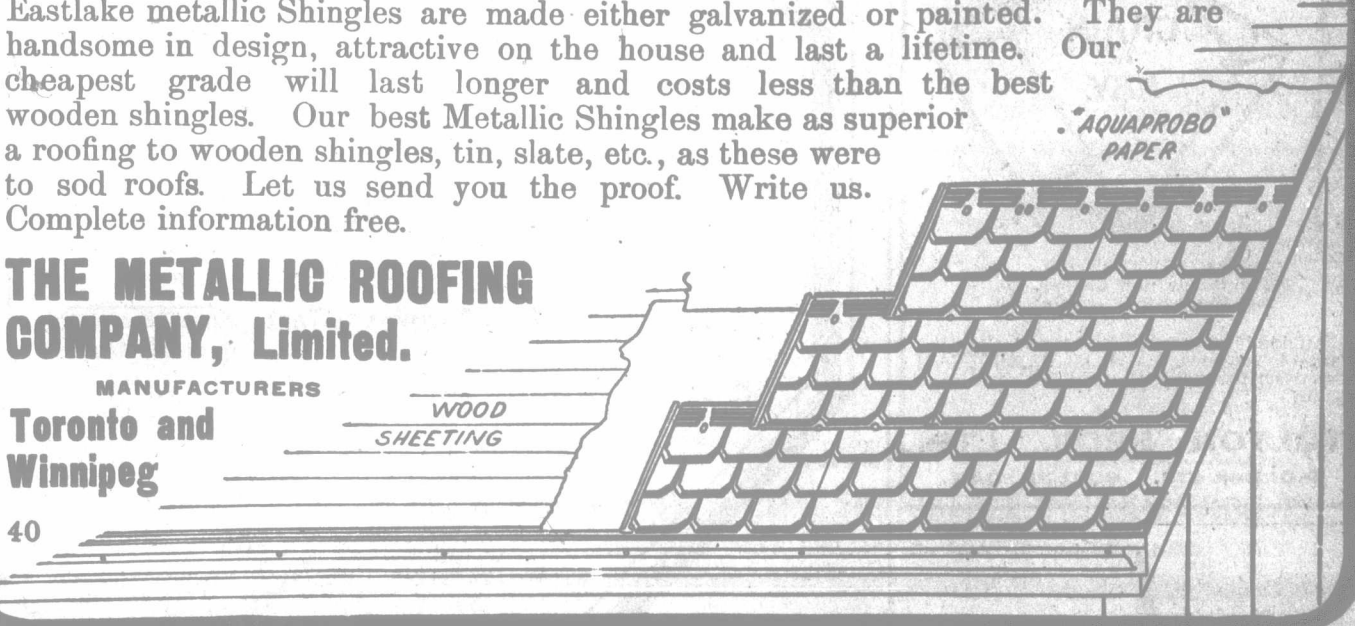
Eastlake metallic Shingles are made either galvanized or painted. They are handsome in design, attractive on the house and last a lifetime. Our cheapest grade will last longer and costs less than the best wooden shingles. Our best Metallic Shingles make as superior a roofing to wooden shingles, tin, slate, etc., as these were to sod roofs. Let us send you the proof. Write us. Complete information free.

**THE METALLIC ROOFING COMPANY, Limited.**

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THIS IS THE SHEET METAL AGE.

Ordinary grades of galvanized steel are not considered good enough for "Galt Sure-grip" Shingles. A special grade of the best, wear-defying galvanized steel is prepared exclusively for them. Consequently, at the very outset, Galt "Sure-grip" Shingles have the power to outwear all others, wooden or galvanized.

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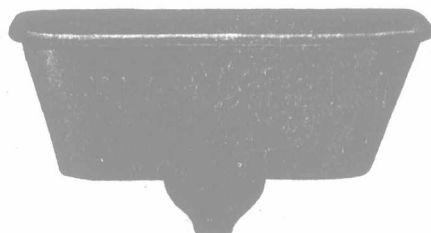
The strongest shingles make the longest lasting roof—and Galt "Sure-grip" Shingles are in every way the strongest. Cost no more than common shingles—are the most economical kind to buy.

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**The Galt Art Metal Co., Ltd.**  
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You have a constant, pure and even-temperature supply of water for your cattle. They prevent disease contagion.

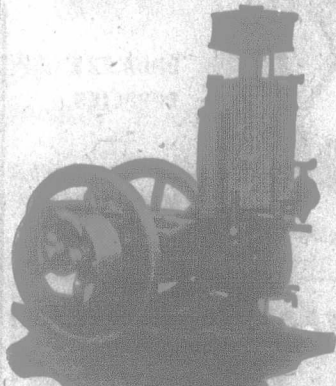
They are strong, durable and easy to install.

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No frills on it to look nice. Just Made for Hard Work.  
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We guarantee power stated in our catalogue. PERFECTLY SAFE.  
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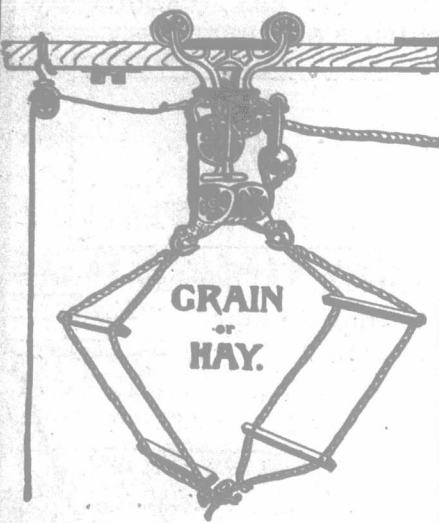
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Good values in wheat lands (improved and unimproved) in tested districts, near railways, elevators, churches, schools, etc., where water is easily obtained and homesteads are yet available. We have what you want. Write for particulars. Prompt attention given to all enquiries.

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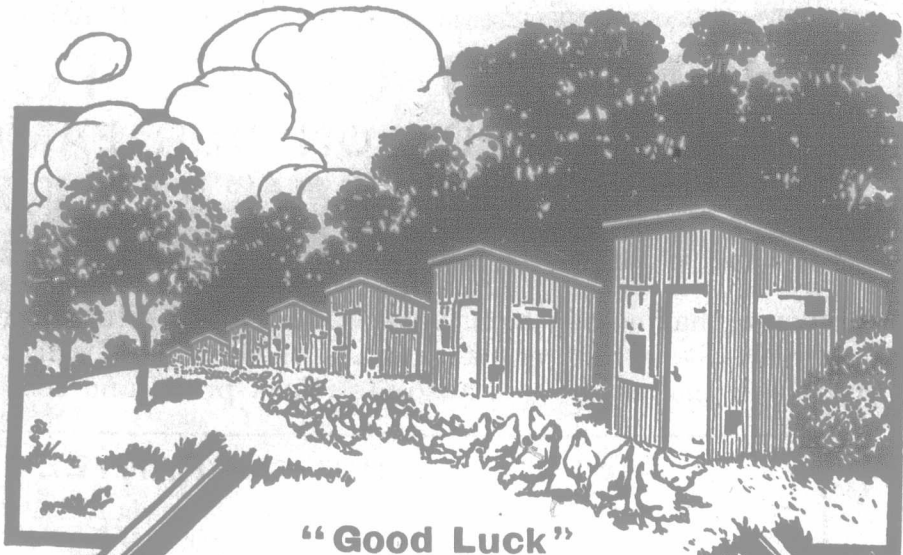
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Fastest drillers known. Great money earners!

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**"Good Luck" in Poultry Raising**

is not "good luck," but good management. Diseases in poultry are due to poor feeding and poor protection. Rex Flintkote will absolutely protect from cold, heat and wet. Let us prove to you that

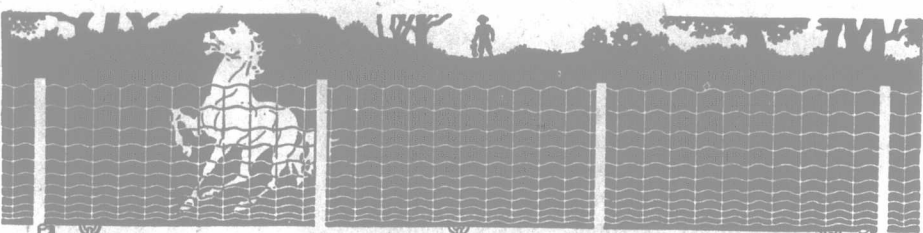
## REX FLINTKOTE ROOFING

is the wisest purchase for top or siding. We can prove it.

**We Will Send You Free Samples to Test** together with our valuable roofing booklet, on receipt of postal request. Our complete book, "Making Poultry Pay," will be sent for 4c. in stamps. It is very useful to the poultry raiser.



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**THE TEST THAT TELLS**

2497 LBS. TENSILE STRENGTH OF NO. 9 LAMB SPRING STEEL WIRE	Our Fence is made from the VERY BEST high carbon Steel Wire, and has NO SHORT KINKS or BENDS.	1822 LBS. TENSILE STRENGTH OF NO. 9 HARD STEEL WIRE	You're a practical man and know that a short kink or bend in any wire greatly reduces its tensile strength.	1166 LBS. TENSILE STRENGTH OF NO. 9 SOFT WIRE
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### OUR MODEL INCUBATORS AND BROODERS


Are the only panacea for failure past, present and future. Just take a few minutes and read the following two of many hundreds of unsolicited testimonials from our satisfied customers.

Bayham, Ont., Jan. 3, 1907  
After using Model 11 incubator for one year Mrs. Mitchell writes us: "I would not be without my incubator for the price of two if I could not get another of the Model Incubators."  
Yours truly, MRS. W. MITCHELL.

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Sirs.—No trouble to run your Model Incubator, as I was away from home for 11 hours each day and machine ran itself, temperature of cellar changing 26 degrees in 12 hours; temperature of machine did not change in the least only the last days showed an upward tendency of half to one degree. Ran machine at 103, hatched 148 chicks from 178 eggs. There was only one chick dead in the shell in the lot. Dead germ of about 8 days in the rest. Eggs were very dark shelled, making safe to ting very difficult.  
JOHN D. McNEIL.

OUR CATALOGUE MAILED FREE.  
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WILL TURN ANY KIND OF STOCK

The best farm fence is one that stays after it is put up and doesn't require constant repairs. Strength and wear are sterling qualities in Peerless Woven Wire Fence. Because it demonstrates its ability to fulfill every purpose of a serviceable fence is the reason that so many miles of it are in use. Wind and weather do not effect it and stock can't go over, under, or break through it for it's made of all No. 9 hard drawn all-steel galvanized wire, locked with the famous

### PEERLESS LOCK

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IN WESTERN ONTARIO MANITOBA SASKATCHEWAN ALBERTA

**CANADIAN PACIFIC RAILWAY**

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Write for free copies of **SETTLERS' GUIDE** giving full particulars of special train service for settlers travelling with live stock and effects to the North west in March and April, with passenger and freight rates.

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Write to-day for free books and anything you want to know about the west and how to reach it. Address

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We manufacture **Steel Cheese Vats, Cream Vats, Curd Sinks, Water Troughs, Hog Troughs, Steel Tanks, Tanks to Water Stock, Feed Cookers, Evaporators for Making Maple Syrup, Grain Boxes, Thrashers' Steel Tanks, Smoke Stacks, Steel Whey Tanks.**

Ask your implement agent for our free catalogue.

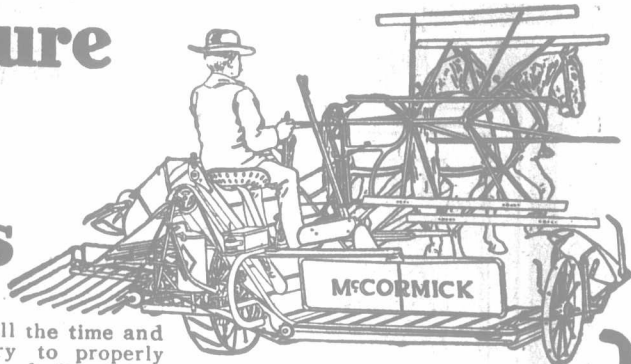
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TWEED, ONTARIO.

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Patrons: Governor-General of Canada, and Lieut. Governor of Ontario. Fee, \$65.00 per session. Apply to **ANDREW SMITH, F.R.C.V.S.,** Principal.

# Make Sure —of Success



**A**FTER spending all the time and money necessary to properly prepare the soil, and after finishing the work of seeding, you cannot afford to take any chances on harvesting the crop.

The great element of safety and success in this work depends upon selecting the proper harvesting machine.

Taking everything into account, the McCormick binder will meet the most exacting requirements.

This is true not only because of the cutting and binding capacity of the machine, but also because of its easy draft, ease in handling and its remarkable strength and durability.

It is impossible in this small space to set forth the meritorious features of the McCormick binder in detail.

Someone in every community has a McCormick. Before you buy a binder ask this man about it.

Ask him if it has not given better service than any other binder he ever owned.

Ask him if it has not always been ready for work, and if it has not worked well in all kinds and conditions of grain.

It has been well said of the McCormick that "You see them wherever you go, and they go wherever you see them."

This is a well deserved compliment to the reliability of the McCormick.

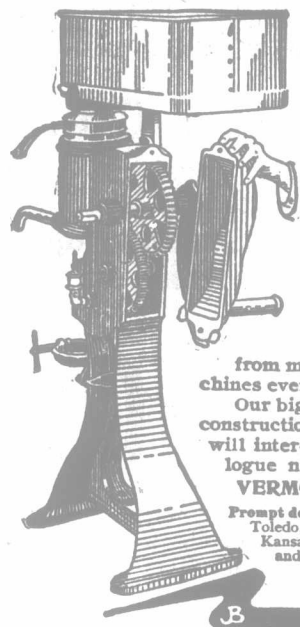
The McCormick line of harvesting machines is complete and includes, besides grain and corn harvesting machines, binder twine, mowers, tedders, sweep rakes, side delivery rakes, hay loaders, stackers. Also a complete line of tillage implements and seeding machines, comprising disk drills, shoe drills, hoe drills, cultivators and seeders, smoothing, spring-tooth and disk harrows, land rollers and scufflers. Also gasoline engines, cream separators, hay presses, wagons, sleighs and manure spreaders.

The McCormick line is the O. K. line and is stenciled with the seal of excellence.

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CANADIAN BRANCH HOUSES: Calgary, London, Montreal, Toronto, Regina, St. John, Winnipeg, Ottawa.  
**INTERNATIONAL HARVESTER COMPANY OF AMERICA,**  
(INCORPORATED)  
**CHICAGO, U. S. A.**



## STRONG and DURABLE

Compact, all the parts accurately made, finely adjusted and working together smoothly; and at the same time, strong, well built, easy to keep in order and light running—these are the features you want to find in a cream separator before you buy one. And when you see a

### U. S. CREAM SEPARATOR

you won't have to look any farther. It has them all. That's why it outwears all other makes.

Durability is what the "cheap" separators lack, yet it is most important. We have received letters from many users of the U. S. Separators who have run their machines every day for 10 years and more with entire satisfaction.

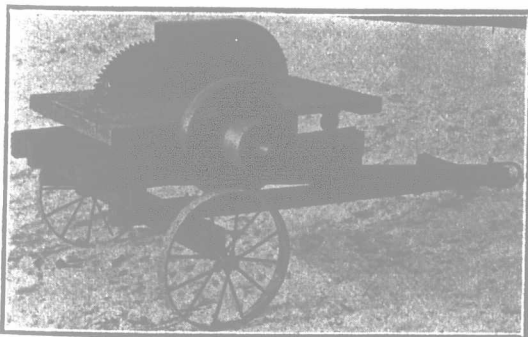
Our big, handsome, new catalogue shows plainly all about the construction and wonderful skimming records of the U. S. It will interest you. For free copy write us this way. "Send catalogue number A 110", addressing

**VERMONT FARM MACHINE COMPANY, Bellows Falls, Vt.**

Prompt deliveries of U. S. Separators from warehouses at Auburn, Me., Buffalo, N. Y., Toledo, O., Chicago, Ill., LaCrosse, Wis., Minneapolis, Minn., Sioux City, Ia., Kansas City, Mo., Omaha, Neb., San Francisco, Cal., Portland, Ore., Sherbrooke and Montreal, Que., Hamilton, Ont., Winnipeg, Man. and Calgary, Alta.

Address all letters to Bellows Falls, Vt. 439

## The Bruce Agricultural Works, Teeswater, Ontario.



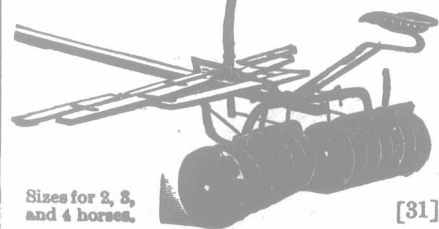
**STROME BROS., Props.**  
(Successors to GILLIES & MARTIN)

MANUFACTURERS OF

**WAGONS, SLEIGHS, PLOWS, HARROWS, SEEDERS, PULPERS, SCHOOL SEATS, MOWERS, DISC HARROWS, SCUFFLERS, TURNIP SEEDERS, WOOD SAWS, and all repairs for Gillies & Martin's Plows kept in stock.**

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Sizes for 2, 3, and 4 horses.

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has made a great record throughout all Canada. There are good reasons why this is so. **Balanced Right**—Does not hump up. **Improved Plate**—Cuts and turns soil over. **Hitches Well Back**—Easy draught. This Disk has several imitators but no equal. None genuine without the name "BISSELL." For Sale by Agents. Manufactured by

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Ask for Booklet \* W

When Writing Please Mention Advocate



## Turn On The Rain When You Need It

**I**F YOU are a farmer you have seen your crops suffer for lack of moisture.

Did it ever occur to you when the drought came what a fine thing it would be to have a stream of water running through your field, which could be turned onto the thirsty ground.

If this thought never did occur to you just stop and think a minute—water always there—no danger from dry spells—no possibility of crop failure, for when you have good land, good seed and warm weather all you need to make a perfect crop is moisture—we furnish the moisture and there is absolutely no failure in the supply.

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Certainty is always to be preferred—therefore you believe in irrigation.

That being the case it only remains for you to choose the best spot under irrigation in which to invest your money and make your home.

All things considered, Sunny Southern Alberta is the best district in the world for the man seeking sure returns.

In the first place, the Canadian irrigation laws are the best on earth—in the history of

Canada there has never been a suit over water rights—the Government stands behind the farmer and settles disputes free of cost in case there should be any, but there are none because the Government sees to it that no irrigation ditches are built unless there is ample water to supply them.

To the farmer who has had endless water litigation this means much.

The land is good in Alberta—there is no better and the constant deposit of silt and other suspended matter continually improves it.

Southern Alberta is without question or doubt the finest live stock country on earth—the summers are grand and the winters are mild as those of the Central States.

Almost any crop can be raised in Southern Alberta. It is the coming wheat, alfalfa and sugar beet country of the continent, and the markets for beef, mutton, pork, grains and all other farm products are better than those of the western states.

If you want to verify what we say by seeing Sunny Southern Alberta, we will be glad to make the trip cheap and easy for you—send your name and address and learn how to get here the best way and how to get the best land on earth in the LAST GREAT WEST at prices so low that they are hardly to be considered. Address,

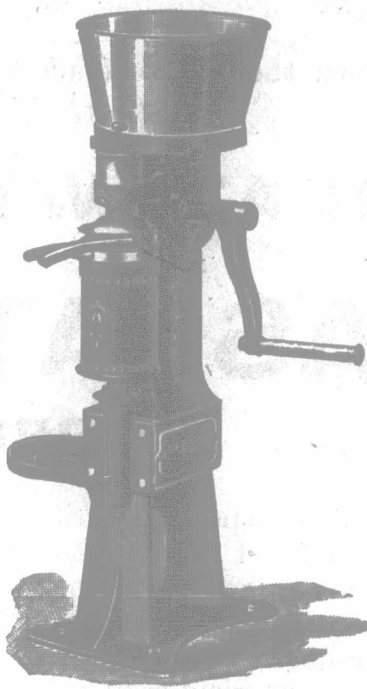
**THE CANADIAN PACIFIC IRRIGATION COLONIZATION CO.,**  
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BECAUSE

Mostly every maker does, but

We do say that a cream separator should be built with the bowl supported at both ends, giving perfect balance.



Its driving gear should be on the spur or square principle, which is the kind that should be used on a fast-running machine.

A simple one-piece skimmer, giving perfect separation of the butter-fat from the milk, at the same time easy to clean.

A perfect ball race that runs easy and will not wear out.

A strong solid frame to set the parts in, giving steadiness, and therefore durability.

Now, the MAGNET has all these good points in its construction, and is the only Cream Separator that has, and we make it.

Investigate these points of superiority in the MAGNET.

You want a good separator, and this is the way to get it.

Write for our 1907 Catalogue.

**THE PETRIE MFG. CO., LIMITED,**  
Winnipeg, Man.; St. John, N. B.; Calgary, Alta.  
Or Head Office, Hamilton, Canada.

## Queenston Cement

successfully used by the farmers of Ontario for over 30 years. Direct from manufacturer to consumer. Positively the best and cheapest cement you can buy. Price, 70c. per barrel, f.o.b. works. All information cheerfully given. Write us

Isaac Usher, Queenston, Ont.

Old John Jones was a Dairyman,  
Who set his milk by crock and pan,  
Till he figured his loss—  
Then John said "Waal,  
From this time hence its

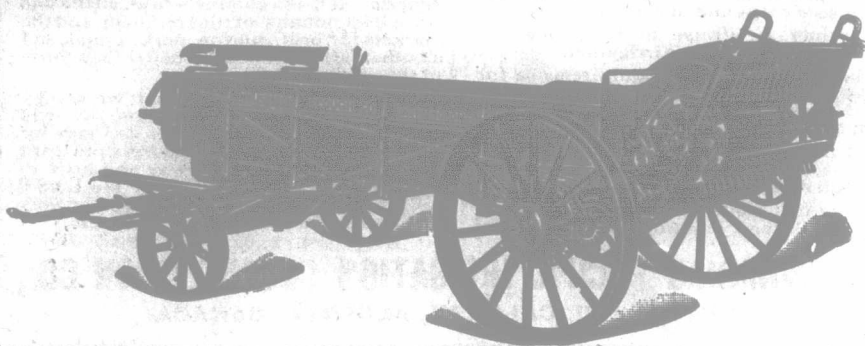
## THE DE LAVAL

THE DE LAVAL SEPARATOR CO.

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**FREE** A SEVENTY-BUSHEL **FREE**  
GREAT WESTERN SPREADER



Have you 125 loads of manure, or more, to spread? Are you going to plant 25 or more acres of oats? If so, let us know, and we will show you how you can own a manure spreader absolutely FREE. Write just these words on a postal card or in a letter: I have ..... loads of manure to spread this spring. I will plant ..... acres of oats. I have ..... acres of land; ..... horses; ..... cows, and ..... small stock. Write to-day.

THE WILKINSON PLOUGH COMPANY, LTD., TORONTO, CAN

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### The Right Paint

Whether you are going to paint the whole house, or only the porch—the interior woodwork, or a floor—there's the right paint in Ramsay's Paints. Just the shade, tint or color you want—mixed just right—in the right proportions. And it paints right—looks right—wears right.

Try them this spring. Then you'll say—as folk have said for more than 65 years—Ramsay's Paints are the right paints to paint right.

Write us, mentioning this paper, and receive Souvenir Post Card Series showing how some houses are painted.

A. RAMSAY & SON CO. - MONTREAL.  
53 Paint Makers Since 1842.



### Fourteen Years Selling Direct



No. 10 Piano Box Buggy  
Price \$57.00.

We are the only manufacturers of Vehicles and Harness in Canada selling direct to the consumer, and have been doing business in this way for 14 years. We have no agents, but ship anywhere for examination. You are out nothing if not satisfied. Our prices represent the cost of making, plus one profit. Our large free catalogue shows complete line and gives prices. Send for it to-day.

**International Carriage Co.,**  
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When Writing Advertisers Kindly Mention this Paper.

# Last Mountain Valley Lands

We own thousands of acres of **Choice Selected Land** in this district, which is in the heart of the

**GREAT WHEAT PLAINS**

OF

**SASKATCHEWAN**

**Ample TIMBER for All Purposes**

Prof. Thos. Shaw, after personal inspection, writes: "This rich and beautiful farming section lying in the vicinity of Last Mountain Lake, embraces one of the finest areas in the Northwest. The land is undulating in this region, mostly open prairie. The soil is rich black vegetable loam, from one to two feet deep, and is underlaid with a clay subsoil. Frost, to injure the wheat, is virtually unknown. Being thus favored so highly by nature, it is not surprising that the production of wheat in this region is phenomenally high; in several instances forty to forty-five bushels per acre have been reaped. Oats, Barley, Flax and all small grains yield relatively as good as those of wheat. Potatoes grow most luxuriantly. Two or three years ago there were not more than thirty-five settlers in the entire area; now there are over a thousand, and others rapidly coming in."

Send 25c. for our beautiful new photographic souvenir, entitled "The Lake and Lands of Last Mountain Valley," which is not only a work of art, but a book of authentic information. We will also send Atlas of Canada, Maps, etc.

**Wm. Pearson Co., Limited,**

304 NORTHERN BANK BUILDING, WINNIPEG.

# The Farmer's Advocate

"Persevere and Succeed."

## and Home Magazine

Established 1866.

Vol. XLII.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.  
LONDON, ONTARIO, APRIL 11, 1907.

No. 759

### EDITORIAL.

#### THE SPLIT-LOG DRAG BRIGADE.

The offer of "The Farmer's Advocate" to lay out one hundred dollars in cash prizes, being a first of twenty-five, a second of fifteen, and a third of ten dollars, for both Eastern and Western Ontario, in order to encourage experimentation this summer with the implement known as the split-log drag, has met with a most encouraging response. Promptly upon publication of the announcement entries commenced to come in, and the numbers increased until the last two days, when there was a rush of applications.

There are, in all, forty-three entries from Western Ontario, and twenty from the region east of the longitude of Yonge St., Toronto, making a total of sixty-three men who have agreed to make a drag and use it at least five times before October 15th on a mile of earth road in the vicinities of their respective farms. The ranks of the split-log-drag brigade include representatives of nearly every county in the Province, from Essex to Glengarry, and from Russell to Welland. The best of it is that, so far as we have been able to ascertain through personal acquaintance and inquiry, they are men of the highest standing in their communities. It sometimes happens that the first to take up with a new idea are those with more enterprise than ballast, and the fact of such persons being identified with a movement rather prejudices the more conservative neighbors against it, even though the idea itself may be excellent. It is therefore especially gratifying to know that the men who have entered our competition are not only enterprising and public-spirited, but are good level-headed, successful farmers.

It is also assuring to know that several of those entered were cautious enough to make and try their drag before sending in their applications. One man from Essex Co. wrote that he had tried the drag in 1906, and found it a success. The only criticism received was from a man who had not tried it. He thought the use of the drag for keeping roads in condition savored of cutting grain with a sickle, or threshing it with a flail. However, his mind is open to conviction, and, as he is trying the drag, we expect to find him converted before autumn. One man, whose application was received too late, said the results of his first trial were an "eye-opener."

There are some who cannot see wherein the split log is better than the old piece of iron-shod timber known as the leveller. We have repeatedly pointed out that the essential difference is in the manner and time of use. The old leveller is used to smooth the roads down when they are crumbling dry; the split-log drag is used to puddle and plaster the mud. It is used before one can work on the land, hence is not so likely to be neglected as is the old-fashioned leveller. There seem to be other points in its favor, too, but we shall reserve judgment until the results of the contest are announced.

We have been asked to institute a split-log-drag competition in Quebec, but the expense of starting the movement in one Province is all we feel warranted in undertaking this year. If successful as expected, there is no reason why the idea should not be pioneered in other Provinces as well, though it is hardly fair to expect "The Farmer's Advocate" to bear the expense of it all. There are other calls on our time and money, and the work of introducing the drag should fall more properly upon the Provincial Departments of Agriculture. In this connection, it is but fair to remind our readers that we are

being cheerfully assisted in the enterprise by the Public Works Department of the Ontario Government. Mr. A. W. Campbell, Provincial Highways Commissioner, and Deputy Minister of Public Works, has undertaken the very considerable expense and responsibility of doing the judging, and his Department is entitled to a full share of the credit.

We desire, also, to acknowledge the aid of many newspapers throughout the Province which freely assisted by drawing attention through their columns to the split-log-drag competition. We have reason to believe that their co-operation has not been unfruitful.

Although entries for the competition are now closed, there is no reason why interest should abate. The fact that over sixty men have decided to comply with the rules of our contest, and have notified us to that effect, is evidence that many others must have been considering the matter, and if the list had remained open longer some of these would have come in. All such are urged to go ahead and construct their drags. Evidence multiplies that the drag is likely to prove an invaluable means of maintaining and improving earth roads, and it is important that this fact should be demonstrated as early and as widely as possible. Again we say, LET US TRY THE SPLIT-LOG DRAG.

#### THE FIGHT WITH WEEDS.

For a few months the land has had rest from weeds, but with the change in the season, which came suddenly and rather early, with the delightful renewing of vegetable life, the conflict with these foes begins again. Of all the losses from natural causes which the farmer has to endure,—losses from weeds, lightning, hail, flood, drouth, and the like—the toll of weeds, without doubt, takes first place. Who has not been sorely vexed at seeing what would have been a magnificent corn or root crop lessened one-third or more by thick ranks of weeds, breast-high? Who has not seen (to use an Irishism) a field of peas that could not be seen for weeds? Not only are there fields, but whole sections of country where spring crops are hidden in June by the bright bloom of mustard. Ox-eye daisy is crowding out the grass in pasture lands. We heard a farmer not long ago telling of a fifteen-acre field on a farm he had bought, which for years before he got it had lain in grass, or rather daisy, seeding and reseeding itself. His attempt by short rotation to clean it was not very hopeful as yet. He said he could keep the daisies from seeding, but the ground was filled with myriads of seeds, enough of which grew each year to make a full crop. The differences in appearance and manner and season of growth which are observable in weeds are as many, almost, as the long list of weeds itself, but in one respect all are alike—they are robbers, every one. The nutriment they extract from the soil is all taken at the expense of the legitimate crop. If a tithe of the enormous loss thus occasioned were suffered at the hands of human thieves, there would be a very dangerous ferment throughout the country—dangerous for the thieves, we mean. We could wish that there were less complacency in view of what goes on continually in vegetable thievery, and less leniency to the rascals that do the mischief.

The conflict with these, while stern and unrelaxing, need not be hopeless. Many farms there are that are practically clean. Some of these have never been allowed to become dirty. Weeds, as they appeared, have been exterminated, and at a much less annual labor cost than is involved in keeping them in check where they have

been allowed to get strong foothold. Other farms, once foul with weeds, have been cleaned and made models in that respect. Whole sections of our country are noted for their freedom from weed pests, and what has been accomplished in these cases is not impossible in others.

Everyone has noticed that the more noxious weeds, such as bindweed, are to be found in patches more or less widespread. A little reasoning backward will show that a patch began as a single plant, and that the seed of this plant was probably introduced in seed grain, grass or root seeds. Much can be done to prevent trouble by care in the purchase of seeds. Many a lot of cheap seed has proved dear in the end. Mere dearthness, however, does not, of itself, insure freedom from foul seeds. We remember once purchasing a bushel of imported seed oats, which cost enough, but out of which over a hundred wild oats were afterwards hand-picked. But cheap seed should always be viewed with suspicion. It is a good policy, usually, to get seed grain from a clean farm in a good neighborhood. Grass and clover seeds should be carefully scanned through a glass, and only the cleanest chosen. A distinction should, of course, be made between weeds and weeds; some are comparatively harmless, but the seeds of noxious weeds should never be sown.

Some weeds will not stand being plowed, others thrive under such treatment; some grow worst in grass, others in grain, but all suffer grievously in a thoroughly-worked hoe crop. The importance in weed destruction of a regular rotation, in which no two crops of the same kind, except grass, succeed each other, and in which each field in turn is treated to a cultivated crop, can be readily seen. As a matter of observation, it is exactly on farms where such a system prevails that strong crops, getting the full strength of the ground, can be seen, and where the eye of the passer-by is not offended by the spectacle of rank weeds overtopping useful grain. The value of a thick, rank clover crop in smothering weeds is not as fully appreciated as it ought to be. For this reason, as well as for others, clover should have a place in every rotation. Persistently as weeds cling to life under adverse conditions, a strong clover crop is the death of many of them, and weakens those it fails to kill. Besides, when the clover crop is cut at the proper season, the weeds that have escaped are also cut before their seed has matured, and propagation by that means is blocked. Of course, the roots of perennial weeds remain waiting for a better opportunity to extend themselves. If hay-cutting is delayed too long, seeds of pests present are matured, and, though taken into the barn with the crop, eventually find their way to the land there to perpetuate themselves.

Of all the crops grown, a corn or root crop gives the farmer the best opportunity for weed extermination. Years ago it used to be remarked that large, well-cultivated fields of roots invariably indicated clean farms, but as a cleaning crop, corn is the superior even of roots. While they are equal in the earlier stages, yet later on many a weed may lurk unseen under the shelter of turnip or mangel leaves, while a corn crop can be inspected at any stage of its growth, and these lingering specimens destroyed. That Canada thistles can be killed in one season in a corn crop, has been demonstrated again and again. The cultivation that ought to be given during the growing time is almost sufficient of itself for the business, but if supplemented, after the corn is full height, by a couple of tours of inspection, hoe in hand—a task which need not take long—the job is complete. It is not only in the extermination

# THE FARMER'S ADVOCATE

## AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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of the more noxious weeds that a corn crop is useful, but also the destruction of those not classed as such, for instance, pigweed, foxtail and other annuals which occur at the same season, ought not to be overlooked. These, though comparatively innocuous, are often in such numbers as to form a mat about the stalks of grain, and seriously lessen the yield. The preparation of land before corn is planted brings the soil into fine condition for starting seeds, and during that time, and at each succeeding cultivation, the tiny plantlets of these weed annuals are annihilated in countless myriads. A very important point in regard to the cleaning of land by means of a crop of corn or roots, is the fact that the cost of the repeated cultivations by which weeds are destroyed is more than made up in the increase of the crop which results from such attention.

### A WORD TO THE WISE.

Several people have written to thank us for publishing the index and sending every subscriber a copy. They think it will be much appreciated. It is a pleasure to furnish the index when we know it is of value, but we take this occasion to remind our friends that, to make the index useful, they should be careful to preserve every copy of the paper complete. It is our intention to continue publishing the index at the conclusion of each half-year's volume, in the hope that it will not only save money for our subscribers, but save us the necessity of answering the same questions several times a year, as we have often had to do in the past.

### GOOD VALUE IN EVERYTHING

The receipt of your splendid present, knife to-day, strengthens my belief that as a result of your office. Accept best wishes for the success of your enterprise.  
R. J. MERRILL  
Annapolis Co., N. S.

### OUR MARITIME LETTER.

The Provincial Conference in New Brunswick, on the question of Forestry, called for the month of February, and duly convened in the capital of the Province, Fredericton, should, even if all desirous of attending it or invited so to do, could not participate, be productive of some substantial good to the important cause represented. The Government of New Brunswick, at the request, no doubt, of the progressive Surveyor-General, who attended the National Council at Ottawa last year, gave the Conference full recognition, and the Premier and his colleagues were in constant attendance. Supt. Stewart, President of the Canadian Forestry Association for over a year, who has recently resigned the high position of Dominion Forester to take up new and better-paying duties with some Western Lumber concern, represented official forestry there. Several professors and lumbermen from the neighboring Republic also attended; and New Brunswick was well to the front in all the work undertaken.

Forestry should be a great concern to New Brunswick, entering so largely as it does into her revenue-bringing resources. Without the taxes of one sort or another flowing from it, and collected most assiduously, it would have been exceedingly difficult long ago to make ends approach each other at all in the Province. Still, it must be said that, unlike some other Governments, that of New Brunswick early awakened to some concern for the better perpetuation of this source of public wealth. Acts were passed long years ago to effect this, but they were more or less speculative; the practical only reached the statute-book in these latter days. At the last session of the Provincial Parliament, but one, a public return, stated that the Crown Lands of the Province amounted to ten thousand square miles, and that their value was steadily advancing on account of the scarcity of lumber everywhere and the increasing demand for it, and a committee of the Executive Council was appointed to examine into and report, under the direction of the Surveyor-General, on the surveying and classification of these lands; also to describe the character of the lumber upon them; to report upon the growing capabilities of the different species of timber, and its accessibility to streams; to examine the water sources, and declare what might be necessary to their continual flow in dry seasons; to describe the character of the lands, with a view to their adaptability or non-adaptability to culture, and also to examine and report upon all the licenses already issued to lumbermen. The report of this Committee has not yet come to hand, but it will, no doubt, greatly influence the course of Governmental action in the Province; for, as we said above, not only is this interest of great public value, because of the immense cut of lumber required yearly for Maritime purposes, but the lumber and wood products exported to Great Britain and the southern Republics yearly has long brought into local coffers a fabulous sum of money. Of course, the forest of our sister Province, like all the other Provinces, is gradually diminishing, and this by fires, notwithstanding legal enactments, as well as private exploitation. The great Miramichi fire of '27 consumed more timber at one stroke than all the other vandal axes of the century put together.

It is to be hoped that too much time will not be consumed in the preliminaries to a proper preservation policy. We had a great Conference at Ottawa a year ago; everybody brought his most serious consideration to bear on this great national subject. Resolutions which registered the findings of that august body were passed and handed in to the Governemnt. Indeed, Sir Wilfrid and Earl Grey were present, and more deeply interested than any. It was thought that a policy as to our forests, based on these resolutions, would have been brought quickly forward. Nothing but the extension of reserves in the West has followed, and it looks not a little as if the powers imagine that their work is done. We really have no forestry policy. It is not necessary to iterate the many vital interests which cry out for it without delay. Canada requires a man at the head of a departmental division who understands every phase of this great work from its Alpha to its Omega—some one who, from the watchtowers of the nation, can see the whole field of our national

opportunities, not merely in a Federal sense, but also as they affect the divisions of the Federation, and who knows how to put his ideas of development and perfectionment into practice. We want a National Forester without delay, and the fact that the present Superintendent has thought fit to seek in private service the emoluments which the public refused, should be the golden opportunity offered to the Administration of establishing and equipping a forestry system for Canada, the equal if not the superior of any in the world. We have had enough talk; all affect interest and conviction on this point; let us have the work before it is too late.  
A. E. BURKE.

### MORE PLEASURE IN EARNING THAN IN POSSESSION.

Material welfare consists not in having what we want, or think we want, but in the getting of it. The humble home, which, in its possession, its outward embellishment and its interior furnishing, represents the thought, interest and effort of its inmates, means far more joy and happiness to them than the costliest palace thrust upon a prince. The man who builds and furnishes a home step by step, adding a carpet now, and then a mantel, and later on a piano, builds a home that is a creation of his ambition, an object of his pride. With each new touch comes a new thrill of satisfaction. Millionaires delight more in the acquisition than in the possession of wealth, as evidenced by the efforts they put forth to get rid of it. The millionaire is an example to us—also a warning. His wealth is often due to the fact that he pursues money with an intensity of purpose that fastens itself upon him as an incurable disease. It is a mania from which he cannot escape. Seeking to do so, he finds that, during the years of youth, maturity and age, his finer sensibilities have remained dormant for want of use. His ambition, his appreciation, his efficiency, have centered on money-making, to the partial or total sacrifice of the other faculties of his nature. Late in life, perhaps, he tries to broaden out, but finds it very hard. The enthusiasm of youth is gone. He can take interest only in the making of money, and when he gets it, his greatest care is to dispose of it. What monumental folly! How much better to be content with less possessions, but store up treasure in the mind and soul, to do some good in the world, and to live a full-orbed life. Millionaires are missionaries, who, by example, teach us the misery of striving after riches and the wisdom of enjoying what we have, seeing that more pleasure comes from the culture of a cherished flower-bed or a tree than from the mere ownership of a conservatory or a park.

### TIMBER SUPPLIES MEASURABLY NEAR EXHAUSTION.

It is estimated by the authorities at Washington that, of all kinds of timber, there are cut annually forty billions of board feet, and that at the present rate of going the available timber supply in the United States will be exhausted in fifty years. Already American lumbermen and experts are casting calculating glances at Canada's supply. All this has its lesson for us. Not only should every Canadian Province adopt a careful and farsighted timber policy to conserve our standing forests and provide for their renewal when cut, but the farmer with a wood-lot will do well to give heed, for the day is coming when every acre of useful hardwood, and even the softer timber, will be valued not only by the dollar but by the hundreds of dollars. Farm forestry is going to prove a better investment than the shrewdest of us realize to-day. Those who have wood-lots on their farms will do well to fence them off and keep stock out of them for ten or twelve years at least, till the young growth gets a start. Those who have no bush, but some acres of light or hilly land, may well consider the advisability of planting it to wood crops. To encourage to assist in reforestation such lands, which in many cases should never have been cleared, the Ontario Government has established a tree nursery, in charge of the Forestry Department, at the Ontario Agricultural College, Guelph. The Government offers to supply the trees and expert advice free, the applicant paying

charges of transportation and doing the actual work in connection with the plantation. Mr. E. J. Zavitz, the man in charge of this work, has prepared for "The Farmer's Advocate" an instructive article, setting forth, among other things, the small cost at which seedling trees for planting may be obtained in Europe, as compared with American quotations. It will be seen that the Government is incurring no very ruinous expenditure in connection with its free distribution of trees, while the results to Canadian agriculture will be important and large. If you have an area of rough land, write Mr. Zavitz, and prepare to take advantage of this opportunity. The man who plants a grove of trees to-day, will, if he lives, be congratulated on his foresight ere one-quarter of the present century has rolled away.

## HORSES.

### DARNLEY AND PRINCE OF WALES.

In view of the great interest at present, and for years past, taken in Clydesdale horses in Canada, and the frequent references to the noted sires, Prince of Wales (673), and Darnley (222), used extensively in the stud in Scotland in their day, and to whose prepotent blood so many of the most notable stallions and mares of the breed their owners are proud to trace the lineage of their stock, it has been thought that some reference to the breeding and individual characteristics of these notable sires would be of special interest to the Clydesdale fraternity and to farmers generally. We have been fortunate in securing from a friend the loan of portraits of these two celebrated horses, that of Prince of Wales being a photograph taken in his old age, and that of Darnley from a painting of him in his prime, and which, like most productions of that class, is somewhat overdrawn, but the engravings serve to show pretty clearly the difference in type of the two horses, which distinctions were so clear-cut that they occasionally crop out in their descendants to this day, and are often referred to as the Darnley or the Prince of Wales type. A photograph from a painting of Prince of Wales was also sent us, but it was too much blurred to make a satisfactory cut, otherwise the portraits would have been more uniform in character as productions of art, though we are satisfied that the photograph of Prince of Wales is a much more correct representation of the horse than any drawing or painting could be.

Taking the results of the show-yard for the decade 1886 to 1896, inclusive, as a fair means of knowing the principal factors in modern Clydesdale-breeding, we find, says an Old Country writer, that the great majority, indeed all the most successful sires of that period are easily summarized under six heads: Darnley, Prince of Wales, Lord Erskine, Drumflower Farmer, Old Times and Lord Lyon. Amongst the first dozen sires represented by prize stock at the principal shows in these years, there is not a horse which cannot without violence be easily included as of one or other of these families. The Darnley interest, during the period mentioned, is strongest. He himself heads the list of winning sires in 1886, 1887, 1888 and 1889, and in three of these years his son, Macgregor, stands second to him, while not less than four, and as high as seven, of the successful sires in each of the six years are either his sons or grandsons. This speaks strongly in favor of a high uniformity of excellence in his stock, and it is of importance, therefore, to see of what constituents his own pedigree is composed.

Darnley 222 was bred by the late Sir William Stirling Maxwell, Bart., at his Keir Stud Farm, in 1872, and was owned by Mr. David Riddell from the time he was three years old. He had a very distinguished show-yard career up to his 12th year, when he was champion male Clydesdale at the Centenary Show at Edinburgh. He died on the 30th September, 1886, aged 14 years. His sire was Conqueror 199, a Kirkcudbright-bred horse, somewhat undersized, and having somewhat defective action behind; in other words, he walked wide behind. He was got by the massive, big and somewhat "raw" Clydesdale, Lockfergus Champion. The dam of Conqueror was a Galloway Clydesdale; that is, she gave evidence of having been "graded up" from the native stock of Galloway. Her sire's name does not appear in the studbook, but we have good reason to believe that he was Jack's the Lad 400. She was a well-known mare in her time, and of so much note that there is to be seen to this day, in a "bog" in the croft, on the farm of Culcraigie, in the parish of Twynholm, a moss oak which marks her grave. In every way she was a good example of the older race of Galloway Clydesdales, having good feet and legs, and a very hardy, durable constitution. Conqueror 199, her son, was the Dunblane, Doune and Callander premium horse in 1871; and as Keir Peggy 187, the dam of Darnley, had been served all season by the

Keir stud horse, and had not conceived, as a last resort, and with no other thought than that of getting a foal out of her somehow, she was, at the close of the season, mated with Conqueror. The result was the greatest of all her produce, and one of the greatest stallions of the century—Darnley 222.

The characteristics of Darnley's family are well known to all frequenters of Scottish show-yards. Generally they are well-colored, inclined to be dark rather than light-brown or bay, and dappled, with few white markings, but with almost invariably at least one white foot and a white mark of some kind or other on the face or forehead. The action of the old horse himself when walking was as near perfection as one could wish for. He took a long, steady step, and got over the ground

ly, were thought to be too small. His own characteristics have been reproduced with marked fidelity in his descendants to the third and fourth generations, and have consequently been the means, in many respects, of improving the breed. He—and this is generally true of his descendants—arrived at maturity slowly; but, when fully grown and on his season, he weighed over 20 cwts.

Prince of Wales 673, the great rival head of a tribe, had a much longer life than Darnley. He was foaled in 1866, and died December 31st, 1888. His breeder was Mr. James Nicol Fleming, then of Drumburle, Maybole, Ayrshire. He was got by a Highland Society first-prize stallion, and his dam was a Highland Society first-prize mare. Not only so, but his sire, General 322, was got by a Highland and Royal Agricultural Society first-prize stallion, and his dam was a H. S. first-prize mare.

It is a curious coincidence that both of his grandams were gray mares. As a show horse, Prince of Wales may be said, in his prime, to have been practically without a rival. No doubt he was placed second on one occasion, just as Darnley was, but although both decisions may have been correct at the time they were given, no one presumes to affirm that either Prince of Wales or Darnley was inferior to the respective horses which beat them. Prince of Wales was owned until he was three years old by his breeder. He then passed into the hands of Mr. David Riddell, Blackhall, Paisley, who sold him to the late Mr. Drew. He remained in that gentleman's possession until his death, and at the Merryton dispersion sale, held consequent on that event, on April 7th, 1884, he was sold by public auction, when eighteen years old, for 900 guineas (\$4,725), and again became the property of Mr. Riddell, in whose possession he died, in 1888, aged 22 years.

The sire of Prince of Wales was General 322. He was a big, strong horse, bred by Mr. Thomas Morton, Dalmuir, owned by Mr. Riddell, and exported to Australia when rising four years old. Although, as we have said, a Highland and Agricultural Society's first-prize winner, he is not remembered for anything but the fact that he was the sire of Prince of Wales.

His sire was the celebrated Sir Walter Scott 797, most active, neatest and most stylish horse of his time, and possibly of any time. The gaiety of his action is proverbial, and although not a horse of the largest size or greatest weight, he was so evenly-balanced that none could gainsay his title to first rank. He was placed second once, his successful opponent being Barr's General Williams 326. Sir Walter Scott is one of the most purely-bred Clydesdales the records of horse-breeding can boast.

The dam of General 322, was Maggie, alias Darling, known locally as the Wellshot Grey Mare, from having been owned first in the West of Scotland by Mr. Buchanan, Wellshot, Cambuslang. She was a mare of great weight and



Prince of Wales (673).

The Clydesdale champion and progenitor of champions, photographed at 21 years old.



Darnley (222).

Himself a champion and the grandsire of the greatest of present-day sires of champions, Baron's Pride. Reproduced from a painting of Darnley in his prime.

with marked celerity. His trotting action was defective. He cast or dishd his fore feet, but moved well behind. His feet were fully up to the standard requirements, and his bones were of the best wearing material. He was as clean in the limbs when he died as a two-year-old colt. He had long pasterns, and, indeed, as it is expressed in Scotland, he was uncommonly good at the ground. His weak points were in the development of his forearms, which were somewhat lacking in muscle, and his thighs were also open to the same objection. He had a splendid formation of shoulder and neck, well-rounded barrel, and a good straight back, but drooped a little in his quarters. His head was considered to be rather small and pony-like, and his ears, especial-



many good qualities, and because of her relation to Prince of Wales, her antecedents have given rise to a good deal of controversy. Various theories have been advanced as to her origin; and the fact that the appearance of Prince of Wales 673, especially about the head, indicated an English strain in his blood, has doubtless had something to do with the formation of an opinion held in many quarters that both of his grandams came from the south. On the whole, having heard all the theories that have been advanced regarding the dam of General, and seen the evidence by which they were supported, the writer is disposed to attach most importance to the one which traces her origin to Cumberland, and names her sire as Merry Tom 532. The authority for this statement was the late Mr. Wilson, farm manager at Wellshot, who purchased the mare from the late William Giffen, horse dealer, Newton Mearns, Renfrewshire, and was aware at the time of purchase that Mr. Giffen had got her in Dumfries. It may be of interest in this connection, as showing the significance of the terms used in the West of Scotland regarding horses, to remark that Merry Tom himself, by the older breeders in the Glasgow district, was always called "the English horse that came from Carlisle."

