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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

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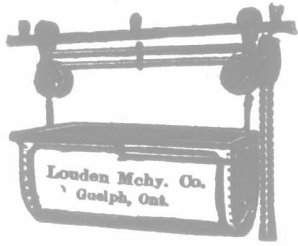
Vol. XLIV.

LONDON, ONTARIO, APRIL 29, 1909.

No. 866

Reasons Why

A Loudon Junior Sling Carrier Outfit is Best



- 1st. It has a triple purchase.
- 2nd. It has a never-failing lock.
- 3rd. It deposits the load crosswise in the mow.
- 4th. It will take the load into the mow at any elevation.
- 5th. It is made of the best malleable iron, thoroughly braced and bolted together.
- 6th. It is fitted with engine trucks that distribute the load on the track.
- 7th. The trucks cannot spread and leave the track, no matter how heavily loaded.
- 8th. It runs on our famous Double Beaded Steel Track, the strongest and most easily-erected track on the market. Write:

LOUDON MACHINERY CO'Y

Manufacturers of everything needed in the way of Hay Tools and Stable Fixtures. Also makers of Pumps and Hardware Specialties.

GUELPH, ONTARIO.

WHEN YOU Learn Telegraphy

you want the best instruction it is possible to obtain. This is exactly what you get at the **Dominion School of Telegraphy**, 9 East Adelaide, Toronto, Ont. Send for free booklet.

\$1,500 PROFIT MADE ON CIDER

Write for our free catalog which fully describes and illustrates The Original **Mt. Gilbeed Hydraulic CIDER PRESSES**. For custom work in your locality they are money makers. Built in sizes from 10 to 400 barrels per day. Hand or power. Also Steam Operated, Apple-Batter Cookers, Sugar Generators, etc. We can show you how \$1,500 clear profit can be made. Hydraulic Press Mfg. Co., 118 Lincoln Ave., Mt. Gilbeed, Ohio.



Seed Barley—A quantity of the famous No. 21 barley, which is the best at A. C., and also most popular throughout the province since first distribution in 1906. **JOHN ELDER, Hensall, Ont.**

DO YOU WANT TO REDUCE YOUR COAL BILL AND YET HEAT YOUR HOME BETTER?

ALWAYS INSTAL A PEASE "ECONOMY" FURNACE

The "Pease" Economy furnace saves coal and yet gives more heat because of its scientific construction. The "air blast," used exclusively in the "Pease," supplies the additional air necessary to consume the gas that would otherwise go up the chimney wasted. It brings the air in just the right proportion at the correct temperature and distributes it over the entire surface of the fire. Send us the dimensions of your home or building and let us give you correct plans for heating. It will pay you.

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PEASE FOUNDRY CO., LIMITED, TORONTO AND WINNIPEG
Manufacturers Boilers, Furnaces, Combination Heaters, Etc.

BARN ROOFING

Best for Houses Also

Our "Eastlake" Galvanized Steel Shingles have been tested by time. They have been made and laid on the roof for Twenty-five years, and no weakness found yet. Any other guarantee necessary?

FIRE, LIGHTNING, RUST and STORM PROOF.

Let us know the size of any roof you intend covering and we will make you an interesting offer.



Note what the "Philosopher of Metal Town" says on page 739 of this issue.

Metallic Roofing Co.

Limited MANUFACTURERS TORONTO and WINNIPEG

Spring is Here



If interested, it will pay you to look over **HULL'S** price list for Fruit and Ornamental TREES, Grapevines, Small Fruits, Shrubs, ROSES, Evergreen Hedge, Seed Potatoes, etc., while in verity, it will soon be too late. We ship **DIRECT CENTRAL NURSERIES** for satisfaction. Don't be too

late to customers from the state—the rush is now on. **A. G. HULL & SON, ST. CATHARINES, ONT.**

Build CONCRETE SILOS Any Size

with the London Adjustable Silo Curbs. SEND FOR CATALOGUE.

We manufacture a complete line of CONCRETE MACHINERY. Tell us your requirements.

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Write us and we'll show you why it costs least to roof right. Just address **The PEDLAR People** (Incl. 1904). Oshawa Montreal Ottawa Toronto London Winnipeg

When Writing Please Mention this Paper

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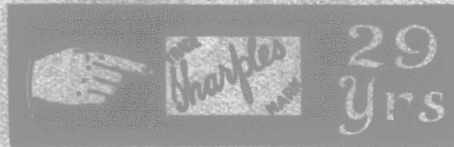


BOTH SHAKES AND DUMPS

NEW IDEA FURNACES

ASK FOR FREE CATALOGUES.

SEND SIZE OF HOUSE IF YOU WISH ESTIMATE OF COST OF FURNACE INSTALLED READY FOR USE **THE GURNEY TILDEN Co.** HAMILTON LIMITED MONTREAL WINNIPEG DEPT. A VANCOUVER.



Confession of a "Bucket Bowl" Maker

This is an extract from an article written by a prominent manufacturer of "bucket bowl" cream separators. He frankly admits that "bucket bowl" cream separators cause trouble. Remember, that when he says "cream separator," he means the "bucket bowl" sort. Here is the extract:

"Everybody who has ever used a Cream Separator for any length of time knows that it is a difficult thing to keep the bowl in perfect balance. When a separator bowl gets out of balance in use, the machine runs rough, making a peculiar buzz or roaring noise. When in this condition, it does not make as clean a separation as when it is running in good balance. There is, therefore, a loss of fat in the skim milk, due to its running out of balance; besides this, the rough running of the bowl multiplies the wear on the bearings many times, and if the bowl is not sent back to the factory for rebalancing, it will keep getting worse, and soon wear out the whole separator. Every separator manufacturer, and most separator dealers, have realized, years ago, that if a separator could be made self-balancing it would be the greatest single improvement that could be made in separation."

That's the whole story. "Bucket bowls" are wrongly built, cannot be kept in balance, begin to rattle, shake, create friction,



The Dairy Tubular. The most efficient, most durable, easiest operated, best cream separator money can buy. The supply can be low, steady and need not be removed to take the machine apart.

years experience. 1908 sales way ahead of 1907—out of sight of most, if not all, others combined. 1909 is proving better yet. Write for catalog—No. 193, describing the Tubular.

The Sharples Separator Co.
Toronto, Ont. Winnipeg, Man.

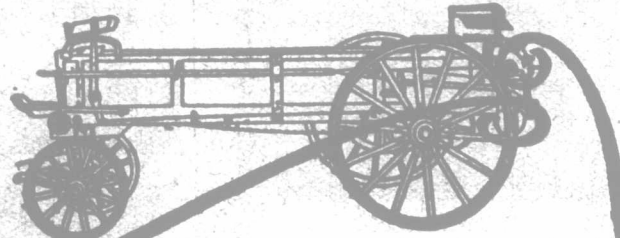
lose cream, rack the separator to pieces, and must be sent back to the factory for repairs. Why? Because "bucket bowls" are set on top of the spindle, have all the weight above the point of support, are held upright by several bearings, are always trying to tip sidewise, and eventually will get into the condition this "bucket bowl" maker describes.

Avoid "bucket bowl" troubles by getting a Sharples Dairy Tubular Cream Separator. Different from all others. Tubulars are, and always have been, self-balancing. Why? Because Tubular bowls hang below a single frictionless ball bearing that supports them—the only bearing they have or need. Tubular bowls hang just like a plumb bob, and hang just as true, and for exactly the same reason. Sharples bowls are the only self-balancing bowls made. If you want a self-balancing bowl, get a Sharples Dairy Tubular.

The manufacture of Tubulars is one of Canada's leading industries. Backed by 29

"Success" Light Draft Roller Bearing Manure Spreader for 1909 is greatly improved

Just go to the Paris Plow Agent in your locality and examine the New 1909 "Success" Manure Spreader. You'll have no doubts about which machine to purchase after you've seen it and noted the improvements for 1909.



The drawing below illustrates the New Gear Case enclosing the Apron Driving Mechanism. The case is cut away so that you can see the Worm and Gear, which run in oil. This case not only prevents all "leakage-waste" of oil but is dust-tight, too. This oil-tight, dust-proof case around Worm and Gear makes the apron driving mechanism of the "Success" the smoothest and easiest-running, lightest-draft on any manure spreader. And as the Worm and Gear are so fully protected against wear they are rendered practically indestructible.

But just see the "Success," and note all its superior features. That's the right thing to do before making your choice of a manure spreader.

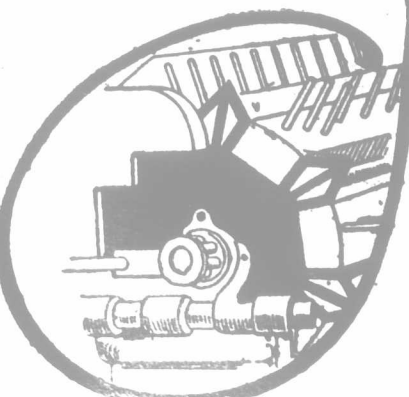
THE PARIS PLOW CO.
LIMITED.

PARIS ONTARIO

Western Agents: The John Deere Plow Co., Ltd., Winnipeg, Regina, Calgary and Edmonton. Agents for Quebec and Maritime Provinces: Frost & Wood Co., Ltd., Montreal, Quebec, St. John, N.E.

The bottom drawing shows Beater with Roller Bearing at end of Beater shaft. There is also another Roller Bearing at other end of Beater Shaft. These two bearings make the "Success" Beater a marvel for smooth and easy running—and materially decrease the draft. There are three other sets of Roller Bearings on New 1909 "Success." (Any Paris Plow Agent will show them to you). Their use lessens the draft of "Success" by at least one horse.

The large Black Teeth shows on ends of Beater are the Harpoon Teeth. These Harpoon Teeth cut up the long pieces of straw that would otherwise wind around the end of the beater and clog it up. And this is just another draft-decreasing feature found on no spreader but the "Success."



Coil-Spring Wire



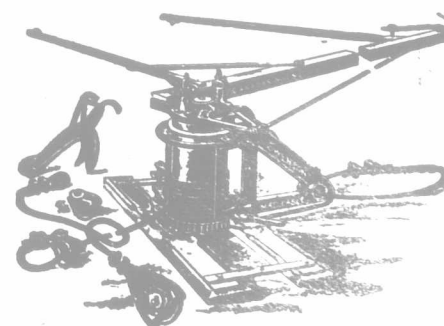
New Brunswick Wire Fence Co.,
Moncton, New Brunswick, Limited.

used by us is made in our own factory. This wire, while it stretches up stiff and taut, is yet remarkably springy—makes a fence so elastic that it instantly springs back into its original erect position after undergoing pressure severe enough to stretch an ordinary fence permanently out of shape. Test the galvanizing of this Coil Spring Wire with your knife and you'll find it heavier, smoother, better. Fact is, this Coil Spring Wire makes Maritime Wire Fence fully 25 to 100 per cent more lasting than ordinary fencing—a 25 to 100 per cent better investment.