The dam of Prince of Wales 673 was named Darling. She was a magnificent, dark-colored mare, with the best of feet and legs, and lived to a good old age, and died at Merryton. She was bred by Mr. Robert Knox, Foreside, Neilston, and was got by Samson, alias Logan's Twin, being thus half-sister to Keir Peggy. Hawkie, her full sister, was a Highland Society prizewinner like herself, and was dam of the well-known Old Times 579. The dam of Darling and Hawkie was the gray mare Kate, which Mr. Knox purchased from Mr. William Giffen, horse dealer, Newton Mearns, who purchased her in Dumfries. Like the other grandam of Prince of Wales, various theories have been advanced regarding her antecedents, but nothing certain is known. If she was, as is believed by some, a mare purchased in the Midlands, she was of the same type and character as some of those which the late Mr. Drew purchased in later years about Derby. Another opinion that is held is that she was bred in Dumfriesshire, and that her sire was Blyth 79. She was a somewhat quick-tempered mare, and consequently was not popular in work, but she bred several first-class foals.

Prince of Wales was a dark-brown horse, with a white stripe on face; the near fore foot and fetlock and the off hind foot, and fetlock were white, as was also the near hind leg half way up to the hock. His off fore foot and leg were wholly dark-colored. At the ground, in respect of feet and pasterns, no possible fault could be found with him, and so perfect was he that at these parts he has always been regarded as a model. He had broad, clean, flat bones, with the sinews very clearly defined. His hocks, and consequently his hind legs, were too straight, and this was his worst defect. The formation of his fore feet and legs was perfect. His neck and head were carried with great gaiety and style; his shoulder was set at the proper angle, and his back was firm, while his ribs were well sprung from the back, but not deep enough, especially behind. His quarters and thighs were well developed, and, indeed, the general outline along the top was very pleasing. His head, as we have said, was a little "sour"—that is, inclined to be Roman-nosed; it was of proper length, but not as wide between the eyes as the typical Clydesdale head. The most striking feature of all in Prince of Wales was his marvellous action, and this was all the more remarkable in view of the straightness of his hocks, which one would have thought would have been inimical to easy movement. Both at walking and trotting pace the action was perfect. This feature generally characterizes his descendants, and the straightness of hock is sometimes also apparent, accompanied, in not a few cases, by the action called in Scotland "going wide behind." The parental formation of head is also unduly prominent amongst his progeny and their descendants, but it is a feature which, in many cases, appears less marked as time goes on. The family are, as a rule, characterized by a striking immunity from hereditary disease, and this, combined with their fine wearing qualities and generally easy action, has caused them to be highly popular.

As evidence of the prepotency of the breeding of these two most noted horses of the breed to which they belong, it may be of interest to point out that, of the two most successful sires of prize-winning progeny in Scotland at present, Baron's Pride (9122) is strong in the blood of Darnley, his sire, Sir Everard, being a son of Top Gallant, who was by Darnley, while the dam of Baron's Pride was by Springhill Darnley, a son of Darnley (222). Hiawatha, on the other hand, is bred in the blood lines of Prince of Wales, his sire, Prince Robert, being a son of Prince of Wales. The noted sire, Cedric (1087), imported by Col. Holloway, of Alexis, Illinois, was a son of Prince of Wales, as also are the great breeding horses, Prince of Carruchan (1851), and Prince Round

(8144) (imp.), owned by Messrs. Henderson & Charlton, and now in service in Ontario, in his 18th year, and quite fresh-looking.

#### MARE DISOWNS FOAL.

A reader signing himself "Perplexed" asks for suggestions on the following case of a mare not raising her foals, says "The Farmer's Advocate and Home Journal," of Winnipeg:

"I have a Clydesdale mare, eight years old, which has, up to the last year, invariably failed to raise her colts. She came into my possession last spring, heavy in foal, and with the reputation of being a bad mother.

"In August she dropped a perfectly-formed colt foal, which lived only for thirty hours. The colt at birth was exceedingly weak and unable to stand, and even while being held to the mare seemed incapable of sucking. The mare being a kicker, I was compelled to draw milk from another mare and give it to the foal in the usual way. At first it began to thrive and was able to stand, when it suddenly grew weak and eventually died.

"My question, however, relates to the mare. She seems to be fond of her foals, but, I suspect, is not a milk-giver.

"How should I treat her in order to encourage sustenance for foal both before and after birth?"

Some mares are peculiar in their disposition towards their foals. Other animals are also peculiar. In such animals there seems to be a lack of maternal instinct. Nothing can be done before the birth of the foal to affect the disposition of the mare, so whatever measures are adopted must follow. In some mares, where this lack of maternity is so pronounced that the milk glands are inactive, practically nothing can be done toward getting them to raise their foals, in which cases the sooner the youngsters are found, foster mothers, the better is their chance of life. Where the mare has some milk, it is best to try to ac-



Lord Lachlan [4271].

Clydesdale stallion; dark bay; foaled August 25th, 1901. Owned by Moses Bock, New Dundee, Waterloo County, Ont. (See Gossip.)

custom her to the foal sucking by putting a twitch on her and holding up a leg until she becomes reconciled to being nursed. If she is so vicious that these methods will not affect her, the colt should be put upon another mare or upon cow's milk. This is always a critical time for a foal. The digestion is easily affected; in fact, it is in such a condition that unless it gets the new milk of its own mother, there is very apt to be trouble; but some risks have to be taken, and if the foal is smart, it may survive considerable abuse. If, therefore, it is possible to get it, feed it for a day or two on its dam's milk; if not, the next best thing is the milk of another mare not long foaled, and, if the colt has to be fed on cow's milk, it should be from a freshly-calved cow, and always from that cow, and, besides, should be diluted with one-third its bulk of warm water, and have brown sugar added at the rate of a good-sized teaspoonful to the teacup of diluted milk.

The trouble with the foal mentioned above was that the milk it got did not agree with it, and it probably died of indigestion or inflammation of the bowels, due to the milk being unnatural to it, either because the mare was not fresh, or because its digestive system was too weak to assimilate anything but its own dam's milk. In raising such colts, one should be very careful not to feed too much at first and to feed about ten times a day. It would be a good plan to try to have other mares foal about the same time, so that milk from one of them could be used for the disowned foal until it could be brought around to cow's milk. Judicious feeding of the mare with bran and boiled oats or barley would help in providing a sufficient supply of milk.

#### HACKNEYS SOUND.

No allusion to the late London Hackney Show would be complete were not congratulations offered to the Society and breeders generally upon the extraordinarily satisfactory results which accrued from the veterinary inspection of all the horses entered. When only six stallions out of 195 examined, and two brood mares out of 78, are rejected, the soundness of the Hackney indeed becomes a subject for rejoicing amongst his friends, which becomes intensified when only one competitor out of 41 in the barren mare and gelding entry, and but two out of 65 harness horses, fail to pass the examination. In the ponies, even better results were secured, as only three stallions out of 35, no mares out of the same number, and three harness ponies out of 32 were rejected. In all, 386 Hackneys were inspected, and of these but 12 failed to pass the ordeal, whilst in the pony section only six out of 102 were rejected, the gross totals, therefore, being 488 passed and 18 rejected, some of the latter being on the grounds of height.

#### LIVE STOCK.

##### WEANING YOUNG PIGS.

Young pigs, like most other animals, suffer considerable injury from being wrenched away from their dams. All those who speak of weaning the suckling pigs do not fully consider the exact meaning of the process.

Let us briefly consider the effects which frequently follow the sudden separation of suckling pigs from their dam. In the first place, they are liable to suffer from indigestion, owing to the sudden change from sow's milk, which is very easily digested, to coarse food, or even to milk of another kind. Indigestion in young pigs is a very great evil, because when they begin to suffer from it they lose appetite, partake of insufficient food, and instead of thriving apace and rapidly growing, they develop into "bad doers," and soon become thriftless and good for nothing.

We frequently hear of young pigs suffering from convulsive fits, and though these fits have been attributed to various causes, it is generally agreed that convulsive fits are indirectly due to careless weaning. Judging by the many questions which are asked regarding fits in young pigs, it is unfortunately a pretty general trouble throughout the country, and it may be said to be directly due, in nine cases out of ten, if not invariably, to acute indigestion. To put the matter in a nutshell, indigestion follows an injudicious method of weaning, and convulsive fits in young pigs follow indigestion.

From mother's milk to solid food, is certainly a cruel change, and the wonder is that a large number of young pigs do not suffer and die of acute indigestion and its attendant evils.

Having seen its importance, we now come to consider how weaning can best be done, for there is little use in railing against an undesirable condition of things unless one is prepared to suggest a remedy. Suckling pigs have access, of course, to the food which is set down before the sow, but this is generally of a coarse quality, and quite unsuitable for them, and they partake of it very sparingly, if at all; but if a more palatable food were supplied to the young pigs, they would in a short time learn to eat, and they would then grow much faster than they do when they depend entirely on the mother's milk. Young pigs will begin to eat at a very early age if some pains are taken to let them have sweet, easily-assimilated food, and to teach them how to eat it, and, as soon as they begin to run about the pen they may be given a small quantity of new milk, diluted with an equal bulk of water, or some sweet skim milk or separated milk, which need not be diluted. The milk may be thickened by the addition of some shorts or fine bran, but at this early stage such heavy meals as barley meal, corn meal, etc., must be avoided, and it is also advisable to eschew such pig foods as sour milk and kitchen slops until young pigs have grown well accustomed to more digestible foods, and until their digestive organs have become strengthened by the use of these foods.

The advantages of teaching young pigs to rustle for themselves at an early age are manifold, for not only do they grow rapidly and thrive well, but it is also a great saving on the sow when she is thus aided to bring up a large litter. With this object in view, it is not a bad plan to scatter some whole or cracked grain in the litter of their pen, but this plan must be adopted with caution. Whole grain must not be given too early, nor before the little animals have been using soft food and milk for some weeks. It must never be thrown down in a filthy place, but may be scattered in clean litter, or on earth or gravel, and husky grain must be avoided. The best grains to begin with are, perhaps, wheat and peas, giving only very little at a time, and scattering it well. The exercise which young pigs necessarily take when picking up scattered grains

is most beneficial to their health, helps the development of bone and muscle to an amazing extent, and the chewing and slow digestion of whole grain, sparingly fed and slowly picked up, have a most beneficial and strengthening effect upon the digestive apparatus.

There are two ways in which suitable foods can be given to the young pigs without being gobbled up by the old sow. One way is to feed them while the mother is out for exercise, and the other to place the food in a railed-off corner of the pen, the railing being so constructed that the young pigs can pass through and reach the food, whilst the sow is shut out, not being able to pass between the bars. If the first mentioned plan is adopted, the sow should be let out for exercise morning and evening, so that the youngsters can be fed from the trough at these times. Troughs for suckling pigs should be shallow, and not too wide, so that they can reach the food without getting into the trough. It is best, also, to have them only about three feet long, and made of light but tough wood, so that they can be easily removed from the pen and cleansed after each meal.

REGISTRATION DIFFICULTIES.

Editor "The Farmer's Advocate":

I noticed your editorial re requirements as to registration in the National Records. I have been thinking of writing for more light on the subject, but did not know who to apply to. I have been asked several times lately by men wanting to get business done at the registration office who could not find out the address. When this new style came in, I was supplied with some forms and addressed envelopes. I got along all right as long as they lasted, but now they are used up, and I have written several times for more, but no attention is paid to my request. They don't let us know, as the other officers used to do, when they receive money. I sent in my membership fees, and never heard anything from them, so I wrote asking about it, and received a reply stating they had got it all right. But that is no way to do business. I have not received my copy of the herdbook for this year yet; perhaps it is still in the printers' hands, but it should have been distributed long ago. There are many who wish to correspond with the registrar's office, and it is almost impossible to find who to write to. The secretary certainly should have a name and a place of business known to the public, same as the old office and secretary had. Everyone knew how to address a letter to our late secretary. Perhaps, if we keep on at them, they will make things a little easier or more get-atable. **CONSTANT READER**  
Simcoe Co., Ont.

The Alberta Farmers' and the Central Alberta Stock-growers' Associations last month interviewed Mr. Findlay, Minister of Agriculture in the Province of Alberta, on the matter of establishment by the Provincial Government of pork-packing and beef-canning plants along lines similar to those on which the Government creameries are operated. In reply, the Minister called attention to the fact that the Province has but recently entered upon the second year of its existence: that during the first year it took over and enlarged the creamery system which had been previously conducted by the Dominion Government; that during the present year it was developing the poultry-raising and fattening industry, and that if this is worked out satisfactorily, and the farmers gave the support they had pledged to it, the Department might see its way clear to undertake new enterprises in their interest.

THE FARM.

A PIONEER FARMERS' INSTITUTE WORKER.

Mr. John C. Shaw, of Norwich, Oxford Co., who has recently returned from lecturing at Farmers' Institute meetings in some twelve counties of Ontario, beginning at Toronto, through the Niagara Peninsula, Middlesex, and finishing in Huron and Bruce, reports that the farmers are in a prosperous condition, and apparently well satisfied with the proceeds of the past few years. In the Niagara District very large returns have been realized from the production of all kinds of fruit. Other districts are interested in raising grain, dairying, bacon hogs, beefing, and the horse industry, which latter at present is probably receiving more attention than some other lines, on account of high prices.

Mr. Shaw is a thorough believer in the nobility and utility of farm life. He is a Canadian, and has high hopes for the future of Canada, and especially of Ontario. He is one of the first Institute men in Ontario, being one of three or four who organized the first Farmers' Institute of Ontario, which was held at Hamilton, having for its president Valancey E. Fuller, and Prof. Thos.

Shaw for its Secretary. Since then he has continued as a worker, though in a quiet way.

We are also pleased to learn that Mr. Shaw has been a reader of "The Farmer's Advocate" since its inception in 1866, and has noticed with pride the continued advancement it has made since the first publication, which was a very small monthly magazine, until now it is the best weekly farm paper in America for the Canadian farmer.



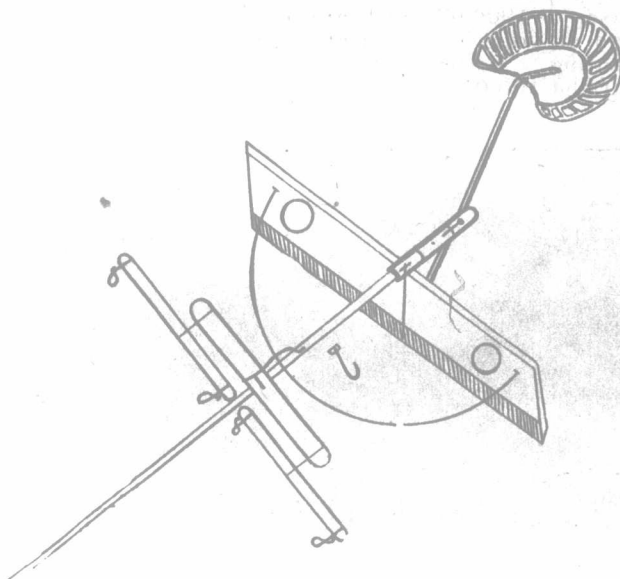
Mr. John C. Shaw.

A reader of "The Farmer's Advocate" since 1866.

THE LEVELLER AS USED IN QUEBEC.

Editor "The Farmer's Advocate":

For some time I have read with interest the articles written in "The Farmer's Advocate" in regard to the split-log drag for levelling clay roads. My opinion is that we have better road-scrappers in this district than the split-log drag, although there are some farmers here that use a flat piece of timber, with iron on the face, and drawn on the angle. It works all right on light land, but on heavy clay roads I do not think it will work as well as the one described below. Road-scrappers, as they are called here, are just about as plentiful as mowing machines in the County of Chateauguay, and the only mistake that some people make with them is that they do not use them often enough; to keep clay roads in good shape, they require to be scraped always



The Old-fashioned Leveller, with a Seat Added.

after rain—as soon as the road is dry enough not to stick or drag in front of the scraper. One improvement on this one is that it can be changed to any angle in a few minutes just by slackening a nut.

How to Make a Scraper.—Take a good hardwood plank, 7 feet long, 2 1/2 inches thick, and 14 inches wide; hew a little off the lower back edge to allow the front to come to the ground when the pole is raised, as it puts the plank off the plumb. Bolt on a piece of flat iron, about 3 inches wide and 1/2 inch thick, onto the bottom face of the plank; bend the bottom edge of the iron a little to make it cut, and project it 1/2 inch below the edge of the plank. For a pole, take a piece of wood suitable for a sleigh-pole, but between 4 and 5 feet longer; take a piece of 1-inch round iron, punch two holes, and bolt to back of plank and in the center; leave the iron long enough to

go through the pole, punch a hole just above it, and put in a key. Project the pole about one foot past the plank, to allow for a brace from the bottom of plank to the end of pole. Put a piece of band-iron around the end of pole and back past the iron where it is fastened to the plank, to keep it from splitting. Get an old wagon-tire of good weight, and cut it in two pieces, so only the one half is required. Bend the two ends, punch a hole, and bolt to the center of plank, and allow the top of circle to rest against the bottom of pole; fasten it to the pole with a bolt with a hook on the end. By tightening up the nut, it will keep the scraper in any angle desired. Put a ring on each end of plank to lift it over bridges or obstructions. Bolt a mowing-machine seat onto the end of pole. Put the whiffletrees on top of pole, just in front of circle. Cut the pole the required length, and the scraper is finished. The cost of one, without the whiffletrees, is about \$5.00.

Chateauguay Co., Que.

[Note.—While appreciating our friend's interest and trouble in sending the above illustrated article, we deem it well to point out that the drag he has been using is the very one we have repeatedly enjoined our readers to construct. The split-log drag, however, is a new thing, and differs from the leveller essentially in time and manner of use. The leveller is employed to smooth down the roads after they are crumbling dry; the split-log drag is used to puddle the clay while wet. Which is the better, we hope to know positively next fall.—Editor.]

BARN ROOF CONSTRUCTION.

Editor "The Farmer's Advocate":

In a late issue an inquiry was made regarding curved-roofed barns, appended by an editorial note soliciting information from anyone who has had practical experience with same.

Two years ago I built a barn 52 x 68 feet, on which I put a roof similar to the one queried after, and different in some respects, perhaps, than any then in the Province, although it has been copied by two new barns erected in this vicinity. Most everyone who sees it considers it the best idea in barn-roofing yet applied.

The roof is a perfect arc, with a radius of 27 feet, and an apex 18 feet higher than plate.

My barn is a balloon frame, double 2 x 8-inch pieces for plates. The 18 rafters, 4 feet apart, are made of 6-ply, tough, soft elm, 1 x 3-inch strips, thoroughly nailed together, in a form corresponding to required curve of roof, strip by strip, beginning with the two inside ones. When taken out of form, the entire rafter has scarcely any tendency to spread, and can be placed arching from plate to plate, with the weight resting perpendicularly at the ends. The four inside strips are beveled to rest flat on the plates, to which they are thoroughly spiked. The two outer strips continue over the plate, and support the eaves.

On my roof I saved about 5,000 feet of sheeting, and used 2 x 4-inch ribs, placed about 2 1/2 feet apart, on which I nailed the corrugated roofing. At the peak there should be two strips, from end to end, of 2 x 8-inch pieces, placed edges together, with joints broken. I had the corrugated galvanized sheets bent in factory to suit the curve of my roof.

The inquirer has been told that corrugated roofing, by contracting and expanding, loosens the nails. Now, it seems to me that is where this style of roofing has the advantage. The corrugation allows the sheet to give and take without affecting the nails, whereas if it were flat, with a straight pull, the nails would have to give. Of course, I cannot tell what it will be like in a hundred years hence, but at present, with my limited experience, I have faith in it; and if I were to build again, would build the same, except in a few minor points; I would make apex of roof 20 feet above plates, instead of 18.

Some of the theories that decided me in the plans I adopted were these: An arch is the strongest form of structure. Every part is supported. Rafters made of bent hoops have all the strength of the grain reinforcing the strength of the curves. The strength of a sheet of metal is greatly reinforced both by being corrugated and by being curved, and this extra strength is imparted to the roof. The 2 x 4-inch ribs stiffen the roof more than inch boards, reduced the weight to less than one-third, and saved me, with hemlock lumber at the present price of \$23 per thousand, \$80 on my roof. The corrugated sheets are the most easily applied of all roofings.

Perhaps I have made my answer to the inquiry longer than necessary, but I trust there are hints in it that may be of use to more than the present inquirer. In fact, I have for some time been desirous of reciprocating some of the benefits I have received from your excellent paper, by giving some ideas I worked out in my experience of building.

Middlesex Co., Ont.

EDGAR M. ZAVITZ.

## FARM FORESTRY.

In the pioneer days the forest was an enemy to agricultural settlement. Few realize what it cost our fathers and forefathers to clear and build the structure we now know as the Ontario farm. These early settlers met an almost unbroken forest, and an early writer, who was qualified to judge, states that this forest contained one of the most valuable masses of timber that ever existed in a region of its size. The work of clearing is still going on, and at present there is probably not fifteen per cent. of good woodlands left in the older part of the Province. In these early days much land was unwisely cleared, and to-day we can find in almost any district soil which would have been more productive if left for wood crops. Many arguments are brought forward to show that the Ontario wood-lot is a good investment on the farm as a wood-producer. Wise and far-sighted farmers are taking up the question seriously, and we find a few who are treating the wood-lot in a rational manner.

The question we wish to discuss at present is not, however, the care of the wood-lot, but the reforestation of lands which are not producing any rental, and are sometimes spoken of as waste lands. The term waste land is frequently criticised, and we often meet persons who ridicule the statement that old agricultural Ontario contains waste lands. The fact remains, however, that we have, in even the oldest and best parts of the Province, lands which, from an agricultural standpoint, are non-productive, or, in other words, waste lands. These lands are of various descriptions, such as steep hillsides, rocky, thin soils, and light, shifting sandy soils. We find a wide range of conditions, which need attention and treatment.

A first-class farm may have a steep hillside which cannot be cultivated, but which would produce trees. A certain field may be so stony, or the soil so shallow, that cultivation is impossible. Light, sandy soil may exist which will not support an annual crop. This condition may exist over areas forming a large proportion of a township, or may be limited to a few acres on the farm. We have no quarrel with the past, but it seems strange to find men to-day clearing off soil which, as soon as cleared, will become unproductive waste land. We meet every season clearing which can only result in leaving unproductive soil. One of the most striking examples in relation to such clearing was found last summer. A man had just purchased a farm, the greater portion of which was on a limestone ridge. It was considered a cheap farm, and it truly was a cheap farm. The previous owner had cleared a field on the limestone formation where here and there the bed-rock cropped out, and where the soil at the deepest places was from 12 to 15 inches deep. After clearing, years ago, it was soon found that the land was worthless, and it soon fell into a condition where it was neither pasture nor woodland. It had originally been covered with white pine, red oak and mixed hard woods, and, five years ago, in going over the place, I found many young pines, cedars, etc., getting a start. In a few years the field would have been covered with tree-growth. Last season the newcomer was actually found clearing the field for agricultural purposes, spending both time and money in an operation which, I venture to say, he will regret in less than five years.

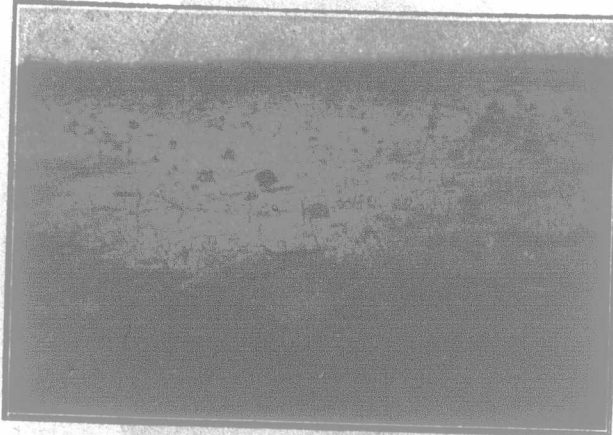
Little blame can be attached to the early settler for mistakes in clearing, but there is little excuse for us to-day, with the experience of a century to guide us. Arguments may be required to show the wisdom of protecting the woodlands existing on good agricultural soil, but it surely needs little thought to see the advantage of keeping waste lands under perpetual wood crops. If the non-agricultural soils of Ontario were under normal forest conditions, and were managed for perpetual wood-production purposes, this Province would never need fear a wood famine.

Is it possible to remedy the mistakes of the past? Can waste land be restocked with trees, and, most important, can it be done practically? In other words, can the farmer or small land-owner reforest waste land at a cost which will not make the work prohibitive to the average owner? Before discussing the question of re-planting, it is well to ask of what value will the plantation be after we make it. Some men are willing to plant trees on waste land, and even on good soil, from a sentimental standpoint. Others want to know "What is there in it for me?" The answer is that any farm in Ontario having its waste portions covered with trees, is going to have a higher sale value than such portions were lying unproductive. A twenty-five-year-old plantation of white pine on a steep hillside will certainly add to the value of the farm. In some cases the actual returns may be a large sum in the future, but quick-growing species are produced on some waste lands, so that

posts and fuel wood may be obtained in about ten years.

In most of our waste lands it will be found that evergreens will give the best results in re-planting. From the standpoint of soil conditions, it would be unwise to plant such species as black walnut or white oak, which make rather high demands on the soil. The species best suited to this kind of work will be white pine, Scotch pine, larch and spruce.

The popular idea of tree-planting is that of roadside, park or orchard planting, where a sapling from six to fifteen feet high is used, and where a large hole has to be made in which to

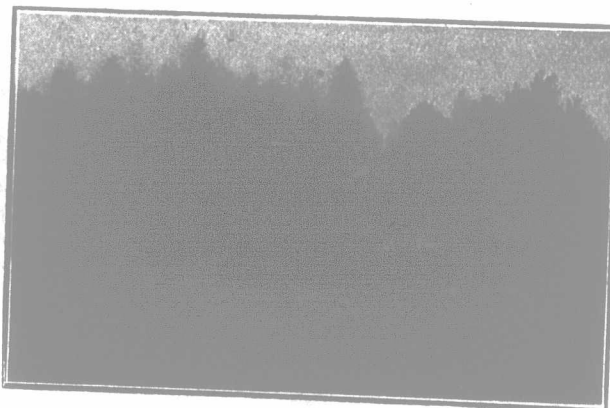


Reforesting Waste Land.

Waste sandy land being planted to White Pine.

place the tree. In waste land planting, the forester uses a small plant, from ten inches to eighteen inches in height, and is able to plant a large number in a day. Trees are planted about five feet apart each way, which would require about 1,746 trees per acre. Where the soil is loose sand, without any turf or sod, the tree is planted by the use of a spade. When there is a sod, the planting spot is prepared by cutting out a piece of turf about fifteen to eighteen inches square with a mattock or grub hoe; and if the ground is stony or rather heavy, the spot should be loosened with the pick. After the soil has been loosened, the tree can be inserted with the spade. Naturally loose, sandy soil can be planted with less-labor than heavy, stony soil. The labor expended in planting an acre five feet apart each way, will vary from two men per day in sandy soil, to four men per day in heavy, rough soil. A great deal also depends on the quality of the labor, some men being able to do twice as much as others in a day.

Another factor in connection with the cost of waste-land planting, is the availability of planting material. The following is a table of quotations taken from 1907 catalogues of firms in America and Europe who are supplying forest-tree planting material. These prices are for season of 1906-07, and are quotations per thousand at point of shipment for plants fit for final planting. Better quotations may be had for 10,000 and 100,000 lots:



Twenty-five-year-old Larch Plantation.

Ground was originally an old gravel pit.

Species.	Age or size.	North America.	Europe
Scotch pine ...	6 in. to 10 in.	\$ 6 00	\$1 20
Norway spruce ...	10 in. to 12 in.	15 00	2 00
Larch ...	10 in. to 12 in.	20 00	2 90
White pine ...	6 in. to 10 in.	16 00	3 00

When it is understood that from two to four men can plant an acre of waste land in a day, and planting material may be obtained as reasonably as in Europe, many will desire to carry on such work.

In order to show the practicability of such planting, the Government desires to co-operate with the farmers of the Province in waste-land planting. The Government will supply the trees and expert advice free of cost, but the applicant must pay the charges of transportation and do the actual work in connection with the plan-

tation. The owner shall also agree to give reasonable care and protection to the plantation. Information regarding this work may be obtained by application to the Forestry Department, Ontario Agricultural College, Guelph.

E. J. ZAVITZ.

## MORE PRAISE FOR ALFALFA.

Editor "The Farmer's Advocate":

Your subscribers of last year will remember something of what appeared in "The Farmer's Advocate" regarding this legume (alfalfa), which has—in the estimation of many of us—no equal. It is my intention to seed down more of it this year, as no doubt many others are thinking of doing, encouraged by what has been said regarding it in the columns of your valuable paper. It is too good a thing to miss, and I will be very much surprised if there is not much more of it sown in the future. What I have is a mixture of grasses and clovers seeded down in 1903. A few grasses remain, but only one of the clovers, which is, of course, the alfalfa. The first cutting contained a mixture of the grasses and alfalfa, but the second was practically all alfalfa. Now, although less of it was sown to the acre than would have been sown alone (about seven lbs. to the acre), yet it has given wonderful returns, so much so that in the future I will have nothing else, except possibly a little timothy with it.

The first cutting last year gave about three tons to the acre, and was taken the middle of June. The second, four weeks later, about two tons—one can have an idea how rapidly it grows when I tell you that the same day we were taking off our second crop, our neighbor on the adjoining farm was stacking his first crop of timothy. We could have taken, I suppose, one and a half or two tons more as a third crop, but it was pastured instead. Apart from the third crop, when we consider five tons to the acre of the very best of hay, well, who would not grow it, and how much would be added to the wealth of this country did every farmer have some? We are feeding this hay now and I estimate for milk cows at least one ton is as good as two tons of timothy. Of course alfalfa requires to be cut early, when just coming into bloom. Do not have any forebodings that it will all shrink away. I think most farmers are too fearful of losing a little in this way, and are unmindful of the much better article, saying nothing of the increase in the second or after growth. I believe that at least 90 per cent. of farmers do not cut their hay soon enough.

Now, as to seeding with alfalfa, you, as well as some of your correspondents, advise sowing 25 lbs. of seed to the acre. Now, while I cannot state positively that this is more than necessary, I am of the opinion that it is. For example, the field I refer to has only about seven pounds to the acre, and while more than this would no doubt have been better, yet I think that less than twenty-five pounds would do. As a matter of fact, no matter how much seed is sown, if other conditions are not favorable, it will be of no use. I would say if one-third less seed was sown, and one-third more work was expended in getting the conditions right that better results would be obtained. In other words, seventeen pounds to the acre on soil well prepared, will give better results than twenty-five pounds on poorly-prepared soil, yes, better than fifty pounds. The reason is plain. If the soil is not well pulverized, and perchance some seeds fall where it would be a second miracle for them to grow, then no matter how many seeds fall in the same place they would all share the same fate. One thing is absolutely necessary for a good catch, namely, to have the soil well pulverized. How is it possible for such tiny seeds to take root and grow on soil as rough as it is sometimes found? We need only go to the gardener to discover the secret of successful seeding. How carefully all the lumps are broken up or raked off, and although for field crops it may not be possible to do it as well, yet we can at least do something towards it, and be well rewarded for so doing. Of course, the richer the soil the better, but apart from having it right, I believe that many fail to get "a catch" because it is left too late in the season. It no doubt should be done as early as possible, for the reason that when sown early every rain that follows helps to cover it and it also gets a start before a dry time may set in, which is fatal. You say, Mr. Editor, to harrow it in well. I am a little dubious about this. I am afraid some seeds would be so covered that they would never come up. I wish I was sure about this. Land should be fall plowed. It will then form a firmer seed-bed. The soil should be fine, but not loose. It is then worked in the spring to the depth of a few inches. After working thoroughly, if lumpy, I would roll, then harrow and sow, and then harrow once more the opposite way. I think that rolling would not only make the soil firm and help to pulverize it, but would also prevent the seed from going down too deep.

I believe alfalfa is the easiest of all clovers to

get a catch, and when secured it is (if you like) there to stay. While a rotation of crops is good, I would be slow to plow up a good catch of either clovers or grasses unless to enrich the soil. It costs time and money to seed down, and so long as you have a good thing, let it stay. I have a field sown with mixed grasses and clovers fifteen years ago, and so long as it will pasture from two to four cows to the acre I would be foolish to plow it up. I have about decided to seed down without any other crop. I think what I lose one way I will gain another. If any of your readers know of a better way I would like to hear from them.

Since writing the above I have been reading some of the good things in Farm Science, written by Joseph E. Wing, Expert Agriculturist, and recognized authority on agriculture, regarding alfalfa, and with your permission will make a few extracts. Speaking of the increased area sown, he says: "And yet with all its spread alfalfa-growing has only just begun in the Eastern States. One farmer in ten, in favored regions is growing it, and he is growing only half or maybe a tenth of what he will some day. The other nine farmers will learn they must or else be crowded out by their nine favored competitors." Speaking of its advantages over other forage crops, he says: "First, that it roots so deep in the soil. It is safe to say that alfalfa roots penetrate as deep as there is any soil. If the soil is three feet, the roots will penetrate three feet. If the soil is ten feet deep, the roots will go down ten feet, and if the soil is thirty feet deep, the roots will go down thirty feet. I have myself found the roots penetrate away down into hard clay." Speaking of its feed value he says: "The best of all is that the forage that the alfalfa produces is the richest and most palatable that the farmer can grow. The alfalfa plant cut at the right time and rightly cured is very rich in protein. What is protein? It is what makes the red flesh and red blood of the animal. It is what makes nerve and brain and vital process. Alfalfa is rich in bone. It is the best feed for the baby on the farm, for the baby colt, the baby calf, the baby lamb, pig, and chick. It is good for the baby because the baby must have protein to build its little body, and as it is best for the baby so it is best for the baby's mother. It makes her full of milk and restores her tissues." For working horses he says: "There is no one thing so good as alfalfa for the working horse. It builds his wasting muscles, it keeps him strong and healthy. He needs much less grain when he can have alfalfa hay, and he is fuller of life and spirit than when fed on other hay. It is only necessary to remember that this hay should be fairly matured when cut and well cured so that it shall not be mouldy or musty. There ought to be no dust in alfalfa hay. There are no hairs upon alfalfa stems and leaves as there are on clover leaves, therefore alfalfa hay has no tendency to bestow "heaves" upon horses. For old and hard-worked horses in thin flesh, alfalfa has great restorative powers. For driving horses it should be fed in moderate amounts else it will make them fat and soft. Even working teams may be fed too large amounts of alfalfa hay. It should be steadily borne in mind that early-cut and well-cured alfalfa hay is nearly as rich, pound for pound, as wheat bran, so that to feed too large an amount of it is not merely wasteful, but puts an undue strain on the excretory organs to eliminate the unnecessary food substance from the tissues. The over-feeding of alfalfa hay to horses has, in some localities, caused the use of it to become unpopular, and to raise an outcry against it. To offset that, it may be said that the writer has fed no other hay to his horses, both working teams and driving horses, with mares and foals, for many years, and has yet to observe the first instance of evil result, save that the driving horses, when not used regularly, become soft and easily sweated. "Milking cows fed alfalfa hay as part of their ration, give milk as with no other possible combination." For pigs, it has apparently no equal. "An acre of alfalfa pastured with hogs, has made a clear profit of \$25 in one year."

After enumerating many other of its good qualities, Mr. Wing says: "One of the very best of its gifts to man has yet to be related—alfalfa enriches soils. By its very deep roots, it feeds upon the lower depth of the soil and draws up the stores of fertility that may be down there. After alfalfa has been grown upon a field for two, three, four, six years, or more, when the field is broken it will be found to have been enriched beyond whatever was known of it before. Whatsoever is planted upon that land will yield wonderfully, and when again it is laid down to alfalfa, that will in turn grow better than it did before." As to the amount of seed required to the acre, he says: "It varies between four and thirty pounds. The small amount of seed is sometimes sown when seed is desired from it, as it seeds better when not too thick. There are 14,480,000 seeds in a bushel of alfalfa seed. Therefore, to sow half a bushel to the acre, would put 166 seeds to the square foot; to sow fifteen pounds, would put in 83 seeds. Seeing that this is true, it is more essential to have good seed and good distribution of the seed

than to use a great amount of seed. About twelve to sixteen plants to the square foot are all that will ever stand, and on rich, deep soils they will not long endure even that much crowding." He says spring sowings are usual without a nurse crop. When sowing with a nurse crop, he recommends one bushel to the acre of beardless barley, with from ten to fifteen pounds of alfalfa. In closing, he says: "Bees love the bloom, especially in the Western lands. Alfalfa covers the land with perennial beauty. It makes work for many laborers to gather the harvests and to feed the hay. It causes new homes to spring

gathering bacteria are introduced; and where alfalfa is being sown for the first time on a farm, this may be a rather important point. In the case of a crop that is so valuable, if secured, and that remains for so many years, it does not pay to be parsimonious with seed; hence we have been advising of late 20 pounds per acre, though we are well aware that an experienced grower, who sows his seed on suitable and well-prepared land, may reduce this amount somewhat.—Editor.]

KEEPING A WOOD-LOT SHOULD BE COMPULSORY.

Editor "The Farmer's Advocate":

Nothing pleases me more than that you are taking up that very important matter, the protection of our forests—a natural protection of our land, and a heritage handed down to us that we should appreciate and protect. It is too bad that the Government had not taken this matter up years ago. There is quite a tract of country to the south of us and to the east that would have been better if it had never been cleared up, but held by the Government. It would be a fine asset now. I think that in all timber limits and wood-lots nothing should be cut but mature and down and dying timber. I would advise the exemption from taxation of at least ten acres to each hundred acres of land, and that the Government furnish spruce or some other kind of tree that would make a wind-break or hedge all around the bush; it would stop the wind from blowing the leaves out of the bush or piling them up where they are not needed. I think the leaves are a very important factor in the growth of the timber, and spruce would prevent the outside of bush from grassing over, help to protect the timber, and help to prevent the hot sun from having such an effect on the timber and drying out the soil.

I have fifteen acres of woodland, consisting of maple, beech, rock elm, basswood, white ash and oak, and is thick enough on the greater part of it to be free from grass. I have not fenced it in yet, as there has been more ground under timber than I wanted. One object in preserving this bush is to make myself independent of a coal shortage; and if I want a stick of timber, I know where to get it. I think young timber grows fast enough to pay a fair dividend on the money invested; it is a very good asset. A good bush adds to the value of farm and country, and to the independence of each owner and country.

I think it would be wisdom to exempt wood-lots from taxation, and that the Government should pass a law to compel every man to keep at least ten acres to each hundred, and if he sells the timber, that the price of at least ten acres go to the Government or municipality; that is, where he fails to keep ten acres.

ARCHIE McVICAR.

Elgin Co., Ont.

THE TOLL OF BAD ROADS.

The United States Department of Agriculture has published a bulletin upon the subject, "Cost of Hauling Crops from Farms to Shipping Points," which reveals some surprising facts. A circular letter, sent to 2,800 correspondents of the Department, brought answers from residents in 1,894 counties. The questions asked included the weight of the average load, the number of horses or mules used for hauling such a load, the cost of hiring a team for the purpose, the greatest distance to a shipping-point, the principal farm products hauled, and the time ordinarily taken for the round trip.

Using the information gained from these answers, an expert has prepared tables showing the cost of hauling the principal crops to the nearest shipping point. It is shown that nearly \$29,000,000 was spent in a single year to get the corn crop shipped, this item representing nearly ten per cent. of the value of the average load carried. In the case of wheat, the aggregate cost was nearly \$22,000,000, or a little over 7 per cent. of the value of the load. Taking twelve of the principal products, the aggregate cost of hauling to a place of shipment was \$78,000,000, this making no account of the expense of hauling grain to mill.

Such a large outlay in a given year has its own eloquent suggestion of the saving from better roads or fewer horses. No better argument could be made in favor of good roads than this table of figures. The statistics indicate, also, the possible saving through the development of freight-carrying trolley lines, bringing the farmer nearer to the point of shipment. With an annual outlay of \$78,000,000 for hauling \$1,500,000,000 worth of ordinary products, it is plain that the saving secured by improvement of transportation facilities would be enormous.



Forty Feet High in Twenty Years.

Individual Larch trees in twenty-year-old plantation. The trees are about forty feet in height, and run from six to nine inches in diameter.

up, puts paint on schoolhouses, and sends little urchins along country lanes with full dinner pails and smiling faces. It is one of God's richest gifts to man." G. A. DEADMAN.

Huron Co., Ont.

[Note.—The above excellent and well-merited appreciation of alfalfa was received from Mr. Deadman before our recent editorials on the subject appeared, but publication of it was deferred in order to give space to the volume of other correspondence previously in hand. In regard to the points raised, we may assure our correspondent that a good harrowing in of the seed will not bury it too deeply. We have seen fine catches on clay where the seed had been disked in. However, one good stroke with the spike-tooth harrow is what we recommend. As to quantity of seed per acre,



Nursery Pine.

White Pine in Government nursery, ready for final planting.

there is room for considerable difference of opinion. The point is well taken that good preparation of the seed-bed is preferable to over-thick seeding. It is quite true that good catches of alfalfa have been secured with 12 or 15 pounds of seed per acre, just as good catches of clover have been grown from 6 pounds of seed per acre, when all conditions were right; but, to be on the safe side, it is well to use 50 or 100 per cent. more than the minimum amount that has produced good results. On soil where only half the seeds survive, there is a three-times better chance of getting a profitable stand by thick seeding. The more seed is sown, too, the more nitrogen-

## OXFORD COUNTY CORN CULTURE.

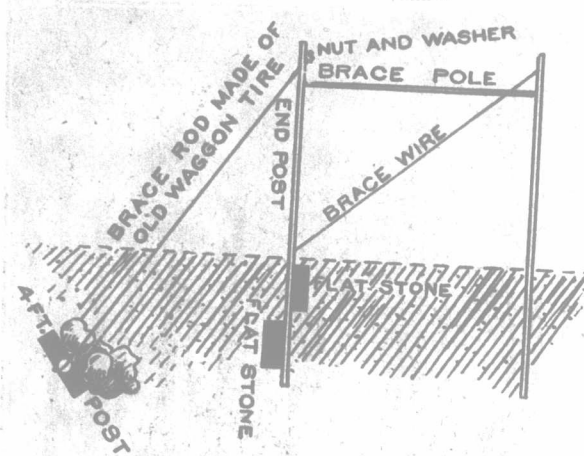
Editor "The Farmer's Advocate":

The system of rotation followed by us on our farm is to manure sod in winter, making six piles to each two-horse load, and placing the piles about 1½ rods apart each way. Our land is very level, and we prefer putting in piles until spring, and then, just as soon as the piles are thawed through in the spring, spread at once. When spread just at this time, we find the manure in the very best condition for a man to do rapid and efficient work. If allowed to stand longer, the piles settle and mat down, so that it is then very difficult and slow work for a man to spread manure. The manure being spread early, a luxuriant growth of grass is started, which is all plowed under for corn. We believe in a very thorough working of the ground before planting the corn, which we like to get into the ground from the 18th to 25th of May, if possible. Our corn is all grown for the silo, and is sown with the ordinary grain drill, the rows being 37½ inches apart. We use about a peck and a quarter of corn per acre for seed, and roll the ground as soon as corn is drilled in. (We always use corn for seed that will mature before putting in the silo.) Then, in a few days we give it a good harrowing once each way before the corn comes up; and after it is up we use the weeder, and then the cultivator, which we continue until corn is full-grown. We do not fall plow, but the next spring we roll the corn stubble down to make it cover well, and plow not too deep. We have never been able to make a decent seed-bed by disking the corn-stubble ground instead of plowing in the spring. We are growing Waverly oats, which we find a splendid variety, yielding a heavy, plump grain, and giving a good growth of straw which stands up well. We sow 1½ bushels per acre on good strong land, and always seed down at the same time, using about 7 pounds red clover, 3 pounds alsike, and 4 or 5 pounds of timothy per acre. The land is then left in grass for two or three years, when it is again manured and broken up in the same way. We find alfalfa making considerable headway, and, after an experience of quite a number of years with it, we are more in favor of it than ever. In fact, we would not think of trying to continue dairying without lucerne and the silo. We believe many have made a failure of alfalfa-growing by not observing the conditions necessary to success. It requires the strongest, cleanest and best-drained land on the farm, and should never be pastured during the first season's growth. If sown with spring grain, the grain should be sown

thin, while from 20 to 25 pounds of lucerne should be sown per acre. Our land is not very heavy, and the ordinary implements will thoroughly pulverize the soil. Three-horse plows and cultivators are beginning to be used in this section. Oxford Co., Ont. JOHN McKEE.

## CORNER POSTS.

Could you tell me a thorough method of setting corner post for wire fence to stand the tension that comes upon them, without using stone or cement, as stone and gravel are very inconvenient to get in our part? J. M.



Ans.—Place an anchor post eight or ten feet from the corner post, between the corner post and the first regular post. From the bottom of the anchor post, a stout brace should reach to near the top of the corner post, and a wire twisted tight and parallel to the brace will keep corner post and anchor post snug against the ends of the brace. Inside the corner post, just below the level of the ground, a piece of plank may be spiked, and another near the bottom on the opposite side.

For a locality where stone is available, the accompanying cut illustrates a method a Perth Co. subscriber described in "The Farmer's Advocate" of May, 1906, as one which he found a speedy and economical way to anchor a corner post. In planting, keep the brace pole horizontal. Put a four-foot post through ring at lower end of brace rod, 2½ feet below ground, and load with stone. Bore the hole for brace rod in the end post somewhat nearer to the side on which the fence wire will be put, and use a heavy washer.

## FORMALIN FOR SMUT IN GRAIN.

Three different lines of treatment have been recommended to destroy the smut spores of seed grain, viz., hot-water, bluestone, and formalin. Expert opinion has now settled upon formalin as the best of all, and of the two ways of applying it, viz., sprinkling and immersion, the former is favored by the consensus of opinion. The method is very simple. Spread the grain out on the barn floor, and sprinkle till quite moist with a solution of a pound of formalin (a pound is a little less than a pint) in thirty-two to thirty-five gallons of water. Shovel over a few times, applying the solution while the shovelling is going on. When all is well dampened, shovel the grain into a conical heap and cover with old blankets for two or three hours. Then remove the blankets and spread the grain out to dry, stirring occasionally. It is better to mix each time just enough to treat the grain that can be sown within three days. After treatment, keep the grain free from reinfection by contact with bins, sacks or spores in which smutty seed has been contained.

It is well to remember that either formalin or bluestone used too strong weakens the vitality of the kernel. In 1905 a subscriber reported having used three-quarters of a pint of formalin in five gallons of water to treat seed wheat, with the result that he had to sow his field again. Used according to directions, the formalin treatment is practically harmless to the seed, and the prevention of smut represents an item that will handsomely repay the small expense and trouble of the precaution. A pound of formalin, costing about 75 cents, and procurable at any drug store, will, according to Dr. Fletcher, suffice for 27 bushels seed oats, or 32 of wheat.

## PROFIT IN THE WOOD - LOT.

Editor "The Farmer's Advocate":

I have a wood-lot of forty acres of high land, also twenty acres of swamp land, chiefly consisting, on high land, of maple, oak and ironwood. In the swamp land is ash, elm, cedar. It is thick enough to keep out grass. I pasture forty acres of this high land, and thin for fuel. I am preserving my bush to provide future fuel and other personal requirements. I presume the land would be worth \$5.00 per acre more under wood than under culture; it pays to keep wood-lot for fuel and manufacturing maple syrup. I think it would be wise to exempt woodland from taxation for preserving the wood-lots, providing parties were compelled to enclose and not pasture the wood-lots. H. N. COVELL.

Leeds Co., Ont.

## The End-drive Barns of Halton County.

The County of Halton, Ont., is noted for its strong land, its beef cattle, its Scottish-Canadian farmers, and its end-drive barns. It is in no way surprising that Scotch settlers and strong land should form a combination favorable to the production of prime beeves, but somewhat more remarkable that, in a Province where the side-drive barn is all but universal, there should be one county building about nine out of ten of its barns with the driveway under the peak of the roof. When you visit these barns, and find them modelled on the same general plan as to interior economy, both in the mows and the basements, you begin to reflect on the force of example which leads one community to a general adoption of ideas that other districts have either discounted or ignored. Likewise, you conclude there are advantages and disadvantages about nearly every idea practiced in barn construction, and begin to feel it is not safe to dogmatize very much, but are prepared to content yourself with a simple citation of facts.

The end-drive barn has some unmistakable merits. It is decidedly convenient for filling and threshing. They begin threshing near one end, and keep moving the machine forward and filling the emptied grain mows with straw. Sometimes they stack some of it, running it out of a door in the side of the lower pitch or eave of the roof. The granary is usually midway of the length, and there is generally one on each side. In most cases an overlay is strung across the driveway when filling with sheaves, and in this way a good deal of room over the driveway is utilized. The disadvantage, however, is that the ten or twelve feet of depth under the overlay is cut off, and, as anyone accustomed to stowing grain knows, this extra ten feet at the bottom, if filled and compressed by the weight above, would hold as much stuff as the twenty feet next the roof. As an offset to the advantages of the end-drive barn, the criticism must, therefore, stand, that it is not very economical of mow space. Neither would it appear to be very convenient for putting up a hay-fork track, although cross tracks in some of the barns seem to give good satisfaction. For a rack-lifter, however, it is just the thing, as the load may be easily lifted above the mow to be filled, and the rack-lifter may be slid along a track from mow to mow.

Through the courteous invitation of Mr. W. S.

Chisholm, of Mansewood, a member of "The Farmer's Advocate" staff dropped off one day at Milton, and was driven round to some seven or eight barns in what is known as the "Scotch Block" in Esqueping (pronounced Esqueezing) township. The "Scotch Block" is a well-known area of some square miles in extent, settled almost exclusively by people from the Land o' Cakes, mostly Lowlanders. It is said that only one Irishman was permitted to rear his family in this favored community, and he was an extra good fellow. It is favored by nature as well as by man. Milton, county town of Halton, is noted for the excellent pressed brick manufactured nearby, and the modern farmhouses around are many of them handsome pressed-brick structures; some almost mansion-like in their spacious elegance. The land, which about the town is quite heavy, becomes less refractory as you drive a few miles north into the pine country. The sign of the pine to-day is the stump fence, miles upon miles of which may still be seen. There are also not a few snake-rail fences, though these are being straightened in some cases, and in others displaced by wire.

Nature drained the strong-loam fields with gentle slopes, which in summer grow splendid crops of grain, clover, corn and roots. They talk in a matter-of-fact way here about thirty to forty bushels of fall wheat to the acre, while the yields of peas recorded leave no room for surprise that they are going back into this crop, now that the bug has quit the unsown pea-fields in disgust. It would hardly be correct to say that corn is grown extensively as yet, though silos stretch their open mouths to heaven here and there, and those who have fed silage are proving effective propagandists of the silo idea. The nature of the soil and the amount of dairying carried on by many farmers is responsible for the fact that mangels are grown considerably instead of turnips. As for the cattle, we found some stables of capital exporters, but were told that the raising of handy-weight butchers' stock is carried on more largely than export feeding. It is a good line. There is room in Ontario for much more attention to the production of well-fed yearlings for the home demand.

The topography of this district is worthy of note. The limestone escarpment or "mountain" which extends from Queenston to Hamilton, sweeps around the head

of Lake Ontario and runs north to Georgian Bay. Milton lies just east of it, sheltered not a little from the western winds. A mile or so north of the latitude of Milton is a natural gap or pass through which the C.P.R. approaches from the west by a gentle grade. The south side of this gap is quite precipitous, and here, out of the clay banks below the limestone escarpment, is where the brick works are situated. A short distance north of the C.P.R. the mountain reappears, and under its brow lies prosperous Esqueping township. It will not be out of place to note that north of Georgian Bay the best apple district of Ontario is stowed snugly away under the shelter of this same elevation of land.

But we have digressed. Let us return to the subject, and describe briefly the barns visited, pausing just for a moment to note a few worthy features common to most or all. In the stone or wooden basement, as the case might be, there was always found a large space across the full width of one end, occupying sometimes half the enclosed area. It is called locally a stable barnyard. Trampling over the mixed manure, and bedded besides with straw, were cows, young cattle and horses, the latter generally separated off in a part by themselves. The animals were fed from a rack across the middle, or else from small, square, movable racks. The central rack seems handier, as it leaves a better chance to drive through while hauling out manure, and also serves to partition the yard. The feed, consisting chiefly of straw, is pushed down through small doors opening on each side of the threshing floor above. At some convenient point, water, supplied by hand-pump, spring, windmill, or hydraulic ram, would be found in a trough or open tank. The young stock run loose day and night, and the general opinion is that they do better this way than stalled. They are fed and watered with very little trouble, and they help to keep the manure from heating.

On some farms an outside yard, sheltered on west and north, adjoins the basement pen, and stock may thus be allowed at times the benefit of sunshine and open air. Stalled cattle are turned out in the stable barnyard to water, and left out for a time—the cows, perhaps, all day; the feeding steers for an hour or two. It is a question in our mind whether the feeders would

not be better loose, like the young cattle, if dehorned and stanchioned when eating their meal.

The first call was at the farm of Mr. W. J. Cottrelle, whose 56x80-ft. stone-basement barn was built a year ago last summer, after an inspection of many barns, far and near. A commendable feature is that the feed room is in the center of the basement, instead of being near one end, as is the case in many end-drives. Across the east end is a row of box stalls; west of that, the yard where the cattle are kept loose, all except the feeding steers, which are only turned out to water. The walls near the top, are depended on for ventilation. There is separate housing for pigs and sheep; also a sunny poultry-house, 50x12 ft., with perches at the back, and plenty of window space in front.

The next call—and dinner—was at the Chisholm homestead, where in 1891 Mr. Thos. Chisholm, who still resides with his son on the farm, built one of the first end-drive barns in Esquesing township. Through a short lane, flanked on each side by a row of pine trees, we approached a handsome brick house, that is worth passing mention at least. There are thirteen rooms (some of them rather small), and each is finished with a different kind of wood—white oak, red oak, windfall oak, maple, black cherry and red, butternut, white ash, basswood, pine and hickory. Except on the doors, there was no paint used, all the rest being oil-finished. The effect of some of the combinations about door frames and elsewhere is rich, and suggests the wisdom of freer use of our Canadian hardwoods for purposes of interior decoration.

The barn stands north-east and south-west, the approach being at the north-east end. [The concessions in this township do not square with the cardinal points of the compass.] The size is 56x96; there being on each side of the 14-foot threshing floor four mows 21 feet wide and 20 feet long; also one mow 16 feet long. If building again, Mr. Chisholm would have this one 20 feet, making his barn 56x100, which now seems to be the standard dimension in the district. Under the middle mow on each side is a granary, 20x21x8. Three years ago both granaries were filled from the produce of the hundred-acre farm.

The frame of this barn is its distinguishing feature. It was at one time patented, though the patent has long since expired, and has not been renewed. To be on the safe side, however, neighbors avoided copying too closely. The roof hangs principally on the purline plates. These are supported by short purline posts standing on the collar beams, and inclined so that the tops of the posts are two or three feet nearer the middle of the barn than are the bottoms. Under the collar beams, where the short posts rest on them, are the long purline posts extending to the floor. The short posts above are lightly braced on the inside, brace, post and collar beam forming a sort of A-shaped triangle. The roof is a single pitch, but the rafters are in two pieces, the lower ones being notched at their upper ends so as to hang on the purlines. At the other end they are notched to hold the lower plate from spreading. There are practically no timbers that interfere with mowing the grain. The several mows are divided from each other by the outer posts, the purline posts, the inner row of posts flanking the threshing floor; by the collar beam connecting the tops of these posts; by the short purline-post brace, and by a longer brace running from near the foot of the main purline post to a point over half way up the inner post. The only timber between threshing floor and mows is an overlay beam connecting the inner row of posts at a height of 14 feet from the floor. In each outer bent (the bents, of course, extend from end to end) are two horizontal beams between the plates and sills, and each post is braced on both sides by a timber running from the sill to a point midway the height of the post. It will thus be seen that there are few timbers in this barn, and most of these are light. One might be afraid it was not strong enough, but having stood the test of over twenty-five years, its owners believe it is well and economically framed.

The barn has a wooden basement, because, when built, wood was cheaper than stone. To-day Mr. Chisholm is well pleased with his stabling, and by no means sorry that the walls are wood rather than masonry. On entering we were struck, as one usually is in a wooden building, with the genial brightness and dryness, in contrast to the gray chill of the ordinary stone stable. Of course, there are a good many windows in the Chisholm barn, and that has something to do with the pleasantness of the atmosphere. Every 10 feet, except where doors interfere, are windows of twelve 10x14-inch panes, the sashes of which shove past each other. The insulation consists of but two plies of boards, with no paper between, and we were assured it seldom freezes much in the stables.

In the south-west end of this basement is the 50x56-ft. stable barnyard, the floor being three feet lower than that of the stables. Dividing it transversely is a five-foot straw rack, boarded up loosely clear to the ceiling. At each end of the rack is a door through which the far compartment is reached. Four 9-foot double doors in the side walls permit wagon or sleigh to be drawn straight through each pen when hauling out manure. The animals are watered in troughs, filled by hand-pumping from shallow wells. In this barnyard the cows and other cattle are all kept loose, except for feeding and milking. It would easily accom-

moderate 30 head. Last year and the year before 12 cattle were kept in one part, fed on clover hay alone, and finished afterwards in one month on grass.

In the north corner is one box stall, and next to it the horse stable, 80 feet long, with door into stable barnyard. Behind the horses is a cement floor, but they stand on planks laid on ashes packed on clay. There used to be a similar floor behind the horses, and plank taken up after lying there 20 years were still quite well preserved. Under the threshing floor, just within the driveway, is a 24x16 root house, with solid stone walls. In the east corner is a box stall. Next to it is the cow stable, with the windows opening towards the south-east, and the door opening into the stable barnyard. The cow stable accommodates eight head of grade Shorthorns, and has a cement floor with a plain slope from gutter back to wall. There is a drainage of six inches towards the yard. Between the horse and cow stables are some calf or cow boxes. We must not omit to add that the straw has been cut at threshing for the last three years, and the plan is well liked.

J. W. Murray's barn is designed chiefly for cattle-feeding. It is a well-planned, end-drive, stone-basement barn, with 2-foot walls. The main barn is 100x56 feet, with a 14-foot drive-floor, and five mows 20x21 feet. At each end is a 30x24-ft. annex shed. One of these is closed in for horse stabling, and one open for stock to run under. Here, in the sheltered open yard, cattle are allowed out for sunshine and fresh air. In the enclosed stable barnyard is a water trough supplied by a spring, where the feeding steers are let out daily for water. The straw used was cut at threshing, but the herdsman, Mr. J. Adams, complains that cut straw is hard to handle. In addition to quite a bunch of store cattle, there was a fine stable of 15 exporters stall-feeding, to go off about April 1st. They were receiving about 3 pounds of clover hay apiece twice a day, together with a mixture of ensilage and chaff, half and half. The meal ration was three to four pounds of mixed meal apiece three times a day. A few mangels are also fed. Then there were some 16 steers being run through to go on grass. Mr. Murray thinks this the cheapest way to finish them.

Another fine homestead, fine barn and fine bunch of cattle were seen on the neighboring farm, owned by John Sproat, who farms 400 acres of land, and bears the reputation of being the richest farmer in the township. His barn is a stone basement, 108x56; the walls being 22 inches thick and 10 feet high. The posts are 20 feet. On the south-east side is an open yard, protected by annex sheds. There is a stable barnyard 54x56, on the same principle as in the Chisholm barn. Here is a spring-fed watering trough. There was also a silo, 12x30 feet, for, like his neighbor, Mr. Sproat is a strong believer in the economy of silage as a feed and crop. His cattle are fed the same mixture of silage and chaff, and the same meal as Mr. Murray's. Up in the second story our attention was called to three iron rods across the center of the barn, to keep the plates from spreading. It seems that this is a difficulty met with in many of the end-drives. However, it is easily overcome by means of these rods, which have a thread in the center, and may be tightened at will. In addition to the main barn is a 54x46-ft. brick basement horse stable and sheep shed. The sheep pen is 30x46 feet. The horse stable has a cement floor, with planks laid under the horses. Last of all, a drive house and implement shed 75x24 feet, a building which on too many farms is still conspicuous by its absence.

By way of variety, a double-side-drive stone-basement barn was visited on the farm of John F. Brownridge. It is 54x72 feet, besides a cow shed 70x80 feet. Within the barn proper is the invariable manure shed, 54x44 feet, containing a cement water-trough filled by a hydraulic ram, which has given excellent satisfaction for the last ten years, and not till this winter has it required a new plunger. Besides a number of fine horses, this farm supports a herd of about two dozen dairy cows, cream being shipped to Toronto three times a week; price, 90c. per gallon for cream testing 32% butter-fat. At the time of our visit the output was 24 gallons per week; in summer it runs to 32 gallons.

A barn which appeared to be the talk of the neighborhood, on account of its expensive finish and the large amount of fine heavy timber used in its construction, was that of John Wright. Unfortunately, Mr. Wright was ill, so that we were unable to obtain such exact particulars as desired. It is about 100 feet long, and is a side-drive, with two approaches. The stone wall of the basement is plastered inside. In the north-west end is the stable barnyard, containing horses on the far side of the central feed rack, and cattle on the near side. In the south-east end of the basement is a horse stable, with a box stall at the end; then a row of stalls for steers, and then a row of cow stalls with two box stalls at the end. Water is kept before the cattle, supplied by a cistern under one of the approaches, the cistern being filled by a windmill. The cistern is very handy for threshing. The stable is lighted by numerous large double windows of 4 panes each, and an idea of the material used may be obtained

from the fact that the joists are of heavy clear stuff, and only about 18 inches apart.

A novel idea in approaches has been employed in the 56x100 ft. end-drive of W. H. Kerr. His barn is built with one end towards a small hill, whence he drives in on a third-story floor. That is to say, his basement is of the usual style, and above that is the threshing floor and mows. But then, instead of hauling his grain in on this level, he has another floor 14 feet above the threshing floor, corresponding to what would be an overlay in the ordinary barn. From the end of this barn towards the hill he drives in and pitches off his load without the necessity of using a rack lifter. At this barn we were shown a square cement silo, 28 feet deep, divided into two parts 8x10 feet each. The walls are 16 inches thick at the bottom, tapering to a foot at the top. Plastered on the inside, and with the corners bevelled off, it keeps the silage in excellent shape, except for a very slight waste beside the wooden door frame.

The last barn of all was the new one built by W. Elliott. It is 120x56 feet, with 20 ft. posts, and does not differ essentially in its layout from others described. The cow stable and horse stable face each other, the manure doors opening into the yard. At the far end of the stable barnyard, and along one side of it, is a row of box stalls for horses or cattle. Water is kept in a trough in the yard. The roof of this barn is of corrugated iron. The material for the roof of the barn, 120x56 feet, and a shed, 60x24 feet, cost \$600; and eight men working for a week, at wages ranging from \$1.25 to \$2 per day, completed the job, at a total cost of \$700.

## THE DAIRY.

### BREED OF COWS.

I have been reading with great interest the records of different herds of Holstein-Friesian cows, which are now so highly spoken of. But we are not told the cost of production. I was led to believe that the little Jersey would produce butter-fat at less cost than Holsteins? Was I misled? It is profits we want. We had ten Jerseys last year which gave 3,860 pounds butter, worth 22 cents per pound delivered in Toronto. Considering we have frame stables, no silo, no ice, cows have to go about 40 rods for water at a lake, expect them to find enough in the pasture field, with a little oat chop at milking time, would you advise me to change to Holsteins? York Co., Ont.

WM. H. BOYS.

We certainly would not advise disposing of such a herd to substitute one of another breed. As for the records of Holstein herds, we may fairly say, without trenching upon the dangerous realms of controversial ground, that Holsteins cannot make milk out of nothing any more than can any other breed. Their strong bid for popularity is due to the fact that they are able to utilize large quantities of food per cow, converting this raw material economically into milk. That they can do this so successfully is due to their strong constitutions, and the fact that they have for centuries been bred for the ultimate object and test of all breeds—utility. At the same time, it is worth noting here that their present popularity is the greatest danger besetting the old reliable Dutch breed. When a breed of stock becomes so popular that anything goes, too few male calves are castrated, and the standard of excellence is liable to deteriorate. Probably there is less danger of the Holstein breed suffering in this way than has been the case with some other races of live stock; but, nevertheless, the breeders of other classes of dairy stock have no reason to envy the fanciers of the black-and-whites their present era of popular favor in Canada. Let the man with a good cow stick to her, and him with a choice herd retain it, and, by breeding and selection, make it better.

We trust the point of our correspondent's query may not be lost. Let the advocates of breeds remember it in presenting the claims of their favorites, that it is not production per cow so much as profit per acre that counts with the business farmer. Most figures of herd production are too superficial to be really instructive. We have often wished contributors would go more deeply into the great problem, cost of production and net profit per acre.—Editor.]

I am much pleased with the moral tone of "The Farmer's Advocate," a feature I feel that must not be overlooked in a paper that is coming into our homes every week. While we are bending every energy to make a success of our farm operations, even though we do make a success of it, it will be only a partial success if we neglect to cultivate the moral part of those who are to conduct these operations after we are to give up the fight.

F. D. AWDE.  
Cheapside, Ont.

### TESTING COWS: NECESSITY FOR MORE THOROUGHNESS.

In testing cows, it is well at this time to draw attention to the necessity for more thoroughness. There seem to be very hazy conceptions of the importance of thoroughness in testing cows, judging by the different methods different people consider sufficient for testing. One man says he weighs the milk each day during the month, and then tests one day's milk for butter-fat, and multiplies that by the total amount of milk. Another man will weigh the milk for two or three days a week, and take their average from that for a week or even a month. Another plan which is endorsed as being somewhat official is to let the owner weigh his own milk, and the inspector watches the cow for two or three days at different periods during the year, and from this he is prepared to endorse the work of the whole year.

Taking figures from tests that have been made thoroughly and reliably, we will at once see how insufficient and misleading are all such simple ways of testing. While the saying is "nothing talks like figures," it is just as well to remember that there is another saying, equally true, that "nothing lies like figures," and in no case is this more true than in making cow tests when the tests are made by averages or estimates and based on insufficient data. Such estimates are sure to be very misleading, as cows vary in quantity of milk greatly from day to day, and even more so in the percentage of fat.

Taking, then, our figures from the most thorough and reliable tests ever made of a cow, Colantha 4th's Johanna, that has to her credit the world's record for a seven, a thirty and a sixty-day test, during all of which time every milking was witnessed and tested by a supervisor, and some of the time there were two or three to watch the work, we find in the report of her best seven-day period that upon one day she gave 100.8 pounds milk, 3.96 per cent. fat, 3.996 pounds fat; on another day, 89.8 pounds milk, 5.12 per cent. fat, 4.594 pounds fat; still another day, 89.8 pounds milk, 3.95 per cent. fat, 3.543 pounds fat. This variation is all in one week's work, and shows that she varied both in pounds of milk and per cent. of fat greatly. On two days she gave exactly the same pounds of milk, but on those days she varied a good deal in percentage and total fat.

Taking her 60-day test, we find also a great variation in the average per cent. of fat for each 7-day period. One week during this time she averaged 4.40 per cent. fat, another week 3.67 per cent. fat, and another week 4.16 per cent. fat.

There is even a difference in her average per cent. of fat for her thirty and sixty day periods. We find that for her thirty-day period the average is 3.86 per cent., while the average for sixty days is 3.91 per cent., but on the very best day she averaged 5.7 per cent., and on that day also gave 96 pounds milk.

Taking her record then, if any averaging was being done, it would make a big difference whether the average was the lowest or highest period. For instance, this cow gave, in sixty days, 5,326.7 pounds milk, with an average of 3.91 per cent. fat, making a total of 208.398 pounds fat. Now, if we averaged her total pounds of milk by her highest per cent. of fat for one day, we would have over 270 pounds fat for the sixty days, a difference of over 60 pounds.

If we averaged her total milk for sixty days by her highest per cent. of fat for one week, which is 4.40, we would have 234 pounds fat; while if we averaged her total by the lowest average for a week, 3.67, we would have a little over 195 pounds of fat, a difference of 39 pounds.

When we apply such methods of testing cows to the work of such great cows, we see how ridiculous and misleading it would be. This is not an exceptional test, either, but all cows show a great variation. Take the record of the cow, Rose Rattler:

	Milk.	Per cent. fat.	Lbs. fat.
Best one-day record	71.7	4.628	3.3174
Best two-day record	134.5	4.3	5.8345
Lowest two-day record	120.	3.68	4.4541
Best seven-day record	464.6	4.166	19.3593
Thirty-day record	1954.8	4.1	79.677

	Per cent. fat for each 7 days.
First week	4.383
Second week	4.086
Third week	4.0161
Fourth week	3.928

This test was made the second month after the cow had been in milk, when she might be supposed to be doing about regular work.

Another cow that has been tested for thirty days, made for one week 4.15 per cent. fat, while the average for thirty days was 3.91 per cent., when every milking was weighed and samples tested.

But there is just as much variation in cows tested when a long period after being fresh. For instance, we bought a cow, and although she had been milking a considerable time, we thought we would like to know what her percentage of fat was. We tested her one day, and that day she averaged 5.2 per cent. fat, and another day she averaged 3.6 per cent. fat. But, while there is a great deal of variation in per cent. of fat during each week, there is not so much in total pounds of fat. For instance, the cow Rose Rattler. Although she was tested for over four weeks, she did not vary one pound in total pounds of fat for each week, for the week she tested the lowest in per cent. she gave the most milk. A cow some days will test the highest on the days when she gives the most milk, but they do not generally average the highest for a week when they are giving the most milk.

All this goes to show that if we want to test a cow with any regard to its authenticity and reliability, we have to weigh all the milk she gives. If we want to know the amount of fat, we have to test a portion of each milking, and if we want to make a test really official, then each milking has to be witnessed by the supervisor. The only object in having the test supervised at all is that it would be a check on dishonesty, as we see that a cow varies so much from day to day that the supervisor can only certify to the actual time he saw the cow milked; and, for the supervisor to certify to the correctness of a month's record when he has only witnessed a few days' milk, is simply putting a premium on dishonesty; that is, if there is crooked work going on, he is endorsing that crooked work and giving that much more evidence as to its reliability. But when such work is practiced, of course, people will soon cease to place any confidence in tests. It is therefore necessary that testing should be thorough to have effect upon the public mind. Have either private tests or real official tests, so that all may know just what evidence there is as to its reliability.

Oxford Co., Ont.

GEO. RICE.



Peer's Surprise 144248.

A record-breaking Jersey. Authenticated one year's test, 14,452 lbs. milk, 643.61 lbs. fat, equivalent to 769 lbs. 10 ozs. butter. Owned by W. S. Ladd estate, Portland, Oregon. Test made under supervision of Oregon Experiment Station.

### BETTER KEEP ONE COW LESS.

Editor "The Farmer's Advocate":

I bought a Babcock tester eleven years ago, and every man who keeps a cow should have one. As an example, I had a cow I called "my best cow," but, after testing a year, I found she was the poorest one. Weighing each cow's milk three times a month with spring balance, recording the weight and sampling will take about a quarter of a minute per cow per day. Testing once a month the composite samples, will take one-half to one hour, according to number of samples and size of tester.

I have weighed each cow's milk daily, but think now three times a month is sufficient. To the man who takes the best possible care of his cows, testing is more important than to anyone else, for good feed and care cost money. Better keep one cow less, and put the time taken to care for it into testing the balance of the herd. I also think the factorymen who pay for milk by the test would have less dissatisfaction among their patrons if the patrons all used the tester often; and, in case there was any kick, the patrons would know what they were kicking about. Then, the hand-separator patron wants to test his cream and skim milk occasionally, especially before paying for his separator.

Richmond, Que.

E. G. BAKER.

### TAKE LESS TIME LIGHTING THEIR PIPES.

Editor "The Farmer's Advocate":

I have weighed the milk of my cows for six years. I cannot see that it takes any appreciable time. I think two minutes extra for ten cows would be excessive; so, with thirty cows and three men, it only would make two minutes extra on the thirty; this twice per day. We don't allow smoking in the stable, but this is much less time than the men take to light their pipes during the day. My men study the results, however, much longer than this, and that is what I want. It certainly makes them interested, and they are constantly trying to get better results. At present I can only reach my farm about once a week, and, by studying milk sheets and deliveries to the man to whom we sell the milk, it gives me a good check. If there is a falling off in any cow, I want to know why, but I have my men so they do, too. I think ten per cent. increase in results, even by those who give good care but do not weigh, is a conservative estimate.

Jacques Cartier, Que.

F. E. CAME.

### FEEDING CALVES BY HAND.

Calves fattened for veal sometimes receive whole milk during the first six, eight or ten weeks of their life, and sell for profitable prices, but eight or ten weeks is a long time to keep them on such an expensive diet as milk; very often the milk would yield a better return if manufactured into cheese or butter, because we may take it that 10 cents per gallon is the maximum return which can be expected, without taking labor, etc., into consideration, from milk when turned into veal, says a writer in the journal of the Board of Agriculture for England.

Great care has to be exercised in the feeding of young calves during the first few weeks of their lives, if they are to increase in weight at a maximum rate in a minimum time. The writer has frequently noticed that a calf drinks too

much during the first day or two of its life, unless the quantity is regulated; then, about the third day it turns sickly, scours, and practically refuses more milk for a day or two.

This gorging of the calf's stomach with milk during the first day or two, or even when the calf is older, seems to bring on scouring. A carefully-conducted experiment showed that a grade Shorthorn calf, fed new milk three times a day for 28 days, consumed 632 pounds of milk in that time, increasing in weight 12 pounds the first week, 13 pounds the second week, 24 pounds the third week, and 21 pounds the fourth week, and weighing 159 pounds at that age, consuming 632 pounds milk. In this case, 9 pounds of milk gave 1 pound of increase.

Three gallons per day is as much as a calf can comfortably take at a month old, and in all cases the milk should be served to the calf freshly drawn from the mother, if at all possible.

As soon as a calf begins to scour, or even before, if it looks at all sickly, it should receive a tablespoonful of castor oil in warm milk. With this treatment, the calf will often take the next meal heartily, but if allowed to run on unchecked, complications may set in which will prove fatal. An error in diet is probably the commonest cause of scour. The important point is to check the disease in its early stages.

A newly-born calf has only a small stomach, and requires small quantities of milk at a time, but often, if we are going to follow nature's way. It is certainly not advisable to feed a calf only twice a day during the first month or six weeks, as is sometimes done.

Of course, as a rule, calves are most economically fattened for veal by allowing them a nurse cow, and a hard milker or a kicker may be used for that purpose, and may fatten half a dozen calves in a season if she is agreeable, yet the above statement gives useful pointers on feeding calves by hand.

For a full report of the year's record of the great Jersey cow, Peer's Surprise, illustrated on this page, see April 4th issue of "The Farmer's Advocate," page 578.

IMPROVING A DAIRY HERD.

Editor "The Farmer's Advocate":

The systematic breeding of the dairy cow is a subject that should be of considerable interest to the general farmer in Canada. The high prices received for butter and cheese during the past season, and the prospect that the business will be equally prosperous for another year, should be an incentive to use every available means for increasing the profits. This does not necessarily mean that we should increase the number of cows in our herds. In fact, it would more often be found wiser to dispose of several. The chief function of a good dairy cow is to produce economically large quantities of milk, and when she ceases or fails to do this, her usefulness as a source of profit is gone. It will not, perhaps, be untimely to discuss in brief several points in connection with this question, submitting conclusions from personal experience and observation.

In order to get best results out of dairy cattle, there are three essential features which may be concisely stated: Breed, Feed and Weed.

Usually, if one is to procure a herd of good paying cows, he must breed them himself, as only in very rare instances will he be able to purchase such from his neighbors. In almost any herd there are a number of good individuals which may serve as a foundation. By using good judgment in the selection of a bull of the proper dairy type, and sticking to the same breed, a few years will show considerable progress. In selecting a sire, particular attention should be paid to the bull's dam. Provided as an individual he is satisfactory, and has good breeding, based on performance, he is almost certain to get good calves. If it were only more generally realized, how true is the adage that "the bull is half of the herd," there would undoubtedly be much more attention paid to the principles of breeding and their application to the dairy herd.

No cow, however, is capable of doing her best without proper food. The feed must largely depend upon surrounding conditions, such as the adaptability of the land to produce the necessary crops, or the price at which they can be bought to advantage in the market. Whichever method may be pursued, there are certain principles of feeding that should serve as a guide in compounding a ration, judgment being used in applying them to suit individual requirements. All fodders are composed chiefly of protein, carbohydrates and fat. The first of these nutrients goes to form hide, hair, hoofs, horns and muscle, and also enters largely into the formation of milk. The other two go to produce heat, energy and fat. It has been found by experiment that about one part of protein to six of carbohydrates and fat gives the best result in feeding. This relation is known as the nutritive ratio. Thus, by referring to a chart giving the composition of the various feeding materials, it is a simple operation to figure out what proportion of the different foodstuffs at hand are required to make up a balanced ration. Having gone this far, we must consider the age of the animals we are feeding. Young animals require food richer in protein than older animals, as they are building up new bone and muscle. A dairy animal should be so fed from birth to maturity, to encourage a rapid growth without acquiring a tendency to put on fat.

To grade up a herd successfully, it is necessary to keep a record of the yield of each cow. Not only are we able to weed out the unprofitable ones by so doing, but the utility of such records are of great importance as a guide to the feeder. By their aid one is able to tell what any particular cow is doing, and thus judge the ration for each accordingly. This will often result in feeding more economically. The writer's experience in this connection has been very satisfactory. By using the scales, we have been able to increase or decrease the ration, as circumstances might warrant. It is sometimes urged that such a system of keeping records entails too much trouble, and is unnecessary to ascertain the best milkers. This may in a measure be true, but when weighing is practiced in connection with a systematic use of the Babcock test, and in sections where patrons are paid according to the butter-fat content of their milk, the testing of individual cows is of no little importance. Not infrequently, the cow that yields the smallest quantity of milk in a herd will be discovered by the test to be as profitable as or more profitable than some of the heavy milkers. But the objections in regard to time, labor, etc., have never, to our knowledge, been made by any person who has given the system a fair trial. A spring balance is placed in a convenient place in the stable, as are also the record sheets. When a cow is milked, it only takes a few seconds to hang the pail on the spring balance, which instantly denotes the weight of the milk, plus the pail, which, of course, has to be deducted before the record is made. Another feature that should not be overlooked is the interest it creates in those engaged in the work, hence better care and more comfort to the cows: in short, we find it a most important factor in building up and maintaining a dairy herd. J. H. M.

THE LIFE WORK OF A JERSEY COW.

She was owned by Billings' Farm, Woodstock, Vt., had her first calf August 30th, 1896, at 23 months old, and dropped her tenth calf April 4, 1904.

From September 14, 1896, when her first milk was weighed, to April 29, 1906, when the last milk she ever gave was weighed, was 9 years 7 months and 15 days. During this period she gave 57,375½ pounds of milk. The result of four annual Babcock tests shows none less than 5.7 and the highest of 6 per cent. fat.

Computing at the average of 5.8, this would give 3,327.75 pounds fat, or 3,882.40 pounds butter, by adding one-sixth to the fat, which, at 30 cents a pound, would be worth \$1,166.60, and the calves from such a cow should sell for enough to pay for her keep, leaving about \$120 a year clear profit.

She produced ten healthy calves, never missed a feed or never took a dose of medicine. She had good dairy care, and was never at any time forced for a seven-day or longer test.

This, in a measure, helps show that the Jersey is the poor man's cow, as well as the rich man's pet. Barring an accident that shortened her life, there was nothing to indicate but that she would have done as good work for several years more.—(Jersey Bulletin.)

A WONDERFUL COW.

Editor "The Farmer's Advocate":

Possibly your readers will be interested to know how the Holstein cow, Boutsje Q. Pietertje De Kol, is progressing in her yearly record. Up to the present it is as follows:

Number days milking .....	151
Lbs. milk .....	10,698
Lbs. fat .....	397.53
Lbs. butter (fat + 1-6) .....	468.78
Value of fat .....	\$102.72
Value of milk, at 4c. per quart.....	\$170.98
Cost of feed .....	\$ 39.10
Profit on fat .....	\$ 63.62
Profit on milk .....	\$181.88

Record by Months—

November, 1906—2,522 lbs. milk.....	3.5% fat.
December, 1906—2,352 " .....	3.7% "
January, 1907—2,105 " .....	3.6% "
February, 1907—1,770 " .....	4.1% "
March, 1907—1,944 " .....	3.8% "

Ontario Agricultural College, Guelph. H. H. D.

TIME SCARCELY WORTH MENTIONING.

It is about four years since I began to keep records, and I consider the plan a good one. Even when taking the best care of your cows, as far as you know, the actual test goes far to encourage you to make improvements in your methods. It also proves the relative value of your cows as milk producers, and you soon find a pretext for getting rid of those who do not hold their own. As to the time required, it is scarcely worth mentioning in a small herd, one or two minutes at most per cow being sufficient. Charlotte, N. B. JAS. McMILLAN.

MUCH SURPRISED.

Editor "The Farmer's Advocate":

I kept daily records of my cows' milk for two years. One thing learned was which was our best cow, and I was very much surprised to find one that I thought was one of the poorest to be one of the best, and vice versa. I believe milk records should be kept by all dairymen, as it is the surest way, with a Babcock tester, to tell which cow or cows are making a profit. I think I can keep the records of about five cows per minute per day, with everything ready; that is, weigh and set down. S. A. COOK. Yarmouth, N. S.

EIGHTEEN SELECTED COWS BEAT TWENTY-EIGHT UNSELECTED ONES.

Editor "The Farmer's Advocate":

I started a year ago to try and keep records, with the result that I sent off a few boarders. I started because I heard so much about it. As I did not get my milk tested, I was only half doing things. I believe a man taking good care of cows could get interested in keeping records, for he would have something to go by, and not be so careless about feeding all the herd the same amount. Our section is not much alive to its best interests, as I have been highest by very far in our factory per cow, of \$50, our 18 beating often 25 and 28 of others. Russell Co., Ont. JOHN O'CALLAGHAN.

SUNDAY CHEESEMAKING.

Editor "The Farmer's Advocate":

Your letter requesting a copy of the new Lord's Day Act is before me for reply. Enclosed you will find both the Dominion Act and the Provincial laws, all of which are now in force, with notes on their interpretation and information as to their enforcement.

Will you allow me to call your attention especially to a form of violation of both these statutes which has been going on for some time in connection with farming industries, namely, unnecessary work in cheese factories. In one or two factories in this Province the milk is delivered on Sunday morning and cared for in the factory, though not made into cheese. It is, of course, a violation of the law for the farmers thus to haul their milk to the factory on Sunday. The other and much more common form of violation is the making up of Saturday night's milk into cheese, involving labor until about two o'clock in the morning, and then several hours during the forenoon. This is a very serious hardship on the employees in cheese factories, and they are continually complaining to us and asking us to do something to give them relief.

We were very loath to take legal proceedings against owners of cheese factories, who are frequently farmers, but we feel that the time has come when something must be done to give relief to the employees in the cheese factories. We have been in correspondence with the cheesemakers and the owners of the factories for the past two years. As a result, a large number of those who have followed this practice have discontinued it. A number, however, have not yet done so. Perhaps we would have taken legal proceedings earlier, but



Boutsje Q. Pietertje De Kol.

Holstein cow. Owned by Ontario Agricultural College.



only the employees, under the Provincial law, can be prosecuted. Under the Dominion Act it is different. An employer who requires an employee to violate the law is liable to a penalty of from \$20 to \$100.

A company that even permits the violation is liable to the penalty of from \$50 to \$500. It will, therefore, be a serious matter for either joint-stock companies or individual owners if they find themselves prosecuted by the Crown this coming summer, and the crown is ready to do it any time we report evidence to them. The Attorney-General has given orders to this effect.

I need not tell you that there are various ways in which the milk can be cared for without being made up on Saturday night and Sunday: (a) The farmer, by providing himself with the proper facilities, spring water or ice, can keep the milk sweet, and take it to the factory on Monday morning. Scores of farmers known to me are doing this now. (b) Factories can put in a butter plant, cream the Saturday night's milk on arrival, and make it up into butter the following week. (c) The farmers may themselves utilize Saturday night's milk for butter.

Toronto, Ont. J. G. SHEARER.  
Gen. Secretary Lord's Day Alliance.

#### TESTING A PLEASURE.

Editor "The Farmer's Advocate":

I am just beginning to keep records, and cannot give much information on the subject yet. As to time it takes, by having your pails all to weigh the even pounds, and just alike, and keeping scales in a convenient place, I think, for 10 cows, five minutes per day will do the act. The testing is a pleasure, and is the only way to get at the profit of the boarders.

Huntingdon Co., Que. A BEGINNER.

## GARDEN ORCHARD.

### IMPROVEMENT OF ORCHARDS.

Editor "The Farmer's Advocate":

Anyone who has travelled much through our country, especially the middle section of Ontario, will be somewhat struck by the neglected conditions of most of our apple and fruit orchards throughout that section, largely due, more or less, to the indifference of those who own them. Almost every farmer nowadays sets out one or more acres of apples and other fruits, thinking, no doubt, when he gets them properly planted in the ground, that will be all the care and attention they require; and will expect, when they come to bear, to have good fruit and a large quantity of it, and if such is not the case, will lay the blame on the trees. But fruit trees, like everything else, need care and attention to get the best results.

Pruning is thought, by the average farmer, to be something which cannot be done, unless by an expert who makes a specialty of it, and travels from farm to farm looking for such work. This is a great mistake, and one which can be easily remedied, as almost any farmer can prune his own orchard and greatly add to the appearance of it, if followed up systematically every year. All that is necessary is a pruning knife, hand-pruning shears, long-handled shears and a fine-toothed saw, with good set. These, used judiciously at the right season of the year (which is in the spring and after the severe frosts, before the buds start to grow), will give the desired results.

Some of the advantages to be derived from pruning are as follows: It increases the vigor of the tree and gives it any desired form you wish to make; it induces fruitfulness, and improves the quality of the fruit by introducing a reasonable degree to sunlight; it removes superfluous or injured wood, and facilitates cultivation, spraying and harvesting of fruit.

In pruning an orchard, do not go at it carelessly, but where a limb is required to be cut out, make the cut clean, and, unless absolutely necessary, do not cut out a limb larger than two to two and a half inches in diameter. If larger than this is required to be cut out, the wound should be covered by some kind of paint, so that it may heal more quickly.

Within the last number of years, greater attention has been paid by the Government to the fruit industry, in the establishment of fruit experiment stations, spraying, and shipment by cold storage, which is creating a greater demand for good fruit in the cities and towns, also in the foreign markets; and why should we not pay more attention to our farm orchards, and thus increase rather than diminish the output?

Another way in which orchards can be improved is by good cultivation. The best, I think, is a regular rotation of farm crops, by

leaving a space at each side of the trees, and by the use of some sort of cover crop, such as clover, rye or hairy vetch, as these improve the physical condition of the soil and add humus to it. These cover crops should be plowed down in the spring and the ground again sown with the regular crop, as on the rest of the farm. This method of cultivation may be discontinued, if desired, after the trees give a good return of fruit.

"HORTICULTURE."

#### INCONVENIENCE OF LOW-HEADED TREES.

Editor "The Farmer's Advocate":

In "The Farmer's Advocate" of Feb. 21st, as in several others, I notice articles on pruning trees, especially fruit trees. There are many excellent points brought out, but with regard to low-headed vs. high-headed, I cannot altogether agree. Several reasons are assigned for training low heads—i. e., allowing the first branches to start from the trunk at two to four feet from the level of the ground. Now, I would like some of these low-head advocates to tell us how they propose to cultivate or keep the orchards clean, and manured, seeded, etc., when the trees get, say, 20 to 30 years old, and the branches heavily loaded with fruit. Take such varieties, for instance, as R. I. Greening, Tolman Sweet, Stark, Longfield, and many other varieties, the branches of which start to grow at nearly right angles with the trunk, and after the first or second load of fruit the branches are literally lying on the ground, and half of the fruit is only fit to be sent to the cider mill. I would also ask them where they invariably find their choicest samples for exhibitions, etc? It matters not if the trees are 40 feet apart, the finest samples are at the top. I admit the low-headed trees are a trifle easier to prune, and no doubt it is a little easier gathering the fruit, but when you come to spraying or cultivation in an orchard 30 years old or over, and many of the trees spreading 30 to 40 feet, so that the branches meet, I, for one, do not want low-headed trees. As to the wind blowing off the fruit, the effectual remedy for that is to plant Canadian spruce the same time as the orchard is set out, and set them about 15 or 20 feet apart on the east, north and west sides of the orchard. Very little trouble will be experienced afterwards with fruit blowing off the trees. I am reminded of an orchard, where an enthusiastic English horticulturist set out some 260 apple trees about 35 years ago. They were planted 30 feet apart each way, and were a very nice lot, but my friend the proprietor declared that he was not "Goin' to 'ave the bloomin' hables growin' where hi can't pick 'em haff the ground," so he cut them all back to about two feet. Very few of them died, and they were kept well thinned out; but when they were 25 years planted the branches had grown so wide that it was nearly impossible to get through the orchard. Although the trees had good crops of fruit, the samples were inferior, and the orchard was not a success. My experience teaches me that it is unwise to allow a head to form less than five feet from the ground, as it would be quite impossible to keep the grass and weeds down, unless by hand work, which would be quite impracticable in a large orchard. I have an orchard ten years planted, and find no losses from sunscald. If trees are kept in good condition, there is very little danger from that source. Some of the best old orchards I know of have their tops formed five to six feet from the ground, and are vigorous, healthy and profitable.

Standard pears, such as Sheldon, Tyson, and those that have a habit of very upright growth, should be headed back for the first ten years for two reasons: First, to bring them more quickly into bearing; and second, to cause them to branch more freely on the principal stem. Especially is this desirable on such varieties as Rutter, Lincoln, Clapp's, La Suter, etc., while such varieties as Bartlett, Lawrence, Louise Bon Duchesse, Seckel, etc., do not require much cutting back. We generally start the tops on pears about four feet high, and find even that plenty low enough for most varieties; for, notwithstanding the disk harrow, side-draft cultivator, scufflers, etc., we have to use, at least once in the summer, our single plow, and even then it takes all our time to keep our orchard perfectly clean.

Our plums for the past two years have been a failure, but we hope for a good crop this season, as the buds are well formed and the wood well ripened.

The prices for apples continue low for this season of the year, even for No. 1 stock, as the market in Toronto seems to be well supplied with No. 2 or wormy fruit. If fruit-growers expect to be rewarded for their labor, they must of necessity attend diligently to spraying at the proper times, and prune their trees freely, and increase the number of No. 1 apples, pears and plums, as no other classes will pay to grow in Ontario.

Ontario Co., Ont. R. L. H.

#### HORTICULTURAL PROGRESS.

Prepared for "The Farmer's Advocate" by W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Eleventh Annual Report of the Fruit-growers' Association of Prince Edward Island, 1906. President, A. E. Burke, Alberton, P. E. I.; Secretary, A. E. Dewar, Charlottetown, P. E. I.

The fruit-growers of Prince Edward Island are to be congratulated on having had their report published so promptly, as, reaching the members before spring, it will be read much more carefully than it otherwise would be. This meeting was reported in the papers at the time, hence does not need a lengthy review here. The P. E. I. Association has depended to a large extent on speakers from the mainland to address their conventions, but at the last meeting four speakers who were expected were not able to attend, hence the papers and discussions were confined to local men, with the result that a great deal of information was brought out regarding Island conditions. In addition to the President's address, by Rev. A. E. Burke, this report contains papers on "Experience in Island Horticulture," by W. C. White, with a lengthy discussion on "Licensing the Nursery Industry," and a letter from Stone & Wellington, Toronto, in regard to it; a paper on "Strawberries," by A. E. Dewar; an address on "Cranberries," by C. R. Dickie, and a communication from W. T. Macoun, Ottawa, in regard to "Island Conditions, and the Best Varieties of Apples to Plant."

Judging by the discussions which took place, some of the fruit-growers on Prince Edward Island are a little discouraged, owing to the partial failure of the apple crop during the past two seasons, but there is no doubt that, with better culture, spraying and protection, good crops of apples can be produced on Prince Edward Island. Some of the most desirable varieties of apples to plant appear to be Duchess, Wealthy, Gravenstein, Alexander, Wolf River, Ribston, Blenheim, King, Wagener, Ben Davis, Stark, Northern Spy.

This report is published by the Prince Edward Island Department of Agriculture, Charlottetown, P. E. I.

Report of the Ninth Annual Convention of the Western Horticultural Society, Winnipeg, Man., Feb. 14 and 15, 1906. President, D. W. Buchanan, St. Charles, Man.; Secretary, Geo. Batho, Winnipeg, Man.

The report of the annual convention of the Western Horticultural Society contains a large number of interesting papers, and is a good indication of the keen interest taken in horticulture in the Prairie Provinces. The titles of these papers are: "Gardening on a Town Lot," "Potato-growing," "Growing Timber for Profit," "Fruit-growing in Southern Alberta," "Small Fruits on a Prairie Farm," "Efforts of an Amateur Gardener in Southern Alberta," "Apples in Saskatchewan," "Strawberries for Farmers," "Some Pioneering Experiences," "Little Experience in Southern Manitoba," "Do Not Cover Roses," "Planting Trees," "Working Out Horticultural Problems," "Insect Pests Troublesome," "Some Problems."

A very valuable "List of Trees, Shrubs, Fruits, etc., Approved by the Convention," is published in this report. This list includes the kinds it is desirable to plant in Manitoba, Saskatchewan and Alberta. It is divided as follows: Trees Suitable for Forest Plantation and Windbreaks; Evergreens and Conifers; Ornamental Trees and Shrubs; Evergreen Shrubs; Vines and Creepers, and Hardy Fruits. The list is rather long to publish in full here, but, in view of the planting of fruits which is likely to take place this spring, the following list of fruits recommended is given. It is as follows:

#### HARDY FRUITS.

Strawberries.—Bederwood, Senator Dunlap, William Belt, Clyde, Lovett, Enhance.  
Raspberries (red).—Turner, Loudon, Dr. Reider, King, Cuthbert (not entirely hardy).  
Raspberries (black).—Older, Hilborn.  
Raspberries (purple and golden).—Shaffer and Caroline.

Currants (red).—Raby Castle, Stewart's North Star, London Market, Red Dutch.  
Currants (black).—Naples, Lee's Prolific.  
Currants (white).—White Grape.  
Gooseberries.—Houghton, Smith's Improved, Downing.

Grapes.—Beta, for south-eastern Manitoba.  
Plums.—Cheney, Aitkin, Surprise.  
Cherry.—Compass Cherry, for south-eastern Manitoba.

Standard Apples.—Hibernal, Duchess, Patten's Greening, Charlamoff, Anisette, Blushed Calville.  
Crab Apples and Hybrids.—Transcendent, Hy-slop, Whitney No. 20, Virginia, Early Strawberry.  
The following native fruits are recommended for trial: Juneberry (dwarf), Sand Cherry, Buffalo Berry, High-bush Cranberry.

## POTATO - GROWING METHODS.

Editor "The Farmer's Advocate":

Having been asked my method of cutting, planting and growing potatoes by so many, owing to the fact that I was so successful these two years or so back, I have decided to give the particulars as best I can.

## EARLY POTATOES.

Those who like to have early potatoes, should first select a very early variety, such as Early Ohio, or, still earlier, the Snider's Best Early, and select about the size of a pigeon's egg up to a small hen's egg. Place in rows in a box or basket, with seed end up. Cover with sawdust to the depth of two inches or so. Place in a vacant room, well lighted and warm, if no out-house is available. It is not entirely necessary to have a stove in the room. After all danger of frost is over, I plant in rows 30 or 32 inches apart, and 16 to 14 inches in the rows. If in hills, two sets are plenty in a hill, 30 inches apart each way. Be careful in handling and planting. If done well, you will find sprouts from two to three inches long by the time it is safe to set out. When setting out, cover the whole plant or sprout just a little. Keep the ground stirred when it is dry, either with the hoe or cultivator.

Good results have been obtained without the covering of sawdust, but with it you get the roots as well as the little sprout. Keep the sawdust dampened. Every farmer should put up a few for early use. When it comes the first of July, no one should eat old potatoes. Be sure to plant large potatoes (cut) later on to get your seed for the following spring.

## GENERAL CROP.

Now for the general crop, I will touch on the preparing of the ground. If I had not clover to plow down when wanting to plant potatoes, the land should be fall plowed, and the earlier the better, and the oftener it is gone over with the spring-toothed harrow the better. Then draw your manure right on through the winter months, and spread it as you draw it. Long, strawy manure is the best for potatoes. Just as soon as possible, plow in the spring. I approve of deep plowing in the fall, but shallow in the spring for everything. Work with disk harrow at first and roll, then the spring-toothed cultivator at different intervals—the oftener the better. It pays tenfold to work the ground well before planting. Many have a planting machine, but I have not as yet used one. Now have your ground rolled before furrowing out. Put a wheel on the plow, and set to run a depth of about three inches. You start on the one side; come back the first time empty. The horse now follows or walks in the furrow already made, and now you cover coming back, making and covering each time you cross the field, thus having no gores or short rows. Two boys 12 to 14 years of age can easily keep the team going, providing you have the seed handy. I want to impress this on everyone's mind: plant all you cut the same day; that is, don't leave over and cut ahead to dry out. If not planted right away, sprinkle plaster—just a little—on them, but I would rather plant right after cutting. A potato the size of a hen's egg I split fair in two; with a larger one, make three sets, and so on, according to size, always, as far as possible, cutting through the seed end. In planting, we try to drop from 18 to 20 inches in the row, for late ones, the rows from 30 to 32 inches apart.

I found the Old Empire State a good yielder, but subject to rot more than some other kinds. I had the Snider and Empire State side by side; lost half of Empire with rot, while in the Snider I did not find a rotten potato, and they out-yielded the Empire. The Rural New Yorker was a very good yielder here, but not quite so good in quality. In trying a new variety, don't discard till you try two or three years at least, only, of course, on a small scale. Don't do away altogether with any kind till you are sure you have something better, but don't give up trying a new variety on a small scale.