Will you favor us with a request for our **Free Catalogue** and learn more about our superior Maritime Wire Fence?



STUMP AND TREE PULLERS



Made in five different sizes. The only malleable iron stump puller made. It is manufactured here and warranted here. It is the only stump puller made on which you have a chance to try it without making full advance payments. Catalogue A.

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Limited,
Lindsay, Ontario, Canada.

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show why it will be money in your pocket to lay an ASBESTOS ROOF. The figures prove the economy of it. First, because ASBESTOS is the only permanently durable ready roofing. Second, because it is not made to be painted, coated or protected in any way. The Asbestos, being a mineral, is indestructible. Yet it costs no more per roll than some ordinary roofings, which cost more to keep painted or coated than they cost in the first place.

J-M ASBESTOS ROOFING

gives real fire protection, too. No other roofing made does this. Don't listen to "claims." Ask for the facts. Our facts prove our claims. Learn also why Asbestos Roofing keeps buildings warm in winter and cool in summer. Write to-day for Book No. 80 and samples. No matter what kind of roofing you want this book will help you choose wisely.

The Canadian
H. W. Johns-Manville Co., Ltd.
85-87 Wellington St., West,
Toronto, Ont.

YOUR FARM IN DANGER?

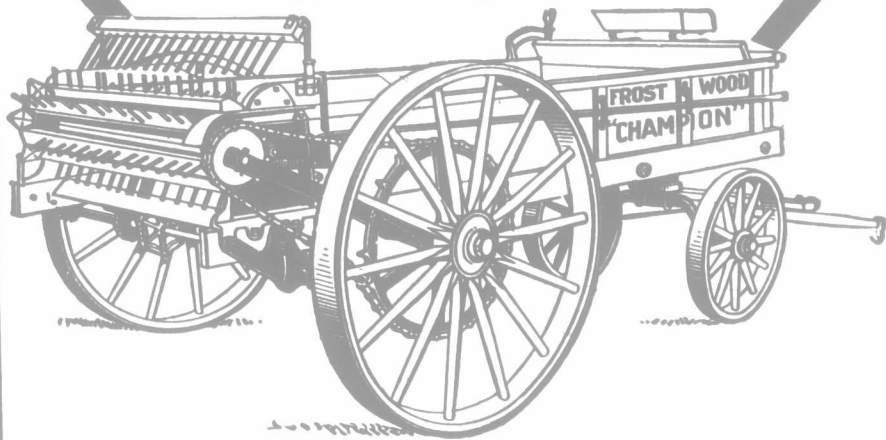
TAKE WARNING.—Its richness and fertility cannot last forever. Eighty loads of hay means a depreciation yearly of \$408. Repairing the depreciation by putting back manure by hand is slow, discouraging work, and never well done. The time of yourself and your hired man, and increase of crops, will in two years pay for a

Frost & Wood CHAMPION MANURE SPREADER

A stronger, more durable machine there cannot be found in the Dominion. Has rigid, stiff-braced sills and frame; also solid cold-rolled steel rear power axle, 2 1/4 inches in diameter. Light draft, uniform spreading by beater and apron, thorough pulverizing rake driven by large sprocket wheel and worm gear, are only a few features out of a score that make the Champion a money-maker for you. We cannot tell all the good news about this Spreader here, but we have done it with photos and interesting descriptions in our Free Booklet, "How to Feed Your Crops."

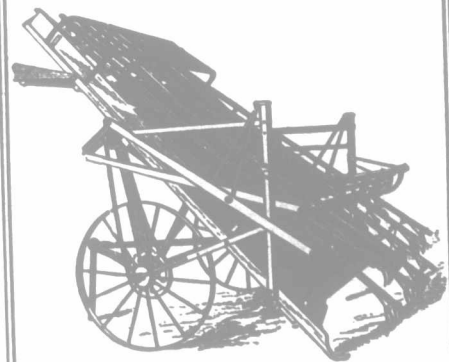
Write for Catalogue F. 6

FROST & WOOD CO., Limited
SMITH'S FALLS, CANADA.



Making Hay

As all progressive farmers are at all times ready to adopt any new machines which prove economical, we print a letter and clipping received by Dain Manfg. Co., Preston, Ont., from a party using their Loader.



Kingsmill, Feb. 27, '08

Dain Manfg. Co.:

Gentlemen,—I enclose clipping from "Aylmer Express," of July 25th, 1907:

"The haying outfit of L. M. Brown, of Kingsmill, put in 31 loads of hay one day last week, the product of 14 acres, two of which is orchard. Twenty-eight loads were loaded with a Dain Hay Loader on roller rack with only one man on the wagon, and for twenty-four loads the man drove his own team. Mostly unloaded in a shed with ordinary horse fork, although a gasoline engine is used for unloading in the barn. This looks like very fast work, and shows what can be done by an up-to-date farmer with modern machinery, even if men are scarce."

I do not regard this as a big day's work, the man with the loader easily kept the unloading gang at work, and they had long narrow sheds to work in most of the time.

I believe one man with your loader and roller racks, such as we use, will load ten loads per hour all day, if empty wagons are brought to him in the field.

Respectfully yours,

L. M. BROWN.

For further information and circular of this machine, write:

DAIN MFG. CO.,
PRESTON, ONT.

"LEADER"



Fence Lock

The Double Grip Gives Double Strength

A brand new No. 9 hard steel wire fence with a lock doubly as strong as any previously devised for a woven fence—this is the "Leader" fence.

The "Leader" lock has a double grip (usual locks have but a single grip). The double grip makes doubly as stiff and strong a fence—the wires cannot be moved up, down or sideways under the most severe strain to which a fence could be put. The "Leader" is the leading fence investment. Buy it.

Frame & Hay Fence Co., Ltd.
Stratford - Canada

Ramsay's Paints

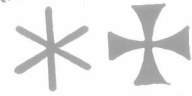
are made for you.
Be economical—buy them.
Don't use cheap paints.
Get a brand with a reputation.
Every painter knows Ramsay's Paints are the standard for house painting.
You can prove it yourself.
Every tin fully guaranteed and mixed ready for use.
Anybody can apply Ramsay's Paints.
Ask your dealer for color card and write us for folder showing cuts of painted houses.

A. RAMSAY & SON CO. Montreal.
Paint makers since 1842. 82

Boys for Farm Help The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training at Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 50-52 Peter St., Toronto.

SECURE ONE OF OUR PREMIUMS.

REGISTERED TRADE MARK



GRANTED 1882

JOSEPH RODGERS & SONS, Limited,
SHEFFIELD, ENG.

AVOID IMITATIONS OF OUR

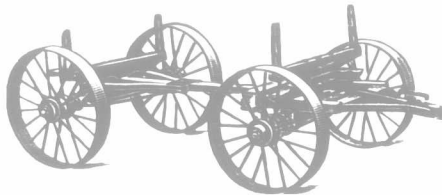
CUTLERY

BY SEEING THAT THIS EXACT MARK

IS ON EACH BLADE. SOLE AGENTS FOR CANADA:

JAMES HUTTON & CO., MONTREAL.

GET ONE OF OUR HANDY WAGONS!



and unloaded as a high-wheel one. of soft soil, as they do not sink in. and see which style you like best. Steel Wheels, which fit any size axle.

You have an up-to-date harrow, seeder and binder, so why not an up-to-date wagon? You use a wagon fifty times as often as you do either of those machines. And one of our Handy Wagons will save half your loading-labor and time. Strong, substantial frames placed on Low, Wide-tire Wheels. A wagon with low wheels is twice as easily and quickly loaded WIDE-TIRE Wheels enable the wagon to make light work of soft soil, as they do not sink in. Our catalogue shows our line of Handy Wagons. Write for it, and see which style you like best. Catalogue also gives full information about our Low, Wide-tire Steel Wheels, which fit any size axle. Lighter, stronger, more durable than wood.



DOMINION WROUGHT IRON WHEEL CO., LIMITED, ORILLIA, ONTARIO.

Columbia Wooden Horns



Although wood horns have been made and used for a number of years, we have never placed one on sale until recently, because we were unable to find a horn that would meet all our exacting requirements, both as to appearance, acoustic qualities and durable construction. Our horns are made of seasoned three-ply veneer, oak or mahogany, cross-banded and so constructed that they will absolutely not warp or lose their shape. Both the outside and inside layer of veneer are arranged so that the grain runs spirally. There is only one joint on the side, a patented wood rim, which holds the bell in perfect shape. This horn embodies all the good points of other horns, with many improvements. By its use the annoying "dominant note," so evident

No. 41, Oak, price, \$12.00.
No. 42, Mahogany, price, \$15.00.

in some horns, is permanently eliminated. The Columbia Wooden Horn, like all other Columbia Horns used in connection with the aluminum tone arm, screws solidly into the elbow, so that it cannot fall out, and is readily interchangeable, fitting any disc graphophone and any of the tone-arm cylinder graphophones.

Sent on one week's trial. Money refunded if you are not satisfied.

Complete catalogues of Columbia Graphophones and Records (disc or cylinder) sent on request.

Write to-day for us to place your name on our mailing list for the Monthly Supplements of New Records.



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BUY IDEAL FENCE

YOU should build fence like you make other permanent improvements. Tinkering does not pay. Fences made of light wire, and wires that break rather than give when it gets cold; fences that an unruly animal could break through; fences not properly stayed—these are not paying fences. Ideal fence is the right kind. It is made of No. 9 hard steel wire from top to bottom, and is heavier and stronger than any fence on the market. Remember, it costs no more to dig your post



holes, set your posts, stretch your fence and staple it when the heavy Ideal fence is used than for a light, flimsy article. And notice how the Ideal fence is locked at every crossing. It is heavily galvanized to keep off rust. Adapts itself to extremes of heat and cold, and always presents a handsome, well-stretched appearance. It pays to study the matter over thoroughly before you buy any kind of a fence. Our little fence book gives you all the pointers. Write us today for free copy.

The McGregor Banwell Fence Co., Ltd., Dept. B, Walkerville, Ont.
The Ideal Fence Co., Ltd., Dept. B, Winnipeg, Man.



Spray with the EMPIRE KING

IT TAKES precedence over any other spraying machine made. It is not enough for a pump to simply squirt water. Our KING is a combination of three machines in one; while it maintains a strong, steady pressure on the nozzles, it also keeps the liquid in the tank thoroughly agitated, and with each stroke of the pump-handle it cleans the suction strainer twice. Brass cylinder, plunger and valves see to greatest strength, long life, and freedom from corrosion. Every consideration urges it as the best pump. We also manufacture the Monarch, Garfield Knapsack, and many other kinds and sizes of sprayers. Write for our excellent book on spraying formulas, etc. Mailed free.