I consider a clover sod a splendid thing for potatoes. Draw long, strawy manure and spread in winter; then, when you are ready to plant, drop in every third furrow, plowing only three or four inches deep, always using a skimmer on plow when turning in the manure. We find it pays to go over the ground, say, twice to keep the weeds down before they are up. When up, we use a sulky cultivator—a two-horse one—which takes two rows at a time. We like long rows, as we don't grow anything on headlands.

We use a two-wheel cart, with tongue in, with a barrel attached, and a power sprayer. In spraying, be sure to get good pure Paris green, and do not put it on too strong, as I have seen many fields hurt and the foliage burnt with the green. We never spray until the bugs demand it. I did spray for the blight once, but could not see any benefit.

Now, in digging, we use the Hoover potato digger. It takes two teams; one man can drive both after the teams get used to it. As we were

not used to it, we were somewhat handicapped last year, but we think this year it will be a success, and likely would have been had we understood how to run it.

We use the little sugar sacks for handling the potatoes (we would not use the boxes); they hold a little over a bushel, and we take the sides of the hay rack off and use the bed-piece on the wagon or truck to draw in. Driving to the cellar window, we run them down a screen; two in the cellar catch them with boxes, each taking his turn. We handled about a thousand bushels in this way last year.

Now for marketing. They are taken to the Hamilton market by the load through the winter months, and mostly sold wholesale. It is no trouble to sell if you give good weight and measure; also the same size all through at the same time. Stay with a good customer if he does what is right with you. Always have everything right, and stick out for your price.

I would like to say again, before closing, that I prefer clover sod before anything else for growing potatoes in.

THOS. BOUSFIELD.  
South Wentworth, Ont.

## GRAFTING WAX—TIME FOR GRAFTING.

Will you please publish recipe for making grafting wax, also the proper time for grafting apple trees?  
A SUBSCRIBER.

These points were very fully covered in the excellent article on top-grafting by L. Woolverton, published in "The Farmer's Advocate" of March 29th, 1906. Mr. Woolverton says: "The top-grafting of an apple or pear tree may be done much later in the spring than stone-fruit trees, for while the latter should be done very early in the spring, the former may be deferred until the last of May or the first of June." Early May is probably the best time for apple grafting.

For preparing grafting wax, the following is one of several recipes: Resin, 4 parts, by weight; bees-wax, 2 parts; tallow, rendered, 1 part. Melt together and pour into a pail of cold water; then grease the hands and pull until it is nearly white.

## POULTRY.

## POULTRY INDUSTRY IN AMERICA AND BRITAIN

A few years ago there was formed in London, Eng., a National Poultry Organization Society, with the Marchioness of Salisbury president, and Mr. Edward Brown, F. L. S., secretary. The object for the promotion of which this society was established are: (a) The organization and development of the poultry industry as a most important branch of British agriculture; (b) the improvement of the quality and the increase of the quantity of eggs, poultry, etc., produced in the United Kingdom; (c) the maintenance of regularity and uniformity of supply; (d) the provision of facilities for rapid transit; and (e), the bringing of the producers and retailers into closer touch, in order that the best available market may be obtained at a minimum cost.

In the summer of 1906 the secretary, Mr. Brown, under instructions from the central committee of the society, made a tour through Canada and the United States for the purpose of studying the poultry industry. He travelled 6,500 miles, visiting, besides a great many cities in the United States, Ottawa, Montreal, Toronto and Guelph in Canada, inspected large packing-houses in cities of both countries, and, at the same time, several of the great cold-storage plants, and interviewed many of the leading traders in poultry.

In September, 1906, Mr. Brown published in book form a report covering his observations, and, in conclusion, indicating how far, in his opinion, the United States and Canadian methods can be adopted by English poulterers. This report was especially reviewed for "The Farmer's Advocate," and a digest published in our last Christmas number, but it may not be amiss to repeat here a few of his more important practical conclusions. Mr. Brown says that the English poulterers cannot hope to entirely supply the British demand, but that their sale of first-quality eggs and chickens is already very great, and steadily increasing; that it is the supply of these that should be the object of British poulterers, and that the cheap trade can be left to far-distant places, whether in Europe or America.

Mr. Brown sums up:

"That the cost of production is less in the United Kingdom than in America.

"That large egg farms appear in some cases to be profitable, when conducted upon business principles, where the capital available is sufficient to provide accommodation for the fowls, with hatching and rearing arrangements for maintaining the stock; where the number of layers kept is sufficiently large to yield an adequate return; and where, in addition to the sale of eggs for market,

a trade can also be secured in eggs for hatching, in stock birds, or in day-old chickens, or in combination with fruit culture.

"That the American experience proves the importance of securing immunity from taint in the soil, either by the adoption of double yards to permanent houses, with use and cultivation of the ground in alternation, or by systematic removal to fresh ground, thus confirming the British practice.

"That, owing to climatic conditions, the portable-house system, so largely used in the United Kingdom, is most suited to farm operations in this country, and should be maintained where poultry are a part of the ordinary stock of the farm.

"That where farmers and others desire either to devote only a part of the land occupied to poultry, making, however, the fowls a leading feature of the work, the colony system, extensively used in the Little Compton district of Rhode Island, should be adopted, taking care to remove the flocks onto fresh ground every year or two years, and, after cropping, not to use again until the manure is exhausted. Under this system, by the erection of wire-netting fences around the entire range, the fox difficulty would be largely overcome, and the repression of poultry-keeping in hunting districts removed, to the increase of returns to farmers; and also, by this plan, large areas of land now uncultivated could be profitably occupied, more especially in connection with small holdings in many parts of the country, to which it is specially suitable.

"That the use of houses with fronts made of wire netting, thus affording sufficient ventilation, is to be recommended, by reason of better laying, of greater vigor, of enhanced fertility and hatchability of the eggs laid, and of stronger chickens from these eggs.

"That natural methods of hatching and rearing are to be preferred for the production of breeding stock, but that incubators and brooders are essential in supplying laying hens and table chickens and ducklings. But that a proper system of ventilation is most important in both incubator rooms and brooder houses. Further, that methods of rearing on a large scale are now being tested which may prove most important, although it is too early to express any opinion thereon.

"That the dry-mash and hopper-feeding systems, as used in America, should be tested by British poultry-keepers.

"That the production of broilers of all grades and roasters is worthy the attention of breeders in suitable districts, keeping in view the finest quality of meat; and that the soaking in ice-water of fowls of all kinds after killing should be carefully tested.

"That American experience confirms our own as to the profitable nature of duck farming as a special business on a large scale.

"That neglect of hygienic principles has led to a widespread outbreak of disease among young turkeys, and, in order to protect British flocks, it is desirable, for the present, to prohibit the importation of live turkeys."

This book, of some 120 pages, thoroughly discusses the various useful points observed, and gives description of houses and processes, illustrated by a large number of excellent cuts. Application may be made for the book to Mr. Edward Brown, F. L. S., Secretary of the National Poultry Organization Society, 12 Hanover Square W., London, England.

## POULTRY INDUSTRY IN ENGLAND FOR 1906.

In addition to the elaborate reports Mr. Brown made of his tour of the United States and Canada during the past year, he has recently reported on the poultry industry in the United Kingdom for the same year. A brief review of it will be both interesting and useful to the poultry trade.

Mr. Brown says that during the past year there have been increased supplies of British poultry, with prices well maintained. There has been a steady demand for the better qualities in centers where heretofore the chickens sold were rather of an inferior order, due to the fact that consumers are beginning to realize that the well-fed bird at an enhanced price is the cheapest. Englishmen have to depend largely on Irish birds for their supply of lean chickens. Experiments have shown that chickens can be raised to the age of twelve weeks at a cost, exclusive of capital and of labor, of nine pence each, leaving a large margin of profit after the product is marketed at the right season of the year.

Mr. Brown advocates co-operative poultry and egg societies at points where, from the commercial industry, or in residential centers, prices were low. Spring prices have been improved by relieving the markets of surplus eggs, by carefully carried out preservation.

The trade and navigation returns for 1906 again show an advance in the imports of eggs, which have now reached upwards of seven million pounds sterling in value, and a further decline in the imports of poultry. The figures are as follows for three years:

	1904.	1905.	1906.
Eggs .....	£6,730,574	£6,812,436	£7,098,137
Poultry.....	1,089,145	905,791	869,117
Totals .....	£7,819,719	£7,718,227	£7,967,254

There has, therefore, been a steady increase in the imports of eggs for the last three years, while there has been a decrease in the import of poultry. The price has steadily increased since 1898, so that a good proportion of the increased value shown in the import figures is due to the increased price of the product.

During the past year decreased supplies are reported from Russia, Denmark, France and Canada. Belgium and Germany have increased their exports. Notwithstanding this, however, England buys 47 per cent. of her poultry imports of eggs from Russia, and 20 per cent. from Denmark; Austria, Italy and France supply only about 8 per cent. each. Canada sends only 1.22 per cent. The price Canada has been getting compares as follows with the prices realized by Russia and Denmark in the years mentioned:

	1904.	1905.	1906.
Russia—Per gt. hd. ...	5s. 9½d.	6s. 4½d.	6s. 6½d.
Denmark—Per gt. hd. ...	8s. 1½d.	8s. 5½d.	8s. 10½d.
Canada—Per gt. hd. ....	8s. 2½d.	8s. 9½d.	9s. 2½d.

The splendid system of marketing eggs in Denmark is highly commended. As compared with the previous year, there was a falling off in the value of poultry imports of England to the amount of 869,000 pounds. According to Mr. Brown, supplies from the United States are likely to increase, to the displacement of Continental supplies. He adds, however, that it must always remain a cold-storage trade, and that home producers need not fear if they pay proper attention to rearing and fattening.

#### A GOOD MONTH'S WORK.

Editor "The Farmer's Advocate":

On looking over the poultry department of "The Farmer's Advocate" of March 14th, I saw an item from "Single Stick" which interested me. I will now give my method of feeding hens. In the morning I feed them a small feed of wheat and oats in chaff out in the barnyard, as my hen pen is not large enough to have a feeding-room for them to scratch in. At noon I give them peelings and scraps from the house, and at four o'clock all they will eat of wheat, oats and peas mixed. We have fed beef scraps to them; also keep fresh water and gravel before them all the time. I have 63 hens, of which 43 are incubator-hatched pullets. From Feb. 17th up to March 16th they laid 62½ doz. eggs. Fifty-one of my hens are Leghorns, the rest are Barred Rocks.

Northumberland Co., Ont.

#### A GOOD LAYING RECORD.

Editor "The Farmer's Advocate":

I have been reading the reports sent in by poultrymen published in "The Farmer's Advocate," and thought my experience might be of interest. I have thirty-six hens, White Leghorns and White Wyandottes, all of which are last summer's chickens, with the exception of about ten, and they have laid one hundred and fifteen dozens and six eggs during the winter months: January 361 eggs, February 337 eggs, March 688 eggs. Our plan for feeding them has been a light feed of peas and oats early in the morning, then a bran and potato mash, with Dr. Hess' Poultry Panacea, about nine o'clock. I consider the "poultry panacea" a good food for both young chicks and laying hens. Also give the hens oyster-shells; they are very fond of them. The mash is followed by barley or oats at noon, and a feed of corn at night. The grain is scattered in a straw litter, and gives them plenty of exercise. I also give them plenty of fresh water. I think the hens are paying well for their feed and care.

Addington Co., Ont.

## THE FARM BULLETIN

### REGISTRATION OF IMPORTED CLYDESDALES.

Editor "The Farmer's Advocate":

At a meeting of the board of directors of the Clydesdale Horse Association of Canada, held in Toronto, April 3rd, 1907, it was decided, after an exhaustive discussion, to make the following amendment of the rules of the association: Moved by Wm. Smith, seconded by Jno. Bright, that the rules of the Clydesdale Horse Association be amended to read:

"Imported Clydesdale stallions or mares, by sire and out of dam, both recorded in the Clydesdale Studbook of Great Britain and Ireland, whose sires and dams are also recorded and bearing registration numbers in such Studbook, shall be accepted for registration in C.S.B. of Canada, and that the amendment shall come in force on the first day of June, 1907. Owners of imported horses or mares should give

notice that this new regulation requires that parents and grandparents of all imported stock be duly recorded and numbered in the Scottish Clydesdale Studbook. We may explain that the difficulty has been that through negligence, very many Scottish breeders fail to register their brood mares, which they keep at home, merely to save the trouble and expense of recording them. The result is that the pedigree is issued for the animal when sold for shipment to Canada or elsewhere, without any number appearing for the dam. Sometimes the dam, granddam, or both show no numbers, while possibly further back numbers may or may not appear. Canadians do not understand this, and often make disparaging remarks on the short pedigree of animals which are really well bred. Sometimes horsemen in this country, not too familiar with this fact, are unable to discriminate between the short pedigree and one of apparently better standing. In either case where the numbers of dams are missing, the pedigree too often compares rather unfavorably in appearance with that of many Canadian-breds now being recorded. It is desirable in the public interest that as much publicity be given to this action as possible, in order to give ample time to owners of short-pedigreed Clydesdale fillies already imported, during the past two or three years, to record them, as a very large number of Clydesdale fillies have been imported and sold throughout Canada, many of which have not yet been recorded. No doubt (except prompt action be taken by owners) under the new regulations many imported animals not now recorded will be ineligible for registration after June 1st, 1907. "A stitch in time may save nine," and "a word to the wise should be sufficient."

J. W. SANGSTER, Sec.-Treas.

### A SCOTTISH BREEZE.

Editor "The Farmer's Advocate":

I hiv been thinkin' for a gey while tae send ye a line or twa on current topics, but never got started till the present moment, and tae tell ye the truth I hav'na got ower muckle time tae spare noo aither. Ye have been haein' quite a time in "The Farmer's Advocate" lately, discussin' wan thing and anither, sich as licensing horses and mongrel dogs, the heicht that trees should be heided at, schule teachers' salaries, and what not, and noo comes the eight oor day problem to trouble some. Sandy Fraser is quite a philosopher in his way, and he kens a guid lot, but he disna ken everything; in fact, he's no' the richt Scotch. He's aither a Heelander or he was born in Canada. Of course it disna depreciate his value ony being born in Canada—it may rather improve it, for o'cht I ken—but onybody can easily see that he didna study oot o' the same kind o' dictionary that Rabbie Burns did. Noo, aboot this bill that is tae be broocht up before Paarliment, tae try and gie men workin' on Government jobs an eight oor day. Some foulk think that gin they get it, a' the men workin' in toons 'ill want their 'ooors cut down the same, and syne the hired men on the farms 'ill follow suit, an' only want tae work eight oors tae. Noo, we a' ken what like it is at present; hoo hard it is tae get a hired man ava, and when we dae get him hoo he'll hardly ever dae a chore efter sax o'clock, and when he fins oot (especially in a busy time, that the fermer canna dae without him), some times get gey, overbearin' and domineerin'.

Noo, tae a' them that's botherin' aboot the hired-man problem, I wad jist like tae say, "dinna worry," it'll no bring a guid man along your gate; jist haud yer wheesht for a wee while, ca' canny and see laigh. This eight oor business is no gaun tae work on the farms. Nae leevin' fermer can afford tae pay a big wage tae a man workin' only eight oors. Baith him and a' his family wad need tae work a' day and hauf o' the nicht tae mak' up sic a man's wages, and that wadna dae; and dinna worry aboot the implements gettin' dear. They're dear enough the noo. The fermers 'ill jist need tae scratch along wi' the auld things they hae, and dae without the hired man. They can seed doon a wee bit mair and let the caufs sook the kye, and dae the best they can till sic times as there is a cheenge. It's a lang lane that his nae turmin' ye ken, and if the fermers coold only haud oot for a year or twa things wad richt themselfs. Gin the young men flocked tae the toons, there wad be mair grub wantit there, and gin the fermers wisna producing sae muckle it wad mair than likely be gettin' dear, and the fermers wad be gettin' guid prices for what they had tae sell. Then the young fellas that was workin' their eight oors wad hae eicht oors tae work in, eicht tae sleep in, and eicht tae fool aroun' in, and what wi' the high price o' leevin' and the extra time they had tae spend their money in, they wadna be hauf sae weel all as if they had steyed on the farms, an' no hauf sae guid men aither. M. B.

Breezy Bray, Grey Co., Ont.

### A GOOD PUBLIC PROPERTY.

The report of the Temiskaming & Northern Ontario Railway for 1906 shows that the gross earnings of the railroad property for 1906 were \$544,018, and the expenses \$362,492, leaving net profits of \$181,526. It is a matter for satisfaction that this road is not only serving so admirably its purpose of opening up the country, but also proving from the very start a not commensurate investment to the Province. It is so far a most encouraging example of the advantage of government ownership of railways.

### ABOUT HORSE-RACING AT ONTARIO FAIRS.

Hon. Nelson Monteith, Minister of Agriculture, introduced into the Ontario Legislature a bill, which has passed its final readings, to amend the Agricultural Societies Act. As most of our readers are aware, the latter was pretty thoroughly overhauled a year ago. The principal new change is an amendment to Section 22 of the above Act, which relates to horse-racing at fairs, and reads as follows:

"22.—(1) It shall not be lawful to carry on any horse-racing other than trials of speed under the control and regulation of the officers of the society during the days appointed for holding any exhibition by any society, at the place of holding the exhibition or within five miles thereof.

"(2) Any person who is guilty of a violation of this section shall be liable, upon summary conviction before a justice of the peace, to a fine not exceeding \$50, or imprisonment in the common gaol of the county for a period not exceeding thirty days.

"(3) In case any person is convicted under this section, the society thus proven to have permitted horse-racing shall be debarred from receiving any portion of the legislative grant in the next ensuing year."

The amendment consists of the addition of these words:

"(4) Prosecution under this section of the Act may be made only upon the information being laid by a person who is a member of the society for the current year, and who also was a member of the society in the previous year."

Freely interpreted, the above quotations mean that horse-racing at fairs is still prohibited by law (except that simple form of it known as "trials of speed"), but henceforth no one will be allowed to take action against a society for racing unless the party laying the information is a member of the society for the current year, and was also a member in the year previous. The change seems certain to render this law prohibiting racing—which has been practically a dead letter anyway—even more completely innocuous, from the pro-racing standpoint, than it was before, for the chances of a member's prosecuting the society are very slight indeed. However, before passing judgment it will be well to consider the Minister's reasons, as summarized below, in order to appreciate the Departmental point of view:

When the Agriculture Bill was up for consideration by the Department last year, the Fairs and Exhibitions Association had it all under consideration in February, 1906. They passed a resolution to cut out this prohibition in horse-racing. The Minister did not see fit to accede to their request, and put it through as it stands in section 22. The matter came up again at the Agricultural Societies' convention this year, and a strong resolution was passed by a very large majority, asking the Minister to leave racing to the option of the directors of the society. They sent a committee to lay their case before the Minister, headed by the new President. After hearing their views, the Minister did not give them much encouragement. Then the proposition was made that as the new Act stood, the directors of any society were continually at the mercy of irresponsible persons. Some of these had threatened, after being excluded from the grounds, that they would get revenge on the directors through section 22 of the Act. The bill recently introduced by the Minister was simply intended to protect the societies from action by such kickers and irresponsibles.

As a rule, the regulation of an agricultural society is as follows: The annual meeting is held in January and a board of directors is elected from among themselves to carry on the work until the next annual meeting, and that board of directors has the whole direction and say in the matter of conducting the exhibition. They may or may not conduct horse-racing, as they see fit; they do not consult anybody else. Board of directors may sometimes introduce horse-racing without consulting or contrary to the general opinion of the members and people of the section. The amendment would ostensibly provide that the directors would carry on horse-racing only if they had the unanimous consent of their members, otherwise they would always be, as now, in danger of being prosecuted.

There is in some quarters a pretty general opinion that the Government should step in and enforce the Act, but this has never been its policy. They did send out detectives to put down gambling, but there are no two opinions in this country whether gambling should be allowed, but there is some difference of opinion as to whether horse-racing should be allowed, so the Department, under both Liberal and Conservative Governments, has simply made the law and left communities to do as they like.

The C. P. R. management has completed arrangements for the acquisition of Sandon dock, one of the finest properties of the kind at Liverpool, for the accommodation of its Atlantic fleet. Here it will be able to concentrate the whole of its fleet and erect whatever structures may be required to meet the expansion of its business. Among other buildings to be erected is a cold-storage plant, costing \$25,000.

Hon. H. R. Emmerson, Minister of Railways, Ottawa, has resigned his portfolio, owing to charges of immorality published in several newspapers, which he will prosecute in order to clear himself. His resignation was accepted by Premier Laurier, pending his appeal to the courts.

MARKETS.

TORONTO.  
LIVE STOCK.

Receipts of live stock at the City and Junction markets last week were not as heavy as was anticipated by many of the traders. At the Junction, on Monday, receipts were 1,758 cattle. Trade was good; prices firmer.

Exporters.—Prices ranged from \$4.90 to \$5.50, the bulk going at \$5 to \$5.40. One load of prime, well-finished sold at \$5.50. Export bulls were slow sale at \$3.75 to \$4.25.

Butchers'.—Picked lots of the best sold at \$4.90 to \$5.25; loads of good at \$4.60 to \$5.00; medium, \$4.35 to \$4.50; common, \$4 to \$4.30; cows, \$3 to \$4.40; canners, \$1.50 to \$2.25.

Feeders.—Few feeders or stockers are being offered, but there is a fairly good demand for those of good weights, ranging from 1,000 to 1,150 lbs. each, at \$4.25 to \$4.60, according to quality.

Milch Cows.—Only a limited number were offered, the quality being medium generally. Prices ranged from \$30 to \$55 each, the bulk selling from \$35 to \$45.

Veal Calves.—A large number of common dairy calves are being marketed. Trade for common quality slow, and prices easier, ranging from \$3 to \$7 per cwt.; but prime new-milk-fed calves were in demand, selling as high as \$7.50 per cwt., but few of the latter class are being offered.

Sheep and Lambs.—Deliveries light; prices firm, with fair demand. Export ewes, \$5 to \$5.50; rams, \$4 to \$4.50 per cwt.; yearling lambs, \$6.50 to \$8 per cwt.; spring lambs are worth from \$5 to \$10 each, the bulk going at about \$7.

Hogs.—Dealers are quoting prices easy at \$6.65 for selects, and \$6.40 for lights and fats. Packers are predicting lower prices, but it will be difficult to get prices down in the face of present light receipts.

Horses.—There has been a good market during the past week for all classes of horses, providing they were young and sound. Several private sales of carriage and saddle horses were reported. The market for drafters and heavy delivery horses, providing they were young, sound and healthy, was brisk at good prices. But there are too many horses that do not come up to this standard that are being brought on the market by farmers and some dealers. This class are slow sale at low prices. Messrs. Burns & Sheppard report prices as follows: Single roadsters, 15 to 16 hands, \$125 to \$160; single cobs and carriage horses, 15 to 16.1 hands, \$140 to \$175; delivery horses, 1,100 to 1,200 lbs., \$150 to \$175; general-purpose and express horses, 1,200 to 1,350 lbs., \$160 to \$180; draft horses, 1,350 to 1,700 lbs., \$150 to \$225; second-hand workers, \$50 to \$100; second-hand drivers, \$40 to \$128.

BREADSTUFFS.

Grain.—Wheat—No. 2 white, 72c.; mixed, No. 2, 71c.; No. 2 red, 71c. to 72c.; Manitoba, No. 1 Hard, 90c. bid at North Bay.

Buckwheat.—57c. to 58c., at outside points, with 56c. bid at Toronto.

Corn.—No. 3 American Yellow, 52c., at Toronto.

Oats.—No. 2 white, 38c. to 39c.

Rye.—No. 2, 63c.

Barley.—No. 2, 52c. bid; No. 3X, 51c.; No. 3, 50c. bid.

Peas.—78c. to 80c.

Bran.—\$22.

Shorts.—\$23.

Flour.—Manitoba patent, \$3.85, track, at Toronto; Ontario, 60 per cent. patents, \$2.67 bid for export; Manitoba patent, special brands, \$4.50; strong bakers', \$4.

COUNTRY PRODUCE.

Butter.—Receipts moderate; prices firm. Creamery rolls, 28c. to 30c.; creamery boxes, 26c. to 27c.; dairy pound rolls, 25c. to 26c.; tubs, 22c. to 23c.; bakers' tub, 19c. to 20c.

Eggs.—Receipts were heavy, and prices lower, at 17c.

Cheese.—Market firm, but steady, at 14c. for large; twins, 14c.

The Sovereign Bank of Canada

RANDOLPH MACDONALD, President. A. A. ALLAN, Vice-President.  
D. M. STEWART, General-Manager.

Capital and Surplus over - \$ 5,000,000  
Assets over - - - - - 25,000,000

Deposits of \$1.00 and upwards received. Interest paid 4 times a year

78 Branches Throughout Canada.

Honey.—Market strong, with light offerings. Strained, 12c.; combs, \$2.60 to \$2.75 per doz.

Evaporated Apples.—9c.  
Potatoes.—Receipts liberal. Prices easier, at 90c. to 95c. per bag, by the car lot, on track, at Toronto, for New Brunswick Delawares.

Poultry.—Supplies light; prices firmer; turkeys, 16c. to 22c.; chickens, 15c. to 17c.; hens, 12c. to 14c. per lb.

Hay.—Baled, per car, on track, at Toronto, No. 1 timothy, \$13; No. 2, \$11 to \$12 per ton.

Straw.—Baled—Car lots, \$6.50 to \$7, on track, at Toronto.

Beans.—Car lots, in bags, at Toronto. Hand-picked, \$1.25 to \$1.30; primes, \$1.15 to \$1.20. Small lots sell at \$1.50 to \$1.60 for hand-picked, and \$1.35 to \$1.40 for primes, in bags.

SEEDS.

Toronto seedsmen are quoting the following prices for re-cleaned seed to farmers for spring seeding: Red clover, \$14.50 to \$16.50 per cwt.; alsike, \$10.50 to \$13 per cwt.; timothy seed, \$5 to \$7 per cwt.

HIDES AND TALLOW.

Prices are quoted as follows by E. T. Carter & Co., 85 East Front St., Toronto: Inspected hides, No. 1 cows and steers, 10c.; inspected hides, No. 2 cows and steers, 9c.; country hides, cured, 9c.; country hides, green, 8c.; calf skins, No. 1 city, 13c.; calf skins, No. 1 country, 11c.; sheep skins, each, \$1.55 to \$1.65; horse hides, \$3.50 to \$3.75; horse hair, No. 1, per lb., 30c. to 32c.; tallow, per lb., 5c. to 6c.

MONTREAL.

Live Stock.—The English cattle markets were quite firm last week, and demand for good stock was fairly active. The export trade shows very little improvement. Shipments of cattle from St. John, during March, were 5,157, those from Portland being 5,014. Deliveries on the local market were of fair volume. There was some demand for export, and several carloads were taken at from 5c. to 5c., this trade being due to better advices from abroad, no doubt, and to the outlook for still better prices. Butchers' were buying freely and firm prices were being paid. Choicest sold at 5c. to 5c. per lb.; fine, 4c. to 5c.; good, 4c. to 4c.; medium, 3c. to 4c., and common, 2c. to 3c. Calves were offering in larger numbers, and prices were steady, the poorer qualities selling at \$1.50 to \$5 each, and the better up to \$8. Spring lambs were scarce, but some were selling at \$5 to \$7, while sheep ranged from 5c. to 6c. per lb. Milch cows brought from \$25 to \$45 each, not being in very good demand, owing, possibly, to the poor quality. The market for hogs showed considerable strength. The offerings were none too liberal, and demand was good, prices ranging from \$7.50 to \$7.60 per 100 lbs., weighed off cars. This is for select lots, others being lower in proportion.

Horses.—Dealers report an excellent trade. A carload of fine cartage horses sold this week, and one last week, by one dealer, and the demand is by no means satisfied. The animals are wanted for cartage purposes, transport companies being now in the midst of arrangements for the coming season's business. Prices hold steady as follows: Heavy-draft animals, weighing 1,500 to 1,700 lbs. each, \$250 to \$300; light-draft, 1,400 to 1,500 lbs., \$200 to \$250 each; express horses, \$175 to \$225; common drivers, \$50 to \$100, and choice driving and saddle animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—There is an excellent demand for dressed hogs, although other meats are probably more in

demand, in proportion. Select, fresh-killed, abattoir-dressed hogs range around 10c. per lb. There is a splendid demand for bacon, owing probably to the presence in the market of large quantities of choice, fresh eggs, at a very reasonable price. Prices are steady at 15c. to 16c. per lb. for choice smoked bacon, and 13c. to 14c. for green bacon and under-grade smoked. Hams are in good demand also, at 13c. to 14c. per lb. for extra large, weighing over 25 lbs.; 14c. to 15c. for medium, 18 to 25 lbs.; 14c. to 15c. for 12- to 18-lb. weights, and 15c. to 16c. for smaller. There is very little demand for barrelled pork. Prices hold steady, at \$21.50 to \$25 per barrel, according to quality.

Eggs.—The market for eggs is fairly steady at present, a slump in prices having just occurred. The tone began to weaken just before the Easter holidays, owing to unexpectedly large supplies. Demand has been, and still is very active. A very large quantity of eggs changed hands at Easter, but the supplies poured in in still larger volume, so that from about 28c. to 24c., prices had to fall to 17c. and 18c. before the consumption counterbalanced them. It is claimed that dealers are now paying 15c. in the country, and that, shortly, this will be reduced to 14c. It is likely that pickling will begin when the market gets as low as 15c. here.

Potatoes.—The market for potatoes is higher than a week ago. Deliveries have not been very active of late, and one or two merchants have absorbed everything offered. It would seem that 70c. is the usual price paid shippers, on track, for white stock, per 90 lbs., although some range up to 75c. Mixed red and white are quoted at a cost of 65c., on track. These would be resold at an advance of 3c., on track, and at an advance of 10c. to 15c. per 90 lbs., bagged and delivered into store.

Butter.—The situation in butter has entirely changed of late, according to all accounts. Prices for new-milk creamery have declined some cents, and held stock is accordingly easier. One dealer claims that he is ready to sell new-milk creamery at 27c., and that the choicest on the market would not bring more than 28c., if as much. On the other hand, held stock is bringing only 25c. to 26c., for the very best, while the less choice qualities sell as low as 23c. to 24c. There is an idea that the new-milk goods will be coming in freely by the end of this week. Stocks of held butter are now very light, and it would not seem that any trouble will be experienced in altogether disposing of it.

Cheese.—So far as the market for old stock is concerned, there is very little for sale, and very little demand for it. However, it seems to be changing hands slowly at 13c. to 14c., according to quality. As to feeders, offers of stock have been made here at 13c., and it is held that purchases are being made in the country at 12c. per lb.

Maple Syrup.—The weather has not been favorable for the run of sap this season, and correspondents, until a few days ago, reported a failure in the country. However, for some days past, an improvement has been observed, and at the moment it looks as though the run of sap must be pretty free. Meantime, the market here would seem to not be specially strong. Some very high prices have been quoted, but it would seem that sales of syrup have been made at 6c. per lb., or 85c. to 90c. per gal., while sugar has brought 10c. per gallon. One firm reported prices 2c. more, in each case, than the above, but the report was not credited.

Hay.—The market is easier in the United States, and business can only be done at a reduction in price. The same may be said of England. There are no shipments to London at present. It is said that stock is now awaiting ship-

ment in St. John and Portland. Prices are \$13.50 to \$14 per ton for No. 1 timothy, \$12 to \$12.50 for No. 2, and \$11 to \$11.50 for clover.

Seeds.—Practically all the seed has now been received from the country, and merchants are now busy shipping out again. There is an unusually good demand for all sorts of hayseed this season. The meadows still show the effects of the killing last year, and the sowing will be extensive. Dealers quote timothy at \$4.50 to \$7; alsike, \$15 to \$18; red clover, \$15.50 to \$17.50, and white, \$14 to \$20, per 100 lbs., f. o. b. Montreal.

Hides.—Dealers are commencing to buy spring lamb skins, and are offering 10c. each for them. Sheep skins, however, are still \$1 each. As for hides, prices are steady. Demand is poor, and the supplies are not overly free. Beef hides are 10c., 11c. and 12c. per lb., for Nos. 3, 2 and 1, and dealers are reselling to tanners at an advance of 1c. per lb. Calf skins are still 18c. per lb. for No. 2, and 15c. for No. 1, and horse hides, \$2 each for No. 2, and \$2.50 for No. 1. Tallow is 1c. to 4c. per lb. for rough, and 6c. to 6c. for refined.

BUFFALO.

Cattle.—Prime steers, \$5.60 to \$6.10. Veals.—\$4.50 to \$9.25.

Hogs.—Mixed and Yorkers, \$7.20 to \$7.25; pigs, \$7.15; roughs, \$6 to \$6.35; stags, \$4.75 to \$5.25.

Sheep and Lambs.—Sheep steady; lambs, 25c. lower; lambs, \$5 to \$6.75; a few, \$8.90; yearlings, \$8.75 to \$9; wethers, \$6.25 to \$6.75; ewes, \$4.75 to \$6.25; sheep, mixed, \$3 to \$6.25.

CHICAGO.

Cattle.—Common to best steers, \$4.40 to \$6.70; cows, \$3.50 to \$5; heifers, \$3.75 to \$8.25; bulk, \$3.30 to \$4.40; calves, \$2.50 to \$7; stockers and feeders, \$2.50 to \$5.10.

Hogs.—Choice heavy shipping, \$6.85 to \$6.95; light butchers, \$6.85 to \$6.90; light mixed, \$6.75 to \$6.82; choice light, \$6.77 to \$6.85; packing, \$6.25 to \$6.32; pigs, \$6.50 to \$6.65; bulk of sales, \$6.75 to \$6.85.

Sheep and Lambs.—Market strong; sheep, \$4 to \$6.75; yearlings, \$4.25 to \$7.30; lambs, \$6.25 to \$6.25.

BRITISH CATTLE MARKET.

London.—Liverpool and London cables are firmer at 11c. to 12c. per lb. dressed weight; refrigerator beef is quoted at 8c. to 8c. per lb.

QUESTIONS AND ANSWERS.  
Miscellaneous.

PRUNING EVERGREENS.

A subscriber, Grey Co., Ont., asks when to prune evergreens, cedar, spruce, balsam, etc.

Ans.—Evergreens stand pruning remarkably well, and the work can be done at any time from early spring till the middle of June. If it is desired to keep them to a certain size, as in a hedge, for instance, it is better to delay pruning till quite late, as the growth for the season will then mostly have been made, and they will make little advance for the remainder of the season. Some prune twice—early and late.

TICKS AND LICE ON SHEEP.

My sheep have some ticks on them and some red lice, a little larger than what are on cattle. The sheep are pulling their wool out and wasting it. What can I do to rid them of such pests? Would it do to shear the sheep early in April.

H. B.  
Ans.—Yearling sheep, in good condition, may safely be shorn in mild weather in April, if warmly housed for a few days after; but breeding ewes are not generally in good enough condition to shear until warmer weather comes. The commercial sheep dips, poured from a coffee-pot, the wool being opened in streaks along the back, neck and sides, are sure death to ticks, but not always effective in destroying small lice. A little arsenic should be added to the dip for their destruction. Tobacco juice will also kill them, or insect powder (pyrethrum) sifted from a dredger into openings in the wool, kills them.



## Life, Literature and Education.

[Contributions on all subjects of popular interest, whether relating to the Literary Society discussions or not, are always welcome in this Department.]

### A GREAT ENTERPRISE.

#### RECLAIMING WASTE LANDS.

The people of the United States of America have been noted for that most telling attribute of any individual or any nation—push. The signs-manual of this quality have been heretofore seen in rapidity of settlement, the building of great cities, and promotion of trade. Of late years, however, ventures have been made into other fields—fields requiring not only push, but skill and courage. The United States has, in fact, launched forth as one of the foremost promoters of great engineering enterprises in the world. The conception of the Panama Canal was not a new one, yet the United States it was that finally took the matter in hand. The task is truly herculean, and numberless unexpected difficulties and setbacks have presented themselves, yet no one dreams for an instant that the project will ever be abandoned, as by the French twenty years ago.

Some of the latest tasks which the United States has taken upon herself have been induced by the necessity of finding more room for the people. With immigrants flocking to her doors, and a surplus of her own population lopping over into Canada, with no "easy" new area to be opened up, it was necessary not to find but to make room. Thousands of square miles of land—in short, a total area two-fifths as large as the whole United States—lay barren and arid, a vast system of deserts, inhabited only by the lizard, and broken only by bluffs of spiny cactus or hummocks of coarse grass, which not even the wild animals along the borders could eat. To convert this area into smiling, fertile grain and fruit fields and dot it with homesteads became, not only a dream of the Government, but a working reality. A Reclamation Service, composed of shrewd, capable men, was established to see to the carrying out of the work. The project was almost terrific, but it was also dazzling, and the money to be expended was sure—\$1,500,000,000. The figures were staggering, but, with success, the profits would be clear; the reclaimed land would be worth \$2,500,000,000, and would supply 3,000,000 people with homes. This was all calculated out beforehand. What success the Service is having, may be judged from the fact that, although only organized four years ago, 280,000 acres of desert land have already been reclaimed.

According to a writer in Harper's who has summarized the accounts of the work, its prosecution "has involved some of the most unprecedented and spectacular engineering feats of modern times." For instance, in one spot, the Uncompahgre Valley, in Colorado, there lies 150,000 acres of land—land so rich that, with a

proper supply of water, a five-acre homestead would support an ordinary family, but utterly useless for want of that supply. Some few miles away runs a river, but heretofore it has been separated from this area by a wall of rock 2,000 feet high and six miles thick. The river, at the only available point, runs through a canyon, so deep and dangerous that even the Indians would not attempt its descent. No man, they said, had ever attempted the feat and come out alive. Nevertheless, two surveyors, M. A. Fellows and W. W. Torrence, volunteered the inspection. Carrying their necessary surveying instruments with them, they were lowered by ropes 2,000 feet down to the dizzy depths. For several days nothing was heard of them, and it was feared that they had perished. Then they emerged, bruised, hungry. Their raft had been wrecked, their provisions lost; for two days they had had nothing to eat—but they had discovered that the "Gunnison" tunnel was practicable.

The next step, then, was to set about excavating this tunnel—this great aqueduct that was to carry the bloom of Eden to the arid wastes over the wall. Topographers, "dangling at the end of half-mile lengths of rope," went over every part of the canyon, and maps were drawn. Then, somehow, engineers managed to cut a wagon-road out of the sheer rock, machinery was hauled in, a power-plant was established, and the work of excavation began. There was much danger involved, chiefly by reason of noxious gases and subterranean springs, but giant pumps were set up to drain these away. Once a portion of the roof fell in, cutting off nineteen men. When reached, they were found up to their armpits in rapidly-rising water. . . . Since its inception, the work has gone on night and day. Already the aqueduct has been cut more than half of the six miles through the rock. When dug, its capacity will be 13,000 cubic feet of water per second. It will be cement-lined throughout, and will be completed in 1908, at a total cost of \$2,000,000.

But this is not the only present work of the Reclamation Service. At Salt River, in Arizona, a dam of solid masonry 270 feet high is being built. When completed, it will create a lake 25 miles long and 200 feet deep, from which 200,000 acres of now arid land will be irrigated. This project will cost \$5,650,000.

Again, in Wyoming, another famous dam, the Shoshone, is being erected. It will be 310 feet in height, and will convert a narrow, granite canyon into a lake covering 5,000 acres. The total cost will be \$9,250,000, but 310,000 acres of land will be reclaimed.

At other points a different problem presents itself, as at a portion of the Colorado River, where large areas of land are rendered practically useless by reason of the annual overflow of the river. Here it is necessary to confine the water to its bed, and immense levees are being constructed at one point a dam weighing 600,000 tons, which, in default of bed rock, must needs rest on a foundation of sand. . . . And so the great work goes on. Verily one may well wonder what engineering skill

may not accomplish within the course of the next century—nay, within the course of the next decade.

### THE "ADVICE" MICROBE.

In going over the majority of modern periodicals, the question might well arise as to whether a microbe for advising has not permeated all the editorial dens and general scribblers' dens in the universe. There is nothing upon which those smitten with the plague cannot advise you, with a sang-froid, too, that would almost convince you—if you did not stop to think a little—by reason of its very positiveness. "How to retain the affection of your husband or wife, and what to do if you have lost it," "How to meet trouble," "How to train children," "How to be popular," "How to grow rich"—verily there is no end of the "how to's" that these writers pour upon you—these obscure writers, of whom you know nothing, and who, for all you know, may be preaching what they do not practice and have never practiced. Have you ever stopped to think of it? It is not ordinarily a Browning and his wife who are most likely to tell you "how to be happy though married," nor a Job who instructs you how to bear up in the dark days; nor a Pestalozzi who cries loudest as to the training of children; nor a Dolly Madison who gently points the way to popularity; nor a John D. Rockefeller who painstakingly delineates the steps to wealth which you follow with such amazing interest—but an M. Wallingworth Tiddlywinks, from X. Y. Z., or a Genevieve Kathryn Boggs, from "The Pines," Boggstown.

Occasionally M. Wallingworth Tiddlywinks, or Genevieve Kathryn Boggs, says something good, some good old truth which bears repeating, or which finds an answering echo away down somewhere in your inner consciousness, but the point is this, that (and here, are we advising, too?) it is not wise to pin one's faith unlimitedly to everything one sees in print. There is a tendency to do that nowadays. From being a devil's machine, as in the time of good old Dr. Faust, the printing press has come to be something of an iron god. When it speaks, it is too often as though an oracle had spoken, and men and women swallow its utterances whole, quite forgetting that behind it all, and putting the words into its iron lips, are just men and women, not infrequently very pigmy men and women, too, who have their problems, just as ordinary people have, and the same inability to solve them to their own upbuilding and unadulterated satisfaction.

In matters of pure instruction, matters that have been hammered out by years of scientific delving and experiment, the press may, it is true, speak to you with authority. It may tell you—by simply narrating the experience of master minds and hands—how to make two blades of grass grow where but one grew before, or "how to make three ears of corn grow instead of two burdocks and a jimson weed"; it may tell you, following the same line, how to build better and more sanitary houses, how to improve your stock, how to pre-

serve your health, how to cook or to dress hygienically, or how to decorate according to the most approved rules of the artistic world; but when it comes to those more evanescent things, those emotional and psychological problems which beset us all, can it truly say "yea, yea," "nay, nay," to your undoubted edification? We are all as different as posies in a garden. What may be food for you may be poison for me, or may simply roll away from me "like water from a duck's back." No one can tell you how to make your wife love you unless there is in you those characteristics which demand her respect and her love. Cultivate them? Ye-es, possibly you may, but a change of nature must do it; shallow cultivation on top is likely to add but a few more spots to the leopard's hide. Most people see through pretence, through any system of action entered upon with a cold eye to "effect." What you really are, not what varnish you manage to daub on the surface, counts. . . . Again, how can anyone tell you what to do in time of trouble? How can anyone know the depth of your grief, the strength or weakness of your faith, the things that appeal to you? Possibly old Thomas Carlyle came as near as anyone to the remedy for the majority of us when he preached the gospel of work, work, work—religious work, if you are built that way, or good honest ditch-digging (at any sort of ditch), if you are not. Even hand labor, "if it be true," as the crusty old philosopher judged—and truly—is "sacred," and in time of dire mental need its undoubted effect, as one of our poets has remarked, may be to "deaden," if not to eradicate, soul anguish:

"The mere mechanic exercise,  
Like dull narcotics numbing pain."

Numbing at such times is worth while, even as are anaesthetics upon occasion. . . . As a last example, how can anyone, especially someone a thousand miles away, possibly tell you how to make angels of your children? How can she possibly know the fits of impishness, the erratic and altogether incomprehensible and unaccountable moods and impulses which seize those little cherubs of yours, nor—bless them!—the heights of innocence and love which sometimes seems to land them at Heaven's own door? Your children are individual; no two of them are alike; nor can a cut-and-dried, hard-and-fast line be laid down for the management of all the children in the universe. You must study your little ones, and treat each one accordingly; and then, ninety-nine chances out of a hundred, that you haven't been all at sea, and that the little elves haven't hoodwinked you and turned out the very opposite of what you expected—better probably, or, just possibly, worse.

At the end of it all, the matter resolves itself pretty much into this, that we are individuals—just think what that word means, will you?—and that we must think and act as individuals—stand on our own feet—and, in most matters, work out our own salvation. It is well that this is so. Heaven help the world if everyone in it were modelled precisely after the plans of the M. Walling-

worth Tiddlywinkses and the Genevieve Kathryn Boggsses! What a lone, waste desert of monotony, or, possibly, what a hideous chaos of odds and ends shrieking at each other it would be!

After all, we make our own ideals. We cannot always see things as others see them, nor accept their ideals as ours. Where we do "accept" them, it is usually because, although perhaps subconsciously, they were already ours, worked out after many years, and with much travail. When the "other fellow" puts the product of similar years and experiences, and, possibly, temperament, into words, we immediately say, "That's good! I agree with that!" and take him to our bosoms. He has not, probably, given us a new thought; he has simply formulated and exposed a bit of the common nature between us, this thing that can make us kin. Still, if this new friend is true to himself and to us, he will say, "Do not do as I say. Be yourself, your best self. Work out your own salvation." Only by trying, aspiring, thinking—above all things, thinking and balancing for true weights and measures of things—are the "burdocks and jimson weeds" of the soul and the intellect eliminated, and the good corn made to grow.

We do not say, "Do not read the Tiddlywinkses and Boggsses articles." At all events, they are amusing, and occasionally they may reiterate the great thought, or even formulate it. We would only repeat again, do not pin your faith to them, nor to the words of any man. Even the Titans

of the thought-world have made mistakes. . . . And for another reason the periodicals—even the psychological elements of them—are worth reading. Occasionally a Titan speaks therein, and when he speaks you will know him, even if his name is Tiddlywinks.

COUREUR-DU-BOIS.

A BELATED ESSAY ON "THE IDEAL FARM HOME."

Home is the same everywhere; that is, the real home. The home is the soul, the home-feeling within a man himself, which makes home just as dear to the poor man as to the rich man.

Since this is true, it follows that it is not so much the estate and surroundings, or the possessions that a man has, that constitutes idealism, so far as life on the farm is concerned, but rather those qualities and capabilities in the man which will make his life, wherever his lot may be cast, an ideal one—ideal not so far as the farm that he lives on is concerned, but from the point of view of the home.

Not every man, it may be, could have an "ideal farm," but every man who is true enough can have, if he so desires, an ideal farm home. Constant hearts, broadened sympathies, the faithful, true ambitions of chastened natures are needed everywhere. Where such hearts are, home is, too; and where such, as a matter of choice, prefer farming as a calling, all the conditions of ideal-

ism, so far as home beauty and home itself are concerned, must be well-nigh realized.

The conditions which make home ideal must, I think, vary much with the disposition, tastes and ambitions of the man; but every man who intends to spend his life on the farm ought, it seems to me, whether conscious of the fact or not, to be an ardent admirer of nature. The man who doesn't know that sunbeams smile, or brooklets make music, or that the twilight grows so quiet and tender at times with the deep, longing lovelight of eternity, will never do for a farmer. He might be successful enough in the business department of the farm, but as a real farmer and a builder of home, he will hardly do. He should go to school to nature a while, until she sets him to studying the "poetry" of the farm, and until he learns that not from a mercenary standpoint alone the farm and home have a call for him.

And then, again, he who makes his home on the farm, must have and must cultivate a taste for its business life. The man who is ashamed of any department of the work of the farm had better choose another calling. Mightier loves than those of false pride and craven ambition are calling the farmer on to all that he ought to be to-day. For the sake of the home that he loves, the aspirations he holds dear, let him toil on into the future opening wide before him, nor ever be ashamed.

And, in conclusion, the man of the farm and the home must be one who

lives not for time alone, but also for eternity. The Heaven home will be better than the best earthly home can be. I think the farmer, as well as every other man, should know that this is true. Then, when the earth world smiles upon him, he will not be unhappy; where business leads him he cannot be sordid; when Home with threefold voice calls him for time and for eternity, he will answer. For a man of business, a child of nature, a husbandman for Him who "feedeth the cattle on a thousand hills," is he who builds for himself to-day an "Ideal Farm Home." W. B. FALLIS.

Perth Co., Ont.

"Take nobody's opinion for granted; try all things; hold fast to that which is good. In this way the opinions of others will help you by their suggestions, elucidations and corrections; otherwise they will be to you but as words to a parrot."—[Henry George.

"Read not to contradict and confute, nor believe and take for granted, but to weigh and consider."—[Bacon.

Possess your mind of facts, both scientific and commonplace. Acquaint yourself, also, with other people's point of view; but let all reading, all conversation, all observation, all thought, go to the formation of an intelligent, capable individual character of your own. Thus inspired, fortified and equipped, work out life's problems for yourself.

The Quiet Hour.

A PURE OFFERING.

Take heed that ye do not your righteousness before men, to be seen of them: else ye have no reward with your Father which is in heaven.—St. Matt. vi.:1 (R. V.).

"I would my gift were worthier!" sighed the Greek,

As on he goaded to the temple-door His spotted bullock. "Ever of our store

Doth Zeus require the best; and fat and sleek

The ox I vowed to him (no brindled streak,

No fleck of dun) when through the breaker's roar

He bore me safe, that day, to Naxos' shore;

And now, my gratitude, how seeming weak!