FIELD FORCE PUMP CO.
666 Eleventh St., ELMIRA, N. Y.



A BEE LINE

De Laval Cream Separators

Short Cut to Dairy Profits

Send for Book

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Genasco is economical roofing.

It costs a little more in the beginning because it is made of Trinidad Lake Asphalt, the perfect natural waterproofer and weather-resister.

The thing that makes the first-cost more makes the last-cost less. And last cost is what counts.

Get the roofing whose composition you know—the Trinidad Lake Asphalt roofing backed by a thirty-two-million dollar guarantee. Mineral and smooth surface. Look for the trade-mark. Write for samples and the Good Roof Guide Book.

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Largest producers of asphalt and largest manufacturers of ready roofing in the world.

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In Western Canada there are great opportunities for the willing farmer. He can make money and success of farming. We have for sale the very choicest of Farm Lands in Saskatchewan, and guarantee to please the most particular. Let us tell you about them, and how others are making money here. Write at once for maps and pamphlets and full information. Our years of experience are at your disposal. All we want is to know if you are interested. Write at once.

TRACKSELL, ANDERSON & CO., REGINA, SASK.

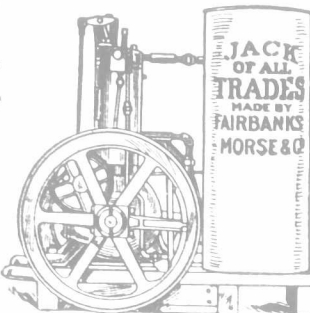
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SIMPLE, ECONOMICAL AND DURABLE. BEST MATERIAL. WELL MADE.

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DON'T MAKE YOUR FARM WORK A DRUDGE. SEND FOR ILLUSTRATED CATALOGUE.

COMPANY, LIMITED. Winnipeg, Calgary, Vancouver.

The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

Established 1866.

Vol. XLIV.

LONDON, ONTARIO, APRIL 29, 1909

No. 866

EDITORIAL.

Some Advantages of Earth Roads.

It is a mistake to assume that gravel or crushed stone is essential to the building and maintenance of good roads. While, for heavily-travelled roads, a metal coating is of very great advantage—in fact, almost indispensable—and while a coating of gravel will be of undoubted benefit to almost any highway, yet, for the less-travelled back roads and concessions, it is by no means necessary. In fact, for such roads, the economy of gravelling, unless the material is very handy to apply, is open to serious question. By frequent and timely use of the split-log drag, combined with tiling, where necessary, earth roads subjected to ordinary use can be kept in very satisfactory condition at all seasons of the year, save at brief intervals in spring and during heavy rains; even then these roads need not be allowed to get into anything like the dire condition to which we have grown accustomed.

And there are several distinct and noteworthy advantages of such roads over metalled roads. First, their maintenance is simpler and cheaper, for the subsiding earth may be simply plastered back over the crown in spring, whereas the mud on a gravel road may not, without compunction, be thus treated, but should be scraped to one side, and then disposed of elsewhere, which is laborious and expensive. Secondly, the well-kept earth road is easier on horses' feet and legs, as well as on vehicle tires, springs and gearing. Many farm horses would not need to be shod from spring till fall were it not for travelling over hard, metal-surfaced roads. Thus, blacksmith's bills might be saved, and the horses' underpinning be the better for it.

In winter, during times of imperfect sleighing, a smooth, dragged earth road makes a better bottom than a gravel face. While these are, perhaps, minor points, they are worthy of due consideration, and point to the advantage of concentrating effort (on the less-travelled highways) upon tiling, ditching, and maintenance of the earth surface in prime condition by the split-log drag.

Be it remembered that expensive roads are not only expensive to build, but expensive to properly maintain. An earth road is easy to construct, and inexpensive to keep in serviceable shape. If some of the gravel scattered over the roads were used to fill trenches in which tile had been laid, the roads being left surfaced with the original loam, it would be much to the advantage of many a mile of road and many a rural passenger.

Co-operation in the Poultry Industry.

The wave of co-operation in farming practices has taken hold of poultry enthusiasts of Eastern Canada in such a way as to result in the formation of an association, the main purposes of which are to engender a co-operative spirit in the production of eggs and poultry, and in the placing of these on the market in such condition that consumers will be willing to pay higher prices. A uniformly high-class product, systematically marketed, is the aim. Without injury to the middleman, it is hoped that both producer and consumer will benefit.

This association should be of practical value to all concerned. Poultry organizations previously in existence in Canada strive chiefly to make their efforts count at exhibitions. This object, while laudable from the standpoint of disposing of fancy stock, and of maintaining a standard of excellence in type and characteristics among pure-bred, does not meet the requirements of the

farmer who keeps hens, or of the small poultryman. These latter want a ready market for eggs and whatever stock they may wish to sell, live or dressed. The Poultry-producers' Association of Eastern Canada promises to do this. It seems to have started along proper lines, and should prove of advantage to the Canadian poultry industry.

An Easy Start in Spraying.

"Does it pay to spray?" is a question still dubiously asked by hundreds and thousands of farmers, while hundreds of thousands of others do not even arrive at the interrogative state of mind, being content to leave the orchard to its fate in the struggle with scale, fungus and moth. And yet, if the truth were only known, there is scarcely any operation in the whole category of field and orchard practice which would pay better than spraying, intelligently, systematically and carefully performed. But the task seems formidable to those who have never seen it done, or become interested in it. Entomology and spraying are looked upon as a complicated science and art, which only the expert professor, armed with microscopes and knowledge gleaned from scientific text-books, can hope to unravel or understand.

All this is a great mistake. While there are fine points to observe in spraying practice, and plenty for the studious to learn, still, any farmer of ordinary intelligence can, by following directions given in the spray-calendar number and other issues of "The Farmer's Advocate," prepare and apply, with reasonable success, the three thorough sprayings with Bordeaux mixture and Paris green which A. McNeill, Chief of the Fruit Division, at Ottawa, declares will control seventy-five per cent. of the insect and fungous pests attacking the apple. The first of these should be put on when the leaf-buds are expanding; the second just after the blossoms fall, and the third a week or ten days later. Other sprayings are occasionally required, and usually beneficial, but make a start with these, and, as you study the question, the remaining applications will become apparent, and their necessity and occasion understood.

Spraying sometimes shows little result, because it may happen to be tried in a year when there is comparatively little trouble from insect and fungous pests. Often it fails to produce full benefits, because not thoroughly performed, or, mayhap, not done at the right time, or not often enough. But, taken one year with another, if properly done, according to directions, spraying will pay, and pay well—so well, indeed, that an orchardist should no more think of neglecting it than he would think of neglecting to pick the crop. The work, while not the pleasantest in the world, is not so bad, if one has a good, up-to-date pump, and prepares himself, horse and harness for the job. The pump will afterwards come in very handy for spraying potatoes, as well as mustard in the grain fields, and for whitewashing the interior of the dairy barn. Buy a spray pump, use it, and be up-to-date—but never lend it to a neighbor. A spray pump is something that should not be loaned.

"Old Subscriber," "Reader" and other correspondents still write, asking us questions, but forgetting to sign their names. These letters are immediately deposited in the waste-paper basket. We do not demand names for publication, but the name and address of every inquirer must accompany the questions to insure attention.

Experiments with Dual-purpose Grades.

Prof. Arkell, of Macdonald College Animal Husbandry Department, reports that none of the cows in their imported dairy Shorthorn herd has failed to pay its way, while some have given handsome returns over cost of production, their calves, also, proving growthy and satisfactory. The intention now is to add some more grade Shorthorns to the herd, breeding these to a dairy Shorthorn bull, raising the heifer calves for milkers, and the male calves for beefing purposes. In this way, valuable data should be obtained concerning the feasibility and economy, under certain conditions, of producing beef and milk in the same herd, and from the same strain of stock. Prof. Arkell's experiment will be watched with great interest. Mr. Grisdale, at Ottawa, has been doing some work to this purpose, with decidedly promising results, but the importance of the subject is such as to warrant duplication at every public experiment station and agricultural college in Canada. It is in no way challenging the field of the special dairy breeds to assert that many thousand farms in the Dominion of Canada would be most profitably stocked with a class of genuine double-decker cattle, such as the Shorthorn ought to be.

O. A. C. Annual Report.

An exceptionally instructive document is the 1908 annual report of the Ontario Agricultural College, just to hand from the Provincial Department of Agriculture, at Toronto. With a minimum of routinary review is combined a large amount of information in almost every department of the College work, gleaned from research, experiment and observation. Incidentally, we note that the President records a larger attendance in 1908 than ever before, there being, from January 1st, 1908, to December 31st, 1,225 students, who received instruction in one or more departments of College work. The regular agricultural courses were well filled, every bed in the recently enlarged boys' dormitory being taken, and seventy-two students, in addition, obliged to board outside. Macdonald Hall has been also filled to its utmost capacity with young ladies. To review the report by departments would be impossible within the limits of one article, and we shall not attempt it. Reference will be made elsewhere, and in future issues, to the results of investigations reported upon. Meanwhile, we advise every intelligent Ontario farmer who is not already on the Department's mailing list to send for a copy. It will repay careful reading.

Mistake of Mixing Breeds.

The idea is apt to prevail in the minds of farmers who have had little experience with pure-bred stock, or have given little study to the principles of breeding, that, by crossing two breeds, the best characteristics of both may be combined in the progeny. While, in the case of two breeds of a similar class—say, of the beef breeds of cattle—which have been long bred for compactness of form, thickness of flesh, and early maturity, the result of the first cross of pure-breds has often been a very satisfactory beef animal, in some instances quite equal to the best specimens of either of the breeds used in the experiment, yet experience has not proven that even in the first cross the prizes have been as numerous as the blanks, while the second and subsequent crosses in either direction have been less successful or satisfactory. And the same statement holds good, as a rule, in the mixing of

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED)

JOHN WELD, MANAGER

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
WINNIPEG, MAN.

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blood in the effort to improve a herd of common or grade stock by the use of pure-bred sires. A sire bred for many generations for an especial purpose, without the introduction of alien blood, becomes strongly prepotent, and his progeny, from females of common or mixed breeding, having no particular characteristics, are almost certain to inherit, in a marked degree, the peculiar qualities of the sire, or of his immediate ancestors. It has, therefore, been by the persistent use of pure-bred sires that improvement and the fixing of types and functions in all lines of live stock has been achieved, maintained and perpetuated. The resulting produce of the first cross of a pure-bred sire mated with a common or mixed-bred female is, as a rule, a more marked improvement upon the dam than that of succeeding generations from sires of the same breed, for the reason that in the first cross the stronger blood of the sire predominates in overwhelming degree, the produce often having nearly all the appearance of a pure-bred, while in following crosses the influence of the sire is less noticeable proportionately. Still, it is only by continuous use of sires of the same breed that animals are graded up and acquire fixed characteristics, and become eligible for registration as pure-bred.

The idea that a cross of two breeds, each having excellent qualities of a different character, would be a good thing, combining the excellencies of both in the produce, is fallacious. The idea is apt to be entertained that a cross of Jerseys and Holsteins, for instance, would be an improvement, because the resultant heifer will give large amounts of rich milk, combining the leading desirable characteristics of both breeds. But when two animals are mated, each one of which is the result of years and generations of breeding with a particular purpose in view, these purposes being different in the two animals, there is a clash of prepotencies, and the result cannot be predicted with any certainty. It is not unlikely to be the comparatively small amount of milk of the Jersey, and the poorer quality of that of the Holstein, or vice versa. Mixing different strong bloods is, therefore, largely a gamble, the chances being as likely the drawing of a blank as a prize, the offspring lacking in uniformity of type and color, as well as of production. On the other hand, when the sire represents many generations of mating of animals of a certain type of structure, color or performance, the result will be that the influence of the sire will be the strongest in

the descendants, that the general quality of the herd will be improved, and the probability of the improved animals being able to transmit some of their improvement will be increased.

Honest Pay for Labor Given.

Editor "The Farmer's Advocate":

Many of the young people plan and scheme to get rich—and enormously rich, too—without hard work. Our country is developing a popular mania for sudden wealth. Farmers' sons are dazzled by the glitter of wealth they read of, and the suddenness and ease with which these fortunes are made makes them discontented and restless, and the plow becomes too slow an implement of acquiring a fortune. The ten, or fifteen or twenty-five thousand which their plain, honest fathers have accumulated they think too little. "Millions! Millions!" is the mad cry of the age. Young people of the farm, if you value a good conscience, ease of mind, and health of body, keep away from this swirling, rushing, hissing, boiling maelstrom of commercial madness. Be honest, and willing to earn your living. Do not be deceived by the rogue's maxim, "The world owes me a living." This is wrong, because the world owes you nothing but a just return for your labor.

If the country youth could only realize what untold pleasures were to be found on the farm, they would never think of leaving it. The country was made by God, the city by man. Life in the country is more natural, and city life more artificial. Life on the farm is nearer an ideal life than anything the city can afford.

As a place to live, the farm has many advantages over the city residence. The skies are clearer, the air is purer, and the world is brighter. There is no smoke from ten thousand chimneys and furnaces to darken the heavens. Instead of the fumes of the factory, the farmer has the fragrance of flower and foliage. Instead of drinking the city water, whose purity is exceedingly questionable, he drinks from the brook, the sparkling spring, or the cool, deep well. Instead of the ceaseless rattle of wheels and hoofs on the story street, the farmer lives in quiet and comfort, no sound to break the quiet save the lowing herds, the chirp of birds, or the soft music on the breeze.

Then, the farm presents substantial comforts. The farmer eats his own chickens and drinks milk from his own cows; he raises nearly all his own eatables, and knows just how healthy and clean they are. The farm, also, combines much pleasure with its severe toil. The pure air, plain diet and simple habits produce a robustness of health which makes it a luxury to live and work. Sleep is sweet, and the morning finds the farmer fresh for work.

The work on the farm is not now so severe as it formerly was. Inventive skill has lifted the burden from human shoulders, and now much of the work is done by machinery. Instead of wearily plodding after many implements, the farmer is now permitted to ride in easy comfort. The swift harvesters have taken the place of the keen, flashing sickle. Instead of the flail, we hear the buzz of the steam-driven threshing machine. Even the rustic simplicity of farm life has yielded to the revolutionizing power of this wonderful age. Instead of pumping water and pulping roots by hand, we may use the gasoline engine or windmill.

It is sometimes said that the farmer is the most independent man in the world, and this is undoubtedly true. When city inhabitants are glad to make a living, the farmer is living without feeling the cost, and laying up money, besides. At all events, his living is always sure. He always raises enough produce for that in the poorest year, and his life is accompanied with few of those cares and anxieties which harass men in other walks of life.

When we think of all this, why do so many farmers' sons and daughters want to leave the farm, and think any other occupation preferable to that in which they were brought up. Life on the farm is by no means incompatible with culture, refinement and comfort. Every station has its unpleasant features, but we should accustom ourselves to look on the bright side of farming, learn to appreciate its poetry, and to enjoy its spiritual ideal side. There is so much enjoyment in it that, to say nothing of the profitableness of it, it confers delights which alone repay the toil. C. A. W.

Apropos of the suggestion discussed in "The Farmer's Advocate" of April 15th, under the heading, "Job Wanted," a Kent County Subscriber humorously volunteers his services as one of a commission to visit Denmark in the interest of the Canadian bacon industry, mentioning as a willing fellow member of the party a namesake on the faculty of the Ontario Agricultural College. So we already have a hog-raiser and a professor. A journalist now, then a grant, and—All Aboard!

An Inversion of Common Sense.

Editor "The Farmer's Advocate":

It is a welcome sign to see the question of tariff protection so much debated in your columns, and especially welcome, to perceive how rarely the irrelevant questions of partisan politics intrude themselves. You are to be commended for creating such an excellent "open forum," in which all varieties of opinion and argument find expression. For some months now I have been a very interested reader of the many articles and communications appearing in your columns, dealing with trade matters, and I am at last stirred to offer some suggestions by the letter of "Pro Bono Publico," appearing in your issue of April 8th. By the way, would it not be appropriate for "Pro Bono Publico" to write over his own signature? It would then seem that he had the full courage of his convictions. Let him discover himself.

"Pro Bono Publico" admits that free trade has some meaning when applied to "trading horses, hats, jackknives, etc., with the neighbors," but maintains that it is a misnomer when applied to international affairs. On the economic side, I challenge him to show one reason which would justify freedom of trade between the inhabitants of two counties in Ontario, which does not equally justify freedom of trade across international boundaries. So far as the advantages which arise from the ability to exchange commodities are concerned, international boundaries do not exist, and cannot exist. For political reasons, tariffs have been established, and are still maintained; and, unfortunately, have been discovered to be an excellent engine of extortion by certain privileged classes. As settled commercial policies, however, tariffs for protection or revenue are fallacious in theory, and pernicious or wasteful in practice.

It is quite true that many modern civilized nations maintain high tariffs, and that England, at her wits' end as to how to raise the money to pay huge war-debts and to build Dreadnoughts, has had recourse to more or less in the way of tariff or inland revenue taxation. But the fact that protection or taxation by means of tariffs is a very common practice, does not by any means justify it. Time was when intertribal warfare was incessantly waged, and even now the resources of nearly every nation are taxed to the utmost to maintain defensive or offensive armaments. The disappearance of incessant intertribal warfare will be welcomed, doubtless, by even "Pro Bono Publico," as an advance of civilization; and were modern nations somewhat more kindly disposed towards each other, so that they felt free to disarm and relegate all disputes to an international judicial tribunal, perhaps "Pro Bono Publico" would go still further, and admit that the energy and wealth thus freed for productive purposes might do not a little in making the desert blossom as the rose, and in banishing disease, poverty and vice from human society. It would be well for "Pro Bono Publico" to keep in mind, also, that one of the most common conditions which well-nigh compel customs taxation is the existence of huge war debts, and the fancied necessity for huge naval and military expenditure. Protection, as "commercial warfare," is very closely related, both as cause and consequence, to the warfare that involves bloodshed.

"Pro Bono Publico" cites many facts which prove how great were the import duties which England levied from 1787 to about 1850. But he forgets entirely to describe the conditions of that time, during two decades of which England was engaged in a titanic struggle for national existence with Napoleon. And he forgets, also, to keep in mind the conditions of the masses in rural England prior to the repeal of the corn laws. Let him read Kingsley's "Alton Locke," "Yeast," and "Two Years Ago," all dealing with conditions between 1830 and 1850, and let him bear in mind the continued references in contemporary literature to the press-gang, smuggling, and revenue cutters along the shore, and other brutal and miserable social conditions, and he will not state, with such evident complacency, that "Agricultural industries were regarded by English statesmen as transcending all others in importance, hence for centuries (?), by a high protective tariff, the home market was guarded for the British farmers."

It is a strange inversion of common sense, developed by a constant viewing of exchange wholly from the standpoint of the producer, that makes "Pro Bono Publico" and other protectionists lament the "flooding of the home market" with foreign commodities. In 1906, agricultural cereal products (exclusive of tropical or semi-tropical fruits, etc.) were sold in the Canadian markets by U. S. producers to the alarming extent of \$18,606,611 worth. Why alarming? I see nothing to be alarmed about, or to wonder at. I presume we got our money's worth in goods, or thought we did, at all events; therefore, the bargain may be presumed to have been a good one. Does "Pro Bono Publico" fear a driving of Canadian agriculture to the wall through competition with Yankee farmers? Such

a fear would be a poor compliment to the skill, intelligence and industry of Canadian agriculturists. No; give Canadian farmers a fair field and no favor, and they will hold their own as much as they deserve, and that is all they are entitled to. It would seem, from "Pro Bono Publico's" anxiety regarding our extremely "unfavorable" balance of trade, that he can conceive of no mutual benefit in an ordinary commercial transaction. Only the seller is the gainer; the buyer is to be commiserated. But only a Midas would soberly and persistently adhere to such a view. Most of us part with our money (which we have taken in exchange for things produced and sold) whenever we want certain commodities exchangeable for the money; and the fact that Canadians pay "into the pockets of the United States farmers more than three dollars per capita for cereals, while the shrewd Yankees send us back less than three cents per capita," is in itself of no moment whatsoever, and it only seems to be a loss to Canadians to those whose minds have been blinded by the current balance of trade fallacies. A little genuine reflection upon the nature of trade will dissipate the obscurity which has so long enshrouded the whole matter.

Finally, the contention that protection makes the poor poorer, and the rich richer, is assailed as fiction. This position would afford scope for another long letter, but I must content myself with affirming that one of the most conspicuous evils connected with the protective system, recognized even by the great Republican party in the United States, is that it has favored the creation and baneful operations of trusts and monopolies. It is easy to talk of doing away with tariff favoritism by a stroke of the pen; it is a very different matter to actually carry out such good intentions when the favored parties are strongly entrenched behind and within legislative bodies.

Brant Co., Ont. W. C. GOOD.

HORSES.

Soundness of Bureau Stallions.

In the Horse Department of "The Farmer's Advocate" of April 15th, publicity was given to comment in a personal letter received by the editor from a well-known, esteemed and capable live-stock judge and subscriber in the Province of Quebec, who said he had seen three National Bureau of Breeding stallions, concerning which he wrote: "One of them had a well-developed ringbone, another a curby hock, and all three were anything but of the conformation and type desired in a high-class Thoroughbred."