But here be chalk-pits. What if I should white

The blotches, hiding all unfitness so?

The victim in the people's eyes would show

Better therefore;—the sacrificial rite

Be quicker granted at thus fair a sight, And the great Zeus himself might never know."

We have a God who knows. And yet we dare

On His consuming altar-coals to lay (Driven by the prick of confidence to obey)

The whited sacrifice, the hollow prayer, In place of what we vowed, in our despair,

Of best and holiest;—glad no mortal may Pierce through the cheat, and hoping half to stay

That Eye before whose search all souls are bare!

Nay, rather;—let us bring the victim-heart,

Defiled, unworthy, blemished though it be,

And fling it on the flame, entreating,— "See,

I blush to know how vile in every part Is this my gift, through sin's delusive art,

Yet 'tis the best that I can offer Thee!" —Margaret J. Preston.

The great Sermon on the Mount is severity itself in its stern probing to the root of actions which on the surface appear to be quite admirable. We are apt

to speak as though the requirements of the Law were stern and hard, while the Gospel commands were gentle and mild; but in reality the obedience which Christ requires is far greater than that of the Law of Moses. The Good Physician looks below the outside appearance, and cuts ruthlessly away the covering which hides a festering wound. A man may be honest in his business and moral in his life, he may go regularly to church and give liberally to the support of many charities, and feel quite satisfied that he is a righteous man; and yet he may utterly fail to pass the searching tests of the Sermon on the Mount. The scribes and Pharisees were religious men, respected by their neighbors, and quite satisfied with their spiritual condition, and yet our Lord says to His disciples: "Except your righteousness shall exceed the righteousness of the scribes and Pharisees, ye shall in no case enter into the kingdom of heaven."

It is so easy to deceive one's self. It is so pleasant to feel that one's actions are approved by others, and self-esteem is apt to increase rapidly if we look at ourselves from the world's point of view—for the world's ideal is not a very high one. But when we view our actions in the white light of God's pure requirements, they look very poor, and instead of self-approval we are forced low on our knees with the publican's cry: "God be merciful to me a sinner."

How many gifts are presented at God's altar which He cannot accept. There are meaningless prayers, coming only from the lips; there are outward signs of reverence which may be merely formal acts with no corresponding lowliness of soul. Then there are the good deeds which would not be done if only God knew about them, the righteousness that is like a theatre performance—done "before men to be seen of them"—and which fails to win the lasting reward of our heavenly Father's approval. There is the money that is contributed in church with the underlying feeling, too indefinite to be called a thought, that others will see how liberally we give or how small our offering is. How can God accept our money if we do not think of Him at all, nor care that it should do real good to our brothers and sisters, if all we are thinking and caring about is the good opinion of our friends and acquaintances? Then there is the subscription paper for some charity. Perhaps we ask, "How much are people giving?" Perhaps a large sum is put down with the pleased thought that such unusual generosity will be known to many, or a small sum is given grudgingly

and unwillingly, not from love to God or man, but only for fear of being thought stingy. Can God accept such a blemished offering? No plausible outside appearance can hide the blotches from His sight. Is such a sacrifice offered to Him at all? Is it not rather done before men to be seen of them? Then there is the surface "charity" (falsely so called) which gives money to a beggar to get rid of his importunity—regardless of the harm the money may do him—or which works for a charitable association just because it is the correct thing to do.

But even righteousness, which is not done to be seen of men may fail to be a pure offering. The taint of sin creeps in through an unguarded opening only too easily. A bargaining spirit may destroy the beauty of righteous acts which are not done for display. This is shown in St. Peter's question, "Behold, we have forsaken all, and followed Thee: what shall we have therefore." Our Lord answered that businesslike question with the parable of the laborers in the vineyard. Those laborers who began work early in the day, bargained with their master first, and received exactly the hire they had demanded for their services. Those who came later made no bargain, but left the matter of their reward entirely in the hands of the householder, and lost nothing but rather gained by their confidence in his generosity. There was a Jewish saying which brought out strongly this bargaining spirit: "If you afford alms out of your purse, God will keep you from all damage and harm." How gently our Lord warns us against trying to buy God's favor, telling us that we are not working for a hard master who must be propitiated with gifts, but for a Father who only cares for our gifts if they are an evidence of love. What need is there for children to bargain with their heavenly Father who knows what things we have need of before we ask Him? The Father who seeth the secret righteousness which is the pure fruit of love, will indeed "reward it openly,"—reward it by bringing out ever more and more perfectly the likeness of Himself in the child, and at the same time adding to him all things that are really for his good and happiness.

But how deep the probe goes, how searching is the intense light which leaves no corner of the heart unexplored! The actions which appear beautiful outwardly must not only be clear from all ostentatious display and from the bargaining spirit which seeks to sell gifts for an equivalent, they must

also provoke no self-applause. "When thou doest alms," says the Holy Master, "let not thy left hand know what thy right hand doeth." Our offering is no longer pure if, like the Pharisee in the parable, we look admiringly at our own righteousness. It is indeed a difficult thing to keep one's motives perfectly holy. It might be less difficult if the "righteousness" could be entirely hidden from public view, but that also is forbidden. Our Lord says to His disciples that they have been set as lights to enlighten the darkness of the earth, and that their light must not be hidden. "Let your light so shine before men," He says, "that they may see your good works." The good actions must not be altogether hidden from sight, but the motive which prompts them must be unceasingly guarded. Christians are required to let the world see plainly that the power of God is working through them: but this must be done that men may glorify their Father which is in heaven, not in order to win praise and admiration for themselves.

Under this severe yet tender scrutiny how poor and unworthy our best offerings look, "all our righteousnesses are as filthy rags," quite unfit to lay on the altar of our Most Holy God. How then can the promise, which is also a command, be fulfilled: "In every place incense shall be offered unto My Name, and a pure offering?"

One Offering of a pure and stainless Righteousness we may present to God, the Sacrifice once offered on the altar of the Cross. That Offering alone is perfectly pure and undefiled, and as we gaze more and more on the spotless beauty of the one perfect human Life we are inspired to purify ourselves more and more so that we may dare to offer and present our souls and bodies to be a reasonable, holy and living sacrifice, acceptable unto the Lord because purified through union with the pure Offering of Christ's Body.

"And now, O Father, mindful of the love That bought us, once for all, on Calvary's Tree, And having with us Him that pleads above, We here present, we here spread forth to Thee That only Offering perfect in Thine eyes, The one true, pure, immortal Sacrifice.

"Look, Father, look on His anointed Face,

And only look on us as found in Him; Look not on our misusings of Thy grace, Our prayer so languid, and our faith so dim; For lo! between our sins and their reward We set the Passion of Thy SON our LORD."

HOPE.

THE SUMMER IS NEARLY HERE.

And I want to remind you about the Fresh Air Mission in Toronto, which has received so much help from our readers. A few days ago the following letter reached me:

"My dear Hope,—We have had our first committee meeting in connection with our Fresh Air Work. I wish you could have been with us; we all look on you as a very active member of our little band of workers. Mr. Gordon asked me to write and ask you if you will be kind enough to make occasional mention

of the work in your columns—to start the people thinking of us. And, when our report is printed, if you will use it as you have other years, I am sure it will be followed by the usual good results.

"We sent children to 73 homes last year, received through their reading 'The Farmer's Advocate,' and beside these there were 13 offered which were too far away to send children—in Quebec, Manitoba and even Alberta.

"The money we received from your readers amounted to \$70.80, so you can see how we were helped, both by homes and funds. We think the number of homes and amount of money was really larger, for many wrote and did not say where they had heard of us. The numbers I have given you represent all who mentioned your paper.

"We sent out 450 children last year—the largest number ever sent in one year.

Yours very sincerely,

ESTHER HOW.

506 Church St., Toronto."

What do you think of that, my friends! About one-third of the children sent from the hot city to the country for a two weeks' vacation went to homes offered by our readers. For two are sent together in every instance. And then a great many others must have been sent with money contributed by you. You see, we have such a lot of readers that a few cents from each makes a very large sum, so it is well worth while helping, even if you only send 10 cents apiece. For a long time the children on the streets near me have been looking forward to the possibility of going to the country for a vacation. Scarcely a day passes without my hearing the question: "Teacher, do you think we can go to the country this year." That is the question asked by the children who have never yet had the chance. Those who went last year are taking it for granted that they can go again, and they invariably want to go to the same place. Which looks as though they found a kindly welcome in each home opened to

them. Sometimes I am asked: "Teacher, did you ever see a live pig? I never did." Many of the little ones have never seen a berry or an apple growing—I mean the children in the tenement houses around me. Probably the Toronto children are not so entirely cut off from country sights and sounds. Children seem able to extract intense enjoyment from almost anything. They get excited over a handful of dust scraped up from the stone pavement, which they can mould into mud pies, regardless of grimy hands and faces. Yesterday I saw two little girls making what they called "Easter eggs" out of earth—but those were extra fortunate children, for they live near a playground with real earth in the corners of it, though the main part is stone.

I will let you have the report of the Toronto Mission as soon as it reaches me.

HOPE.

Children's Corner.

A TWILIGHT STORY.

Among the mountains and hills of Norway, in a neat little cabin, there dwells a man and his wife, three small children and their old grandfather, some eighty years of age.

Every evening, just as the last rays of the setting sun cast their golden light into the room, the children come to grandpa for their evening story.

This evening, Mr. and Mrs. Good were both away. Grandpa was sitting in his big armchair, by the fireplace, quietly reading, when little Grace, the youngest of the three, crept up on her stool by his knee, and slipping her tiny white hand into his big wrinkled brown one, says, "Please, Grandpa, tell dear Grandpa, a nice, long story." "Oh do, dear Grandpa," added Edward, coming forward. Grandpa smiled at the two eager faces, and, looking across as his favorite, Peace, who lay all day on a couch of pain without a murmur, inquired, "Would you like it, my darling?"

"Very much, dear Grandpa." Walking across the room, he picked her up, then seated her comfortably on his knee. With a smile of contentment, the little one murmured, "It does so ease the pain."

"What shall it be to-night?"

"Oh, a real story."

"Very well, you shall have a real true story."

"Just at the outskirts of the little village of Camperdown, in New England, lived a widow and four children, the youngest a golden-haired little boy called Geoff.

"One bright afternoon the children were as usual playing in the garden, while the mother was finishing the afternoon work. Little Geoff loved to be alone, so the children paid little attention when he, as usual, wandered off to a secluded part of the garden. No one noticed the sly old gipsy hag creep up to the little fellow, and, burying him in a shawl to drown his cries, hastened back to the camp a little outside the town. Once there, the little fellow, who had cried himself to sleep on the way, was tucked carefully into one of the big, covered wagons. After a good supper, all the gipsies settled around the fires, and one by one fell asleep.

"The mother called the children to tea. They came running in with laughing faces. Mamma spoke to and carressed each one in turn. But, oh! what a look of horror came into her eyes when she found her little Geoff was absent. She inquired of the children, but they had not seen him. Now the mother's heart was filled with anguish, and, calling in a kind neighbor, she hastened in search of her child. What made her direct her steps toward the old gipsy camping ground? Why, that every afternoon hadn't an old woman come to her door, a regular old gipsy, and asked her what she would take for the child with the golden hair? "Oh! how long the road seemed to the mother as she ran swiftly along. But each step brought her nearer. Oh!

how loudly her heart did beat. She thought they must surely hear it.

"She came softly up, but was stopped by a sweet voice, saying, "Oh, dear, kind Jesus, send mamma to take her little Geoff home again." She gave a quick step forward; perhaps the sound awakened the old gipsy, for she started up just as the mother drew back in shelter of a tree. The old woman stirred the fire, peeped into the wagon, and then went and lay down again, muttering to herself.

"As soon as the heavy breathing told they were all asleep again, the voice was again raised in prayer. This time the mother did not hesitate, but went quickly forward, seized the little boy, and was soon hurrying homeward.

"Amid his sobs of joy, the little fellow told his story, and, reaching home, they knelt and thanked God for his safe return home."

"Is that all?" asked Peace, looking up with tears in her eyes and a bright smile in her face, as Grandpa paused.

"And is it a really true story? Who is the little boy?" asked Grace.

"This story, my dears, is true, for your own Grandpa, who is telling you this story, was the little boy who was stolen, and it was my own dear mother who, by God's help, rescued me."

M. HUESTON (age 14).

Thorndale, Ont.

A very ambitious young auk Took a notion he'd learn how to talk. He practiced a year, Then gave up with a tear. For, "Bah! I do nothing but squawk."

—Harper's.

ARE LARGE FAMILIES BETTER THAN SMALL?

Affirmative.

Dear Cousin Dorothy,—I cannot help answering Fred Hungerford.

"Too many children in one home" is certainly not well, and pity the poor children who are "too many." But when they are taken as God's gifts, and trained for Him and His service, though they may give the parents little time for the "social life," depend on it, there will not be too many.

As for the quarrelling, is it a virtue to keep from quarrelling when there is no one to quarrel with?

Don't you think the children and parents both are better for the training which a family gives them in giving up to each other, helping each other, and each doing their share toward making the home-life bright and happy and full of loving kindness? I grant you it is not easy, but do easy things make character that is good and strong?

As to the problem of what would become of them should the parents die, it is certainly a serious one, but all things are possible with God, and not a sparrow falleth to the ground without His notice, and, the hairs of our heads are all numbered. Do you not know of any cases where the children have helped each other? I know of a poor family of nine children who studied hard in school, and as fast as they were old enough to teach, helped the younger ones to gain an education; until now only the youngest is at home, and all the others are doing their work in the world nobly and well, whether married or in business.

I tell you they are a crown of glory to their parents, who, while they toiled and denied themselves and their children, too, of the luxuries of life, never thought they had too many children.

WELL WISHER.

This sounds like a grown-up letter, doesn't it? But, for my part, I should think all the children would agree with it. "The more, the merrier" in a family. Who wants to play with that kind of only child, who always cries when he doesn't get his own way, and runs home to tell his mother? How can you play "school," unless there is one for the teacher, and one for the dunce, and several naughty children besides? I know when we used to play "shop," we had to have a storekeeper, an errand boy, and several customers. It's the same in everything, and outside children are not as good, are they? C. D.

Whity came out of whity, and whity saw whity in whity, and whity told whity to go and drive whity out of whity. Ans.—A woman came out of a white house, all dressed in white. She had a white dog and a white cow. She told her dog to go and drive the cow out of a buckwheat field, which was full of blossoms.

A little house full of meat, no door to get in to eat. Ans.—An egg.

Granddaddy diddle daddle, dancing in a mud puddle, red shoes and green cap, guess all day and you can't guess that? Ans.—A drake.

SADIE MATTHEWS (age 11).

Blayne, Ont.

Why is a badly-conducted hotel like a



Not Afraid of Ponto.

Riddle? Ans.—Because it is a vile inn (a violin).  
 Why is an innkeeper like a great number of people? Ans.—Because he is a host himself.  
**BESSIE McBRIDE (age 10).**  
 A riddle, a riddle, as I suppose, a hundred eyes and never a nose. Ans.—A cinder-sifter.  
 Black we are, but much admired; men seek for us until they are tired; we tire

the horse, but comfort men. Ans.—Coals. **MERRAN McBRIDE (age 8).**  
 Why is the nose in the middle of the face? Ans.—Because it's the "scenter."  
 When is a woman like a newspaper article? Ans.—When she appears in print. **JEAN CAMPBELL (age 9).**  
 When is love deformed? Ans.—When it is only on one side.

Name me, and you destroy me. Ans.—Silence.  
 What is the difference between a spend-thrift and a feather-bed? Ans.—One is hard up and the other is soft down.  
 Why is the letter B like fire? Ans.—Because it makes oil boil.  
 What is most like a hen stealing? Ans.—A cock robin.  
 Spell blind pig with two letters. Ans.—P. G. (pig without an eye).  
 What is that word of five letters of

which when you take away two only one remains? Ans.—Stone.  
 How would you express in two letters that you were twice the bulk of your companions? Ans.—I W (I double you).  
 Describe an old suit of clothes in two letters. Ans.—C D (seedy).  
 If a man met a crying pig, what animal would he call him? Ans.—Porcupine (pork you pine).  
**TENA THOMSON (age 12).**  
 Cowal, Ontario.

### Current Events.

#### Canadian.

A contract has been let by the C. P. R. for the construction of a railway between Peterboro and Victoria. The branch will cover a distance of over 100 miles, and will be constructed at a cost of \$3,000,000.

Professor Fernow, of Pennsylvania, has accepted the new Chair of Forestry in Toronto University.

Sir Wilfrid Laurier has gone to England to attend the Colonial Conference.

A new silk-manufacturing industry is to be established in Toronto by Mons. de Sauzea, of St. Etienne, France. About 75 skilled workers will be brought from St. Etienne, other workmen being picked up in Canada as required. A New York Life Insurance Company will also erect a building in Toronto during the current year, at a cost of about \$1,000,000.

The report that a new mining district, quite as rich as that at Cobalt, has been discovered on the Montreal River, has been confirmed by Prof. W. G. Miller, Provincial Geologist, who has recently inspected the territory. The new area, he states, lies about twenty-five miles west of Cobalt, and extends from six miles north of Lady Evelyn Lake to Elk Lake, on the Montreal River.

The salaries of the Provincial Cabinet Ministers are to be increased to \$7,000, and that of the Premier to \$10,000 per year.

Dr. Drummond, the noted author, died at Cobalt as the result of a stroke of paralysis.

One of the institutions in Canada which has come to stay is the Canadian Club. From city to city these clubs have spread, and at their informal luncheons the best "talent," the most distinguished men available, are asked to speak. At a recent dinner, given by the Toronto branch, the Rt. Hon. James Bryce, British Ambassador to Washington, was the center of attraction. Taking Switzerland as an object lesson, he reviewed first the obvious advantages of a democracy, then passed on to the faults commonly assigned to it: (1) Intolerance of party spirit which is supposed to make people give their allegiance to party, rather than to the interests of the nation; (2) the power of party machinery to put the power in the hands of self-serving groups of men; (3) the abuse of public office for private gain; (4) the power of wealth to corrupt politics. Switzerland had escaped these faults remarkably. He appealed to Canada to learn from her, to aim at purity in politics, at right ideals. "It is a great deal easier," he said, "to set a high tone than to reform a low one. Once the standard is set, it should be lived up to. And you in Canada, gentlemen, have two very great advantages for making your country a fine and high type of popular government. You have the advantage of a fine stock, a stock from the best blood that the old world has ever sent to the new. You have also the advantage of a

universally diffused education, of literature which can come home to everyone, and of examples in the past which the earlier days of our common ancestors in Great Britain have bequeathed to you of what politics may be. May the blessing of God be with you and enable you to make your democracy worthy of these conditions, worthy of the enormous opportunity which you have before you in this country." The visit of Mr. Bryce is the first that a British representative at Washington has made, officially, to Canada, and the precedent set by it augurs much for a better understanding of Canada's interests, and a closer relationship, not only between Canada and the motherland, but between these nations, and the great sister nation over the border.

#### British and Foreign.

Sir Sydney Oliver will succeed Sir Alexander Swettenham as Governor of Jamaica.

Great Britain has made an official request upon Russia to include in the programme of the next Hague Conference the question of the limitation of the expenditure on armaments. The United States wishes to urge at the Conference the adoption, as a general rule, of the Drago doctrine, which prohibits the use of force by a nation to collect international debts.

Notwithstanding assertions to the contrary, it seems that there is something in the method for burning ashes discovered by the Altoona, Penn., cobbler, John Elmore. At a recent test, two tons of coal were burned in a furnace, and the ashes were burned immediately afterwards. According to the affidavit of those who made the test, the ashes gave off one-third more heat than the coal, very little smoke being emitted in the process. It is said that Mr. Elmore has been offered large sums of money by the coal interests to destroy or suppress the secret.

The revolt in Roumania is about over, the peasants, many of whom, like the British in "Jack Cade's" rebellion, were armed only with pitchforks and scythes, having been terrified into submission by the artillery used by the troops. Numbers of women are fighting with the peasants, and several of them have been found among the dead.

#### A CANADIAN - BORN CELEBRITY.

The recent announcement that Mr. J. J. Hill has retired from the presidency of the Great Northern Railroad, has brought again before the especial notice of the reading world one of the most remarkable men of modern times. Although most of his life has been spent in the United States, Mr. Hill is a child of the Dominion. He was born September 16th, 1838, in a little log house at Rockwood, an obscure village about forty miles west of Toronto, about which several members of the family still live. His parents were both Irish, and for many years kept hotel at Rockwood. From the first, however, young James did not seem to "take to" the hotel. He was fond of school, and, in general, quiet and reserved in manner, choosing rather to busy himself with a book than to engage in the pranks of his schoolmates. When he was fourteen years of age

his father died, and he decided to go to work. To the suggestion that he should help in the hotel, he lent a deaf ear, and, instead, applied for a position in the village store across the way. Here he spent four years as a clerk, serving faithfully, and, no doubt, forming rosy plans for the future in the way of youths of such ambition and confidence. In 1856 he determined to see something of the world, and went to New York, where he worked for a time on a farm near Syracuse.

But the lure of the West was beckoning to him, as though the fates had already fixed upon the coming man who was to throw open a vast, unpeopled country as none before him had dreamed. With the intention of joining the Red River trading brigade, he went, in 1856, to St. Paul, only to find that the brigade had gone. He had little money, and it was necessary to find a situation. Casting about, he drifted as shipping clerk into the St. Paul and Dubuque Packet Station, where he speedily distinguished himself by his insatiable love of work—none too common a quality among the employees of the station. In the meantime a few tottering railways began to creep feebly outward from St. Paul, and

and when he undertook the erection of an immense transfer house, it was a question if his working powers were not still further taxed. Yet he found time, too, to fall in love with and marry a pretty waitress at the hotel where he boarded, a Miss Mary Mehegan. It may be noted at this point that Mr. Hill's married life has been exceptionally happy; and, in raising his family of nine children, he has proven himself, doubtless, according to the theory of the present President of his adopted country, a true citizen and laudable example for the United States of America.

After this he organized, in rapid succession, the firms of J. J. Hill & Co.; Hill & Acker; Hill, Griggs & Co.; Hill, Acker & Saunders, and, finally, in 1878, the Northwestern Fuel Co.—in this way launching out into many wholesale enterprises. He also, after a time, got control of several newspapers, which he used as weapons to extend his provinces.

In 1870 he, with his partner, Griggs, built a small steamboat for traffic on the Red River. This nucleus quickly developed into a fleet of steamers, with which Mr. Hill came into competition with the trade of the powerful Hudson's Bay Co. Determined not to be outdone, he personally undertook the work of establishing points of trade, going often by dog-sled or on snowshoes from point to point, in the face of seemingly insuperable difficulties. At one time he all but lost his life in a blizzard. But the future monarch of the Northwestern U. S. was to be saved for his work. Then, by and bye the Hudson's Bay Co. found it advisable to form a combination with him, and the keen strife was over. Fortune had played into Mr. Hill's hands.

Not long afterwards he became a partner with Donald Smith (now Lord Strathcona), the far-famed Commodore Kittson, and George Stephen (later Lord Mount-Stephen), in gaining control of and developing the St. Paul & Pacific Railway. He risked his entire fortune in the enterprise, and again won. Under his marvellous directorship as general manager of the road, success came steadily. Obstacles—and they were many—only fired his ambitions and increased his bulldog determination. Personally, it was said, he looked after every detail of the road, and gradually he managed to evolve from the tangled network before him the most perfect system of railway management on the continent. In building the 6,000 miles of railway which fell gradually under his control, he evinced a power for economy which became an eye-opener to other railway managements which had, in comparison, squandered money. And all the time the interests of the stockholders had been at Mr. Hill's heart. As president of the organization now known as the Great Northern, he had pledged his word that both interest and dividends should be forthcoming at specified times, and, although often, as dividend-day approached, he was forced to spend sleepless nights in wrestling with the problem as to how his promise was to be made good, he was not known to fail. As the years went on and returns became surer, this tension was relaxed; then, quietly,



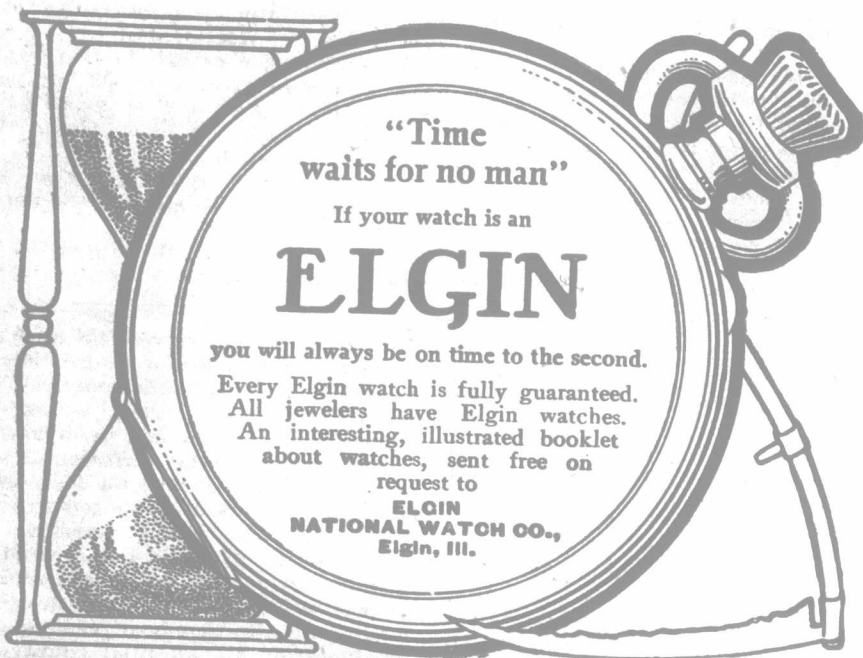
Mr. J. J. Hill.

Ex-President of the Canadian Northern Railroad.

the youth's active imagination was able to conjure up hordes of people, networks of rushing railway lines radiating out over the as yet unpeopled wildernesses that extended on every side. Possibly even then it occurred to him that he should have a hand in urging onward this trade, in peopling those wildernesses with the human train that invariably follows the steel pathway into fertile wastes. At all events, in 1865 he started in business for himself as commission steamboat and railway agent, the "agency" in question being for the little St. Paul & Pacific line, then ten miles long.

From this time his rise was rapid. Within a few months he secured the agency of the Duluth Packet Line of river steamers, and of the Chicago & Northwestern, Milwaukee & Prairie du Chien and Illinois Central roads—all this in the hands of a youth of twenty-seven! Along the levees it was declared that "Jim Hill works 24 hours a day, and 25 on Sunday,"





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**What the People Say.**

**The Sherlock-Manning Organ Co., London, Ont.**

GENTLEMEN,—REGARDING THE SHERLOCK-MANNING ORGAN, style 20, No. 44, which I bought in August, 1908, I wish to say that it has given entire satisfaction in every way.

WE HAVE BEEN USING IT CONTINUALLY since we bought it, and both the tone and finish keep right up to what they were when we bought the organ.

Yours truly,  
John Burn, Hespeler, Ont.

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**PARIS PLOWS**  
Pronounced Perfection

Mr. Hill began a plan for the benefit of the holders, which was to bring to many great joy. Quietly he bought up great tracts of land from the lumberman—iron-bearing land—then, last October he announced that a deal had been made with the U. S. Steel Co. for the sale of over 700,000,000 tons of iron ore in Minnesota, the proceeds, between \$450,000,000 and \$600,000,000, to go to the stockholders of the Great Northern. . . . Mr. Hill had put the crown upon his work, and now, doubtless, at the age of nearly seventy years, he feels that he can take a well-earned rest.

Mr. Hill has always been simple in his habits, and democratic in his thought. In spite of his strenuous life, he has found time for much reading, and has developed a fine taste for art. As regards his business methods, he has been, if exacting, remarkably clean. "Everybody's," from whose compilation most of the above facts have been gleaned, prefaces a note of introduc-

tion to a series of "Romances of Success," with the following note: "The time is passing when the mere sordid accumulation of vast wealth may be acclaimed success. We are learning to make distinctions. The financial brigand, trickster, grafter, however richly he may have reaped, is being classed with his brother crooks. But all the world wants to know about real success, about men whose personal triumphs have meant benefits multiplied a hundredfold for the nation; men who, in blazing their own trails, have opened wide, safe, clean paths for their countrymen." And the first man of whom the magazine treats in this list of men who have opened "clean paths," is Mr. J. J. Hill.

Canadian mothers may not be able to hold before their sons the possibility of being President of a great Commonwealth, but while such Canadian-born men as Mr. J. J. Hill may be pointed to, examples of what Canadian boys born in log cabins may do are not lacking.

**With the Flowers.**

**HYACINTH BULBELS—PLANTING MAPLES—VINES FOR VERANDA.**

The following letter has been received in Ingle Nook:

"My first connection with 'The Farmer's Advocate' dates back a number of years. When a little girl—a farmer's daughter—I used to try to solve the puzzles, with the aid of a dear friend of our family who lived with us at that time. He has since passed over to the great beyond, and many changes have taken place, but still I am an interested reader of 'The Farmer's Advocate.'"

"I am now a farmer's wife, and find so many helpful hints on house-keeping, and anything regarding Health in the Home and With the Flowers I enjoy very much. I would like to ask some questions regarding flowers. I have a Hyacinth which is done blossoming, and several young shoots are starting around it. I pulled one up, and it has a bulb at the bottom. Are those the bulbs for another year, and how should I care for them? Is the old bulb of any use? If so, how should I keep it? Also, what is the best kind of a vine to plant to train around a veranda facing the south, where the sun shines very hot in summer? I have tried Morning Glories, but they wither and die before the summer is gone.

"When is the best time to plant hard-maple trees, and is it possible to give them too much water? We planted some a year ago last June, and watered and mulched them freely, but they all died.

"Hoping I have not imposed on your good-nature, and wishing you every success, I will retire.

"MAPLE LEAF.

"Elgin Co., Ont."

Regarding the question about the Hyacinths, Mr. Wm. Hunt, of the O. A. C., a well-known authority, says: "The young Hyacinth offset or bulb-mentioned is of no use. It would take three or four years at least to grow it on to produce a bulb large enough to flower. Our climate is not suited for the propagation and production of these bulbs.

"The old bulb also is of very little use again, more especially as a pot plant. If it is a variety of the Dutch Hyacinth, it might be dried off gradually by giving less water until the foliage has turned yellow, when it should be kept quite dry until summer, and planted out in the garden; but unless the bulb is an extra good one, it is scarcely worth the trouble. If it is a variety of the early-flowering Roman Hyacinth, it is not worth growing again in any way. It is best to buy fresh bulbs every autumn for pot culture."

For a veranda vine, nothing can be better than the hardy wild grape, which covers well, is of an especially pleasing green, and keeps its leaves until killed by frost. Clematis

paniculata is also to be recommended. While waiting for these to grow, you might plant *Cobæa scandens*, or *Aristolochia*, both of which grow quite rapidly.

Maple trees may be planted either in early spring, before active growth has started, or in the fall, say October. Where winters are long enough and severe, however, spring planting is the better, as the trees are thereby given a chance to establish themselves before the cold weather sets in.

**SHRUBS HARDY IN NEW BRUNSWICK.**

A New Brunswick subscriber writes: "Will you kindly advise me what shrubs would be hardy in New Brunswick? Our winter usually sets in latter part of November, with hard frosts and no snow till sometimes 1st January. Snow goes off usually in the middle of March, and we will have many severe frosts after that. Would particularly like to know if *Wistaria* would winter well if carefully covered?"

The following answer, given by Mr. W. S. Blair, of Macdonald College, Ste. Anne de Bellevue, but formerly of New Brunswick, will probably be found useful by readers living in other parts of Canada exposed to the same extremes of temperature as New Brunswick:

"The *Wistarias* are not hardy in New Brunswick. The following shrubs are hardy in any part of New Brunswick: *Spiræa arguta*, *Spiræa Van Houttei*, *Thunberg's Barberry*, *Caragana arborescens* (*Siberian Pea Tree*), *Cornus Sibirica* (*Siberian Dogwood*), *Hydrangea paniculata* (*Japanese Hydrangea*), *Lonicera tartarica* (*Tartarian Honey-suckle*), *Ribes Aureum* (*Flowering Currant*), *Philadelphus coronarius* (*Mock Orange Syringa*), *Rosa rugosa* (*Japanese Rose*), *Viburnum opulus* (*High-bush Cranberry*), *Viburnum lantana* (*Wayfaring Tree*), *Viburnum opulus sterile* (*Snowball*), *Potentilla fruticosa* (*Shrubby Cinquefoil*). The various Lilacs, such as the white, purple, Charles X., Persian and Villosa.

"The best low-growing evergreens are: *Pinus Mughus* (*Dwarf Mountain Pine*), *Juniperus Sabina* (*Common Savin Juniper*), *Juniperus Hibernica* (*Irish Juniper*), *Retinospora filifera* (*False Japanese Cypress*), *Retinospora plumosa* (*Plum-like False Cypress*), *Retinospora plumosa aurea* (*Golden plumose Retinospora*).

"In sections where a snow-covering to protect the young plants is not constant, it is wise to place a mulch of straw, leaves or strawy horse manure around the plants to prevent alternate freezing and thawing, which often does much damage to the roots, especially of young shrubs. It is well, also, not to force the growth of shrubs too much by over-fertilization, especially in the latter part of the season, for it is liable to prevent the wood from

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When Writing Mention this Paper.

properly ripening, and results in winter-killing. "Shrubs should be kept free from weeds and grass, and a space of two feet around the plants kept in a

### The Ingle Nook.

There was a little woman—she didn't live in a shoe—oh, no—but perhaps she had so many children she didn't know what to do. The spring was breaking, the snow melting and gurgling off in little cascades and rivulets, and the air was full of that expectancy which tells of an awakening thrill and motion through all nature. The little woman looked out and thought of "what a terrible job it would be to clean up that backyard when all the snow was off." By-and-bye the snow was all melted away, and the backyard was cleaned of the chips that had accumulated somehow during the winter. Down in the marsh the willow osiers burned in patches of scarlet and purple, and beneath them the marsh marigolds came out in a golden flame. The little woman saw the flowers, but never stopped to think about them, or to look at them. When the children brought them in, she only scolded about the "muss" they made, and fell to feeling miserable because Mrs. B. across the way had got a new parlor carpet and a new set of furniture for her best room. "Mrs. B. could always get nice things when she couldn't. Well, the housecleaning had to be done anyway, so she might as well get to work."

And so she buckled down to her housecleaning, and, after that, to the gardening, without ever a thought of the wonderful life growing under her hand, but with an "inward eye" bent doggedly on future dinners and the saving of expense; and thus the spring passed into summer, and the summer into autumn, and the autumn into winter again. Great masses of fleecy changing cloud had passed over the sky, piling up into mountains, and round towers, and great woolly islands, all interfused with light. Rosy sunrises and purple sunsets had come and gone, and strange skies of pale green, and saffron, and red-orange. The marsh marigolds had given way to the cardinal flowers, and the wild roses, and briar, and meadow-rue had blown daintily, sweetly, in pink and fluffy white. But the little woman had seen nothing of it all, or if she had seen, it was perfunctorily, and without a single thrill which told her that after all the world is good. As with Peter Bell, the soft blue of the sky had never "melted" into her heart, and the primrose by the river's brim had never been to her more than a yellow primrose. And, by-and-bye, when the last purple aster was fading, she said she was glad that the winter was coming, because there would not be so much work to do. Nevertheless, I have heard say that when the winter came she still found enough and more than enough for her hands to do, and that she quite forgot to care that the hoarfrost was on the big apple tree, or that the evergreens were bending under a downy burden, or that a million diamonds on the surface of the snow were running off and off betimes, into the face of the rising sun. And so she went until she dropped at last into her grave, feeling all her life that the beautiful things of this world had not been for her.

Now, can you not think of a woman somewhat different from this?

DAME DURDEN.

I have come upon an extract from an address given at one of the Women's Institute conventions, by Prof. J. W. Robertson, the well-known friend of the Canadian rural world, which bears somewhat indirectly on the foregoing. It is so good that I must give it to you. Even though you have read it before, it will bear re-reading. And who, on reading it, must not realize that a practical man, an intensely practical man, may also be a poet, and that he may rejoice in his possession?

#### WHAT IS WORTH WHILE?

"I think of the time when one is old and says, 'I am tired; I have had my fill; I have been at the feast; I have drunk deeply of every lawful cup; I am

loose condition with the hoe, so that proper root development can take place. Especially is this important the first few years, until the plant gets established."

willing to sit back; I should be glad of quiet and to enter upon the long rest." When a man is full of years, he may pass in review the days gone by. Perhaps he may estimate values and think what was worth while. I remember to this day the fragrance of that rose I got as a boy. I smell it still sometimes when I lie awake at night. And I remember the first time I ate sponge cake; how good it tasted! How pleasant were the awakenings, the full awakenings, of even the senses! I remember still some fine colors that shot into my consciousness and left me throbbing. I mind particularly one Sunday evening in summer when as a barefooted lad I lay in a furrow of a pasture field, day-dreaming before the gloaming as the sun went down behind the clouds. The words my mother had been reading to me a few hours before were still in my ears. The colors of the glorious sunset pushed them on into my soul. 'Lift up your heads, O ye gates; even lift them up, ye everlasting doors, and the King of Glory shall come in.'

"Do you remember the first anthem, the first great choir? Besides there are the dozens of intellectual awakenings which come gradually and gently to the full morn and noon and evening of life. These all help to make life worth while; and furnish part of the satisfying memories which one would like to have in the great review.

"Do you suppose that one would dwell with fond memory on the fact that once he bought a certain piece of property for a few hundred dollars, and that it advanced in value to thousands and made him rich? Would he have fine contentment in thinking how his business keenness outdid the other fellow; of how he downed him in fierce competition and came out ahead? Don't you think there would be serene gladness in recalling the times and ways in which he had helped others, the once or oftener he had helped boys or girls to get better schooling than would otherwise have been their privilege? The things that count are those whereby we have done our part in helping others to be useful and happy. What shall it profit a man if he gain the whole world and lose his own chance of helping the boys and girls?"

#### Some Practical Ideas.

Dear Dame Durden and Chatterers.—We are among the happy ones who are going to build this spring. I was very much interested in our Dame's talks on the subject. I think a few points about kitchen and dining-room would not be amiss to us farmers' wives. Who has more need of a dining-room, where the table can be kept "set," and save that much in the last hurried moments, especially where there is a baby who might claim attention just then, and how much nicer we can set a table when that rush is not on?

Have a cupboard between dining-room and kitchen, which shall open both ways, so that dishes, clean and soiled, food, etc., can be passed through—put on shelf in one room and taken off in the other, thus making one trip do it all, instead of running back and forth with each handful. Let the kitchen be as convenient as possible, and be a kitchen, not a living-room. I am now a mother of four, and the fourth is calling, so I must hasten away, but perhaps had better sign myself, with thanks for canning-corn recipes—

MOTHER OF THREE.

P. S.—I think the plan of mothers having an afternoon for meeting each other, and taking their children, thus giving them a good time and a chance to become acquainted and learn how to play together, is a good one.

#### Another Answer to J. E. T.

Dear Dame Durden,—I noticed in our last Advocate a request from J. E. T. on how to use a Universal Bread Maker. I have been using one for a year now, and have had good success with it. I was a little discouraged when I first started to use it. In the first place, my flour was not the best,

## Radical Changes in Nervous System

Strength of Nerves and Vigor of Body Restored by the Use of Dr. Chase's Nerve Food.

The process of revitalizing a nervous system which is on the verge of collapse must of necessity be slow, but the results are certain and highly satisfactory when Dr. Chase's Nerve Food is used.

It took 24 boxes to cure Mr. Branton, but the cure is in many respects a most extraordinary one, as you will realize by the following description.

Mr. Wm. Branton, Victoria St., Strathroy, Ont., writes: "Before using Dr. Chase's Nerve Food my nervous system seemed all unstrung. I could not sleep, had no appetite, hands and feet cold, my digestion was poor, and I had jerking of the limbs. The first box of Dr. Chase's Nerve Food helped me, and I continued until I had taken 24 boxes. This treatment has made a radical change in my condition, building up the system and strengthening the nerves. I would strongly recommend it to all suffering from nervousness."

Dr. Chase's Nerve Food, 50 cents a box, 6 boxes for \$2.50, at all dealers, or Edmanson, Bates & Co., Toronto.



"MORE BREAD AND BETTER BREAD"—that is the sure result of using PURITY FLOUR. Made from the finest Western Canada Hard Wheat in the best equipped Milling Plant in the world, that's why PURITY FLOUR is full of nutriment and never disappoints in the baking.

Sold Everywhere in the Great Dominion

WESTERN CANADA FLOUR MILLS CO. LIMITED

MILLS AT WINNIPEG, GODEFRICH, BRANDON

## Spare Moments

Cannot be better employed than in improving your education. We teach you at home.

Bookkeeping, Shorthand, Penmanship, Arithmetic, Complete Commercial Agriculture, Stock Raising, Poultry Raising, Electrical Engineering, Steam Engineering, Mechanical Drawing, Civil Service, Public School Course, High School Course, High School Entrance, Matriculation, Teachers' Certificates (any Province), Special English or any subject. Draw a line through course wanted, clip out this advt., and send, with name and address, for prospectus and full information.

THE HOME CORRESPONDENCE SCHOOL OF CANADA, LIMITED Dept. E. Toronto, Can.

In consolidation with the Canadian Correspondence College, Limited.

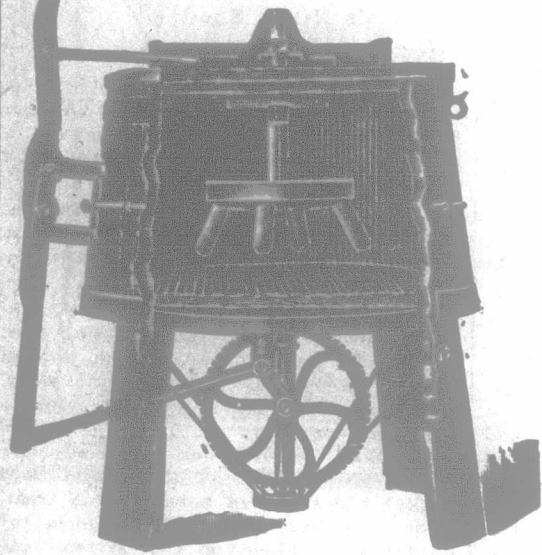
## \$12 WOMAN'S SUITS, \$5

Suits to \$15. Coats, raincoats, skirts and waists at manufacturers' prices. Send for samples and fashions. Southcott Suit Co., Dept. 27 London, Can. Send for our catalogue, which lists everything you use.

Grand old men are those who have been grand young men, and carry still a young heart on old shoulders.

When the heart is full it shows itself in action as well as in speech.

The illustration below is a half-tone made directly from a photograph. Notice the thickness of material used, the corrugated bottom and walls and the heavy-turned dolly or clothes agitator. Special attention is also called to the substantial legs, and round-iron braces attached to the upright gear-wheel support.



ONE MINUTE WASHER (Sectional View).

See the fly wheel under the bottom of the tub? That's a feature of the "One Minute" Washer exclusively its own. This fly-wheel is driven by the gear-wheel with crank attached, and revolves on little steel balls just like the wheels on a bicycle. You'd be surprised how hard it is to stop the machine when once this wheel gets up speed. Two strokes of the handle is usually sufficient to get under headway—then the fly-wheel does half the work.

Write us to-day for free circular, and the name of the dealer in your locality who sells them.

**White, Ehrhardt & Company,**  
Toronto, Canada.

## "ONE MINUTE" WASHER

Admitted by all to be the best washing machine yet invented.

The tubs are constructed of clear-grain Louisiana cypress lumber.

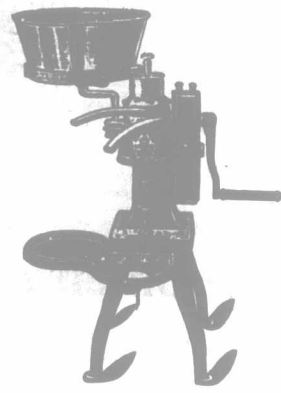
The castings, upon which there is any strain, are malleable.

Three Great Features:

1. Not Hard on the Clothes.
2. "Very" Easy to Operate.
3. Moderate in Price.

Sold Everywhere in Canada

## "The Maple Leaf" CREAM SEPARATOR.



Capacity 500 lbs. Guaranteed.

Price, \$45 00.

The separator that gives the best results.

Perfect skimming. Smooth cream.

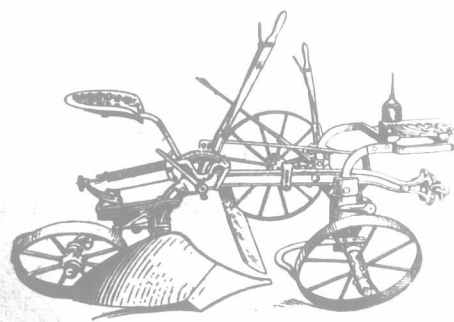
Enclosed gears. Easy to operate.

Reliable active agents wanted where not represented.

Write now.

**The Canadian Manufacturing Co.,**  
Limited.

182-186 Shearer St.,  
MONTREAL.



## New "Success" Riding Plows

Our "Success" Riding Plows are entirely new. Vast improvement over the old-style-kind. Wonderfully simple to operate and very easy to handle.

Our Free booklet will tell you all about them. Write for it.

**Paris Plow Company, Limited**  
PARIS, ONTARIO. WINNIPEG, MANITOBA.

and the second was my yeast was not strong enough. I now use Five Roses flour, and I will give the way I make my yeast. Save about a quart of potato water and some of the potatoes when you boil them at dinner-time; mash them up as fine as you can; have it about as thick as other yeast. Then, when about cold, add two yeast cakes which have been soaked, 1 teaspoonful of salt, 1 tablespoon sugar; then put away to rise. I let it stand three days before using it. If yeast does smell strong, never mind; it will be all the better. I never put it in the cellar, just in some warm place that is handy. Now, about the bread. I follow the general directions in the book I got with the Bread Maker, only where it says 3 quarts of flour to one quart of liquid, I have the No. 8, so I put in three quarts of liquid and eight quarts of flour (by the liquid I mean water and yeast), as the Five Roses flour takes less than some brands. I put in a small piece of butter, about the size of an egg; one tablespoonful of salt. As for the mixing, I just do as it says on the lid of the Bread Maker. I time myself, as I think I would not have as good success if I was not particular. I let it rise enough to lift the lid about two inches, then I turn the mixer till it rolls up so I can lift it by the handle onto the bake-board. I put in about half a cup of flour to help clean the dough off the bottom of the Maker, then shape into loaves. When light, put it in the oven. I have tried to make it plain. Anything J. E. T. would like to

know, I would be glad to explain. I would not like to go back to the old way of making bread again, as it takes so much more time and labor. I like "The Farmer's Advocate" very much. The letters from the Ingle Nook are very helpful. MRS. P. D. HARTLEY.  
Halton Co., Ont.

### Butter Tarts.

Dear Dame Durden.—I am sending you the recipe for butter tarts, also the recipe for the pastry.

Pastry.—Sift 2 cups of flour with one level teaspoonful of salt, then mix in half a cup of lard and 1 cup of water. When rolled out, spread on three-quarters of a cup of lard, and roll out again.

Filling.—One egg (beaten well),  $\frac{1}{2}$  cup of sugar,  $\frac{1}{2}$  cup of butter,  $\frac{1}{2}$  cup of currants, essence of lemon to suit your taste, and a little cornstarch.

EDNA MASON.

Halton County, Ontario.

### RECIPES.

Coffee Fruit Cake.—One cup molasses, 1 cup brown sugar, 1 cup butter, 1 cup raisins, 1 cup currants, 1 egg, 1 cup coffee, spices to taste, 4 cups Five Roses flour.

Sugar Cookies.—One cup sugar and  $\frac{1}{2}$  cup butter creamed together,  $\frac{1}{2}$  cup milk, Five Roses flour, in which 2 teaspoons baking powder and a little grated nutmeg have been mixed, to make a dough.

### GOSSIP.

At H. G. McMillan's sale of Percherons, at Sioux City, Iowa, March 20th, 22 stallions sold for an average of \$694; 41 mares for an average of \$474, and 65 head, all told, averaged \$551. The highest price was \$1,350, for the black horse, Coralien. Three others sold for \$1,110 to \$1,350.

Volume 5 of the American Leicester Record has been issued, and we are indebted to the courtesy of the secretary and editor, Mr. A. J. Temple, Cameron, Ill., for a copy. It is an exceedingly creditable volume of 160 pages, neatly and substantially bound, and contains a record of pedigrees of 1,364 rams and ewes, together with the rules governing entries, the reports of annual meetings, and other information.

At the annual sale of Herefords from the herd of F. A. Nave, Attica, Ind., March 28th, 47 females brought an average of \$225; 23 bulls an average of \$175, and the entire lot of 70 head averaged \$230. The highest price, \$1,975, was paid by S. W. Waters, of Missouri, for the four-year-old cow, Nut-brown 9th. The highest price for a bull was \$600 for the two-year-old, Beau Nash, purchased by J. H. Haslam, of Halbrite, Sask., Canada.