Immediately on receipt of the letter we proceeded to correspond with Mr. Ryan, manager of the National Bureau, as well as a number of other parties, with the result that it now appears that the horse alleged to have a ringbone is not a Bureau stallion at all, but a horse inadvertently classed with two Bureau stallions, through a stenographer's failure to distinguish clearly in a letter referring to them. The two of these three horses which do belong to the National Bureau are Rosemount and Ostrich, both of whom have been quite recently examined by competent veterinary surgeons in Montreal—a different one for each horse—and pronounced sound for breeding purposes. Concerning Rosemount, the veterinarian who examined him, Prof. O. Bruneau, writes: "Rosemount has a great conformation, and consequently ought to leave behind him a great progeny, if brought to him proper mares to second his beautiful exterior and appearance." Ostrich, Mr. Ryan claims, is perhaps the soundest Thoroughbred ever seen in America, having raced on all sorts of tracks until he was seven years old. He was presented to the Bureau by Algeron Daingerfield, Secretary of the New York Jockey Club. Besides the veterinarians' certificates, we have received flattering testimonials from the keepers of these horses. Our correspondent's unfavorable impression is partly explained by the fact that the horses were ill-conditioned at the time he saw them, both being shedding their coats. In conclusion, we wish to state that Mr. Ryan has been very prompt, painstaking and evidently frank in correspondence; and as he informs us that the intention is to exhibit both the horses named in the Montreal Horse Show in May, all parties interested will have a chance to inspect them to their own satisfaction.

The time lost, the energy wasted, and the discomfort caused by bad roads, if directed to road construction, would quickly build for Ontario a permanent system of good country highways.—"Bulletin on Highway Improvement in Ontario"

An Importer's Views on Clydesdales.

An experienced breeder, importer and exporter of heavy-draft horses, recently interviewed by a "Farmer's Advocate" representative, gave it as his opinion that to consanguineous breeding is largely attributable, not only the lack of substance and constitution found in many Clydesdales of the type at present popular with Scottish breeders and judges generally, but that, to the same cause may, in no small measure, together with high feeding and lack of exercise, be attributed the comparative infertility characteristic of not a few stallions of that class. Whether or not this theory be correct to the extent claimed by the breeder interviewed, there would appear to be reasonable grounds for the contention. The greater size and weight of the English Shire horses was claimed to be owing in part to the stronger soil and more abundant pastures of the districts in which they are principally raised, and also to the fact that the colts are more liberally fed during the first two years of their lives. It was also claimed that, in the northern counties of England, bordering on Scotland, the Clydesdales, as a rule, are of greater substance and weight than in the sections of Scotland in which they are most numerous, and bred more on what are regarded as fashionable lines. The opinion was also expressed, heterodox as it will doubtless be declared by many, that a judicious admixture of the blood of the two breeds, Shire and Clydesdale, whose origin is so closely allied, would probably be influential in correcting the faults and improving the virtues of both. The registration rules, of course, hinder the adoption of this suggestion, but it is practically certain that, by wise selection of sires within the breeds, the desirable characteristics of more width and depth of body in the Clydesdale and more refinement of bone and spring of pastern in the Shire, together with less hair on the heels, substantial improvement may be effected in both breeds.

may have the height, but have neither the weight nor width of those of twenty or thirty years ago. I could easily name a dozen horses of the latter period that I think were much heavier than any horse at the recent Glasgow Stallion Show or last year's Highland Society Show. You may reply that these old-timers had shorter pasterns and wider action, which, of course, is true; but were they really inferior as draft horses? Were they not nearer, the ideal lorry type, and consequently the ideal American type, than the great bulk of present-day prizewinners?"

LIVE STOCK.

Dairy Shorthorns at Macdonald College.

Editor "The Farmer's Advocate":

In response to your correspondent's request for information regarding our Dairy Shorthorn herd at Macdonald College, I have pleasure in writing the following few brief notes, and of giving such records as we have to date. The herd has been in our possession for about a year and a half, and it will be readily understood that that is scarcely sufficient time to make a satisfactory test of the cattle, particularly as much depends upon the ability of the heifers raised to come up to standard. Some of the cows have exceeded our expectations, and some have disappointed us. On the whole, however, we are encouraged to continue, and, if present promises are in a measure fulfilled, our Dairy Shorthorn herd should prove no unimportant factor in the returns from the stable. I cannot yet give an average return for the full number of cows, since all have not completed their year's milking. A few yearly records, however, we may present.

Greenleaf 23rd.—Calved, October, 1907; gave, from January to September, 1908, 5,835½ pounds milk, and 240.24 pounds of butter.

Buttercup—Calved, October, 1907; gave, from January to September, 1908, 5,621½ pounds milk, and 233.18 pounds butter.

Tulip, with her first calf, gave 4,082½ pounds milk.

Furbelow Countess, with her first calf, gave 5,380 pounds milk, and 135 pounds butter.

Barrington Duchess gave 9,756 pounds milk, and 420.9 pounds butter.

Barrington Duchess also gave, during the month of March, 1907, 1,382 pounds milk, and 60.18 pounds butter.

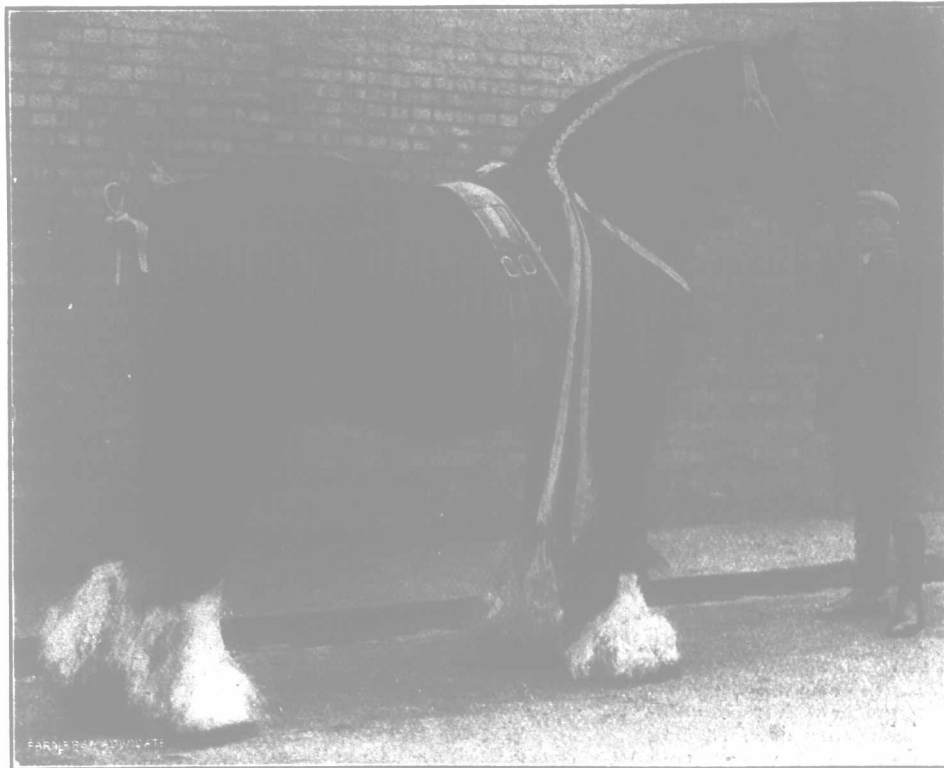
These cows tested as follows: Greenleaf 23rd, 3.4 per cent.; Buttercup, 3.5 per cent.; Tulip, 3 per cent.; Furbelow Countess, 3.6 per cent.; Barrington Duchess, 3.6 per cent.

A number of cows of the herd have freshened again, and they are making much better promise this year than last.

The cattle have been good feeders and easy milkers, and have, we think, presented rather an attractive appearance in the stable. All of them have as yet paid their way, and many of them have given a handsome return, besides cost of maintenance.

In the short course held here in January, a lot of four cows and four calves evoked very favorable comment from the students present. The bull has developed well, and our herdsman claims him to be the most active, energetic bull in the stable. He has proven a very satisfactory sire, and the crop of calves are, we think, rather promising. Most of them have been heifers, and their general appearance, as far as type, substance and quality is concerned, are such as we should have desired to obtain. We have also a 14-months-old bull calf out of Barrington Duchess, imported in dam, and by Beau Sabreur, Mr. Taylor's well-known bull, which we expect to reserve for our own use. He appears to be developing the characteristics which we think essential for the breeding of dairy Shorthorns.

In the feeding and management of the calves, we have learned one lesson. At the beginning it was our thought to rear them much as our other dairy calves were raised. We allowed a number of them, in the beginning, to become somewhat thin



Lord Mayor II. (19790).

Shire stallion; black; foaled 1899. First in class 10 years and upwards, Shire Show, London, England, 1909. Sire Bracknell Harold.

The Clydesdale Controversy.

Alex. Galbraith, president of the American Clydesdale Association, in a recent letter to the Scottish Farmer, endorses to a very considerable extent the view taken by Mr. Macaulay and Mr. McBane, in their letters to the same journal, as quoted in our last issue, regarding the necessity for greater width, depth and weight in the make-up of the Clydesdale than is found in the type popular in Scotland at present, and generally preferred by Scottish judges in placing awards at the shows. Mr. Galbraith says: "Americans and Canadians, although preferring different breeds at present, have very similar ideas as to what constitutes a model draft horse. They each demand a heavier, wider and more massive animal than the present-day Clydesdale is. We all like the quality and the underpinning, and the action so characteristic of the modern Clydesdale, but unless constitution, depth, width and weight can be materially increased, even the Canadian market will soon pass to the foreigner."

"Now, would there be any retrogression or injury to the Clydesdale breed if American and Canadian views were given effect? I think not; but, on the other hand, a most decided improvement. The leading Clydesdales of to-day

in flesh, but such management did not prove most satisfactory, as it was difficult to keep them thriving well when in rather thin condition. This year we have made it a point never to lose the early calf-flesh, and, while not making them fat, we have fed them so that their ribs appeared always reasonably well covered, and we have kept them, therefore, in a hearty, vigorous condition. This has proven much the more satisfactory system, and the calves have, during the past months, been the best feeders, and, I think, the best doers in the stable. We do not expect that this will detract at all from the milking capacity of the heifer calves.

Recently we purchased some grade Shorthorn cows, and are mating them to the dairy Shorthorn bull, and later on we expect to buy a few more of these grade cows for experimental purposes. The heifers will be raised as milkers, and the bulls will be steered and fed. We think, from this latter experiment, we may be able to obtain some useful information as touching the fattening abilities of such cattle.