Mr. T. A. Cox, Brantford, Ont., manager of Langton, now Oak Park, Stock Farm, writes: "Stock is all doing finely; have 25 choice young Berkshire pigs, from imported stock, for sale. Hackneys are doing well; have a few choice ones for sale. Made a sale recently of three first-class Hackney mares to Mr. John Endicott, Detroit, for a fancy figure. We have just got moved to Oak Park farm, late the property of Capt. D. Milloy, 4 miles from Brantford or Paris, on electric road, passing the farm every hour, and will welcome visitors."

At the annual sale, on March 28th, at South Omaha, of Shorthorns from the Meadow Lawn herd of N. P. Clarke, Minnesota, 12 bulls brought an average of \$302; 40 females, an average of \$333, and the 52 head sold for an average of \$326. The highest price was \$1,000 for the red two-year-old, 47th Duchess of Gloster, taken by H. C. Duncan, of Missouri. Pure Blossom (imp.), a roan six-year-old cow, sold for \$700, to J. T. Carroll, of Iowa, and Fairplay 6th, a red-roan four-year-old cow, for \$825, to C. R. Warren, of Iowa. A dozen others sold for \$400 to \$625. Shorthorns, as well as other beef breeds, are evidently looking up across the line.

An imported, registered Shire stallion is advertised for sale in this issue. Look up the advertisement.

### SALE DATES CLAIMED.

April 16th.—Woodstock, Ont., 60 Clydesdales.

April 17th.—J. L. Clark, Norval, Ont., Clydesdales.

May 9th.—W. J. Thompson, Mitchell, Shorthorns.

May 23rd.—G. A. Gilroy and G. H. Manhard, Holsteins, at Brockville, Ont.

At the Fraser House stables, London, Ont., on Wednesday, April 24th, 1907, Dalgety Bros., of Dundee, Scotland, will sell another consignment of 18 imported Clydesdale mares and fillies. Without doubt, this is one of the best lots they ever imported, combining, as they do, great size with abundance of style and quality and the most fashionable breeding, all going to make this lot one of the most desirable that has been offered by auction this year. Several of them are in foal to leading sires in Scotland, and several of them are high-class show mares. For particulars, write to James Dalgety, Glencoe, Ont.

### TRADE TOPIC.

REARING CALVES FOR THE DAIRY.—How to raise calves successfully without a full supply of new milk is a question that repeatedly presents itself to the dairyman. The first week is easy enough because the dam's milk is available. The first food, which may be given two or three hours after birth, should be drawn direct from the udder into a clean pail, and fed at once at the temperature at which it is drawn. Beginning with a quart or so three times a day for a few days, it should be gradually increased, and then fed twice a day for two weeks with new milk. If the supply of new milk is limited, a small start with Bibby's Cream Equivalent gruel may be made at this stage, but when gruel feeding is commenced thus early (two weeks), the change should be made very slowly and carefully. It is better, when new milk is available, to feed on that only for a month. The change to Cream Equivalent gruel may now be made in the next few days, but the quantity of gruel given at each meal should not exceed three quarts for two weeks or more, then gradually increased to four quarts, which should not be exceeded till the calf is four months old. The calf and pen should be kept scrupulously clean, and dry, well ventilated and lighted, with plenty of sunlight admitted, and regularly white-washed. Remember that overfeeding may do quite as much harm as under-feeding.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 20 cents.

A BEST quality Silver-laced Wyandotte, Buff Leghorn eggs, dollar per 15. H. O. Heimbecker, Hanover, Ont.

A SNAP—Choice Single-combed White Leghorn eggs; 13, 75c; 30, \$1.50; 100, \$4. Geo. Easton, Jr., Whitney, Ont.

A T Valley Mills Poultry Ranch—Fertile eggs from single-combed White Leghorns, Buff Orpingtons, \$1 per setting, \$4.50 per hundred. Mottled Anconas, settings only, \$1. No better winter layers. Free circular. Edmund C. Apps, Box 234, Brantford, Ont.

BARRED ROCKS—Choice stock. Eggs dollar per setting. Miss Emily Spillbury, Colborne, Ont.

BUFF ORPINGTON eggs for hatching from extra heavy layers \$1 per 15, \$5 per 100. Good hatch guaranteed. Hugh A. Scott, Caledonia, Ont.

BREEDER and exhibitor of Barred Plymouth Rocks, exclusively. Eggs for hatching, stock for sale. Prices right. Leslie Kerns, Freeman, Ont.

BLACK Minorcas; White, Brown, Black, Buff, Leghorns; Buff Orpingtons; Barred, Buff, White Rocks; White Wyandottes; Silver Hamburgs; Pekin ducks. Eggs from winners, \$1 per setting. R. Laurie, Drumbo

BARRED Rock eggs, from a pen of the "National strain," selected for their choice barring and persistent laying of large perfect colored eggs, and mated with two prize cockerels, vigo ons, blocky, barred to the skin. Price, \$1 per 13, or \$2 per 40. W. C. Shearer, Bright, Ont.

BARRED ROCK eggs from superb matings, good utility eggs, \$4 per 100. Write for mating list. W. W. Dods, Alton.

BARRED Rock eggs for sale, 100 for \$3; 15 for 75c. Glencairn Kennels and Poultry Yards, West Lorne, Ont.

EGGS FOR SALE—From White Wyandottes and Buff Orpingtons. Prizewinning stock. George W. Clarkson, Summerville, Ont.

EGGS for hatching from extra laying strain, Single-combed White Leghorns, \$1 per 12, \$1.50 per 24. Enos M. Beer, Bethany, Ont.

EGGS—White Wyandottes (McKellar strain), Barred Rocks (Thompson strain) Per two settings one dollar. W. Bryant, Cairngorm, Ont.

EGGS—Buff Orpington, White Wyandottes (Duster strain), B. Rocks. Bred for winter laying. \$1 per 15; \$4 per hundred. J. E. Fordon, Beachville.

EGGS—Single-combed White Leghorn and Buff Wyandottes; good strains; \$1 per 15. George Lewis, Ballinvoe.

EGGS for hatching from McCormack's prizewinning White Leghorns at \$1 per 15 upwards. Send for mating list. Jas. L. McCormack, Brantford, Ont.

EGGS for sale from a choice, well-selected heavy-laying strain of Barred Rocks. Eggs, \$1.50 per 15; \$5 per 100. John McKenney, Lyons, Ont.

EGGS FOR HATCHING from choice birds. Barred Rocks, Pekin ducks, Bronze turkeys. Mrs. Howard, "St Julians," Sutton West, Ont.

EGGS FOR SALE—My birds won at the Ontario, Hamilton, Owen Sound and Meaford, and seven fall shows, over 300 first prizes. Barred and White Rocks, White and Silver Wyandottes, Brown and White Leghorns, Buff and Black Orpingtons, Black Javas, \$1 per fifteen or \$5 per 100. Blue Andalusians and Rhode Island Reds, \$1.50 per fifteen. F. W. Krouse, Guelph.

FOR SALE—Light Brahma eggs, from imported stock (J. W. Shaw strain), \$2.50 per 13. A. Might, Derry West, Ont.

FOR SALE—Single-combed Brown Leghorn cockerels, \$2 each. Also eggs from Brown Leghorn and Barred Rocks, \$1 per 15, \$4 per hundred. S. B. Bonham, St. George, Ont.

FREE—Handsome mating catalogue, Canada's best White Wyandottes. Address: Wright Bros., Box F, Brockville, Canada.

FOR SALE—Eggs for hatching from pure-bred Barred Plymouth Rocks, W. Wyandottes and S. C. B. Minorcas, \$1 per setting of 15 Pekin duck eggs, \$1 per 9. R. A. Carson, Ailsa Craig, Ont.

FOR SALE—White Wyandotte eggs from prizewinning stock. Fertility guaranteed. The Daniels Bros., Vels, Ont.

INGLENOOK Poultry Farm offers eggs from selected pens of choicest laying strains of White and Brown Leghorns, Black Minorcas and Buff Orpingtons, also a select pen of White Wyandottes for show birds, but not tested for laying quality. Eggs either separate or assorted, \$1 per 15; \$5 per 100. W. H. Smith, 41 Spruce St., Toronto.

MAMMOTH Bronze Turkeys, Silver-Gray Dorkings, Barred Rocks, from prizewinners. Pairs not akin. Alfred E. Shore, White Oak, Ont.

PINE HILL POULTRY FARM offers eggs for hatching from selected pens of choicest laying strains of Barred Rocks and White Leghorns, \$1 per 15. John Cowan, Box 223, Galit, Ont.

RHODE Island Reds—Rose-comb (exclusively), bred eight years from carefully-selected heavy winter layers; large, brown eggs; \$1.50 per 15. Good hatch guaranteed. Jno. Luscombe, Morton, Ont.

SELECTED White Wyandotte and R. I. Red eggs \$1 per setting. Toulouse goose eggs. Peterson Tute, Welland, Ont.

WHITE Wyandotte eggs one dollar. Prizewinners in breeding pen. W. D. Monkman, Bond Head, Ont.

WHITE ROCKS—Eggs from my prizewinners at \$1.50 per 15, \$6 per 100. Geo. R. A. Miller, Valentyn, Ont.

WHITE Leghorn, Single comb, exclusively. Layers. Eggs, 28 for \$1.50. E. Flindall, Smithfield, Ont.

150 BUFF Orpingtons (pure-bred); pullets and yearling hens laying now. Good stout cockerels. Prices reasonable. Eggs in season. Satisfaction guaranteed. Hugh A. Scott, Caledonia, Ont.

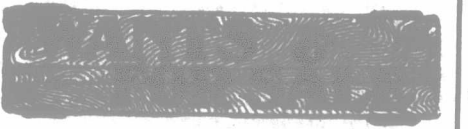
237 EGG Strain Barred Rocks for particulars, write for circular. J. B. Henry, Waterdown.

MAMMOTH BRONZE TURKEYS—Sired by imported prizewinning tom. A few young toms left, weighing from twenty-eight to thirty-one pounds, and some heavy-weight pullets. Turkey eggs in season. W. E. WRIGHT, Ganworth.

Eggs for Hatching

White Wyandotte.....\$1 00 per setting. Barred Rock.....1 00 " " Buff Orpington.....1 00 " " Special mating Buff Orpington.....2 00 " "

The Glenhudson Co., Myrtle Station and P. O., Ont. LORNE FOSTER, MANAGER.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, Pet Stock, and miscellaneous advertising.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 20 cents.

BUY rich farming and grazing lands in the Edmonton District, the most fertile district of Alberta. Pendleton Co., Lamont, Alta.

FORTY leading varieties of strawberry and cane berry plants. Seven varieties of seed potatoes. Catalogue free. Jno. Downham, Strathroy, Ont.

FARM lands of all description in Manitoba, Saskatchewan and Alberta. Some excellent propositions in improved farms with small cash payment, balance in half crop. Write for particulars to Western Canada Realty Co., Souris, Man.

FARMS for Sale—In and adjoining the village of Appleton, Ont. East 1/4, 4, 5 and 6 in 9th con. and pt. west 1/4, 4, in 10th con. of Ramsay, Co. Lanark, about 360 acres in all; about 40 or 50 acres high land, splendid soil, about 150 acres bush; balance pasture land. Mississippi River runs through it, and also splendid well hard water. One first-class dwelling; also three tenement houses, all with good r. pair. Two fine barns (one a bank barn) with stable, cow byre, silo; hen and root houses; water-tank; sheds and implement houses; work shops; carriage house; all in good repair. Appleton is a very healthy and pleasant village to live in, four miles from Carleton Place and six from Almonte. For further particulars apply to the proprietor on the premises. J. A. Teskey, Appleton, Ont.

GREAT bargains in fruit, stock and farm lands; in very center of garden of Canada; grapes, peaches, etc., abundant; profitable. H. V. Robins, Brantville, Ont.

HERDSMAN WANTED—Experienced reliable, steady and industrious, for small herd of Shorthorns; willing to do general farm work; one having some knowledge of gardening preferred. Commence 15th May. References required. State wages wanted and whether married or single. N. S. Robertson, Arnprior, Ont.

SEED potatoes for sale, the Vermont Gold & Co. A white and dry and good shaped potato, and a good yielder. Send for prices. David Zinn, Bright, Ont.

WANTED—Situation by married man as herdsman; life experience; dairy cattle; Babcock test; abtainer; first class references. Calverley, Roseville, Ont.

WANTED—Farms in all parts of Ontario. The Big Cities Realty & Agency Co., Limited, 6 College St., Toronto, Ont.

WHEAT lands in the great golden west, where free homesteads are still available. Clean open prairie in tested localities; good water and near railways; splendid investment. You may double your money in one year. Call on me when you reach Regina, or write me. Geo. S. Houston, Box 9, Regina.

WANTED—Ladies in rural districts desirous of engaging in profitable business will do well to write the Robinson Corset & Costume Co., London, Ont.

WANTED at once—Single man to work on farm. Must understand growing and curing hops. Apply with references, stating wages required, to H. Corby Distillery Co., Limited, Belleville, Ont.

WANTED—Experienced single man (or married, without small children) to work on farm. Steady employment. State wages and experience. A. L. Easton, Drumbo, Ont.

FOR SALE IMPORTED SHIRE STALLION

Foaled 1899. Registered in Studbooks of Great Britain and Ireland also in American Shire Book as No 7117. This horse is a grand individual and leaves extra good stock. Stock can be seen in neighborhood. Pedigree and any information furnished by addressing

BOX 64 Harrietsville, Ont.

Every thought of our minds, every act of our hands, has in some degree an ethical basis.

CLYDESDALE

Mares and Fillies

DALGETY BROS., Dundee, Scotland.

To be sold by Public Auction at the FRASER HOUSE, King Street, London, Ont., on

WEDNESDAY, APRIL 24th, '07

At 1.30 p.m.

Eighteen extra choice imported Clydesdale mares and fillies, several of which are in foal. This is an essentially high-class lot, with abundance of size and quality and very richly bred. A number of them are show animals, and, we think, the best lot we ever imported.

Address all correspondence to

CAPT. T. E. ROBSON, Auctioneer.

JAS. DALGETY, Glasgow, Ont.

CARNEFAC

GROWS IN FAVOR

The best substitute for new milk. It is an absolutely sure preventive and cure for indigestion or scours in Calves or Young Pigs, and many of the best stockmen grow better calves with CARNEFAC than with whole milk.

It costs but a trifle, is a convenient tonic, and never fails to give satisfaction.

Positively no substitute will do its work. If your dealer has not Carnefac, write us direct at once.

Carnefac Stock Food Company TORONTO, ONTARIO.

PARIS PLOWS

Pronounced Perfection

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required in urgent veterinary or legal enquiries, \$1 must be enclosed.

Veterinary.

INJURY TO SPINE.

Five weeks ago my two-year-old filly became stiff in fore part. She had trouble in getting her nose to the ground; ate fairly well; lay down, and could rise without difficulty. No swelling or soreness to touch; appeared to be nervous, and did not want to be handled. Now she cannot get her nose lower than her knees. She has not lain down nor apparently changed in condition for ten days. J. H.

Ans.—This filly has had a fall, or received an injury in some way unknown to you, and has injured her spine. Give her a purgative of 6 drams aloes and 2 drams ginger. Follow up with 1 dram nux vomica, three times daily, and keep her as quiet as possible in a box stall. V.

WEASEL'S SKIN FOR WORMS.

Is the skin of a weasel good to feed to horses that have worms or bots? H. E.

Ans.—I have never fed weasels' skins to horses; neither has the physiological actions of them been studied by scientists, hence it is not possible for me to say what the actions would be, but, on general principles, I would not recommend their use. For worms, give 1 dram each of sulphate of iron, sulphate of copper, calomel and tartar emetic, twice daily for six days, and follow up with a purgative of 8 drams aloes and 2 drams ginger. You need not worry about bots, nature will get rid of them. V.

Miscellaneous.

COURSE IN FORESTRY.

Would you be kind enough to inform me of the name and address of a school of forestry in Canada? P. G. R.

Ans.—We are not aware of the existence of a school of forestry in Canada, although the subject receives more or less attention at various institutions. The students at the Ontario Agricultural College, Guelph, receive a course of lectures on the agricultural phase of forestry, and the University of Toronto is inaugurating a chair of forestry.



A  
Remarkable  
Invention  
FOR THE  
CULTURE  
OF HAIR.

THE EVANS VACUUM CAP is a practical invention constructed on scientific and hygienic principles, by the simple means of which a free and normal circulation is restored throughout the scalp. The minute blood vessels are gently stimulated to activity, thus allowing the food supply which can only be derived from the blood, to be carried to the hair roots, the effects of which are quickly seen in a healthy, vigorous growth of hair. There is no rubbing, and as no drugs or chemicals of whatsoever kind are employed, there is nothing to cause irritation. It is only necessary to wear the Cap three or four minutes daily.

60 DAYS' FREE TRIAL!  
The Company's Guarantee.

An EVANS VACUUM CAP will be sent you for sixty days' free trial. If you do not see a gradual development of a new growth of hair, and are not convinced that the Cap will completely restore your hair, you are at liberty to return the Cap, with no expense whatever to yourself. It is requested, as an evidence of good faith, that the price of the Cap be deposited with the Chaucery Lane Safe Deposit Company of London, the largest financial and business institution of the kind in the world, who will issue a receipt guaranteeing that the money will be returned in full, on demand, without questions or comment, at any time during the trial period.

The eminent Dr. I. N. LOVE, in his address to the Medical Board on the subject of Alopecia (loss of hair) stated that if a means could be devised to bring nutrition to the hair follicles (hair roots), without resorting to any irritating process, the problem of hair growth would be solved. Later on, when the EVANS VACUUM CAP was submitted to him for inspection, he remarked that the Cap would fulfill and confirm in practice the observations he had previously made before the Medical Board.

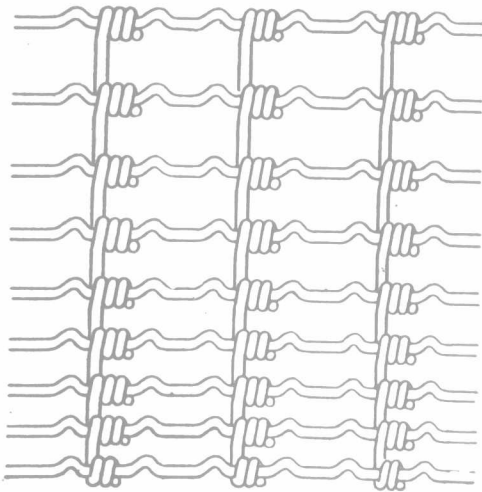
Dr. W. MOORE, referring to the invention, says that the principle upon which the Evans Vacuum Cap is founded is absolutely correct and indisputable.

An illustrated and descriptive book of the Evans Vacuum Cap will be sent, post free, on application.

THE SECRETARY, EVANS VACUUM CAP CO., LTD.,  
REGENT HOUSE, Regent St., London, Eng.

## AMERICAN FIELD FENCE

All No. 9 Galvanized Wire  
Made for All Purposes



Note the hinge joint makes the "American" fit the hills and hollows, the tension curve provides expansion and contraction.

Consider Quality  
When Buying.

Special steel, hard, stiff, springy wire used in the

"American" Woven  
Wire Fence.

MANUFACTURED BY

The Canadian Steel & Wire Co.  
HAMILTON, CANADA. Limited.

PARIS PLOWS  
Pronounced Perfection

ADVOCATE ADVTs. ALWAYS PAY

### GOSSIP.

Mr. A. J. Russell, Northumberland County, Ontario, informs us that thirteen herds of Aberdeen-Angus cattle have been started in one township in that county within the last ten years, and that the indications are that in the near future this will be the leading breed of beef-producers in that section of the Province.

### J. L. CLARK'S CLYDESDALE SALE.

On April 17th, as advertised in this issue, Mr. J. L. Clark, Norval, Peel Co., Ont., will sell, at auction, eight high-class imported and Canadian-bred mares and fillies, an imported Clydesdale stallion, rising four years old, and the grandly-bred and stylish roadster stallion, Wildbrino King, grandson of the great old Wildbrino, together with a large number of extra good dairy cows and other farm stock. The imported stallion is Duke of Savoy, a bright bay, white face and feet, sired by Handsome Prince (10356), who was one of the best sons of the noted Prince of Wales (673), out of the premium mare, Pandora, by Darnley (222). Pandora was also the dam of the great breeding horse, Mains of Airies, while the dam of Duke of Savoy was by the famous Sir Everard, sire of Scotland's greatest present-day progenitor of champions, Baron's Pride. Such breeding should be a pretty good guarantee that Duke of Savoy will prove a very prepotent sire of the right sort of stock, while, individually, he is as good as his breeding. The four imported fillies, rising three, are big and beautiful, good colors, excellent quality of bone, feet, and action, sired by such grand horses as Baron Mitchell, by Baron's Pride, and his dam by Prince of Galloway, a son of Prince of Wales; Majestic, one of the best show horses and sires in Scotland, sired by Sir Everard, and full of the blood of Prince of Wales and Darnley; and one by Argosy, one of the best sons of Sir Everard, the sire of Baron's Pride. The matched pair of registered Clydesdale mares, Norval Queen and Princess-May, rising 6 and 7 years, winners at Toronto, Winnipeg and Brandon, weigh 3,700 lbs. in show shape, and are handsome, stylish, splendid movers, and have the best of bone, pasterns and feet, and are supposed to be in foal to imported Clydesdale stallion. A number of good work horses, mares and geldings are also included in the sale. Norval is the station, on G. T. R., 25 miles west of Toronto, and Snelgrove, C. P. R., on Streetsville and Owen-Sound branch. Teams will meet trains at both stations.

### TRADE TOPIC.

A MODERN IMPLEMENT PLANT.—We received from The Frost & Wood Company, of Smith's Falls, Ont., the other day, a special supplement to the Rideau Record, consisting of 4 pages, and giving an interesting description of the new plant recently erected by that company. This supplement is profusely illustrated with good half-tone cuts, and is printed on excellent paper. The plant of the Frost & Wood Company is one of the finest and most modern in Canada to-day; which fact enables them to turn out machinery of the very highest grade. Their many friends and customers throughout the Dominion will be glad to know that they have fully recovered from the setback given them by the fire which destroyed their plant a year ago, and that in future they will be in a better position than ever to fill all orders promptly. Reports have been circulated freely throughout the country that the Frost & Wood Company would not have any binders to put on the market for the coming harvest. These reports the company emphatically deny, and wish to assure purchasers of binders that they can depend upon getting their machines in plenty of time. If any of our readers would like to see an interesting description of a plant where up-to-date farm machines are built, they can do so by dropping a card, asking the Frost & Wood Co., Smith's Falls, Ont., to send them a copy of the Record supplement. Kindly mention this paper when doing so.



### The Profit in POULTRY RAISING

To make a market bird consume a large amount of fattening food with increasing appetite, is to insure good returns at marketing time. Here is one more place where Dr. Hess Poultry Pan-a-ge-a shows surprising results. To use this wonderful tonic as directed, is to see an immediate improvement in the condition of the fowl.

### DR. HESS Poultry PAN-A-GE-A

is the prescription of Dr. Hess (M.D., D.V.S.), and is a guaranteed flesh-maker and egg-producer. It contains a peculiar germ-destroying principle that makes Pan-a-ge-a different. Besides the tonic to the digestion, and supplying iron to the blood, it also cleanses the system and absolutely kills bacteria, the source of disease. Dr. Hess Poultry Pan-a-ge-a is endorsed by the leading poultry associations in United States and Canada. Costs but a penny a day for thirty fowls and is sold on a written guarantee.

1 1/2 lb. package, 35c. 12 lbs. \$1.75,  
5 lbs., 85c. 25-lb. pail, \$3.50.

Send 2 cents for Dr. Hess 68-page Poultry Book, FREE.

DR. HESS & CLARK  
Ashland, Ohio, U.S.A.  
Instant Louse Killer Kills Lice

George H. Ham tells how he met a man in Winnipeg one day who announced in tones of great indignation that he proposed to "jump on the Canadian Pacific," much as Horace Greeley's subscriber announced that he had "stopped" The Tribune.

"You intend to jump on the C. P. R., do you?" answered Mr. Ham, proceeding on the theory that a soft answer turneth away wrath. "Then I would advise you to buy a ticket first, for otherwise the conductor is liable to put you off at the next station."

The famous Hackney-breeding stud of Eben D. Jordan, of Boston, has been sold to Fred Pabst, Jr., of Milwaukee, Wis., the entire collection, 121 head in number, being included. The horses have been shipped to the Pabst farm at Oconomowoc, and Wisconsin horsemen claim that the addition of these famous Hackneys puts their State in the front rank of horse-breeding States, not only for show horses, but for trotters and pacers. Included in the string are two stallions, Gentleman John and Dilham Prime Minister, which have attracted attention and prizes in the show-rings of America and Europe for the last four years.

### CANADIAN HORSE SHOW—NEARLY \$7,000 IN PRIZES.

The Canadian National Horse-show Association is the new organization which will continue the Canadian Horse Show, now in the thirteenth year of its existence. It will be held this year in the St. Lawrence Arena, Toronto, a building excellently adapted for the purpose, on May 1st, 2nd, 3rd and 4th. As the Spring Stallion Show provided for the breeding classes, the Canadian National Horse Show devotes itself to the harness, saddle, hunter, roadster and pony classes. There are 72 different classes, and, in cash and cups, nearly \$7,000 will be distributed. The entries close on Saturday, April 20th, and should be addressed to the secretary, W. J. Stark, Sovereign Bank, Market Branch, Toronto. The chairman is Mr. George W. Beardmore, M. F. H., and the manager, Mr. Stewart Houston, 182 Victoria Street, Toronto. All prospects point to a splendid entry of high-class horses.

QUESTIONS AND ANSWERS. Miscellaneous.

SHEEP-DIPPING TANK.

Would you kindly inform me where I could get a steel tank for dipping sheep? About what size would I require?

M. M.

Ans.—We do not know of any maker of steel dipping tanks in Canada, and we do not find any advertised in United States stock papers, even those devoted exclusively to sheep, as they were a few years ago. From this we judge that the demand was not sufficient to make their manufacture profitable. A dipping vat may be made of 1 1/2-inch plank, tongued and grooved, and put together with white lead, or may be lined with zinc or galvanized iron. Or it may be made of cement concrete, as watering troughs are being made by many farmers. The dimensions for a small flock need not be larger than 4 feet long, 12 inches wide at bottom, 26 inches wide at top, and 2 1/2 feet high for lambs and shorn sheep, the lambs to be laid on their sides and backs in the vat, and the sheared sheep to stand in the vat while the solution is dipped up and poured over them.

ALFALFA ON BUSH CLEARING.

I have six acres of pasture land with a heavy crop of brush to burn this spring, and would like to know if it would pay to sow alfalfa on it for pasture. The land is limestone, and high and dry. There will be lots of ashes on it when it is burnt. Would it need covering, or would sowing before a rain do?

SUBSCRIBER.

Ans.—We must admit that this case is experimental, so far as our own knowledge is concerned, but we see no reason why the plan should not prove an excellent one. As the land is intended for pasture, however, we would not advise sowing alfalfa alone, for there might be danger of stock bloating. By admixing a proportion of grasses, this danger may be practically obviated. Try 10 pounds alfalfa seed per acre with a pound of timothy, 2 pounds orchard grass, 2 pounds tall oat grass, and 2 pounds meadow fescue. If at all possible, drag the seed in with a harrow of some kind; not only to cover the seed, but to mix the soil and ashes. If there is an alfalfa field within three or four miles, we would recommend hauling a load of surface loam from it, and scattering over this field to inoculate it with the nitrogen-gathering bacteria.

PEAR SCAB-ROUP.

I have two pear trees that bear nearly every year, but the pears get mildewed, or get scabby, and crack all over, so that they are not fit for use. Would spraying help them, and what should they be sprayed with, and when?

2. My hens make a kind of coughing, or sneezing, noise. The heads of some swell, and they get blind in one eye, and sometimes in both, and after a week or two they die. I have let them out every fine day all winter. Give cause and cure. NEW SUBSCRIBER.

Ans.—1. Thorough spraying, according to directions given in our Calendar Guide to spraying, pages 532 and 533, issue of March 28th, 1907, will almost or entirely prevent this trouble, which is due to the scab fungus. You will note that the first spraying is done with copper sulphate solution before the buds open. Subsequent applications are of Bordeaux mixture, which is essentially the same thing with lime added to prevent injury to foliage. Instructions for preparing both will be found in the above-named issue.

2. It is roup, in one of its manifold forms. Roup is a dangerous germ disease, often fatal to fowls, and also communicable in some cases to children. It is most frequently communicated from one bird to another, through the medium of the drinking trough. Kill all sick birds. Disinfect all roosts, nests and houses thoroughly. Destroy or cleanse thoroughly with disinfecting fluid all feeding and drinking utensils, and, for some time, add a little Stockholm tar to the drinking water, or else one of the proprietary roup cures to be had from dealers in poultry supplies, advertising from time to time in these columns. Use lime on the dropping-boards, and keep charcoal and grit where the fowls can get plenty of it.



The Eleven That Pay You Best

BARRED PLYMOUTH ROCKS WYANDOTTES—Silver-Laced, Golden, Buff, or White RHODE ISLAND REDS

WHITE PLYMOUTH ROCKS SINGLE COMB BROWN LEGHORNS ROSE COMB WHITE LEGHORNS BUFF ORPINGTONS

For less than you think you can buy single fowls, trios or pens of STANDARD BREED, true strain birds of these eleven breeds, that pay best in Canada. Every bird warranted healthy and thoroughbred. Write for prices and learn WHY it will pay you to breed up your poultry THIS year.

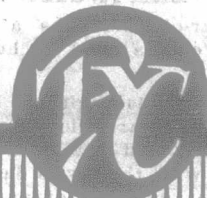
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Hatching eggs from strong, vigorous young stock of any of above breeds, guaranteed true to strain, at attractive prices by the setting or per hundred. Ask us about our co-operative plan before getting eggs anywhere. We will buy your eggs or poultry at top prices—please ask questions.

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Ask the editor of this paper about our responsibility. Write to or visit our great modern poultry farms at Pembroke, Ontario.

Poultry Yards of Canada, Limited



Dept. 16,

Pembroke, Ontario

Advertisement for THE UNION TRUST CO. LIMITED. Features include: ABSOLUTE SECURITY TO DEPOSITORS, BALANCES ON SAVINGS ACCOUNTS WHEN KEPT WITH US DRAW INTEREST AT FOUR PER CENT PER ANNUM, COMPOUNDED QUARTERLY, AND ARE AT ALL TIMES SUBJECT TO CHEQUE. Includes 4% interest rates and contact information: 174-176 BAY ST TORONTO.

Advertisement for REAL ESTATE The Western Real Estate Exchange LIMITED. Text: Our Real Estate searchlight penetrates everywhere. We advertise in over two hundred leading newspapers in Canada, the United States, and Great Britain. We have nearly the same number of agents in Ontario assisting us in making sales. For this service we do not charge you one cent unless your property is sold, exchanged, or withdrawn from sale.

Our Real Estate Monthly describes thousands of choice properties which we have on our list. Write for it to-day. It costs you nothing. Address Dept. "A"

When Writing Advertisers Please Mention this Paper.

COW AILING.

We have a cow that calved about four days ago, and she has not done well yet. Could you tell us what to do for her? M. I. L.

Ans.—We cannot tell what the cow's ailment may be without knowing the symptoms. Probably if she is kept clean, dry and comfortable, not milked out too closely, and fed on mixed hay and bran, with a proportion of ensilage and roots, she will come all right. Make sure that the afterbirth has come away. If it has not, better call the veterinarian.

REGISTRATION NUMBERS.

Kindly tell me the registration numbers of Corscock and Straven Callant, both Clydesdale stallions; owned at one time by Robert Stevens, of Collingwood. SUBSCRIBER.

Ans.—Corscock [460] (4925), foaled in 1894, imported in 1896 by Graham Bros., Claremont. Corscock 2nd [3078], foaled in 1892, bred by Robt. Davies, Toronto, sire Corscock (imp.) [460], dam Sweetheart (imp.), by MacGregor.

Straven Callant (imp.) [1478] (6326), foaled 1873, imported 1874, by James Lawrie, Scarborough, sold to Col. Holloway, of Illinois.

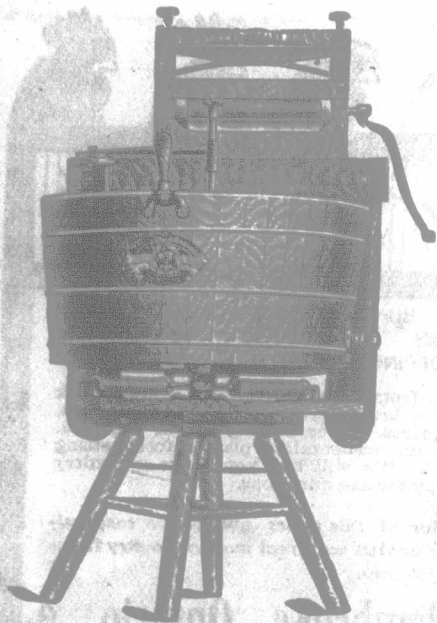
Straven Callant [608] (6326), foaled in 1865, imported in 1888 by Graham Bros., Claremont. These are the only owners named in the studbook record.

CURING PORK—LICE ON SHEEP.

1. Will you kindly insert in your paper the way to cure pork, after taken out of the brine, and what is the best way to keep it for summer use? 2. What will kill lice on sheep? A. J. P.

Ans.—1. Several methods for curing pork are recommended: (1) Take 9 lbs. salt, 3 lbs. sugar, 1 pint molasses, 3 ozs. saltpetre, 1 oz. soda, 5 to 6 gallons water. Heat slowly till salt is dissolved. Boil and skim, and cover meat in it 5 or 6 weeks. Then smoke every day for a week. (2) To salt pork dry, take a mixture of 4 lbs. good fine salt, 1 1/2 lbs. brown sugar and 2 ozs. saltpetre, and apply it to each 100 lbs. meat. Apply three times for hams and shoulders, and twice for bacon, rubbing in well, at intervals of perhaps a week. (3) To pickle hams and shoulders, first get a clean cask. Use 7 lbs. salt, 1 1/2 lbs. granulated sugar and 2 ozs. saltpetre for every 100 lbs. meat. Rub well in, pack the meat in the cask, using all the salt, then cover with cold water, and roll the cask about once a week. In about seven weeks the hams may be taken out. Soak for 12 hours before using. . . . If your meat is already in brine, we should say smoking it would be the best guarantee for preservation.

2. Insect powder, dusted into the parted wool, is the only safe thing to use in early spring. Later on, after the sheep are clipped, dipping ewes and lambs in one of the commercial sheep dips advertised.



### Let this Machine do your Washing Free.

There are Motor Springs beneath the tub. These springs do nearly all the hard work, when once you start them going. And this washing machine works as easy as a bicycle wheel does.

There are slats on the inside bottom of the tub. These slats act as paddles, to swing the water in the same direction you revolve the tub.

You throw the soiled clothes into the tub first. Then you throw enough water over the clothes to float them.

Next you put the heavy wooden cover on top of the clothes to anchor them, and to press them down. This cover has slats on its lower side to grip the clothes and hold them from turning around when the tub turns.

Now, we are all ready for quick and easy washing. You grasp the upright handle on the side of the tub and, with it, you revolve the tub one-third way round, till it strikes a motor-spring.

This motor-spring throws the tub back till it strikes the other motor-spring, which in turn throws it back on the first motor-spring.

The machine must have a little help from you, at every swing, but the motor-springs, and the ball-bearings, do practically all the hard work. You can sit in a rocking chair and do all that the washer requires of you. A child can run it easily full of clothes.

When you revolve the tub the clothes don't move. But the water moves like a mill race through the clothes.

The paddles on the tub bottom drive the soapy water THROUGH and through the clothes at every swing of the tub. Back and forth, in and out of every fold, and through every mesh in the cloth, the hot soapy water runs like a torrent. This is how it carries away all the dirt from the clothes, in from six to ten minutes by the clock.

It drives the dirt out through the meshes of the fabrics WITHOUT ANY RUBBING,—without any WEAR and TEAR on the washboard.

It will wash the finest lace fabric without breaking a thread, or a button, and it will wash a heavy, dirty carpet with equal ease and rapidity. Fifteen to twenty garments, or five large bed-sheets, can be washed at one time with this "1900 Junior" Washer.

A child can do this in six to twelve minutes better than any able washerwoman could do the same clothes in TWICE the time, with three times the wear and tear from the washboard.

This is what we SAY; now, how do we PROVE it? We send any reliable person our "1900 Junior" Washer, free of charge, on a full month's trial, and we even pay the freight out of our own pockets. No cash deposit is asked, no notes, no contract, no security.

You may use the washer four weeks at our expense. If you find it won't wash as many clothes in FOUR hours as you can wash by hand in EIGHT hours you send it back to the railway station,—that's all.

But, if, from a month's actual use, you are convinced it saves HALF the time in washing, does the work better, and does it twice as easily as it could be done by hand, you keep the machine.

Then you mail us 50 cents a week till it is paid for. Remember that 50 cents is part of what the machine saves you every week on your own, or on a washerwoman's labor. We intend that the "1900 Junior" Washer shall pay for itself and thus cost you nothing.

You don't risk a cent from first to last, and you don't buy it until you have had a full month's trial.

Could we afford to pay freight on thousands of these machines every month, if we did not positively KNOW they would do all we claim for them? Can you afford to be without a machine that will do your washing in HALF THE TIME, with half the wear and tear of the washboard, when you can have that machine for a month's free trial, and let it PAY FOR ITSELF? This offer may be withdrawn at any time it overflows our factory.

Write us TODAY, while the offer is still open, and while you think of it. The postage stamp is all you risk. Write me personally on this offer, viz: F. A. A. Bach, Manager "1900" Washer Co., 355 Yonge St., Toronto, Ont.

### UNTHRIFTY HORSE.

Five-year-old horse, fed on hay of poor quality (containing daisies), 2 gallons oats, with bran, and a little linseed meal occasionally, also a few turnips, is very thin. He did not gain flesh last summer on good pasture. C. P.

Ans.—Get your veterinarian to dress his teeth, as it is very probable this is the chief trouble, even though he is a young horse. Give him a purgative of 8 drams aloes and 2 drams ginger. Follow up with 1 dram each sulphate of iron, gentian, ginger and nux vomica, three times daily, and if you have no good hay, feed on good straw. V.

### QUESTIONS AND ANSWERS. Veterinary.

#### SORE EYES AND COUGH.

Sheep took sore eyes and cough last fall. They still cough, and their lambs are affected with sore eyes, and they, also, cough. W. J. C.

Ans.—The eye trouble is infectious ophthalmia. Isolate the affected; bathe the eyes well with warm water, three times daily, and, after bathing, put a few drops of the following lotion into each eye: Sulphate of zinc, 10 grains; fluid extract of belladonna, 20 drops; distilled water, 2 ounces. The cough may be tubercular, and, if so, nothing can be done. If it is not tubercular, it will disappear when the weather becomes fine and they get out on grass. V.

#### LARYNGITIS.

Three-year-old colt has a bad cough, and he chokes, and it hurts him to swallow. W. A. N.

Ans.—He has laryngitis. Make a liniment of equal parts liquor ammonia, oil of turpentine and raw linseed oil. Rub his throat with this twice daily for three days. Give him 8 drams chlorate of potassium, three times daily, by placing it well back on his tongue with a spoon. Cause him to inhale steam by holding his head over a pot of boiling water, twice daily. If breathing becomes labored, or other complications arise, send for your veterinarian at once. V.

#### UNTHRIFTY MARE.

Bought a nice fat mare last summer. She commenced to fail in the fall, and has been getting worse ever since. She urinates frequently, but passes only a small quantity of milky-like fluid. J. B.

Ans.—Get your veterinarian to dress her teeth. Then give her a purgative of 8 drams aloes and 2 drams ginger. Follow this with 4 drams nitrate of potassium, once daily for four doses, and follow this with 1 dram sulphate of iron and 2 drams each of gentian, ginger and nux vomica, twice daily. Feed well; and give regular exercise. V.

#### ERYTHEMA.

Pregnant mare has itchy legs, and they are swollen from hoofs to hocks. The hair comes off in patches, and the legs are hot and itchy, and there is a crack in each heel. I clipped the legs, and have been applying lard. J. M.

Ans.—This is a skin disease called erythema, and, as she is in foal, it will not be wise to give medicines internally. Dress the legs, three times daily, with a lotion made of 1 ounce each sulphate of zinc and acetate of lead and ½ ounce carbolic acid to a pint of water. Give her regular exercise. Do not apply any grease. After she foals, the swelling will subside. V.

#### ERYTHEMA.

Four-year-old draft stallion has little lumps between fetlock and hoof in hind legs. When washed, they are very red, and discharge corruption. He has very hairy legs, and it is very difficult to keep them clean and dry. H. J. C.

Ans.—Horses with beefy legs, with a large quantity of coarse hair, are predisposed to diseases of the skin. Do not wash his legs under any conditions. If they get wet, either rub with cloths until dry, or allow them to dry naturally, and then brush them clean. Purge him with 10 drams aloes and 3 drams ginger. Follow up with 2 ounces Fowler's solution of arsenic on his food, twice daily for a week. Dress the sores, once daily, with butter of antimony, applied with a feather for four days. Then dress, three times daily, with a lotion made of 1 ounce each sulphate of zinc and acetate of lead and ½ ounce carbolic acid to a pint of water. Feed lightly, and, as soon as the roads become dry, give him regular exercise. It is probable you will always have trouble with his legs. V.

An Irishman was giving a spirited address on the glories of the British nation. After describing some affronts received from other nations, he exclaimed:

"And must England stand with her hands folded, and her hands in her pockets?"

He made an effective pause, which, however, was quite spoiled by the roar of laughter.

## KENDALL'S SPAVIN CURE

### The Horseman's Friend —Safe and Sure.

If you have a lame horse, get Kendall's Spavin Cure. If you have a horse that you can't work on account of a Sprain, Strain or Bruise, get Kendall's Spavin Cure. If you have a horse, that even the veterinarian can't cure of Spavin—or any Soft Bunches or Swellings—get Kendall's Spavin Cure.

Be sure you get KENDALL'S. Two generations—throughout Canada and the United States—have used it and proved it.

TRAVELERS' REST, P.E.I., Dec. 15, '06.  
"I have been using Kendall's Spavin Cure for the last 20 years, and always find it safe and sure."

HUBERT P. McNEILL.

\$1. a bottle—6 for \$5. Write for a copy of our great book "Treatise On The Horse." It's a mine of information for farmers and horsemen, who want to keep their stock in prime condition.

Mailed free. 25  
DR. B. J. KENDALL CO.,  
ENOSBURG FALLS, - VERMONT, U.S.A.

## Profits Paid Equal Profits Estimated

On the rates now in force the estimates of profits made in 1900 and placed in the hands of its agents have been fully realized by the

## London Life Insurance Co.

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This is but one instance of the careful representations made by this Company.

SAFE INVESTMENTS. CAREFUL MANAGEMENT.  
LIBERAL POLICIES.

## EWING'S SEEDS

Used by Successful Canadian Sowers for 38 Years.

Selected from the very choicest stocks, they can be depended on to give "Best Results."

Sow EWING'S select high-grade brands of

## CLOVERS and TIMOTHY

They have become synonymous with what is "genuine pure seed" and "the best obtainable."

WRITE FOR A CATALOGUE.

**William Ewing & Co.,**  
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MONTREAL.

The only medium which conveys weekly to the farmers of Canada, the advertiser's place of business, 52 times a year, is THE FARMER'S ADVOCATE AND HOME MAGAZINE. Subscription, \$1.50.

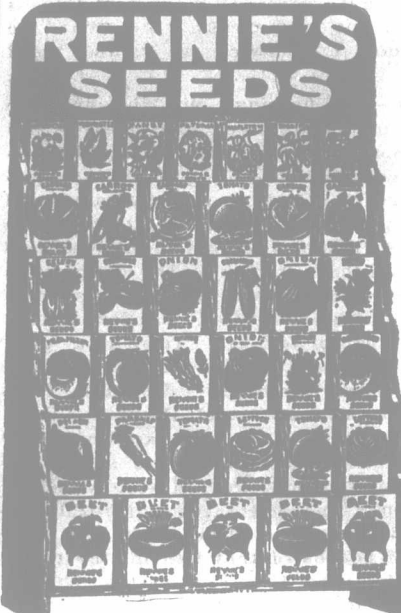
### LIVER COMPLAINT.

The liver is the largest gland in the body; its office is to take from the blood the properties which form bile. When the liver is torpid and inflamed it cannot furnish bile to the bowels causing them to become bound and costive. The symptoms are a feeling of fulness or weight in the right side, and shooting pains in the same region, pains between the shoulders, yellowness of the skin and eyes, bowels irregular, coated tongue, bad taste in the morning, etc.

## MILBURN'S LAXA-LIVER PILLS

are pleasant and easy to take, do not grip, weaken or sicken, never fail in their effects, and are by far the safest and quickest remedy for all diseases or disorders of the liver.

Price 25 cents, or 5 bottles for \$1.00, all dealers or mailed direct on receipt of price by The T. Milburn Co., Limited Toronto, Ont.



The Rennie Seed Cabinet.

Each year the "Rennie Seed Cabinet," in every dealer's store, is replenished with new-crop seeds, fresh and full of vitality. No old stocks are carried over.

In this way users of "Rennie's Seeds" are protected from the disappointment that invariably results from sowing old seeds lacking germination.

Bear this fact in mind, and make positive that your garden seeds bear the imprint, "Rennie's Seeds," on the packet. If your dealer is without them, don't risk disappointment by taking other kinds. Send your order direct. We pay the postage.

## WM. RENNIE CO.

(LIMITED), Toronto, AND

190 McGill St., Montreal. 278 Main St., Winnipeg. 66 Hastings St., West, Vancouver.

### GOSSIP.

McDougall Bros., Tatehurst, Quebec, advertise in this paper for sale a number of registered Clyde stallions and mares, bred from imported stock. Parties interested should look up the advertisement, and write them for particulars.

Messrs. N. A. Steen & Sons, Meadowvale, Peel County, Ont., report their Whitehall herd of Scotch and Scotch-topped Shorthorns doing well, and sales fairly good. The roan yearling bull, Scotty, contributed by them to the Provincial Sale, at Guelph, in February last, sired by the Jilt bull, Royal Scott =49813=, and out of the Cruickshank-bred cow, Cecelia 17th, by British Statesman (imp.), sold for \$135 to R. Dickson, Guelph, the highest-priced animal in the sale, which speaks well for the character of the Whitehall herd, which is of the highest class of breeding and type.

R. E. Gunn, manager of Dunrobin Stock Farm, Beaverton, Ont., writes that trade is good in medium stock, but high-class show animals are a little dull. Yorkshire swine are booming. Advance orders for Dunrobin Yorkshires are piling up, but with thirty-odd sows to farrow, all of them on one farm under the personal supervision of the owners, there should be lots of good ones. In Shorthorns, there are a few good young things for sale, and the cows are dropping some splendid calves. The Clydesdale mares will soon start to foal, and there are a dozen young ones to come, so a busy season is expected, which will replenish the barns and fill the vacant places, from which many good ones have been sold during the past season.

The five-year-old registered Clydesdale stallion, Lord Lachlan, whose picture appears on another page in this paper, is for sale. He is owned by Mr. Moses Bock, New Dundee, Waterloo County, Ont., near Petersburg Station (G. T. R.). He is a dark bay, sired by Lachlan [4205], a son of Imp. Lothian Top (imp.) [3948], and his dam, Waterside Queen, by Waterside Farmer (imp.), traces to Lady Hallman (imp.) [2985]. The cut, being on a small scale, fails to give a correct idea of his size, but shows his good quarters, strong limbs of good quality, and his well-balanced conformation and proportions. He is described as having good action and disposition, and a good stock-getter. A good driver would be taken as part payment.

### LAST CALL FOR THE MAMMOTH SALE OF CLYDESDALES.

Tuesday, April 16th, at Woodstock, Ont., will be a red-letter day in Clydesdale transactions, as that day will mark the epoch of the largest sale of imported Clydesdale mares, fillies and stallions ever held in Canada, when 60 head of imported mares, fillies and stallions will be sold at auction, and surely so large an offering must contain animals of the type that will suit any man. Every one of this large number is registered in the Scottish Clydesdale book, and, of course, is eligible for registration in the Canadian National Clyde book. Many of them were winners of more or less repute in Scotland, and many of them are show mares of a high order. There is scarcely a sire in Scotland, of any repute, that is not represented in the lot, and now is the time to buy, as another fall there is certain to be an advance in the price of imported fillies, and nothing in sight would indicate any falling off, either in the demand or price of draft horses for many years to come. The purchase of an additional brood mare or two is certain to be a profitable investment. Parties attending the sale, and wanting time for payment, must make arrangements before the sale; otherwise, terms will be cash. Tuesday, April 16th, is the day, and Woodstock is the place. Arrange to attend.

### TRADE TOPIC.

GOOD SUBSTITUTE FOR CREAM.—At this season, dairymen and farmers generally, who rear calves, will be interested in the advertisement of the Wm. Rennie Co., of Toronto, announcing that they are now prepared to supply Bibby's famous Cream Equivalent, found so useful for that purpose.

## Unreserved Auction Sale

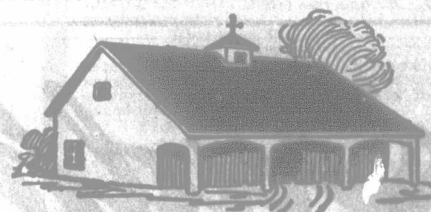
Of Imported Clydesdale Fillies, Imported Clydesdale Stallion (a grandson of Sir Everard), a Pair of Registered Mares (supposed to be in foal). These mares are show animals—Toronto winners. Also Roadster Stallion, winner at Toronto Spring Show and at the Canadian National Exhibition. Along with the above choice animals will be sold a number of First-class Work Horses (mares and geldings).

Sale will be held at Lawncroft Farm, Norval, Ont., on WEDNESDAY, APRIL 17, '07.

All trains will be met—Shelgrove, C. P. R.; Norval, G. T. R. Those wishing to make enquiry previous to sale may do so by telephoning the proprietor. Sale to commence at one o'clock. In case of bad weather will be under cover. Terms: On furnishing approved joint notes—stallions, ten months' credit; other horses, six months' credit. Six per cent. per annum discount for cash.

John Smith, M. P. P. } Auctioneers. J. L. CLARK, NORVAL, ONT. Benj. Petch }

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FOR BARN, DAIRY BUILDINGS, CHICKEN HOUSES AND SILOS can't be beaten.

The reason is it has quality behind it. Not a roll is allowed to leave our shipping room without close inspection.

In buying "Brantford" you can depend on it being right. We never had a roll returned of inferior quality yet.

Write for special offer to clubs.

Samples, prices, directions FREE.

Brantford Roofing Co., Ltd. Brantford, Can.

## The Down Draft Furnace makes Heating easy.

It is the new idea in furnace construction that does it.

### The Down Draft Principle.

By this principle the air is brought down a pipe through the dome of the furnace to within eight inches of the coal. The fire burns from the top, and owing to the pressure all gases and soot are burned, and it does not permit the heat to be sent up the chimney, as is the case with other furnaces.

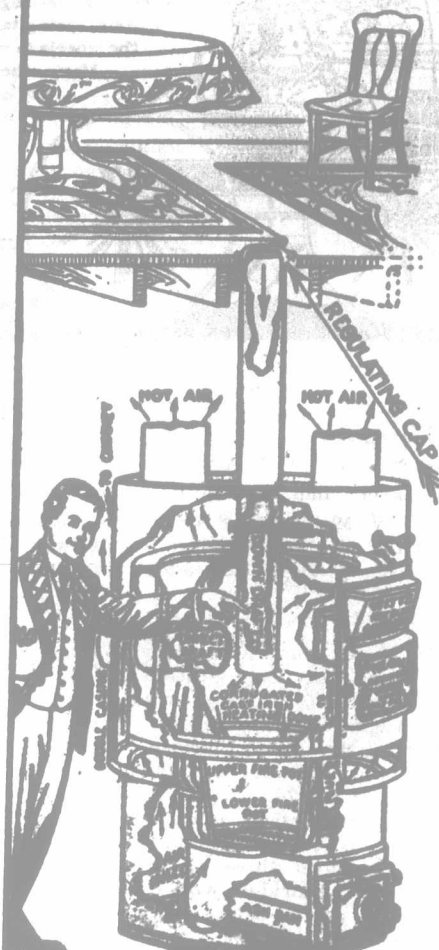
Every particle of heat is extracted from the fuel.

Heavy Corrugated Cast-Iron Dome, which doubles its heating capacity and durability.

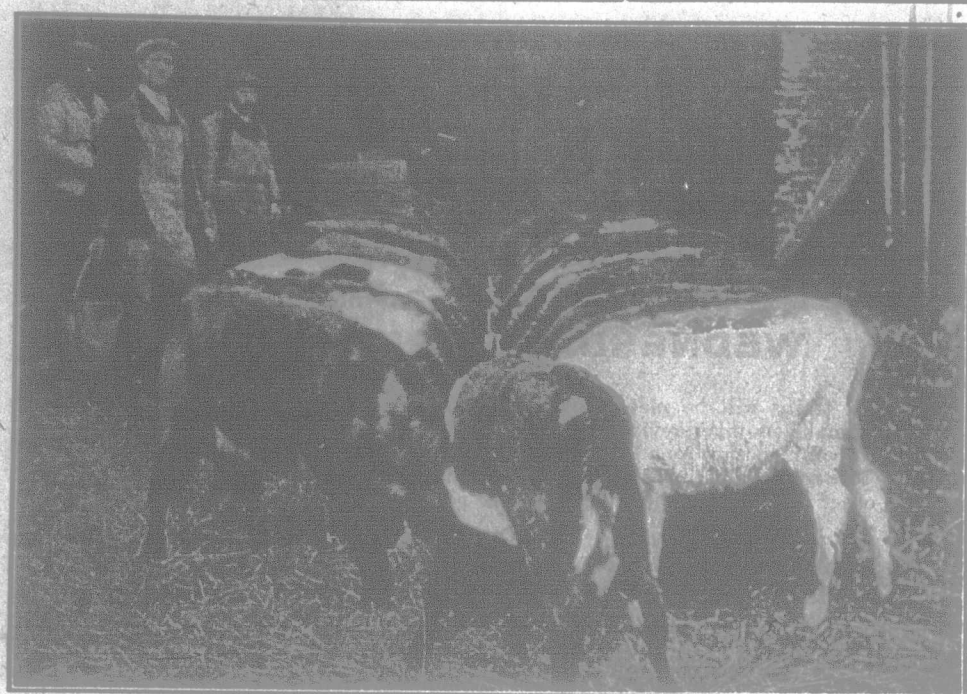
It is especially adapted for burning Soft Coal, which it does with great economy—no other furnace will do this. The heat-saving devices of this furnace will lessen your fuel bill 15 to 30%. Do you recognize what a saving this is?

It costs no more to have it than any other. Write for Catalogue and information.

The Down Draft Furnace Co., LIMITED, GALT, ONT., CANADA.







Reproduced from a photograph of part of a herd of 150 calves fed entirely on Bibby's "Cream Equivalent," without milk, since they were 14 days old.

## Calf Rearing Without Milk

If you are short of milk, or have only separated milk for your calves, use Bibby's

### "CREAM EQUIVALENT"

Calf Meal. All dependable dealers stock it.

Calves reared on "Cream Equivalent," even without milk, always make well-grown heifers, with nice loose skins and plenty of good hair.

If interested, write us for a free copy of "How to Rear Calves for the Dairy." A postal will do.

**WM. RENNIE CO.,**  
LIMITED,

Toronto, Ont.

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have been made better carriages every year since 1855. Constant study is given every detail—and each improvement is carefully considered and tested before it is adopted. Whenever an idea presents itself, that will make Tudhope Carriages easier in running, stronger in construction, smarter in durable style, more satisfactory in every way—that idea is developed and proved.

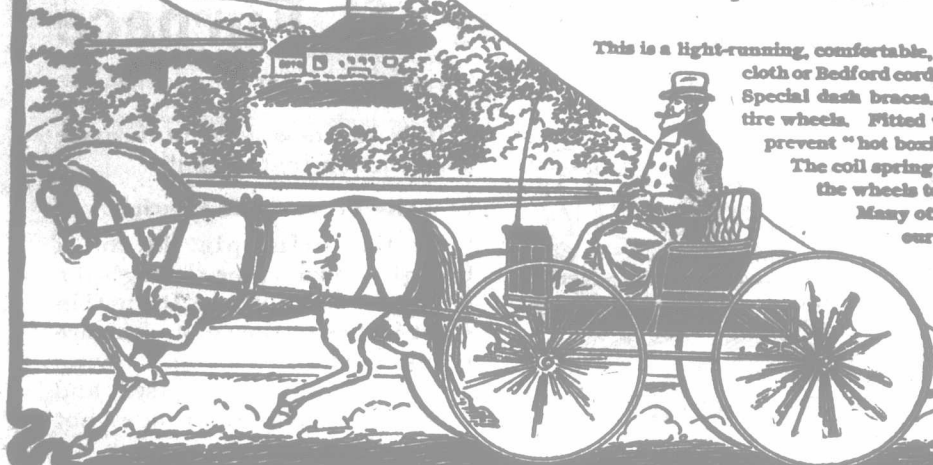
Little wonder then that people, all over Canada, find such thorough excellence in Tudhope Carriages.

They save you money right along—for repairs are few and far between.

The trimmings don't rip off—the mountings keep bright—and the paint retains its brilliancy through rain, snow and mud.

Tudhope Carriages are put together to stay together.

## Tudhope Runabout No. 12



This is a light-running, comfortable, serviceable trap. Trimmed with green wool cloth or Bedford cord, richly upholstered. Divided driver's cushion. Special dash braces. Long distance steel axles. Rubber or steel tire wheels. Fitted with "Perfection Steel Nuts" that absolutely prevent "hot boxings" and the annoyance of wheels rattling. The coil spring takes up the wear of the washers and allows the wheels to run free, yet noiseless.

Many other styles of Tudhope Carriages are shown in our new catalogue which we will take pleasure in sending you free. Write for it before you decide on the new buggy.

The Tudhope Carriage Co.

Limited  
Griffith, Ont.

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## FREE to the RUPTURED

### A QUICK NEW CURE



I have made new and important discoveries in the cure of Rupture, and for the next thirty days will give every ruptured person who follows these directions a chance to try this remarkable home cure. FREE. Mark on the

picture the location of your Rupture, answer the questions, and mail this to DR. W. S. RICE, 86 Church St., Block 306, Toronto, Ont.

Age..... Time Ruptured.....  
Does Rupture pain?.....  
Do you wear a Truss?.....  
Name.....  
Address.....

**For Sale REGISTERED CLYDESDALE STALLION**, Wild America (4188), foaled June 10th, 1909. Full particulars will be given upon writing to **A. GRADY, CASTLEMORE, ONT.**

## GOSSIP

The registered bay four-year-old Clydesdale stallion, Wild America [4183], by Ratepayer (imp.), dam Polly of Mayfield, by Major Hunt (imp.), is advertised for sale in this paper by his owner, Mr. A. Grady, Castlemore, Peel Co., Ont.

Mr. J. W. Burt, Coningsby, Wellington Co., Ont., near Erin Station (C. P. R.), and Fergus (G. T. R.), breeder of Aberdeen-Angus cattle, reports the recent sale, to Mr. John Eldridge, Hepworth, Peel Co., Ont., of the young bull, Sir Bess, No. 96274, A. H. B., a lengthy, smooth, well-fleshed animal, with a good lay. The bull is to succeed one sold the same buyer three years ago, and of whom Mr. Eldridge writes: "We never had a better before as we have had from this sire." Mr. Burt has one now for sale from the same dam.

## PAPROTS WANTED

Have you a talking parrot to sell? Tell us the breed, age, color, and list of words your bird will say. Write at once, stating lowest cash price and address.

## COTTAM BIRD SEED

38 Bathurst Street, London, Ontario.

## Now is the Time to Ship Butter, Eggs & Poultry.

Prices good. Returns quick.

## QUEEN CITY PRODUCE COMPANY, LTD.

100 Front St. E., TORONTO.

WM. AGAR, MANAGER.

**REGISTERED CLYDESDALES** for sale. One four-year-old, one three-year-old, and two two-year-old stallions, and one three-year mare. All bred from first-class imported stock, with good style and action. Prices reasonable. **McDougall Bros., Tatchurst, Que.**

## QUESTIONS AND ANSWERS

### Miscellaneous.

#### ASHES FOR POTATOES—CORN IN ORCHARD.

1. In applying unleached hardwood ashes to potato crops and to sugar beets, should it be applied before or after planting, or sowing, to get best results, and what quantity should be used?

2. Would it be injurious to the orchard, trees being 30 feet apart, and ten years old, to sow a crop of ensilage corn? **SUBSCRIBER.**

Ans.—1. Apply early, and mix well with the soil. Sow 25 bushels of good ashes per acre. If you have any left over, use them in the orchard, or on clover or alfalfa seeding.

2. While corn is not the worst crop to grow in an orchard, being planted late, and usually well cultivated, still it would be better to leave the land entirely to the trees, except, perhaps, for four or five rows of corn in the center of each space.

#### CALCULATING A RATION.

On page 1800, Nov. 15th, 1906, in an article headed, "Feed to Purchase," you figure out the nutritive ratio of a daily ration, also on green sorghum. Could you give an explanation of how this is figured out, and please state what the two dots (:) between the figures stand for? **C. C.**

Ans.—In figuring out the nutritive ratio of a ration, reference must be had to some reliable table giving the percentage of digestible protein, the percentage of digestible carbohydrates, and the percentage of ether extract (more commonly known as fat) in each particular feed that enters into the composition of the ration. Such tables are given in the appendices of all standard works that treat of feeding. There is a good table for the Canadian farmer in Dean's "Canadian Dairying." Jordan's "Feeding of Animals" and Henry's "Feeds and Feeding" are also excellent books with full tables. No farmer should be without such a work. Having found, by reference, the percentage of digestible protein in a feed, multiply it by the number of pounds of that feed in the ration and divide by 100. For instance, suppose we are feeding an animal 10 pounds of clover hay per day. Good red-clover hay contains about 6.8 per cent. of protein; 10 pounds will contain 10 times 6.8=100=.68 pounds. On the same principle, we find it will have 3.58 pounds carbohydrates, and .17 pounds ether extract or fat. Carbohydrates and ether extract serve similar purposes in the animal body, both furnishing heat, energy and body fat, but a pound of ether extract will produce almost 2.3 times as much heat, energy or fat as will a pound of carbohydrates; therefore, we multiply the pounds of ether extract by 2.3, and add the product to the pounds of carbohydrates. In the above instance, therefore, we have carbohydrates and fat equivalent to 3.58+.351=3.931 pounds of carbohydrates. The nutritive ratio of clover hay will be as .68 (the weight of protein) to 3.931 (the amount of carbohydrates and fat), expressed in terms of carbohydrates. Dividing each side of the equation by .68 gives us a ratio of 1 to 5.8. This relation is commonly expressed by the colon (:). When we wish to make up a ration, we simply set down, in black and white, what we expect will make pretty nearly the correct daily allowance per animal. Then, by casting up the total pounds of protein and arriving at the total pounds of carbohydrates and fat (in terms of carbohydrates), we see how the ration figures out. If the nutritive ratio shows an unnecessarily large proportion of protein, reduce the amount of nitrogenous feed, such as bran, oil cake and pea meal. If, as is more often the case, it has too large a proportion of carbohydrates for best results, reduce the corn meal, barley meal or timothy hay, or else, as an alternative, add some more nitrogenous feed to it. For dairy cows, a ration of 1:6 is all right, although feeding standards are not to be followed too religiously. They are merely a guide or help to the intelligent feeder, and should be followed with judgment.

# 60 Imported CLYDESDALE MARES AND FILLIES

And Several Imp. Clyde Stallions

By Auction

At the CAISTOR HOUSE STABLES, Woodstock, Ont., on TUESDAY, APRIL 16, 1907.



Including the champion, Baron Kitchener, whose cut appears in this ad. These mares and fillies are essentially a high-class lot, the get of Scotland's most noted sires; they are from 1 to 4 years of age; many of them winners in Scotland; many of them safe in foal; many matched pairs among the lot; they range from the medium-sized flashy kind to the very large draft kind. The property of Messrs. J. F. Elliot, Butler, Innes, Schaefer & McClary. Terms: Cash, unless other arrangements are made before the sale. For catalogues address: J. F. ELLIOTT, Oxford Centre, Ont. MR. SCHAEFER, Maplewood, Ont. W. E. BUTLER, Ingersoll, Ont. CAPT. T. E. ROBSON, Auctioneer

# 40 WAVERLY HACKNEYS 40

Imported Stallions and Fillies.



Every one a high-class actor and a show animal. Splendidly-matched pairs and singles. Positively the highest class lot of Hackneys to be found on any one farm in America. All ages. Also 4 imported Clydesdale fillies. A big, flashy lot, full of style and quality.

ROBERT BEITH, Bowmanville P. O. and Station. Long-distance Phone.

# 323 PERCHERONS FRENCH COACHERS

Best Collection Stallions in America Most Reasonable Prices Safest Guarantee

4 IMPORTATIONS SINCE JULY 1, 1906.

SEND FOR CATALOGUE. WE PAY FREIGHT AND BUYERS' FARE.

DUNHAM & FLETCHER, Wayne, Ill.

# Clydesdale Stallions!

I have on hand for sale another choice lot of Clydesdale stallions, newly imported, ranging in age from two to six, with plenty of size, style and good true action. Also one first-class Hackney. Wm. Colquhoun, Mitchell, Ont. Phone to residence.



# Graham & Renfrew's GLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, their breeding is gilt-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. Phone North 4453.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

## QUESTIONS AND ANSWERS. Miscellaneous.

### HARD MAPLE FOR BARN TIMBERS.

Have got out hard maple timbers for a barn. When speaking to the framer, he advised me not to use them, saying that they were liable to powder-post. Not many farmers, if any, seem to have used, or know whether it is suitable for the purpose or not. Would very much like to have your valuable opinion on the subject.

OLD SUBSCRIBER.

Ans.—Hard maple is more or less open to the objection raised by your carpenter, but we would not hesitate to use it on that account, after having gotten it out, as it will probably last quite long enough. Probably one objection the carpenter has to the maple is that it is rather hard to frame.

### CONCRETE FLOOR—BUSHEL BOX.

1. Is concrete a satisfactory floor for dairy cattle without a covering?  
2. Give dimensions of box for holding one bushel of potatoes. What thickness of material would be suitable?

A SUBSCRIBER.

Ans.—1. Hundreds of thousands of cattle stand on concrete floors with no covering but the bedding, and that sometimes none too plentiful, and few complaints are reported. At the same time, it is safer and better for feet, legs, udders and general welfare to lay plank or boards on the cement in the fall; they may be taken up in spring. Even then they should be well-bedded.

2. A good box that will hold a bushel of potatoes when filled, just enough that the boxes can be stacked one above another, may be made by ripping 2 1/2-inch strips, diagonally, and letting each piece serve as a corner upright. On each side, also on the bottom, nail 1/2-inch hard-wood strips. Inside dimensions of this box are 18 inches long, 14 inches wide, and 12 inches deep. If desired, the ends might be made of solid 1/2-inch stuff.

### RAPE ON FALL WHEAT.

1. Would rape, sown on wheat this spring, produce hog pasture after harvest?  
2. If so, when should I sow?  
3. Should I harrow after sowing?  
4. How much should I sow per acre. The soil is heavy clay. J. B.

Ans.—In his excellent book on forage crops, Prof. Shaw writes of sowing rape in the spring on winter wheat or rye, as soon as the land will bear a team of horses to drag a slant-tooth harrow over the seed. He suggests using only one or two pounds of seed per acre, as the risk is less in case of a dry season. It seems, in brief, as though he would leave the impression that there is a fair chance of securing, on ordinary soil, a certain amount of forage with fall wheat, but on heavy clay the conditions would be none too favorable. "The Farmer's Advocate" would not advise the practice. Fall wheat is too good a crop with which to sow clover. Seed the field to meadow, and grow hog pasture elsewhere.

### BULL FAILING TO FEED WELL.

Have a Shorthorn bull which is not feeding. He will not eat chop of any kind; will eat whole oats, hay and mangels. I have been feeding a handful of linseed meal most of the winter, three times daily. His appetite seems fairly good, except for chop or meal and turnips. What shall I do to again induce him to eat the chop?

SUBSCRIBER.

Ans.—We cannot suggest anything to make him eat chop, but would try a little bran, with the whole oats, and if he eats a reasonable amount of this mixture, he should do fairly well. We prefer coarse-ground (nutted) oil cake to linseed meal, as the chewing of the coarse-ground cake stimulates salivation, which aids digestion. If he would scoop whole turnips or mangels, the operation would have a similar effect. By trying such experiments, you may hit upon something that suits his case. He should get salt regularly, or, better, have it where he can take it at will.

## Standing Offer



Good always, everywhere. \$100 Reward for any lameness, curb, splint, founder, distemper, etc. (where cure is possible) that is not cured by

### TUTTLE'S ELIXIR

Greatest horse remedy in the world. Tuttle's Family Elixir invaluable for human ailments. Pains, rheumatism, etc. Send for free 100 page book. Veterinary Experience. The perfect horseman's guide. Every disease symptom and its treatment.

TUTTLE'S ELIXIR CO.,

66 Beverly Street, Boston, Mass. Canadian Branch, 22 St. Gabriel St., Montreal, Quebec.

## Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with

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### Fistula and Poll Evil Cure

—even bad old cases that stilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

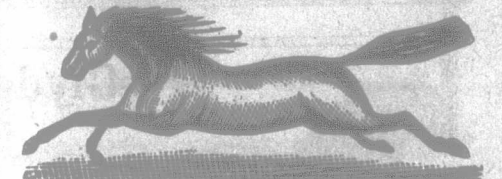
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Gen. Simcoe and Nelson Sts., Toronto Auction Sales of

Horses, Carriages, Buggies, Harness, etc., every Tuesday and Friday, at 11 o'clock

Special Sales of Thoroughbred Stock conducted

Consignments solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

### SHETLAND PONIES!

P. McOulough & Son, Breeders and Importers of Shetland ponies, Markdale, Ont. We showed 8 ponies at Toronto Exhibition in 1906, and got 8 prizes: 5 firsts, 4 seconds and 1 third. All our ponies are imported. Our stallion, Foxglove, took first prize at Toronto. Our mare, Bessie, took first prize and their foal, Bruce, took first prize also. Good accommodation for mares sent from a distance to breed. Ponies for sale. Our address: Markdale P. O., Ont.

### Imp. Clydesdale Fillies!

Have now on hand about a dozen, nearly all imported. A high-class lot and very richly bred. Combine size and quality and all in foal. Also one-year-old stallion. Write me, or come and see them. Nelson Wagg, Clarence P. O., Ont.

### Imported Clydesdales

Two 2-year-old and two 3-year-old stallions; one 2-year-old and two 1-year-old fillies; positively the best bunch I ever imported; richly bred, full of quality, abundance of size, and nice, true actors. Will sell them right. Terms to suit.

Telephone 605. Gen. S. Stewart, Newark, Ont.

### IMP. CLYDESDALES

Three stallions, rising 3, and 7 fillies, rising 3; the big heavy kind, full of character; a superior lot, every one a show animal; will make over-a-ton horses, and breeding the most fashionable. Prices a little below any of the others.

J. A. BOAG & SON, Ravenshoe P. O., Brown Hill Sta.

For Sale: A Registered Clydesdale Stallion First-class, coming 3 years. Color, rich brown; small stripe and little white on two feet. Sired by Imp. Pioneer (11121) (5374), of Darnley breeding. Dam out of the imp. prizewinner, Culmain Lass (1218), and granddaughter of old Prince of Wales (673), sired by Imp. Queen's Own (7176) (1708), winner of several gold medals in Canada. A promising colt, of the very choicest combination of breeding, with near ancestors leading winners in keenest competitions. Prices very moderate for quick sale. JOHN CAMPBELL, Fairview Farm, Woodville, Ont.

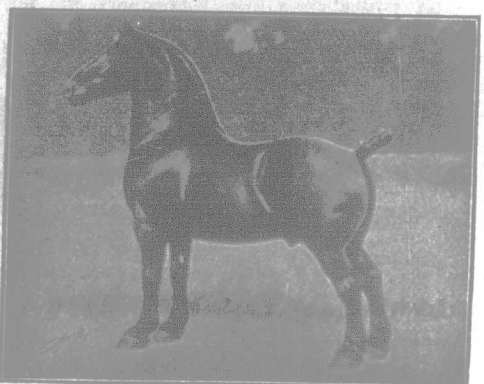


## 30 PERCHERONS

Also Shires, Hackneys and Clydes, have just arrived with our new importation from Scotland, England and France, of high-class stallions and mares. Many of them prizewinners in their native lands. Bred by the best breeders. Percherons, blacks and grays, weighing 1,600 to 2,000 pounds. Shires at two year old weighing 1,700 pounds. Clydes, bays and blacks, 4 and 5 years old, weighing 1,800 to 2,000 pounds. Our Hackneys are bays and chestnuts, combining size quality and breeding that cannot be beaten. We have a few first-class young stallions that we will sell at cost, to make room for our next importation; and all for sale at reasonable prices.

**HAMILTON & HAWTHORNE, Simcoe, Ont.**

68 miles south-west of Toronto on the G. T. R.



## The La Fayette Stock Farm

**J. Crouch & Sons, Props., La Fayette, Ind.**  
Largest importers in America of German Coach, Percheron and Belgian stallions. Over 200 head on hand at all times. All have the best of bone, style and action, and on which we will put a gilt-edged guarantee they must be satisfactory, sure breeders. Won more prizes in the American show-ring in 1906 than in all other importers combined. Our guarantee is the best. Terms to suit buyers. Importations arriving every few weeks insure prospective buyers a large selection from which to make a purchase.

**J. CROUCH & SON, La Fayette, Ind.**  
La Fayette is but six hours' ride from Detroit via Wabash Railroad.

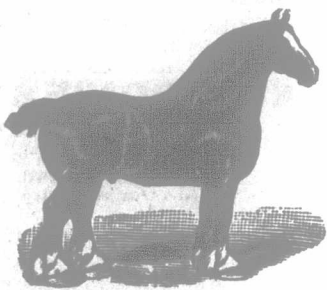
Just got in 100 head of Percheron and Belgian stallions and Percheron and Belgian mares.

## Clydesdales, Percherons and Hackneys



I have still on hand 19 Clydesdale stallions, 4 Clydesdale fillies, all imported; Scotland and Canadian prizewinners; 3 years old, that will make 2100-lb. horses of choicest quality and richest breeding; 4 bl c Percheron stallions, 3 years old, big, flashy, quality horses and 6 Hackney stallions, 1st-prize and championship horses among them. Will sell reasonable and on terms to suit.

**DR. T. H. MASSARD, Millbrook P.O. and Stn.**



## GRAHAM BROS.

"Cairnbrogie," CLAREMONT,

IMPORTERS OF

HACKNEYS and CLYDESDALES

Established 80 years, and winners at all large shows in Canada and United States. Best of stock always on hand for sale. New importation of Royal winners just arrived.



## THOS. IRVING

Winchester, Ont.

Established for over 80 years. Importer and exporter of

HACKNEY, CLYDESDALE and SHIRE STALLIONS and MARES.

New importation of winners just arrived. 90 miles west of Montreal on C. P. R.

## SMITH & RICHARDSON, COLUMBUS, ONT.,



have now on hand a choice selection of Clydesdale Stallions, combining size and quality with straight, true action. Breeding unsurpassed. Individually unexcelled. Scotland prizewinners. Also a few Canadian-bred stallions, and imp. and Canadian-bred fillies.

Long-distance Phone Myrtle Station, C. P. R. Brooklin or Oshawa, G. T. R.

## Imported Clydesdale Stallions and Fillies.

Having sold most of my last importation of CLYDESDALES, I am leaving for Scotland for another importation of stallions and mares, the arrival of which will be mentioned in this space in the columns of "The Farmer's Advocate." Come and see me on my return.

**Andrew Aitchison, Guelph, Ontario.**

## QUESTIONS AND ANSWERS. Miscellaneous.

### SCRATCHES.

Can you recommend a good remedy for scratches in horses? G. T.

Ans.—Prevention consists in being careful not to overfeed with grain, and giving exercise when not at regular work. Keep the parts dry and clean, and avoid washing with warm water, unless carefully dried and bandaged immediately after. To cure a case, first give a purgative ball of 6 to 10 drams aloes and 2 drams ginger, according to size. Feed bran till purgation ceases, and very little grain till he is put to work. If the case is chronic, follow up with 3 drams nitrate of potash twice daily for a week or ten days, or with one to one and a half ounces Fowler's solution of arsenic, twice daily for a week. Local treatment depends upon the weather. Lotions, oils or ointments are generally used; lotions in warm weather, or when the patient is used on dusty roads or fields, but oils or ointments are preferable in cold weather. Sometimes they are used alternately. A favorite lotion is made of 1 ounce each of sulphate of zinc and acetate of lead,  $\frac{1}{2}$  ounce of carbolic acid, and a pint of water. Perhaps the best ointment is one dram oxide of zinc to six drams lard; rub once a day. Before applying either lotion or ointment, poultice, every six or seven hours for a couple of days and nights, with poultices of warm linseed meal and a little powdered charcoal, then use the ointment or lotion two or three times daily. If the legs get wet rub them dry; if muddy, allow them to dry, and then brush. Do not wash.

### COVER CROP FOR ORCHARD.

What would be the best crop to grow on an orchard, to plow in, to enrich and loosen the soil, rape, buckwheat, cow peas or clover, and when would be the best time to sow it? The trees are peach, plum, cherries and grapes. ONTARIO.

Ans.—All the above crops are good, with the exception of cow peas, which are adapted to a warmer climate than ours. In addition to the above crops, hairy vetch is unsurpassed as a cover crop for soils in need of nitrogen enrichment. Oats are recommended by not a few successful peach-growers, and for poor land, where it is hard to get a catch of other crops, rye is to be highly recommended, but be sure it is plowed under early the next spring, else it will rob the trees. Rotation of cover crops is advisable. Sow rye one year, oats the next, vetches the next, and so on, being guided in selection of a crop, however, by the condition of soil and growth of trees. If they are making excessive wood-growth, use oats or rye, instead of vetches and clover. Do not sow clover too often in a peach orchard, or an excessive amount of nitrogen may be accumulated, and too liberal fertilizing with nitrogen is not good for the peach trees, or, rather, for the peach crop. Sow the cover crop about the middle of July, whenever the soil is well-mellowed and moist.

### TRADE TOPIC.

SNIDER'S BEST EARLY POTATO, advertised in this paper by Mr. Thomas Bousfield, Carlisle, Wentworth Co., Ont., should receive consideration on its merits, as the best early potato is a boon that interests all farmers and gardeners. Out of 116 varieties tested at the O. A. C., Guelph, Snider's stood best, being free from rot, yielding 300 bushels per acre, and maturing in 88 days. On page 380 of "The Farmer's Advocate," for Feb. 28th, 1907, is shown a picture of a leaf of this favorite variety that is said to have measured 6 inches in width. See the advertisement in that issue and in this, and judge for yourself as to the claims of Snider's Early.

"My dear," said the caller, with a smile, to the little girl who occupied the study while her father, an eminent literary man, was at dinner, "I suppose you assist your father by entertaining the bores?"

"Yes, sir," replied the little girl, gravely, "please be seated."

## HORSE OWNERS! USE

### GOMBAULT'S CAUSTIC BALSAM.

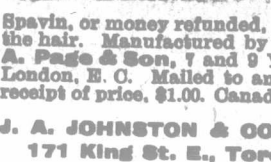


A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from Horses. Impossible to produce scar or blemish. Send for circulars. Special advice free.

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

## Dr. Page's English Spavin Cure.

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Dissemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: J. A. JOHNSTON & CO., Druggists, 171 King St. E., Toronto, Ont.



## Clydesdale Stallions and Mares.



For sale: Lyon Stewart (2732), too well known in Canadian show rings to need any comment. The Nobleman (imp.), 4 years old, sired by Hawthth. MacKinley 2nd (imp.), by MacKinley, dam by Prince of Wales (673). The mares are big, flashy animals, 3 years old, and were imported by myself. All are registered in Clydesdale book. Prices reasonable. Long-distance phone.

**H. G. Boag, Barrie, Ont.**

## SUCCESS DAIRY FEED

A CORN AND OAT FEED, SPLENDID VALUE.

\$17.00 per ton, in sacks on cars at Woodstock. Write for samples and freight rates.

**WOODSTOCK CEREAL CO., LTD. Woodstock, Ont.**

## The Sunnyside Herefords.



To make room for my new importation, I will sell four cows with heifer calves by side, two yearling heifers, one yearling bull and two bull calves at a 20% reduction if taken in the next 30 days. The best of breeding and individual merit. Herd is headed by a son of the grand champion, Prime Lad. Address: **M. H. O'NEIL, Southgate, Ont.**

## Broxwood Herefords

Cows, heifers and calves

For Sale.

**R. J. PENHALL, Nober, Ont.**

**FOREST VIEW FARM HEREFORDS**  
Four bulls from 8 to 13 months old; prizewinners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale. **JOHN A. GOVENLOCK, Forest Sta. and P.O.**

**HEREFORDS**—We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you. **J. A. LOYBRING, Coldwater P.O. and Stn.**

**Aberdeen-Angus**—Our herd in 1906 won all principal prizes at Toronto, London, Dom. Exhibition, Halifax, and Provincial at Charlottetown, Prince Edward Island. Also, we got the largest share in our class at Provincial Winter Fair, Guelph. Stock of all ages for sale. **JAMES BOWMAN, Elm Park, Guelph.**

**Advertise in the Advocate**

USE  
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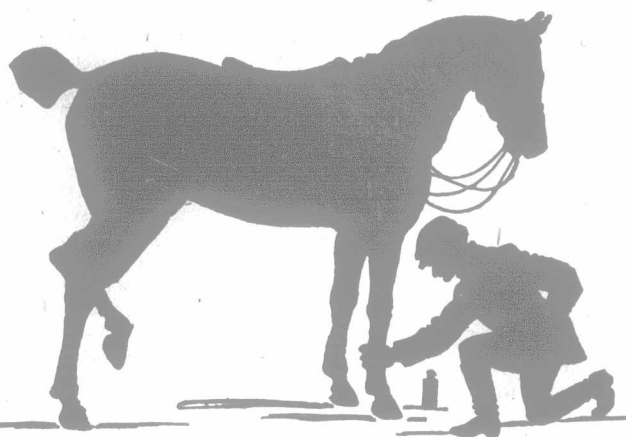
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**Your best Horse may strain his Shoulder or Fetlock tomorrow**

Get a bottle of FELLOWS' LEEMING'S ESSENCE today.

Fellows' Leeming's Essence acts like magic. It draws out all the soreness and stiffness from strains, sprains and bruises—and limbers up the joints. One application usually cures ordinary lameness—and two rubbings fix the horse all right.

It does horses so much good right at the start that they can be put to work a few hours after the Essence has been applied.

Accidents are liable to happen at any time. Be ready for them.

Get a bottle of Fellows' Leeming's Essence today. 50c. a bottle.

At all dealers or from the  
**NATIONAL DRUG & CHEMICAL CO., LIMITED, MONTREAL.**

**Seldom See**

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



**ABSORBINE**

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

W. F. YOUNG, P. D. F., 73 MONMOUTH ST., SPRINGFIELD, MASS.  
Canadian Agents: LYMAN, SONS & CO., Montreal, Que.

**HODGKINSON & TISDALE, BEAVERTON, ONT.**



Importers and Breeders of Clydesdale and Hackney Horses. We have on hand at present the choicest specimens of Clydesdale fillies in Canada, also a few extra fashionably-bred young Clyde stallions. People wanting good ones should see these before buying. Our farm, "Simcoe Lodge," is situated near Beaverton, on James Bay and G. T. Railways. Long-distance 'phone No. 18. Visitors will be met at Beaverton on notification.

**CLYDESDALES AND FRENCH COACHERS, IMP.**



Scottish and Canadian winners, stallions, ares and fillies. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Acme. They combine size, quality and action. The French Coachers are a big, flashy, high-stepping lot, and are winners in both France and Canada. Our prices are right, and our horses good as the best. Long-distance telephone.

ROBT. NESS & SON, Howick, Quebec.

**OAK PARK STOCK FARM CO., LTD. BRANTFORD, ONTARIO.**

Breeders and Importers of Hackneys, Clydesdales, Shropshire Sheep, Berkshire Pigs and Scotch Collie Dogs.

**2 Choice Hackney Stallions for Sale.**

Hackney fillies and mares for sale. Three young Berkshire sows in farrow for sale. We are booking orders for March and April by Danesfield Donovan and from out imp. sows. We have a beautiful litter of puppies: two weeks old for sale, from Hollyrood Rose, sired by Niwel Conqueror; also one beautiful puppy half grown.

**W. C. KIDD, LISTOWEL, ONT.**

Importer of Clydesdales, Shires, Percherons, Belgians, Hackneys, Standard-breds and Thoroughbreds

of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long-distance 'phone LISTOWEL P.O. AND STATION.

**GOSSIP.**

**STONELEIGH STOCK FARM.**

About six miles from Bradford, G. T. R., and seven miles from Beeton, G. T. R., Simcoe Co., Ont., lies Stoneleigh Stock Farm, the property of Messrs. E. Jeffs & Son, the home of one of Ontario's oldest Shorthorn herds. Comfortably housed in their commodious stables, just now, are about 25 Shorthorns, 30 Berkshires, a choice flock of Leicester sheep and a large flock of Buff Orpington fowl. The Shorthorns are descended from the following well-known cows: Margaret (imp.), by Snowball 8602; Rose (imp.), by Skipton 229; Red Rose (imp.), by Baron of Kildale 11156; Lady Jane (imp.), by Sir Walter 2639, and Red Rose (imp.), by Son of Young Albion 2968. Here are an array of dairy-bred Shorthorns equalled by few, if any, herds in Canada, besides being strictly up-to-date in type. The stock bulls are Wynock Chief 49146, assisted by Royal Lucerne 60945, a nice thick, well-put-up, mossy pair. The bulk of the older females are the get of the Jessamine-bred bull, Killerby 5595; the Miss Ramsden-bred bull, Prince Arthur 23877, and Imp. Gladiator, and the younger ones by the stock bulls, among which are three splendid thick young bulls, from ten to twenty months old, two reds and one roan, the roan twenty-months-old bull being an extra good one, and one of the reds, ten months old, is the making of a show bull, and all are out of heavy-milking dams, which makes them exceptionally desirable as herd-headers. In heifers are two grand good yearlings and a number of younger ones. The Berkshires are prizewinners, and bred from prizewinners, are built on true bacon lines, and strictly high-class. Owing to the strong demand for Berkshires, the young stuff is all sold, but a few are left, about seven months old, and lots more are coming on, for which orders are now being booked, also for Buff Orpington eggs. Write Messrs. Jeffs, to Bond Head, Ont., P. O.

**BRAMPTON JERSEYS.**

Hawthorne Lodge is the home of the great Brampton herd of Jersey cattle, the property of Messrs. B. H. Bull & Son, of Brampton (G. T. R. and C. P. R.), 20 miles west of Toronto—now numbering 125 head, without doubt the largest herd in Canada. Over a dozen of the females were imported direct from the Island of Jersey. Several of the others were imported from the leading herds in England and the United States, the whole making an aggregation that for rich-producing-line breeding, and ideal dairy type, coupled with high-class showing individuality, are without a peer in this Dominion; a herd that year after year, at the leading exhibitions at Toronto, London, Ottawa and Winnipeg, have carried off the principal honors, and at the Dominion Exhibition, at Halifax, practically won everything worth winning. Such is the complexion of the Brampton Jersey herd, and a great deal of the herd's phenomenal show-ring success has been due to the high-class sires that have always headed the herd, nearly all of which have been imported, and have won the highest honors in strong competition. Those at present in service are: Arthur's Flying Fox (imp. in dam); Fereor (imp. in dam), and Blucher, a son of the old champion, Imp. Monarch. All three have a long list of winnings to their credit, and certainly are choice representatives of the breed. It is the intention of Messrs. Bull to have every milking female in the herd tested this year, the results of which will be looked for with much interest by dairymen all over Canada. For immediate sale are eight bulls, fit for service, nearly all sired by the Toronto champion, Blue Blood of Dentonia, some of them out of imported cows, and some of them last fall's winners at Toronto, London, Ottawa and Halifax, a rare, nice, straight lot, fit to head any herd. Besides these, are some ten bull calves. In heifers, there are six yearlings for sale, and a nice bunch would be hard to find; but Messrs. Bull's pride is centered in 20 heifer calves, and justly so, for they are a sight worth going many miles to see; an even, straighter bunch was probably never seen together. The whole herd is in splendid condition, and the owners declare the herd never contained so many high-class animals as at present.

**Are You Feeding Lice**



Don't try keeping hens and lice at the same time. If you do, the lice will have the benefit, the hens the annoyance, *you* the experience. Get rid of lice before experience costs too much. Dust hens, nests, platforms, every nook and cranny with

**Instant Louse Killer**

One or two applications will rid the house and hens of every mite and louse. Instant Louse Killer kills lice on poultry, horses, cattle, sheep ticks, bugs on cucumbers, squash and melon vines, cabbage worms, slugs on rose bushes, etc. It is also a perfect disinfectant and deodorizer. Sold on a written guarantee. Comes in shaker-top can for convenient use winter or summer. See that the word "instant" is on the can, as there are many imitators.

1 lb. 35 cents 3 lbs. 85 cents.

If your dealer cannot supply you, send your order to us.

Manufactured by  
**Dr. HESS & CLARK**  
Ashland, Ohio, U. S. A.

**Shorthorns, Cotswolds and Berkshires.**



For sale: 3 yearling bulls, cows, heifers and calves. Over 50 head to select from. Nothing to offer in Cotswolds or Berkshires.

CHAS. E. BONNYCASTLE, P. O. and Stn. Campbellford, Ont.

**White Hall Shorthorns**



Misses, Cecilies, and Lady Victorias. 4 young bulls, 7 heifers, and a few older females. Bred right and will be sold right.

N. A. Steen, Mendonville P.O. and Station, Peel Co.

**WILLOWBANK SHORTHORN HERD**



ESTABLISHED 51 YEARS.  
FOR SALE: Young bulls and heifers from imp. sires and dams, of most fashionable breeding and type; exceeding choice. Prices to suit the times.

JAMES DOUGLAS, Oshawa P.O. and Stn.

**Maple Hill Shorthorns:**



For immediate sale are two yearling bulls—one a Crimson Fuchsia, the other a Duchess of Gloster; both by Imp. Royal Prince, and both head headers. Also a number of heifers that are strictly high-class. Send for catalogue.

DAVID BIRRELL, Greenwood P. O., Pickering, G. T. R., Clarendon, C. P. R.

**Shorthorn Bull—Prince of Stars**

Rich roan. Sire Chief of Stars (imp.), dam by Blue Ribbon (imp.), dam Estelle (imp.). Kind, sure, a good handler. Will sell to avoid inbreeding. Look up this pedigree, and write H. M. VANDERLIP, Gainsville, Ont.

**Cattle and Sheep Labels**



Send your name and address for circular and sample. It costs nothing. Write to-day. Address: F. G. James, Bowmanville, Ont.

**ARLINGTON SHORTHORNS AND LEICESTERS**

Present offering: 3 bulls 8 and 11 months old, by Christopher's Heir 4549; also a few females of different ages, some from imp. sires. No sheep for sale at present. Stock guaranteed as represented. John Lishman, Hagersville P. O. Ont.

**For Sale: Scotch Shorthorn**

Young bulls and heifers.  
H. K. FAIRBAIRN, THEOPH. ONT.  
Rose Cottage Stock Farm

## SCHOOL LANDS SALE

The School Lands of Manitoba are nearly all sold, but we can sell you farms on practically the same terms, viz.,

### Ten Per Cent. Cash and Balance in Nine Yearly Installments,

with interest on deferred payments at six per cent. per annum. These farms are all in the Province of Manitoba, and are within three miles of railway stations, markets and schools. Write to us for catalogue and maps.

**McINNIS & CLARK,**

Bank of Commerce Building, BRANDON, MAN.

### Glen Gow Shorthorns

Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman and Imp. Joy of Morning, and out of Imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance phone.

W.M. SMITH, Columbus P.O.

Brooklin & Myrtle Sts. C. Rankin & Sons, Wyobridge, Ont.

Importers and Breeders of

### SHORTHORN CATTLE and OXFORD DOWN SHEEP.

FOR SALE—Females and bulls, of all ages from noted Scotch families.

### Rowan Hill Herd of High-class SHORTHORNS

Herd headed by the Watt-bred bull, Royal Chief 65495, son of Mildred's Royal. Anything in herd for sale at living prices.

A. Duncan & Sons, Carluke, Ontario.

### MAPLE + GROVE + STOCK + FARM Scotch and SHORTHORNS Scotch-Topped SHORTHORNS

Present offering: Cows and heifers in calf to Lord Mysie—59627—. Some good young bulls and prize-winning heifers at very reasonable prices. For particulars write to L. B. POWELL, Wallenstein P. O., Wallenstein Station on the Guelph and Goderich Ry., C. P. R. Farm one-half mile from station.

J. BRYDONE, Breeder of pure Scotch Short horns. Breeding females imported. Headed by the pure Crickshank (Duthie-bred) bull, Bityson Victor (Imp.)—50008—(87397). 11 young bulls from Imp. dams for sale.

Prices reasonable. Telegraph, Telephone, R. R. Sta. and P. O., Milverton.

### FOR SALE 8 SCOTCH SHORTHORN BULLS

Aged 6 to 14 months Marr Beautys, Campbell Clares, Bessies, Claras and Rosebuds, got by the Broadhooks bull, Broadhooks Prince (Imp.) 55002. Also cows and heifers in calf or with calves at foot or being bred to same bull. Prices lowest and terms easy.

DAVID MILNE, Ethel, Ont.

### J. Watt & Son

Herd headed by Imp. Pride of Scotland and Heatherman. We have still about a dozen cows or heifers in calf or calves at foot. Also one good 13-months-old bull. These cattle will be sold reasonable, so as to make room for our crop of calves. Visitors welcome. Correspondence invited.

SALEM P.O. Elora Station, G.T.R. and C.P.R.

### SMITHFIELD STOCK FARM Shorthorns & Yorkshires

Present offering: Young stock of both sexes, sired by the Missie bull, Aberdeen Beau, by (Imp.) Scottish Beau. Also young Yorkshire sows.

R. E. WHITE, Salderson, Ont.

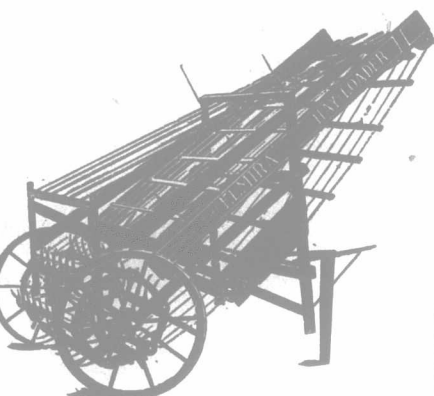
### Shorthorns & Berkshires

For sale: Young bulls and calves; also a few young sows and fall pigs.

John Racey, Lennoxville, Que.

Advertise in The Farmer's Advocate and Get Good Results

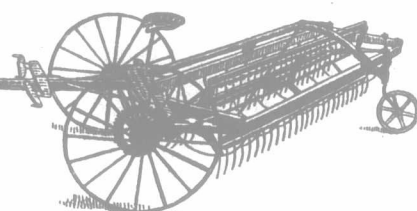
## THE ELMIRA HAY LOADER



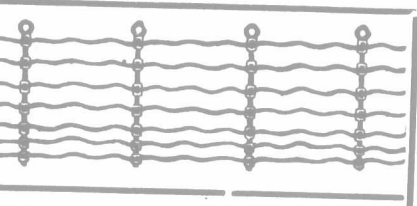
We are the oldest makers of Loaders and Side Rakes in Canada.

"Ever striving to improve" is our motto.

We can supply you with either a Rotary Side Delivery Rake, as shown below, or a Fork Side Delivery Rake.



We invite your correspondence. Elmira Agricultural Works Co., Ltd. Elmira, Ontario.



Write for our wholesale prices. We can save you 25% to 40%. National Wire Fence Co., Merrickville, Ont.

### SHORTHORNS AND LEICESTERS

Present offering: 4 choice young bulls from 8 to 19 months old. All sired by Rosicrucian of Dalmeny (Imp.)—45220—, and from grand milking dams. Prices away down for quick sale. Also a grand lot of young registered ewes now bred to our stock ram, and a few good rams at reasonable prices. Address:

W. A. DOUGLAS, Caledonia Station, Tuscarora P. O.

### RAILWAY VIEW STOCK FARM SHORTHORNS

Herd headed by Lord Lieutenant, imported, =50050—. Present offering: Four young bulls, from 6 to 8 months old. Cows and heifers, imported and home-bred. Prices reasonable.

SCOTT BROS., Highgate P. O., Ont.

Young Shorthorn Bulls! Am now offering 3 grand ones from Scottish Peer (Imp.). Will make show animals. A few Berkshire boar pigs 3 months old. Also Leicester sheep. JAS. SNELL, Clinton, Ont.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### ALSIKE—ROOTS.

1. Will feeding cows on alsike straw prevent them getting in calf?  
2. Which are turnips or mangels the better food for bulls?

H. S.  
Ans.—1. No.  
2. There is little difference; most feeders prefer turnips. V.

#### COOLING THE BLOOD.

How much sulphur should be fed to a big horse at one time, and how often? Is there any danger of feeding too much? What is good for a horse's blood to cool it?

A. H.  
Ans.—A tablespoonful, twice a week, in feed, is as much as should be given to a large horse. Care should be taken to avoid letting the horse get wet or cold while sulphur is being fed, as it opens the pores of the skin, and renders him liable to catch cold. Sulphur has the effect of cooling and purifying the blood; so has Epsom salts, which may be given also in feed, two tablespoonfuls daily for a week or so, or until purging begins. In a bad case, where grease or scratches appear, a purgative ball of 6 to 10 drams of aloes and 2 drams of ginger may be given, feeding bran only till purgation ceases; follow up with 3 drams nitrate of potash, twice daily, in feed, for a week or ten days.