H. S. ARKELL,
Macdonald College.

Bacon Industry Again.

Editor "The Farmer's Advocate":

Your issue of April 8th contained correspondence from "Chronicle" and J. E. Brethour on this much-talked-of and much-abused industry. With respect to sending a commission of Ontario farmers to Denmark to investigate along that line, it would no doubt be censured by some, while approved by others. The industry is truthfully in a deplorable condition, and reasons have been given, and some rather warm discussions have followed in the columns of your valuable paper from time to time, and still the industry is gradually on the decline, and there are to-day fewer hogs in the country than reports indicate.

Where lies the fault, and what can be done to reverse the conditions? Without a doubt, a commission of competent farmers sent to Denmark would bring back a number of profitable ideas on breeding, feeding, and more especially on the co-operating end, in the placing of the products on the market.

What the Ontario farmer has done in co-operation in the cheese industry, might also be done with hogs. That is where the Denmark farmers "shine," for they are living in a dairy country, and hogs are the by-product to dairying. But we must remember that the Ontario farmer does not carry his eggs to market in one basket, and hence the main reason of the decline in hogs. When we know it to be a fact that the packers took from the farmers most exorbitant profits, and right in the years when the majority of us had to struggle and economize at every point to make ends meet, is it any wonder that producers are soured? Doubtless, the packers are losing money at the export end, and we extend to them, our sympathy, for we have been there. In the years from 1895 to 1902 they raised and lowered the prices to their own free will, and the years that followed they seemed to forget everything but self.

The bacon hog of to-day is a paying proposition on every farm, as the feeding experiments of Prof. Day will prove, and which can be voiced by every practical farmer, but there are other branches of stock-farming that yield equally as good returns. Consider the price of horses, compared with what they were ten years ago. Beefing cattle is a profitable branch, and we in this county have been realizing, the last few winter seasons, about 12 cents a pound for their gains; and, knowing the high price and scarcity of coarse grains and millfeeds, and that the bulk of the products used are silage, roots and clover hay, we feel we would be making a blunder if we kept more than a limited number of hogs in our stables. Although hogs can be raised and fed to a certain extent with rations from the dairy, kitchen and roots, we have the former generally only in limited quantities, and hence we feel justified in confining our numbers to a limit within that sphere. The population of our towns and cities is steadily increasing, which means an increased local demand for nearly everything our farms can produce. Wheat is also coming back to take a place in our crop rotation. So, taking all things into consideration, we must admit we are living in an era of milk and honey, and are not seriously worrying over which supply will run dry first; but the day perhaps will come when we will see our mistake, when too late.

Waterloo Co., Ont. JOSEPH H. WOODS.

Favors Loose Feeding.

Our experience leads us to believe that it is more profitable to feed steers loose than to tie them in stalls, says Prof. G. E. Day, in his 1908 annual report, adding: "Loose steers are less easily surfeited, are less likely to become crippled or sore in their feet, and appear to shrink less when driven to market."

Dairy By-products for Swine.

The relation of the feeding value of whey fat to the business of whey-butter making has pointed attention during the past winter to the results of an experiment conducted last summer by Prof. G. E. Day, O. A. C., Guelph, comparing skimmed with unskimmed whey. Our readers have been already informed in this connection that the experiment in question indicated a value twenty-five per cent. greater for unskimmed whey than for whey that had been run through a cream separator. In addition to comparing these two kinds of whey, skim milk and buttermilk were also compared with the whey. From the annual College report we now quote the details of the whole experiment, together with Prof. Day's conclusions.

Plan of Experiment.—Originally, 60 pigs were divided into five groups of twelve pigs each, but it was thought advisable to discard certain pigs as unfit for experimental work, and the experiment was completed with the number of pigs in each group indicated in the table which follows: Group I. was fed skim milk and meal; Group II., buttermilk and meal; Group III., ordinary whey and meal; Group IV., separated whey and meal; and Group V. was a check group, fed water and meal.

The grain ration consisted of barley and frozen wheat, to which wheat middlings were added in the following proportions, by weight: 1st, 30 days, 3 parts middlings to 1 part ground grain; 2nd, 30 days, 2 parts middlings to 1 part ground grain; 3rd, 30 days, 1 part middlings to 1 part ground grain; 4th, 30 days, 1 part middlings to 2 parts ground grain.

Nearly two and a half pounds of milk and buttermilk were fed with each pound of meal, and about two and three-quarters pounds of whey with each pound of meal.

TABLE SHOWING WEIGHTS, GAINS, AND FOOD CONSUMED.

	Group I. 11 pigs. Skim milk and meal.	Group II. 12 pigs. Buttermilk and meal.	Group III. 11 pigs. Ordinary whey and meal.	Group IV. 10 pigs. Separated whey and meal.	Group V. 12 pigs. Water and meal.
Duration of experiment	120 days	120 days	120 days	120 days	120 days
Weight of pigs at commencement of experiment	485 lbs.	573 lbs.	450 lbs.	427 lbs.	541 lbs.
Weight of pigs at close of ex- periment	2,278 lbs.	2,480 lbs.	1,987 lbs.	1,713 lbs.	1,548 lbs.
Total gain in weight	1,793 lbs.	1,907 lbs.	1,537 lbs.	1,286 lbs.	1,007 lbs.
Average daily gain per pig	1.36 lb.	1.32 lb.	1.16 lb.	1.07 lb.	0.7 lb.
Total food consumed	Meal, 4,553 lbs. Skim Milk, 11,223 lbs.	Meal, 4,888 lbs. Buttermilk, 12,012 lbs.	Meal, 4,142 lbs. Whey, 11,486 lbs.	Meal, 3,821 lbs. Whey, 9,959 lbs.	Meal, 4,331 lbs.
Food consumed per 100 pounds increase in weight	Meal, 254 lbs. Skim Milk, 626 lbs.	Meal, 256 lbs. Buttermilk, 631 lbs.	Meal, 269 lbs. Whey, 747 lbs.	Meal, 297 lbs. S. whey, 774 lbs.	Meal, 430 lbs.

POINTS OF INTEREST.

1. Skim milk gave the largest gain per pig, as well as the most economical gain.

2. Buttermilk came so close to skim milk in feeding value that it may be regarded as practically equal to skim milk, so far as this experiment goes.

3. Ordinary whey shows a distinct advantage over separated whey in this experiment.

4. If we compare each group with our check group, we find that if we represent the feeding value of separated whey by 100, the feeding value of ordinary whey would be approximately 125, buttermilk 160, and skim milk 163.5. That is to say, ordinary whey showed a feeding value 25 per cent. higher than that of separated whey in this experiment; buttermilk 60 per cent. higher, and skim milk 63½ per cent. higher.

5. The feeding value of each kind of whey, compared with skim milk, is much higher in this experiment than in any other we have conducted, and we feel sure that it is a great deal higher than may ordinarily be expected. It will be noticed that we fed a comparatively small proportion of whey to meal, and, under such conditions, whey will always show a much higher feeding value per 100 pounds than when fed in larger quantities. The same is true of skim milk and buttermilk, but perhaps not quite to the same extent. There is little doubt, however, that the use of small proportions of these dairy by-products has tended to bring them more closely together in feeding value. As ordinarily fed, whey seldom shows a value higher than one-half that of skim milk or buttermilk.

The Dual-purpose Cow.

F. McConnell, B. Sc., in the English Livestock Journal, discusses the practicability of maintaining a class of profitable general-purpose cattle, and undertakes to show that such can not only be developed, but is even now in existence. He writes as follows:

Without disparaging any other breeds which are noted for both beef and milk, it may be pointed out that the Shorthorn has always been famous for both qualities right through its history. To quote from the exhaustive "History of Shorthorn Cattle," recently issued: "The improved Shorthorn has achieved its predominant position by reason of its remarkable combination of the properties of beef-making and milk-producing," and a long list of deep-milking cows of pedigree ancestry which have lived at various times is given. Taking the last six years at the Dairy Show at London, the average Shorthorn has yielded 49.2 pounds of milk in a day, with 3.91 per cent. of butter-fat, while the official standard of the Society (issued some years ago) is 8,500 pounds of milk per annum—greater than that allowed for any other breed, excepting the Dutch—and the butter yield per day is put down at the same figure as the Jersey and the Guernsey.

The above figures apply to ordinary Shorthorns—that is, to those that have been more particularly bred or kept for milk—while not losing sight of their value for beef afterwards; in other words, the non-pedigreed dairy variety. Shorthorn men, however, began to bethink themselves, about a dozen years ago, that even the pedigreed animal had not lost its milking power, and that this might be brought out a little more in these days, when milk was as valuable as beef. Ac-

cordingly, some ten years ago, the Shorthorn Society began to offer prizes for the best milking animals of pedigree strain; that is, for cows that were either registered in the herdbook, or eligible for entry therein. Now, it may be necessary to remind some people that a pedigreed Shorthorn is essentially a beef animal. The Brothers Colling, who first took up the scientific evolution of the breed out of the aboriginal "Teewaters," applied the principle taught them by the great Bakewell, who worked with the Longhorns, and devoted themselves to the making of a superior beef-producer, to help to supply "the roast beef of Old England." Their successors for 100 years followed the same lines, and the milking capacity of the mothers of some of the mighty beeves of bygone generations were taken no notice of. Alongside of this, however, the unpedigreed Shorthorn was kept and developed for milking purposes, and herds of milking animals have been in the majority in many districts; and these animals, without any specialization in developing of beef tendency, were fatted off for the butcher after a milking career, and it was, and is, quite a common experience to realize for a fat cow only a few pounds less than she cost, or was worth, when first "laid in" as a milker.

It occurred, therefore, to the leaders in the Shorthorn world, that, as their beef Shorthorns had not altogether lost the power of milking well, and as it might be developed, the above-noted prizes were offered to various bodies for the best pedigreed milkers. The result has been so satisfactory that, to the mind of the present writer, it completely proves the possibility of

making, and the desirability of owning an animal with duplicate powers.

It is, of course, necessary to produce facts and figures in support of the above thesis, and I now proceed to do so. The prizes for pedigreed milkers have been competed for at several shows, but, as I am best acquainted with the tests conducted at the show of the British Dairy Farmers' Association, I shall limit myself to these.

When a class was made at that show for pedigreed Shorthorn cows, there was a "standard" of points fixed for each breed, as follows:

Pedigree Shorthorns	90
Non-pedigree Shorthorns	110
Lincolnshire Reds	100
Jersey	95
Guernsey	85
Red Poll	90
Ayrshire	90
Kerry and Dexter	75
S. Devon	100

It may be necessary to explain that, at the above trials, the milk of two days is taken, weighed, and sampled and analyzed. Points are given for the time elapsed since calving, for the total pounds of milk yielded, for the butter-fat, and for the "other solids" present. The totals for each cow represent her milking value, and the "standard" fixed for each breed was arrived at as an approximate average over several years. The standards have been altered from time to time, as circumstances arose, but those above given are the figures adopted for 1908.