#### TIME FOR PRUNING—OYSTER-SHELL BARK-LOUSE.

1. I have been pruning for the last two weeks. There are some who think it best to prune when the bloom is out, or along there. Is there anything against pruning at this season of the year, or even right along till it becomes too late?

2. What is the San Jose scale like? Is it what we would call the bark-louse? I am trimming or pruning an orchard now, and there are lots of the trees, especially the old ones, that look as if they were dead. They are covered with this bark-louse.

W. C.  
Ans.—1. Pruning may be done till the buds open. After that time there is more or less danger of breaking off fruit spurs by working in the trees.

2. It is most likely that the scales you find upon the bark at this time are the oyster-shell bark-louse. These, as the name implies, are shaped like small oyster shells, and are nearly one-eighth of an inch in length. The San Jose scale is round and very small, with a diameter hardly as large as that of a pin, and they have a prominent nipple in the center. One usually requires a magnifying glass to identify the San Jose scale for certainty; but with the naked eye one can make no mistake in the oyster-shell bark-louse.

#### O. A. C. H. L. HUTT. FOUL SEED—STRAY STEER.

A farmer, sells clover seed that has foul seed in it to B, a storekeeper, the seed not being inspected.

1. Can B resell that same seed to the farmers without inspection or recleaning? B claims he can, by telling the farmers where he got it, and by selling it \$1 cheaper a bushel.

2. Does A or B, either one, lay themselves liable for a fine, according to last Seed Act?

2. Also, a steer got among A's cattle last October. A pastured the steer the rest of the fall, no one ever claiming same. After steer was there three months. A advertised a steer had strayed on to premises. What now has to be done with steer, and what about expenses for keep and advertising? Ontario.

Ans.—1. Not legally.  
2. Yes.

3. You should go to the clerk of your township municipality, and ask him to show you the by-law, if any, passed pursuant to sec. 546 of the Consolidated Municipal Act, 1903, for causing stray animals to be sold in case they are not claimed within a reasonable time, or in case the damages, fines and expenses are not paid according to law. If there be no such by-law, then you should look up the provisions contained in the Revised Statutes of Ontario, 1897, Chap. 272 (Act respecting pounds), and follow the somewhat elaborate provisions to be found there for relief in such cases.

## Peeps into Women's Letters.

If our readers could spend one morning looking through the letters received from all over Canada by the Zam-Buk Co., it would bring home to them with irresistible force the healing virtues of this great household balm. Old women, young women, wives, mothers and even young girls have something to say about how Zam-Buk did this or that good office in their home. Many of these writers give permission to make extracts from their grateful testimony. From these the following were taken at random:

"I was troubled for some weeks with salt rheum in hands and arms, and was using a salve which did me little good. On receiving a supply of Zam-Buk, I applied it, and it really seemed to act like magic! The itching and burning ceased, and in a few days the skin was cleared and healthy." So writes Miss E. A. Butchard, of North Keppel.

"Three boxes of Zam-Buk cured me of Eczema, from which I had suffered a long time." So says Mrs. Gladden, of Mansonville, Que.

"Zam-Buk cured a case of blood-poison in my family, and I wish to thank you for the great blessing it has proved." Is the effect of a letter from Mrs. Webb, of Dovercourt.

And so one could go on quoting extract after extract, showing how Zam-Buk cures chronic sores, ulcers, abscesses, bad leg, itch, and blood-poison; takes the soreness out of cuts and burns, and grows new, healthy skin over injured or diseased places. All stores and druggists sell at fifty cents a box, or the Zam-Buk Co., Toronto, will mail for price.

### Shorthorns, Clydesdales and Shropshires.

In Shorthorns we have 100 head to select from, of both sexes and all ages. No fancy prices asked. Several choice young Clyde mares and fillies. 75 Shrop. Jams of both sexes. Small profits and quick returns is our motto.

EDWARD E. PUGH, Claremont P. O. and Station. Telephone connection.

### Queenston Heights Shorthorns

Show animals in yearling and two-year-old bulls, also bull and heifer calves. Young cows and heifers at very reasonable prices. Canadian and American registration.

Hudson Usher, Queenston, Ontario. Shorthorns and Clydesdales

I am now offering 6 young bulls from 8 to 30 months old, all Scotch bred, two of them from extra good milking families, and a few registered fillies of good quality.

JOHN MILLER, Brougham, Ont. Claremont Sta., C.P.R.; Pickering, G.T.R.

### Pleasant Valley Shorthorns

Herd headed by Imp. Ben Lomond—45160—, assisted by Bud's Emblem, 2nd-prize senior bull at Toronto, 1906, son of Old Lancaster 50768. Correspondence solicited. Inspection invited.

GEO. AMOS & SON, Moffat Sta. & P.O., C.P.R. Farm 11 miles east of City of Guelph.

### GEORGE D. FLETCHER,

Breeder of Scotch Shorthorns and Yorkshire Figs Herd, headed by the \$2,000 Duthie-bred bull, Joy of Morning (Imp.)—39070—. Choice young bulls from 4 to 9 months old, also females for sale. In Yorkshires are a choice lot of either sex, 7 months old, from Imp. sire and dam. Sows bred to Imp. hog if desired.

BINKHAM P. O., ONT. ERIN STATION AND TEL.

### Spring Valley Shorthorns

Bulls in service are: Bapton Chancellor (Imp.)—40359—(78286). Clipper Chief (Imp.)—64220—. Stock for sale at all times.

KYLE BROS., Ayr, Ontario.

Brown Lee Shorthorns—Present offering is 9 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beau camp. Prices very reasonable. DOUGLAS BROWN, Ayr P.O. and Station.

### Maple Leaf Shorthorns

Chancellor's Model heads the herd. Some good cows and heifers and prize-winning Berkshire pigs for sale. Terms reasonable. ISRAEL GROFF, Alma P. O. & Stn., G. T. R.

# Belmar Parc Shorthorns

WE think we have as great a lot of young show animals as has ever been on one farm in Canada. Our herd is large, the individuals are choice and of the richest Scotch breeding, and our prices are moderate. 15 young bulls, 25 heifers under three years. A splendid group of breeding and show matrons. Mostly in calf to the champion Marigold Sailor =53258= and the prizewinning Nonpareil Archer (imp.) =45202=. Pembroke is on the main line of the C. P. R. and the Canada Atlantic Division of the G. T. R. You can leave Toronto 11 a. m., arrive Pembroke 12.05 p. m., see the herd, and arrive Toronto next morning at 7.20. We prefer you to see the cattle, but if you can't spare the time we take special pride in filling mail orders satisfactorily.

John Douglas, Manager.

PETER WHITE, Pembroke, Ont.

## R. A. & J. A. WATT

Offer at reduced prices two highly-bred red SHORTHORN BULL CALVES

They are the last pair they have to offer, and are not the poorest of the great dozen they sold this winter. If you want them, come and see them at once.

Elera Station, G.T.R. & C.P.R. Phone 42K. SALEM, ONTARIO.

## AT "MAPLE SHADE"

Our young bulls are the best that our herd has ever produced. We can furnish Cruickshank bulls of high quality to head the best herds, and some that should produce the best prime steers. We have a bull catalogue. Send for one.

JOHN DRYDEN & SON, Brooklin, Ont. Stations: Brooklin, G.T.R. Myrtle, O.P.R. Long-distance telephone.

## Valley Home Shorthorns and Berkshires

Special offering at very low prices for immediate sale: Eight young bulls 10 to 15 months old, five cows from 3 to 5 years old, with calves at foot; four 2-year-old heifers in calf to Royal Diamond 2rd =58499=; also eight heifers one year old. The above are straight Scotch and a choice lot; and 10 young Berkshire sows, just bred to Myrtle's Prince (mp.) - 14 33-, and 30 young pigs of both sexes, from one to two months old. Visitors welcomed for personal inspection.

S. J. PEARSON, SON & COMPANY, Meadowvale, Ontario. Stations: Meadowvale and Streetsville Jct., C.P.R.



## Special Offering of Scotch SHORTHORN BULLS

2 just past two years old; 15 just over one year old; 7 just under one year old. The best lot we ever had to offer in individuality and breeding, and prices are right. Catalogue.

John Clancy, H. CARGILL & SON, Manager, Cargill, Ont.

## SIX IMPORTED SHORTHORN BULLS

One bred by Duthie, one by Marr, and one by Durno. Show bulls and sires every one. Imported cows and heifers, home bred bulls and heifers, all of high-class. THREE IMPORTED GLYDESDALE MARES, all in foal. Shropshire and Cotswolds in large numbers. Will price anything I have at a living profit. Write me.

ROBERT MILLER, STOUFFVILLE, ONTARIO.

## Glover Lea Stock Farm SCOTCH SHORTHORNS

Superior breeding and individual excellence. For sale: Bulls and heifers—reds and roans, some from imp. sire and dam. Visitors met at Ripley station, G. T. R.

R. H. REID, PINE RIVER, ONTARIO.

## STRUAN SHORTHORNS

For sale: Choice young bulls from four to ten months old, sired by Scottish Beau (imp.) (38099); also cows and heifers of different ages. Write for prices, or come and see my herd.

N. S. ROBERTSON, Ontario. Arrprior.

## JOHN LEE & SONS, Highgate, Ont.

### SHORTHORNS & LINCOLNS

The champion herd of Elgin, Kent and Essex counties.

For Sale: 6 choice young bulls, 3 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

Shorthorns Stamford's English Ladies, Mildreds, Marthas, Nonpareils. 3 choice bulls 14 months old, 3 heifers 3 cows. Breeding unsurpassed. Canadian and American registration. F. W. EWING, Salem P. O., Elera Station.

Shorthorns for Sale—Five choice bulls, all from imp. sire, and three of them from imp. dams; also females of all ages. Scotland's Fame (imp.) at head of herd. ALEX. BURNS, Rockwood P.O. and G.T.R. Sta.

Maple Hill Stock Farm Scotch Shorthorns—special offering of a red bull calf of Missie family, sired by Rustic Chief (imp.) =40419=; also some choice females by Wanderer's Star =48685= and Lucerne (imp.) =6063=. WM. R. ELLIOTT & SONS, Guelph, Ont.

## Pure Scotch Shorthorns

WE ARE OFFERING FOR SALE IMP. SCOTTISH PRIDE =36106=.

3 bulls just two years old. 6 bulls one year old. 7 bull calves from 8 to 12 months. (12 of these bulls are from imp. cows.) Choice females of all ages; 100 to choose from. 2 imp. Yorkshire sows due to farrow in March. 40 young sows 5 months old. Write for catalogue and prices. Our farms are only one-half and one and one-half miles from Burlington Junction, G. T. R. Long-distance telephone in residence.

W. G. Pettit & Sons, Freeman, Ont.

## HOLLYMOUNT SHORTHORN

Pure Scotch, imported, and the get of imp. stock. 25 HEAD

Anything for sale, young bulls, breeding, gilt-edged and unsurpassed. A few heifers. Prices right.

W. J. Thompson, Mitchell P. O. & Sta.

## SHORTHORNS

Six superior yearling bulls, some of them out of great Milch cows; heifers of all ages. A lot of very big yearlings and a few heifer calves cheap.

### GLYDESDALES

Two mares 5 years old, one an extra good one and a pair of geldings 4 years old.

JAS. McARTHUR, Gobles, Ont.

## GOSSIP.

### A FAKER STOCK-BUYER ABROAD.

That the scoundrel who has been imposing on breeders of pure-bred stock in Ontario for years is still on the road is evident from the following letter addressed to "The Farmer's Advocate," and dated March 28th, 1907: "Not long ago I placed an advertisement with you for the sale of a Shorthorn bull. I received a number of inquiries. About the 9th of March came a buyer, representing himself as Mr. S—, a prominent Ontario breeder. He made purchase of the bull at the price I was asking. This was the 8th of March, and he said he would send me a draft on the Monday following. I used him well, and drove him around. The bull was to be shipped from Brantford, along with some other cattle he had purchased from Eastern Ontario, in about a week or ten days. He was to telephone, and advise when to ship. Well, the time came and passed, and I began to grow suspicious, so I telephoned Mr. S—, who said he had made no purchases, and that the man who personated him must have been a fraud. I gave the fellow the pedigrees, which he has, along with a number of others which he exhibited. Believing I have been duped, I have issued a warrant for his arrest, as I suppose he is doing other cattlemen in the same way. It has placed the sale of my bull in an awkward position, as last week I wrote you, reporting the sale, and to withdraw my advertisement, which you did, along with some Gossip asked for, which is the worst feature. This is why I am writing you at length, and trust you will pardon me, as I want to advertise again, and will place the same in your hands to do the best you can for me. If my surmises are true, and he is a faker, which I believe he is, he might do a lot of damage in this way, as he is one of the cleverest cattlemen I have had the pleasure (?) of meeting, sorry to say. He is rather short, about 5 feet 6 inches or 7, weight about 150 lbs., dark brown mustache, blue eyes, black hair, wears a navy blue suit, Christy-stiff hat, and a coon-fur coat, at the time of his visit here. He is an Englishman, and drops his h's occasionally. He knows every breeder in the catalogue, and is also well versed in pedigrees. Claims to live seven miles from London; shipping station Hyde Park. Any information as to his whereabouts will be gladly received and rewarded. Telephone Fred Kerr, Brantford, high county constable."

### WHERE TWO CLIMATES MEET.

A "digger" from California, eulogizing the climate, said: "There's a mountain there—the Sawyer Nevada, they call it—with a valley on each side of it, the one hot, the other cold. Well, get on the top of that mountain with a double-barrelled gun, and you can, without moving, kill summer or winter game, just as you will." "What! Have you ever tried it?" "Tried! Often—and would have done pretty well but for one thing." "Well, what was that?" "I wanted a dog that would stand both climates. The last dog I had froze his tail while huntin' on the summer side. He didn't get entirely out of the winter side, you know, sir."

An education is incomplete that is not built about a Pantheon, dedicated to the service of great men.—David Starr Jordan, in Life's Enthusiasms.

## Maple Lodge Stock Farm 1854-1907.

Am now offering a grand lot of young Shorthorn Bulls, several from choice milking strains. Also a few extra good heifers.

A. W. SMITH, MAPLE LODGE, ONT.

## Six Red Shorthorn Bulls

12 to 15 months old, got by Proud Gift =50077= (imp.); also cows and heifers, imported and home-bred. Inspection solicited. We think we have as good Shorthorn cattle as we have Lincoln sheep 14 fairs out of a possible 19, our record at Chicago, 1906.

J. T. GIBSON, Denfield, Ont.

## GREENGILL HERD of high-class SHORTHORNS

We offer for sale 8 young bulls, a number of them from imp. sire and dam; also females with calf at foot or bred to our noted herd bull, Imp. Lord Roseberry.

R. MITCHELL & SONS, Nelson P.O., Ont.; Burlington Junc. Sta.

## T. DOUGLAS & SONS STRATHROY, ONT.

Breeders of Shorthorns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion imp. and home-bred allies. Write us what you want or come and see our stock. Farm 1 miles north of town.

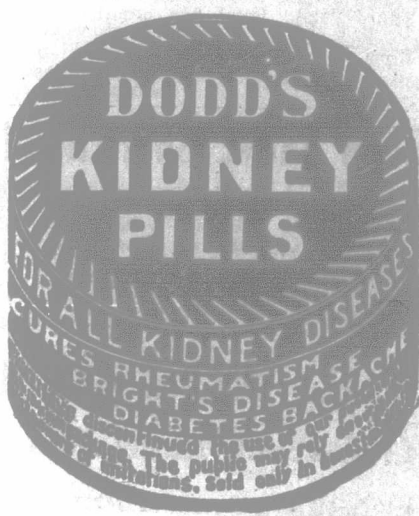
John Gardhouse & Sons, Importers and breeders of Scotch Shorthorn cattle, Shire and Clydesdale horses and Lincoln sheep. Just now we are offering a few extra choice heifers—show stuff among them; also three rare good young bulls, bred from imp. Highfield P. O., Western station 2 1/2 miles. Telephone.

## KENWOOD STOCK FARM. SHORTHORNS.

Bred by (imp.) Jim Victor =45187=. Offerings are two bull calves, an 11-months Miss Ramadan, from imp. sire and dam; a 19-months Missie, by Blythesome Euter, and other bulls; also heifers of choice breeding. A few choice Berkshire pigs just off the sow.

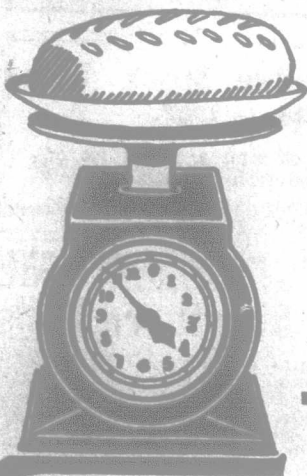
HUNTING BROS., Highgate, Ont. Kent Co.

At a recent dinner given to the newsboys of a great city, one of the gentlemen in charge of the feast noticed a "newsy" stowing away the food at a rate that boded ill for the immediate future of his digestive apparatus. "Why do you eat so fast, sonny?" he inquired. "So's I kin get a hull lot down fore I feel full," was the choked reply.



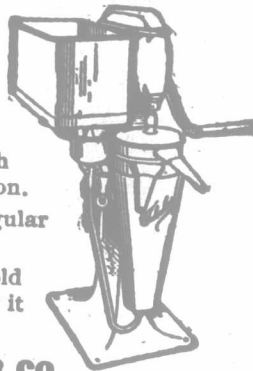
# 1 1/2 more butter 2 1 lbs.

If you can increase your butter production without any increased cost or any more work won't it pay you to do it? And if you can get more butter from you milk with less work, that will be still better, won't it? That's exactly what you can do if you will do as MR. LEITING did—buy a Sharples Tubular Separator. Here's what he says about the Tubular:



Randolph, Nebraska, Feb. 15th, 1906. Gentlemen:—On the 23rd day of January, 1906, I took a No. 4 Sharples Tubular Separator on trial. On learning that I was in the market for a cream separator, the agent for the disc style "bucket bowl" separator brought one to my farm and requested me to give it a trial before making a purchase. After giving both machines a fair trial, I concluded to keep the Tubular as I consider it far superior to the other machine. It skims closer, runs easier, and is very much easier to wash, there being so many less parts. From three skimmings of milk from 7 cows, we were able to make 1 1/2 lbs. more butter with the Tubular than we could with the "bucket bowl" machine. B. LEITING.

## The Sharples Tubular Separator



**MORE BUTTER  
MORE MONEY**

gets all the cream there is in the milk, does it so easy that it's not work to run it at all, and is so simple, with only one little part in the bowl to wash and keep clean that comparison is out of the question.

The extra cream it gets makes the Tubular a regular savings bank for its owner.

All the other good money-making points are told in book F-193, which you ought to read. Write for it today—we'll send it free to you.

THE SHARPLES SEPARATOR CO.,  
Toronto, Can. WEST CHESTER, PA. Chicago, Ill.

## BRAMPTON JERSEYS

Canada's Premier Herd

Strengthened regularly by importations from United States, England and the Island of Jersey.

We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from.

Write for prices and particulars.

Long-distance 'phone at farm.

B. H. BULL & SON, Brampton, Ont.



**ROCK SAL'**  
for horses  
and cattle.  
in ton and  
car lots.

TORONTO  
SAL'  
WORKS  
TORONTO

### SHORTHORNS AND BERKSHIRES



Three young bulls fit for service; the right sort at reasonable prices and easy terms. Also heifers a d cows with calves at foot by Bando-leer = 40106. In Berkshires: Sows five months 'old, and pigs soon ready to wean.

F. Martindale & Son,  
Caledonia Sta. York P.O.  
Haldimand Co.

### GREEN GROVE SHORTHORNS



Fairy Queens, Urys, Floras Clarets, Isabellas, Rose of Autumns, Village Girl. Females of all ages 3 choice young bulls. Prices right. Breeding unsurpassed.

W. G. MILSON,  
Goring P.O. Markdale Station

### T. E. ROBSON

Live-stock Auctioneer

2 BEGHER ST., LONDON, Ont.



### SHORTHORNS

Just closed out the season's crop of bulls of breeding age, but have a few very nice young 'ers coming up. Anyone wishing a stock bull from the noted Derby Imp.)

send orders ahead, as they are all picked up as soon as ready. W. J. SHEAN & SON,  
Box 356, Owen Sound, Ontario

### A. EDWARD MEYER

Box 378, Guelph, Ont.,  
Offers for sale, at prices you can stand, young SHORTHORN BULLS

Four of them from imported sire and dams. Several cows with heifer calves at foot by Imp. Scottish Hero, and a few yearling heifers. All are of the choicest Scotch breeding. Write, or better come and look them over. Long-distance 'phone in house.

### MAPLE GROVE SHORTHORNS



My present offering consists of imported and home-bred cows and heifers, also four young bulls bred by Lord Banff's Conqueror. He is one of the best stock bulls of his breed. Terms and prices to suit the times. C. D. WAGAR, Enterprise Stn & P.O., Addington Co.

### High Grove Jerseys

Choice young bull for sale, 12 mo. this; fit for prize or at Toronto last fall. High Grove Farms.

ROBT. TUFTS & SON, Tweed, Ont.

Please Writing Please Mention this Paper

### QUESTIONS AND ANSWERS. Miscellaneous.

#### GANDER AND GOOSE.

I noticed an enquiry how to tell a goose from a gander. Take a flock of geese, and have them stand facing you. A goose has one sack extending from body to the ground, while a gander has two. I have never known that to fail.

#### A SUBSCRIBER.

[Note.—Another goose expert states that the only way he has to distinguish is by the cry, and from the fact that the gander goes with his head always boldly erect.—Editor.]

#### YOUNG GEESE AND DUCKS DYING.

My geese were kept in a small run for about two weeks after being hatched. They were fed bread and water. After they were about three weeks old, they were let run with the mother, but fed morning and night, and were also shut up in a dry pen at night. They suddenly took sick; seemed to be hurt in the back; would flap their wings, and fall backwards. Then it settled in their legs, and they stiffened, and could not walk. They died in a day or two. I fed Dr. Hess' poultry food, and also Dr. Scott's. Now, one of my old geese has taken the same disease. She has been fed oats and barley and spelt, mixed, twice a day, and has had all the fresh water she could drink. What can I do for her?

J. R.

Ans.—I cannot offer a suggestion as to the cause of the trouble at all, only that the geese and ducks must be eating something that is poisoning them. My own impression is that they are getting at some grass or weeds or something of this kind which is killing them, not the ordinary feed, nor the handling, etc. I would suggest that if there are any still alive, that you send one or two to the Bacteriological Laboratory for examination, and write the Laboratory, telling them your suspicion of poisoning, etc. I do not think the roup among the hens would affect them. If roup ever bothers ducks, it usually causes bubbles about the eyes.

W. R. GRAHAM.

#### REGISTERING JERSEYS.

I bought a stock bull recently, eligible to register in A. J. C. C., but registered in Canadian National Records, or C. J. C. C. When going into this business, I was told there was a Canadian herdbook and an American Jersey Cattle Club register, and that cattle registered in the former were not eligible for registration in the latter, nor were they considered of as good breeding as the A. J. C. C. cattle. Now, since this Canadian National Record has cropped up, I have asked several 'old breeders to know its standing, but no one seems to know anything about it. What I would like to know is: Where was, or is, this Canadian herdbook register kept, and what was, or is, its standing, or the standard of breeding required for entry in it?

Is this Canadian National Record what was known as the Jersey herdbook, and is it considered as good as the A. J. C. C. among breeders of first-class Jerseys? What is the standard of the A. J. C. C.?

#### A SUBSCRIBER.

Ans.—There was no recognized register for Jerseys in Canada previous to the organization of the National Record Association. What was, and is, known as the Jersey herdbook is a register kept by a private individual in the States, and is not of as high standard as the A. J. C. C. Herd Register, or that of the Canadian Jersey Cattle Club, under the National Record Board, at Ottawa. It is, indeed, loosely kept, and is not recognized as reliable by breeders of first-class Jerseys. Animals to be entitled to registry in the Canadian Jersey Cattle Club Record must trace in all crosses to animals registered in the American Jersey Cattle Club Herd Register, or to ancestors registered in the Island of Jersey Herdbook, or to ancestors registered in the English Jersey Herdbook, subject to the rules governing each class, and no animal is accepted for entry until both its sire and dam are recorded in the C. J. C. C. Record or the A. J. C. C. Herd Register, the standards of which are practically the same. For rules, and other necessary information re entry in C. J. C. C. Record, address The Accountant, National Live-stock Records, Department of Agriculture, Ottawa. On letters so addressed, postage is free.

## Bone Spavin

No matter how old the lameness, how lame the horse, or how many doctors have tried and failed, use

### Fleming's

Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse sound. Most cases cured by a single 4-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

### Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario

## ANNANDALE FINE STOCK FARM

TILLSONBURG, ONT.

Premier sire, Ernoce Posch Calamity, whose dam and sire's dam average in official test 86 lbs. milk in 1 day and 26 lbs. butter in 7 days.

No stock for sale at present.

GEO RICE, Tillsonburg, Ont.

### HOLSTEINS FOR SALE



Four imported and one home-bred bulls, from 8 to 19 months old; also our entire crop of 61 spring-bull calves, from week old up.

sired by the grandly-bred imp. bull, Sir Howland B. Pieterje, whose dam record is over 80 lbs. milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers, from one year up; 16 head to select from. Cheese lbs. Don't delay if you want one from this herd.

H. E. GEORGE, Crampton, Ont.

### RECORD OF MERIT HOLSTEINS



Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richly-bred bulls in Canada at head of the herd. For sale: 18 head, from 8 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

P. D. EDM, Oxford Centre P.O., Woodstock Station.

### LOOK HERE!



Now is the time to place your order for young stock from choice dams, and sired by a son of the greatest cow in Canada Boutaje and Pieterje De Kol (643 lbs. milk in 7 days; 96 lbs. in one day). His sire's dam, Calamity Jane, 95 lbs. butter a week; gr.-dam, Als Posch, 27.07 lbs. butter a week. 'old's record under 3 years. Write for prices. FRED ABBOTT, Fairview Stock Farm, Harrietsville, Ont.

### MAPLE HILL HOLSTEIN-FRIESIANS

Korndyke Teake, calved Aug. 16, 1904. Three y-m sire's in his pedigree have 503 daughters with official seven day butter records. Twenty dams in his pedigree have official butter records averaging 23 lbs. 1 oz. of 8.7 per cent. butter in seven days. For extended pedigree, price, etc., write

G. W. CLEMENS, St. George, Ont.

### Evergreen Farm Holsteins is headed by

Prince Pauline DeKol, which we are offering for sale; sire of 10 daughters in Record of Merit; also a choice lot of young bulls fit for service, from Record of Merit cows with large records.

F. C. PETTIT & SON, Burgessville Ont.

### Spring Brook Holsteins and Tamworths

Herd headed by the first-prize bull, Nanteu Pieterje Paul, whose dam and sire's dam average have official butter records averaging over 25 lbs. in 7 days. Females bred and young bulls sired by him for sale. Tamworths of all ages and both sexes. Come and see, or write at once for prices.

A. C. Hallman, Breslau, Ont.

### QUEEN CITY HOLSTEINS

If you would like to purchase a young Holstein bull whose sire's dam has an official record of 500 pounds of milk and 26 pounds of butter in seven days, write to R. F. HICKS, Newton Brook P.O., York Co.

**FARMER'S ADVOCATE "Want and For Sale" Ads.** bring good results. Send in your ads. and you will soon know all about it. The Wm. Weld Co., Ltd., London, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

A STATE CLAIM.

A, B, C and D are two brothers and two sisters. Their father died fourteen years ago, leaving no will, and their mother died twelve years ago, leaving no will, no division being made of the household effects. A and D, brother and sister, continued keeping house together, with same household effects, and C making his home there occasionally. B, being a married sister before her parents died, has waited for A and D to make a division; but, none being made, B has asked for a division, and was told by A and D that there was nothing belonging to her. Can B claim her share, and, if so, what course had she best take? Ontario. A SUBSCRIBER.

Ans.—We do not think that at this late date, B is in a position to enforce her claim.

WHITE GRUBS.

In my section last year we were bothered a great deal with a large white grub eating off the roots of the strawberry plants, also working in the late potatoes. Is there anything that can be applied to the land before planting to destroy this grub? A SUBSCRIBER.

Ans.—White grubs multiply in land which has been for a time in grass sod. The best preventive is a short rotation, in which clover occurs once every three or four years. Clover sod is a good preparation for strawberries and potatoes. Once the grubs become bad in a strawberry patch, little or nothing can be done to eradicate them. Plow up the patch, and grow berries on the one-crop system. Dr. Fletcher says hogs are fond of the grubs, and that plowing up a badly-infested piece and using it for hog pasture is a good way to reduce their numbers.

SPRAYS FOR OYSTER-SHELL BARK-LOUSE.

Young apple trees are badly affected with bark-lice. Give information how to destroy the lice.

- 1. Is lime or weak lye sufficient to destroy them?
2. If to spray, what mixture would you use?
3. In each or all the applications, what time of the year would be the best to apply? C. L.

Ans.—land 2. Lime wash is excellent. Apply according to directions repeatedly given of late. Lye cannot be used strong enough to kill all the lice without injuring the trees.

3. Lime wash or lime-sulphur wash (which is still better) should be sprayed on in late fall or early winter, but may be used any time during the dormant season. Kerosene emulsion may be used in June to destroy the young lice just as they are emerging from their mothers' scales.

SOWING AND HARVESTING ALFALFA.

- 1. About what date should alfalfa be sown?
2. At what stage of growth should it be cut?
3. How is it treated from the time it is cut until it is stored in the barn?
4. Would it damage it for a second-year cut to be pastured in the fall with cows? SUBSCRIBER.

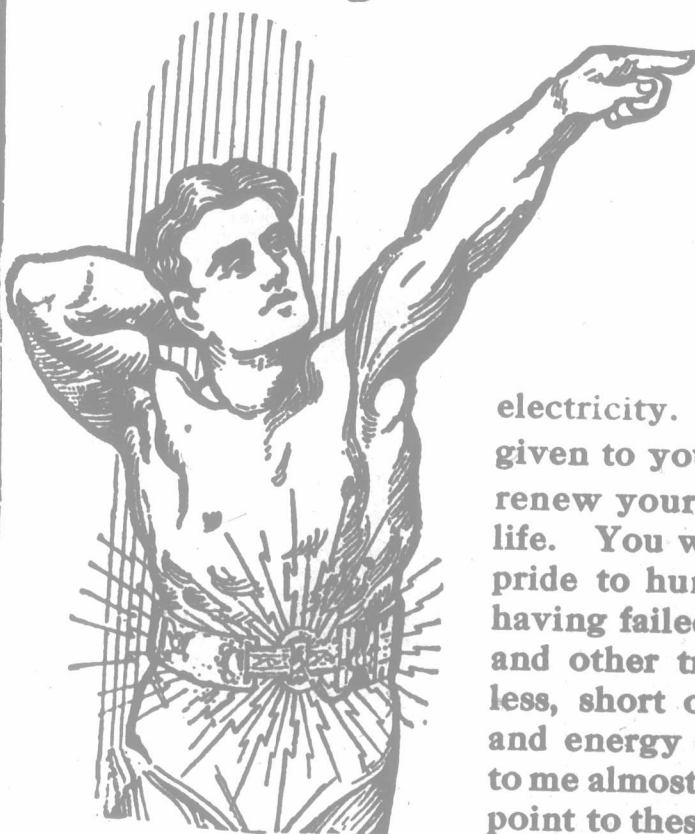
Ans.—1. Sow medium early, during the usual season of spring seeding; but do not slight the seed-bed for the sake of sowing early.

2. Cut when about one-tenth of it is in bloom. Early cuttings make the best hay, and give by far the best after-growth.

3. Cure as you would clover, but with even more care. Keep it moving while green by using the t-r-d-d-r, rake while till tough, leave in coils two or three days, then turn out carefully, and haul in. Remember the leaves are about four times more valuable per pound than the stalks. Hay caps, made of pieces of cotton, 40 by 60 inches square, and provided with weights or pegs attached to the corners, are strongly recommended by expert authorities.

4. It would depend somewhat on the land, but if the cows are not allowed on it when the ground is soft, are not allowed to eat it very close, and are taken off early in October, no great harm should result from the pasturing.

“Why Am I Weak?”



That is the question which every weak man puts to himself. If you have thought much of your trouble you know that the force which keeps up the health and strength of your body is nothing more or less than electricity. All the motive power in your body is born of electricity. That is what you lack, and that force given to your weak organism as I will give it, will renew your strength. You will be able to enjoy life. You will be strong again. I can point with pride to hundreds of men who came to me after having failed to get the craved results from drugs and other treatments, men broken down, sleepless, short of memory and without the courage and energy of strong people. They have come to me almost without hope, discouraged; and I can point to these men to-day, after their having worn

Dr. McLaughlin's Electric Belt,

happy, enthused and shouting with gladness in the possession of the full vigor of perfect manhood. These men will at any time be glad to tell you what I have done for them.

"I am well satisfied with the results of your Belt. I have quit wearing it now as I am feeling all right again and am able to do a fair day's work without that tired feeling, aching hips and legs, which troubled me so much; my appetite is really good, and I have no stomach trouble as before. Yours respectfully, Henry Dicker, Coulson, Ont."
"Your Belt has done wonders for me, and I am more than pleased with the results, for without it I do not believe I could ever have done another day's work in my life. I shall ever praise your Belt to all sufferers of Rheumatism, and can safely say that your Belt will do all that you say it will. You can print this for the good of others, if you wish." Peter L. Harris, Murray, Ont.
"I have had your Belt for two months and am glad to say that I am improving every day. My back was sore from the constant drain; now the pain is all gone and I feel like a new man. I am still using the Belt every night, and I am sure I weigh 10 pounds heavier." Cliff Huxtable, Amherst, N.S.
The confidence I have in the wonderful curative powers of my Belt allows me to offer any man or woman who can give me reasonable security the use of the Belt at my risk, and they can

PAY WHEN CURED

This appliance has cures in most every town and city in the country, and if you will write to me I will send you testimonials, given to me by people that are probably well known to you. My Belt not only cures weakness, but Rheumatism, Sciatica, Lumbago, Backache, Kidney Trouble, Nervousness, Constipation, Indigestion and Stomach Trouble. I have a beautiful illustrated book, which I will mail, sealed, to any address FREE. This book is full of lots of good, interesting reading for men. Call to-day. If you can't call, send coupon for Free Book.

Dr. M. S. McLaughlin, 112 Yonge St., Toronto, Ont.

Dear Sir,—Please forward me one of your books as advertised.

NAME .....

ADDRESS .....

Office hours—9 a.m. to 6 p.m.; Wednesday and Saturday until 9 p.m.

Imperial Holsteins—An Advanced Registry herd for sale. One-year-old bull, a Toronto champion, four bulls from 3 to 8 months of age. A. B. on both sides. Imp. in dam from the U. S.

W. H. Simmons, New Durham P.O. & Sta.

"GLENARCHY" HOLSTEIN 43 head of big, deep-flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Young stock of both sexes for sale. A straight, smooth lot G. MACINTYRE, Ranfrew P.O. and Sta.

Holsteins and Yorkshires R. HONEY, Brickley, Ont. offers a very choice lot of young bulls, also boars and sows fit to mate.

Greenwood Holsteins and Yorkshires For sale: A few richly-bred bulls from one to eighteen months old. Also a few choice females of all ages. Yorkshires of either sex. D. Jones, Jr., Galedonia P.O. and Sta.

Grove Hill Holstein Herd Offers high-class stock at reasonable prices. Only a few youngsters left. Pairs not akin. F. R. MALLORY, Frankford, Ontario. G. T. R. and C. O. Railway connections.

"THE MAPLES" HOLSTEIN HERD

is made up of Record of Merit cows and heifers with large records and headed by Lord Wayne Wechthilde Calamity. Bull calves from one to five months old for sale

Walburn Rivers, Falden's, Ont.

LYNDALE HERD

Offer a number of young bulls fit for service, out of Record of Merit cows, and sired by Beryl Wayne Paul Concordia, four of whose nearest dams have official records averaging 29 lbs. 11 oss. each. Eight heifers coming two, and due to calve in spring. Younger stock, either sex BROWN BROS, Lys, Ont.

Ayrshires 3 prizewinning bulls fit for service at reasonable prices. also younger ones for quick buyers. N. DYMENT, Hickory Hill Stock Farm, Dundas Stn. and Tel. C Appison, Ont.

SPRINGBURN STOCK FARM, North Williamsburg, Ont., Ayrshires, both sexes, and all ages; Berkshires, both sexes and all ages; Oxford Down sheep, a few choice ones left; Buff Orpington fowls, eggs \$1.00 per setting, \$4 per hundred. H. J. Whitteker & Sons, Props.

Hillview Herd of Prizewinning

AYRSHIRE CATTLE.

All animals bred and carefully selected for size, constitution, long tests and deep-milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write

A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont. Winchester Station, C. P. R.

SHANNON BANK STOCK FARM

FOR AYRSHIRES AND YORKSHIRES Young stock of both sexes for sale from imported stock.

W. H. TRAN, Cedar Grove, Ont.

AYRSHIRES FROM A PRIZ-WINNING HERD

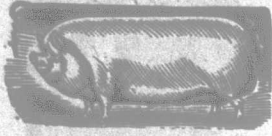
Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to WM. STEWART & SON, Campbellford Stn. Montic P.O., Ont.

STOCKWOOD AYRSHIRES FOR SALE

All ages, from imp. and Canadian bred stock. Prices and terms to suit purchaser. D. M. WATT, St. Louis Sta., Que.



**YORKSHIRES of Choicest Type and Breeding.**



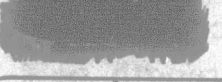
I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bess strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin. **J. W. BOYLE, Woodstock, Ont.**

**Woodstock Herd of Large English Berkshires**



I have for sale pigs of all ages, both sexes, from prizewinning stock. I am booking orders for spring delivery from my Imp. and home-bred sows. Come and see or write for prices. My herd was in the front rank of prizewinners at the leading exhibitions this fall. **DOUGLAS THOMSON, Box 1, Woodstock, Ont.**

**Rosebank Berkshires.** - Present offering:

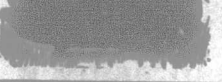


Boars fit for service. Sows ready to breed. Choice young stock ready to wean, sired by Maple Lodge Doctor and Galle's Sambo (imp.), a Toronto winner. **Lafroy, G.T.R. JOHN BOYES, JR., Churchill, Ont. Long-distance 'Phone**

**HILLCREST BERKSHIRES**

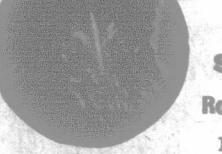
Stand unrivalled for individual merit in the herd. Our business for 1906 surpasses former years. The enquiry for choice sows increases from year to year. Some choice sows for sale due to farrow in the spring. Also a few boars on hand. **Vine Sta. G.T.R. near Barrie. John Lahmer Vine P.O.**

**OAKDALE BERKSHIRES** Largest Berkshire herd in Ontario.



Stock boars and several brood sows imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prizewinning lines and true to type. Everything guaranteed as represented. Long distance 'phone. **L. E. MORGAN, Milligan P.O., Co. of York.**

**SOUTH DOWNS**



AND **Scotch Collies.**  
**Robt. McEwen, Byron, Ont.**  
Long-distance 'Phone.

Canadian Agents for the Original **McDougall's Sheep Dip & Cattle Dressing**  
Imported direct. Price: Imperial pint, 50c. Imperial half gallon, \$1.25; Imperial gallon, \$2.50. Sold by druggists, or charges prepaid on one gallon tin. **THE WORTHINGTON DRUG CO., Toronto, Ontario.**

**Sheep Breeders' Associations.**

American Shropshire Registry Association, the largest live-stock organisation in the world. **Hon. John Dryden, President, Toronto.** Can Address correspondence to **MORTIMER LEV BRING, Secretary, Lafayette, Indiana.**

**SHROPSHIRE**

Can sell about 30 Ram Lambs. Mostly by an Imp. Butcher-bred ram. **GEO. HINDMARSH, Alisa Craig, Ont.**  
**Oxford Down Sheep, Shorthorn Cattle Yorkshire Hogs.**  
Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons Buena Vista Farm, o Harrieston, Ont.**

**SHIP US YOUR CALFSKINS**

Write for our prices.  
**E. T. CARTER & CO., Toronto, Ont.**

**ORCHARD HOME TAMWORTHS**

Herd headed by Newcastle Warrior. This hog won first prize and silver medal at Toronto 1905 and defeated his sire, Colwill's Choice (1943) who has won these honors three years in succession. Our brood sows are large and of the same high quality. If you want choice stock, we can satisfy you at a reasonable price. Young boars fit for service; also young pigs now on hand. All stock shipped in comfortable crates. Express prepaid and satisfaction guaranteed. **GRANDALL BROS., Cherry Valley, Ont.**

Newcastle Herd of Tamworths and Shorthorns. We have for quick sale a choice lot of boars and sows from 2 to 6 months old, the produce of sows sired by Colwill's Choice and Newcastle Warrior, both our own breeding, and winners of sweepstakes and silver medal at Toronto, 1901-02-05. Several very choice sows due to farrow in March and April. Pedigree furnished with every pig. Several choice heifer calves and heifers in calf to our present stock bull. All of high show quality. Prices right. Daily mail at our door. **COLWILL BROS., Newcastle, Ont.**

**MOUNT PLEASANT TAMWORTHS and HOLSTEINS.** For sale: An extra choice lot of pigs of either sexes, from one to six months old, and two sows bred to farrow in March. They are nearly all sired by Colwill's Choice No. 1943; won sweepstakes and silver medal at Toronto in 1901-2-3. Also four bulls and one heifer from one to ten months old. 'Phone in residence. **BERTRAM HOEKIN, The Gully P. O.**

**ELMFIELD YORKSHIRES**  
Have 40 young pigs from 2 to 5 mos. Some young boars ready for service; also young sows bred and ready to breed. Pairs supplied not akin. Prices right. **G. B. MUMA, Ayr, Ont.**

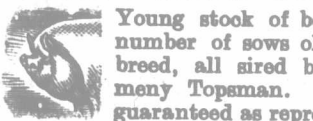
**LARGE ENGLISH YORKSHIRES**



Pigs of the most approved type of both sexes all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breed; also supplied both champion and grand champions. Prices reasonable. **D. O. FLATT & SON, Millgrove, Ont.**

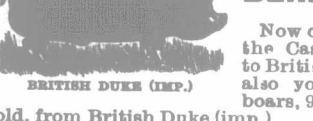
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**Meadowbrook Yorkshires**



Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmeny Topman. Everything guaranteed as represented. **J. H. SNELL, HAGERSVILLE P. O. & STATION**

**MAPLE LEAF BERKSHIRES!**



Now offering King of the Castle sows bred to British Duke (imp.) also young sows and boars, 9 and 10 weeks old, from British Duke (imp.). **Joshua Lawrence, Oxford Centre P.O. Woodstock Station.**

**Willowdale Berkshires**



Young boars and sows 3 and 6 months of age out of Imp. sows, and sired by Imp. Polgate Doctor, Royal Masterpiece, a son of the \$2,500 boar, Masterpiece, and some of them Imp. is dam. Satisfaction guaranteed. **J. J. WILSON, Milton P.O. and Sta.**

**PINE GROVE BERKSHIRES!**



Bred on aristocratic lines and from high-class show stuff, sired by the Toronto winner, Willow Lodge Leader. For sale are young animals of both sexes—4 and 6 months of age, of choice bacon type and showing form. **W. W. BROWN RIDGE, Ashgrove P. O. Milton Sta.**

**Duroc Jerseys**—Imported and home-bred

sows and boars ready for service. Pigs fit to wean; also Buff Orpingtons and Buff Leghorn cockerels. **MAC CAMPBELL, Harwich, Ont.**

**IMPROVED YORKSHIRES, LARGE**

Choice young stock from imported prizewinning stock for sale. **GEO. M. SMITH, HAYSVILLE, ONT.**

**For Sale**—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigrees and safe delivery guaranteed. Address: **E. D. GEORGE, Putnam, Ont.**

**Berkshires**—Chief herd boars: Compton Duke (imp.), and Elmhurst Swell (imp.). For sale: 5 boars, 5 gilts, 1 nine-months sow, due in May. Pigs ready to wean. Motto: "Goodness represented." Careful selections for mail orders. **E. M. VANDERLIP, Cainsville, Ont.**

**QUESTIONS AND ANSWERS. Miscellaneous.**

**LEG BANDS—HENS' NESTS.**

1. Am desirous of going heavier in the poultry business than I have. I keep Barred Rocks, and it is difficult to tell them apart, as they are all the same color.

2. Give a good plan for hens' nests that may be kept clean.

ENQUIRER.

Ans.—1. The best, simplest and cheapest means of differentiating these fowls is to use numbered leg bands. Order from poultry-supply firms advertising in this paper.

2. No especial design is necessary in order to keep nests clean, but the strip which serves as the front of the nest may be nailed on lightly so that it may be easily removed, and tipping the nest or row of nests forward will quickly remove litter and rubbish, and permit the use of disinfectant solutions, or vermicides when desired.

**WATER RIGHTS.**

I have a stream of water running through my farm, and I intend to build a pond on the stream for a trout pond, and, also, a chopping mill. A man has a mill about one and a half miles down the stream, and he says that he can stop me from building the pond and the mill, and that he controls the stream for so many miles above the pond. Does he control it any further than his own property, and can he stop me from building? **OLD SUBSCRIBER.**

Ans.—It is impossible for us to tell from the foregoing statement of facts alone. You should consult a solicitor personally, as there are many things to be taken into account in determining the mill-owners' rights in the premises, and the fullest statement of case possible is necessary in order to your being properly advised in the matter.

**PLANNING PIGPEN.**

I have a building, 20 feet by 24 feet, which I wish to use for a pigpen. It is 6 feet at eaves.

1. What height of wall would I have to put under it to make it a proper height for pigs?
2. Would it be better to loft it over at plates, or leave it open to roof?
3. How high should sleeping berths be from floor?
4. Would it require two or three windows on each side?
5. What do you think would be best plan of ventilation?
6. Would putting 6 or 8 inches of gravel under cement floor be sufficient drainage?
7. How much cement would be required for walls and floor? How would I mix it?
8. How thick should wall be?

R. A. M.

Ans.—1. Two feet of wall, so that eaves can be eight feet high would do very well.

2. Loft it over.

3. First-class sleeping berths can be made by the use of plank floor, raised four inches clear above cement. If you refer to elevated berths, three feet is sufficiently high.

4. Two windows on each side would be very good, though three would be better.

5. We have been recommending a flue from ceiling to ventilator in roof as the best all-round system. One of our prominent Ontario breeders favors a straw-covered loft, the boards of the loft being laid a few inches apart. The straw, he says, will absorb all moisture, and also allow sufficient ventilation.

6. Not unless there is a good outlet for soilage that might get into gravel. If ground is tile-drained, or if it falls away on all sides from floor, gravel underneath is not necessary.

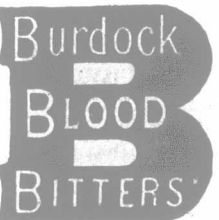
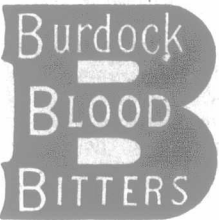
7. About 9 barrels altogether. Mix, for walls and first three inches of floor, one part cement to nine of gravel. For half-inch surface of floor, mix one of cement to two of fine sand. Mix dry; add water after.

8. Eight inches would be quite thick enough.



**CURES**

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



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

**MONKLAND Yorkshires**

Imported & Canadian-bred

We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

**JAS. WILSON & SONS, FERGUS, ONT.**

G. T. R. and C. P. R. Long-distance 'Phone.



**Large White Yorkshires.**

A number of excellent sows, direct from imported stock, in pig to Worsley Duke, Imp.; also imported sows of different ages. Young boars and sows can be supplied not akin. Orders taken for young pigs. Write for what you want.

**H. J. DAVIS, Woodstock, Ont.**  
Importer and Breeder of Yorkshires and Shorthorns.

**GLENBURN HERD OF YORKSHIRES**

Winner of gold medal three years in succession. Offers for sale: 19 young boars, 4 months old; a large number of sows, same age; also 30 suckling pigs, both sexes. Also a grand good Shorthorn bull (roan), 10 months old.

**David Barr, Jr., Box 3, Renfrew, Ont.**

**Maple Grove Yorkshires**

are among the leading Canadian herds for size, quality and true-breeding to type, and are prizewinners all around. For sale are both sexes. All ages. Bred from Imp. and home-bred stock. There are none better.

**H. S. McDIARMID, Fingal P. O., Shedden Station, Breeder and Importer.**

**Fairview Berkshires**

Are second to none. My herd has won high honors wherever shown. Am now offering sows bred and ready to breed, and younger ones of both sexes, the get of Masterpiece and Just the Thing. An exceptionally choice lot.

**JOHN S. COWAN, Donegal P. O., Milverton Sta.**

**SUNNYMOUNT BERKSHIRES.**

Sunnymount Berkshires are unsurpassed for ideal bacon type and superior breeding. For immediate sale: A few choice boars from 6 mos. up to 15 mos. old.

**JOHN McLEOD Milton P.O. and Sta., C.P.R. & G.T.R.**

**Fairview Berkshires**

Bred from imported and Canadian-bred sires and dams, and bred on prizewinning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to Imp. boars.

**HENRY MASON, SCARBORO P. O.**  
Street cars pass the door.