The first institution of these pedigreed prizes brought up animals which did not yield much over the standards, but they improved in quality year by year, until now the climax has been reached this year, and the champion cow of the Dairy Show—and practically the champion cow of the British Islands—is a dual-purpose animal. Dorothy, owned by Lord Rothschild, is entered in the Herdbook as of beef descent, while she is at the same time the champion milker, and is, indeed, the best milker of any class that has been exhibited during the last four years. As an illustration of the results obtained at the Dairy Show, it is instructive to place side by side the marks gained by the best cow of the three leading breeds since the pedigree class was instituted, as below:

	Pedigree		Jersey.
	Shorthorn.	Shorthorn.	
1899	94.4	129.3	119.0
1900	90.8	144.1	112.0
1901	111.2	144.3	102.5
1902	102.4	154.4	114.1
1903	102.2	154.4	114.1
1904	117.5	150.0	115.5
1905	93.4	120.3	109.4
1906	124.8	132.9	119.4
1907	126.7	133.8	97.9
1908	139.2	133.0	100.7

From all the above, therefore, it will be seen that we not only believe in the dual-purpose cow (or general-purpose cow, to use the English phrase) in this country, but we think we have had it for long in the ordinary dairy Shorthorn, and we have attained to it in the case of the pedigreed animal as well.

While writing this article, I have just been informed of the results from a large dairy in the neighborhood of Edinburgh. Edinburgh consumes more milk per head of the population than any other town or city, and the cow-keepers there have been noted for milking and fattening off for more than a generation. They prefer the big, milking Shorthorns from Cumberland and the North of England, and rarely keep these round to breed a second time, and in one case I am informed that they cost £23 to lay in, and were sold out fat at £17 each. This is a considerable saving in proportion to the milking value of the animal, as compared with results obtained from the purely dairy breeds. The sum of our knowledge and experience here, therefore, is to keep on encouraging the development of the general-purpose animal, for she is the one likely to give the best results in the end.

What They Think of Our Premiums

Following are samples of the many letters received from week to week, expressing delight with the premiums we offer for obtaining new subscriptions to "The Farmer's Advocate":

I received the dictionary, and like it very much. ANDREW TURNBULL.
Huron Co., Ont.

Received the mouth organs, and we are well satisfied. THOS. GRAHAM.
York Co., Ont.

I received the Bible all O. K. I am well pleased with it. ORA RICE.
London Co., Ont.

THE FARM.

Use of the Corn Planter.

Editor "The Farmer's Advocate":

In devoting particular attention at this time to corn cultivation, "The Farmer's Advocate" is clearly upon the right track. You are correct in placing improved seed and cultural methods to the front, but is there not room for more general advance in the way of planting? Years ago it was not uncommon to see a couple of bushels of seed sown per acre in drills for growing fodder, but for stalk and leaf of high feeding value, as well as ears of good quality, I think the best practice of those sections of Canada where corn-growing has been brought to the greatest perfection, as well as that of experimenters, goes to show that hill-planting gives much the best results. With many, the favorite distance is 3 feet 6 inches or 3 feet 8 inches apart, which allows plenty of room for vigorous growth and thorough, clean cultivation each way. A third advantage is that less seed is usually required than in the drill method, a bushel being enough for five or six acres. Good results are secured by the use of the marker and hand-planter, though more time is required than with the grain drill commonly used where corn is grown for the silo; but many of these drills throw the rows too close together, do not distribute the kernels at even or sufficient distances apart, and do not cover the seed properly, not being constructed especially for that purpose like the modern two-horse, check-row planter, which, in the American corn-belt, was brought to great perfection, and has won the favor of many Canadians, especially those who grow a large acreage. With it, the corn can be dropped accurately from 3 to 5 kernels per hill, or about so many inches apart in the rows, which

prove so satisfactory, as some might not like to wait long after the fields were ready for seed. I believe I am safe in saying that anyone who has used a good corn-planter would not part with it for much more than its cost, if he could not secure another. MERSEY.
Essex Co., Ont.

Corn, the Backbone of American Agriculture.

Corn is one of the most valuable farm crops from both dairy and commercial standpoints, and more attention should be given its cultivation. In proof of the above assertion, we quote from remarks made by Dean Hurd, Farmers' Week, at the University of Maine: "Corn gives more food to the acre than any other crop; it is used in the manufacture of about 125 articles of trade."

That it can be grown profitably in Maine, is proven by the output of her canning factories—the sweetest and best-canned corn on the American market—and by the financial success of those farmers living within delivering radius of the factories of the State.

The value of the crop as a factor in the ration of the dairy cow led to extended discussions at the recent dairy meeting, as to increasing the yield per acre, together with improving the quality of the product.

The matter was also touched upon at the University Farmers' Week, where a fine display of the best-known varieties was shown, and a demonstration in corn-judging by score-card was given. Interest in this crop is widespread over the United States, and culminated in the National Corn Show, held last fall at Chicago. This is to be duplicated at Boston the coming October, as the New England Corn Exposition. A preliminary step to encourage interest in such a display is the offering by the University of seed corn

for competitive culture and display, both at the next annual Dairy Meeting and during Farmers' Week, when premiums will be offered the successful growers in each variety, men, boys, and the gentler sex, also, being eligible to compete.

In 1907, Dr. Geo. M. Twitchell took the initial step to arouse interest in corn culture, when, in connection with the work of the Maine Dairy-men's Association, he offered special premiums, to be competed for by boys, and furnished them with seed. The large number of exhibits proved an attractive feature of the dairy conference, and pointed to its success. The Experiment Station has, for some years, been paying particular attention to propagating, by hybridization, varieties of corn that will mature in the shortest Maine season, and thus eliminate the chance of non-maturity.

Said Dr. Twitchell, in his address before the Dairy Meeting: "If an acre of corn is planted in drills three and one-half feet apart, and the seed dropped nine inches apart in the drill, there will be 16,594 stalks, assuming that every kernel germinates. Allowing one ear to the stalk, and six ounces of shelled corn to an ear, the average with nine-inch ears, the yield will be 104 bushels of shelled corn to the acre."

This yield would be increased if the ears were longer, and decreased if shorter, hence the desirability of at least coming up to the standard set. The average corn crop of the country has been placed at 24.2 bushels per acre, because the grower will not fulfil his part of the contract.

The soil must be prepared thoroughly before planting, and enough fertilizer used to insure a full meal to the crop every day until perfected. The seed must be carefully grown, taken from the most vigorous stalks, thoroughly cured, and shelled from the center of the ears only.

Dr. Twitchell cited the following, which shows the important part which careful selection of seed plays in the profitable production of this crop: Seventeen bushels of fine ears were selected from fine ears, just after ripening. From the choicest of these, selected by test and measure, ten acres were planted in the corner of a 63-acre field; the remaining 53 acres were planted with the best of the rest of the 17 bushels, and the surrounding fields were planted with seed from cribs in which the best corn had been placed the previous fall.



A Farm Home Reunion.

Residence of Alex Wigle, Kingsville, Essex Co., Ont.

are made straight. Experiments have shown that yields of ten to fifteen bushels more corn per acre were grown where the kernels were planted three in a hill than where the same number of kernels were used in the plot, but planted some hills with one or two, others with four and five. A groove in the soil is made, regulated to proper depth, even in soft places, into which the grain falls and is promptly covered, and 12 to 15 acres per day can easily be planted when the grower gets the hang of the machine. This is a very important consideration. Once the ground is prepared, unless planted speedily, a shower of rain may put all or a portion of the field out of condition for many days, and perhaps involve reworking. If, however, it is planted, a light stroke of the harrows will loosen up the crust and promote growth. In starting, after the land has been worked fine and rolled, we drive once across the side of the field to lay the linked cable, which, on the return trip, and subsequently, trips the required number of kernels into the hills; but, for drilling in, this cable is not needed. The use of the two-horse cultivator and harvester, in addition to the planter, has relieved the corn-grower of much of his old and tedious labor. It may seem that, to invest some \$15 in a planter, used perhaps one day in the year, is a good deal, but there is considerable mechanism and material in the implement, and its work is so advantageous that it is looked upon as a money-maker. There is nothing to hinder a couple of farmers owning one together, though joint-ownership by more than that might not

All fields were given the same treatment. The 10 acres yielded 96 bushels, the 53 acres yielded 94 bushels, and the others 80 bushels per acre, an increase of 16 bushels per acre in favor of careful selection, for a single season.

Says Dean Hurd, University of Maine: "The place to select seed corn is in the field, where the strength of the stalk, the leaf development, the height of the ear, the strength of the ear, and the maturity of the corn at time of harvesting, can receive proper attention. It should be stored in a dry, well-ventilated place, preferably laid on racks, with free circulation of air."

"Each ear should be tested out to determine its prepotency and vitality. This is not enough, if one is to enter into corn-improvement. The plot method or ear-row test should be applied. The former is to plant, say, five hills square from one ear; the latter, to plant one entire row from desirable ears. Give good fertilization and thorough cultivation. Remove all weak or barren stalks, to prevent any pollination from worthless stalks.

"Inbreeding, which comes from the pollen of a stalk fertilizing the silks of the same stalk, is held to be just as undesirable as inbreeding in animals. To prevent this, every other row, or at least opposite ends of alternate rows, should be detasselled.

"When mature, the desirable ears from each plot or ear-row test can be gathered and saved separately for seed. By following this method for four years it is possible to improve the seed 100 per cent., or to develop any desirable characteristic of the strain, if patience and care are exercised. The type or variety best adapted to the region should be chosen as the basis of work."

From seed which Ion Winn, of Deering, has been seeking to improve for the past forty years, Dr. Twitchell raised more than 100 bushels of shelled corn to the acre, with only fair cultivation and fertilization.

A yield of 15 tons per acre of silage corn is considered by Dean Hurd as a fair amount, but this can be improved by seed selection.

The sweet-corn industry of Maine stands an occasional loss because the corn fails to mature. Here is a chance for the enterprising farmer to produce a strain that will mature in the shortest season, one of the lines along which Prof. Woods is working. "Three or four seasons' work in seed selection would take several days off the maturing time, and might mark the difference between success and failure," says Dean Hurd.

With the new impetus given corn culture the past year, the industry bids fair to become the spinal column of Maine's agriculture, as James G. Blaine once prophesied of the corn industry of the United States. MARY BURR AIKEN, Brewer, Maine.

Alfalfa Rhapsody.

In an attractive booklet, issued by the Kansas State Department of Agriculture, a tribute is paid to alfalfa, a crop that has increased annually in popularity in that State, since it was first introduced. The writer says:

"Wherever alfalfa grows, the land is not only enriched, but the grower as well, for it not only fills the soil with valuable plant food, but, as hay and pasture, it brings large returns that substantially increase the owner's bank account. Through its wonderful root system, alfalfa restores, enriches and improves, rather than depletes, the soil, to the great benefit of other succeeding crops. It makes poor land good, and good land better.

"Alfalfa-growing in Kansas approximates nine hundred thousand acres, and but three cultivated crops exceed it in annual area, viz., wheat, corn and oats. In combination with these, alfalfa furnishes the most complete and cheapest rations available for the maintenance of live stock, for the excellence of which they are famed. It is a perennial blessing to those so fortunate as to have an area devoted to its growing.

"In 1890, the value of the tame-hay crop of Kansas was \$2,000,000, while that of 1907 was over \$13,250,000. The annual value of the products of live stock in that time has been more than doubled, and alfalfa has made Kansas one of the foremost States in dairying. Timothy and clover have been long and favorably known as hay plants, and occupy a high and well-earned place in the list of such, wherever grown, but alfalfa is their superior.

"Alfalfa furnishes the protein to construct and repair the brains of statesmen, build up the muscles and bones of the war-horse, and give his rider sinews of iron. It causes the contented cow to yield the creamy milk, the pigs to grunt with satisfaction, the hen to rattle at her lay, and the turkey to gobble and be gay."

I received your picture of Baron's Pride, as my premium for getting you one new subscriber for your paper. Accept thanks for same. It is certainly a good picture.

RICHARD DICKINSON, Jr.
Wilmington Co., Ont.

Dodder in Alfalfa Seed.

Occasionally, great damage results in alfalfa and clover fields by the introduction of dodder in the seed. This plant, when started, fastens itself to the plants of the main crop, and saps the life out of them. Dealing with this pest, the New York Experiment Station, at Geneva, describes the injury to alfalfa in a bulletin, as follows:

"Dodder is a yellow, thread-like, twining weed which is exceedingly troublesome in alfalfa fields. It appears in circular spots 3 to 30 feet or more in diameter. At the center of the spot the alfalfa is killed out, while around the margin the ground is covered with a mat of yellow threads which twine closely about the stems of the alfalfa plants and slowly strangle them. The spots increase in size from year to year. Many fields have been completely ruined by dodder. It is not often injurious to other crops (except red clover), but once established in an alfalfa field, it is very difficult to eradicate without killing the alfalfa."

Special precautions should be taken to sow clean seed. Sometimes it is found necessary to remove dodder and other foreign seeds after a supply has been procured for sowing. The following advice is given by the Geneva authorities regarding alfalfa seed:

"Alfalfa seed is larger than dodder seed, and advantage was taken of this fact by the Station to perfect a method by which commercial alfalfa seed may be made practically free from dodder, and safe to sow. It was found that dodder seeds are readily removed by sifting through a wire sieve having 20 meshes to the inch. Since ready-made sieves of this mesh are not readily obtainable, it is advised to construct a light wooden frame, 12 inches square by 3 inches deep, and tack over the bottom of it 20 by 20 mesh steel-wire cloth of No. 34. This quantity of wire cloth ought not to cost more than 15 or 20 cents. In case brass or copper wire-cloth is used, the wire should be No. 32, on the English gauge. It is important that the wire cloth used be exactly 20 by 20 mesh, which may be determined by placing a ruler on the sieve or cloth and counting the number of spaces to the inch. With a sieve of this kind, it is estimated that a man can clean from three to seven bushels of alfalfa seed per day. From one-fourth to one-half pound of seed, and no more, should be put in the sieve at a time, and vigorously shaken for one-half minute. To make the work uniformly thorough, the use of a cup holding not over one-half pound of seed, and careful timing of the sifting, is recommended. If the seed contains but little dodder, one sifting may do; but when much dodder is present, and particularly if it is of the large-seeded kind, two siftings, both made strictly as directed, are advised. In experimenting with this method, it was observed that, besides the dodder seeds, various other small weed seeds, broken seeds, and dirt, as well as some of the smaller alfalfa seeds, were also removed by sifting. The siftings varied from about 1 to 5 pounds per bushel, according to the original cleanness of the seed, and the thoroughness of the sifting. The rejection of the siftings is considered as causing but little, if any, loss."

The Drag Misused.

Editor "The Farmer's Advocate":

Two years ago I made and used a split-log drag on our road division, with very satisfactory results. The road retained good crown, smooth surface, and there was an absence of wheel ruts to catch and hold the water throughout the season, until freezing-up. This was the first split-log drag made and used in this township. Did the council take any action toward having them introduced? Not much. The old way of working the roads was good enough for them; neither have they done anything since. Three of the neighboring pathmasters have made drags in this vicinity, and are using them.

Last year I got the pathmaster to put the drag on, but he used it in such a manner that there was just a ridge of loose earth thrown up in the center, on which no horse would travel. The result was that all of the travel was down on the sides of the grade, until the road got muddy this spring. A few days ago he got the drag, and man and team, and has put the road in exactly the same shape. Now, this man has a good object-lesson on another road in good condition, right under his sight, but such is the old style of training given by the old style of doing road work. As to compensation, I put in my statute labor in that way. As for maintaining our earth roads, I do not see how there can be any two opinions on the question, if the drag is properly used, and at the right times. Train the operators how to use them. W. H. P., Norfolk Co., Ont.

Syrup-making 'In Nipissing District.

Editor "The Farmer's Advocate":

To the maple-syrup discussion which has passed through the columns of your valuable paper during the last few weeks, may I add a few words? We tap 880 trees in the "virgin" forest. In a good season we make about 250 gallons, standard weight of syrup. A poor season yields about half that much, the average being close to 200 gallons. We use a homemade evaporator, 13 ft. by 4 ft. in size, with partitions lengthways for the first eight feet, and crossways for the remaining five feet. After boiling for eight or ten hours on the start, it will turn out 25 gallons of syrup per twenty-four hours. Nothing is used to cleanse the syrup. It is strained hot through new factory flannel, and then allowed to settle. Of course, great care is taken to keep the sap clean.

The trees are all hard maples. Grimm spiles, some tin and some wooden buckets, the latter shellacked on the inside, are used. We have a Northwest trade which takes all we can send, averaging us about \$1.15 per gallon, cans included, f.o.b. here. This nets us \$1.00. The local trade we do not cater to. Our season is late. For instance, we made no syrup until the 7th of April this year, and then only a small lot. However, a run began on Monday, April 12th, and continued more or less daily until Saturday, the 17th. From this we cleaned up 100 gallons of syrup. Last year we actually made syrup on the 3rd day of May. Our trees certainly do not yield as much sap as when growing in the open. I believe it to contain just as much sugar, however. The last or "buddy" sap we boil down to about a third of its bulk, and put into the vinegar barrel. The secret of good maple vinegar is, I think, in allowing it to stand two years.

Considerable demand is made for sugar. But, as a gallon of syrup will only make from 8½ lbs. to 8¾ lbs. of dry, hard sugar, we keep away from it as much as possible. Soft sugar, made directly from the sap, without straining or settling the sap, will run almost an equivalent of 10 lbs. from what sap would make a standard gallon of syrup.

The most satisfactory way of keeping the syrup we find to be bottles. It does not seem to make any difference whether the syrup is bottled hot or cold. The bottles required to be filled, and sealed air-tight. We have had it two years old, and it would doubtless keep very much longer. "AIRYDALE."

Nipissing Co., Ont.

Contract to Have Roads Dragged.

Editor "The Farmer's Advocate":

In answer to your query, I may say I used the split-log drag last year, going over about two miles of road five times. It is a very satisfactory way of filling up the ruts which form in almost all country roads in the spring, and leaves a nice smooth roadway, on which it is a pleasure to travel. I commence to drag when the frost is just out, as then the best grading can be done, and continue whenever the condition of the road seems to demand it. I have always been paid for my work by the councillor, who is willing to pay for improvements and necessary repairs. I notice more people use the road smoothed with a split-log drag than formerly, and all say that it is a satisfactory method of maintaining and improving an earth road. I consider that all the roads in this county would be benefited if a drag were used in the spring, just as the roads are drying up, and think there are men on almost every mile of road who would use the drag, if some official were to go around early in the spring and contract with them, at a good wage, to make a drag, and do a stated amount of work. C. W. BAINARD, Middlesex Co., Ont.

Should be Compensated for Dragging.

Editor "The Farmer's Advocate":

I used the split-log drag two or three times in the spring of 1908, on about two miles of clay road, and I find, if the road is good and wet, it makes a splendid job in filling up the ruts and grading up the road, so that the water runs off nicely into the ditches. The township has not allowed me anything for my time dragging, but I think they should, and there would be more encouragement for others to start dragging. Farmers in this part of the county are busy enough on their farms most of the time, without dragging roads gratis. Time is worth something, since labor is so scarce. There has not been any action taken by our township council regarding the dragging of roads, but I think there should be the same allowed as they do for levelling the roads with the old-fashioned leveller, when done. DAVID PETHERAM, Norfolk Co., Ont.

Best Mile of Road in Vicinity.

Editor "The Farmer's Advocate":

I used the split-log drag last year on a mile of road in the spring and early summer, but I didn't use it last fall on account of dry weather. I used the drag after each rain, before the road got too dry, when it was just moist enough so the earth did not stick to the drag, and I venture to say that this is the best mile of earth road around here. I was not allowed any compensation for the good work I have done. No action has been taken on this reserve to insure the systematic dragging of the roads, and I cannot say anything as regards the township. I think there should be something done to secure the systematic dragging of all roads, to save the needless expense that is put on them every few years to get them in shape; and, also, that the statute-labor system should be done away with; it is a curse on the roads on this Reserve.

Lambton Co., Ont. NICHOLAS PLAIN.

Rothamsted Report.

The annual report of the Rothamsted Experiment Station, in England, gives many details of the 210 experimental plots at the farm. The wheat yield last year was above the average, and of excellent quality. The unmanured plot, on which was grown the 65th crop in succession, without manure, yielded 12.4 bushels of wheat, weighing 63.5 pounds per bushel, and 7.7 cwt. of straw. Barley was a poor crop, suffering from late frosts. The permanent grass plots, now in the 53rd year of the experiment, produced crops rather above the average. Interesting comment is made on many laboratory experiments recently begun.

THE DAIRY.

Farm Separator Problem.

Many who have the interests of Canadian dairying at heart claim that the general introduction of cream separators on the farm has tended to impair the quality, and thereby the reputation and price, of our creamery butter. Carelessness in the care, and particularly in the washing, of the farm separator, together with infrequency in the collection of the cream, are a set of conditions which result in the delivery of much cream from which the most skillful creameryman cannot produce a fancy article of butter. That the farm separator is here to stay, there seems little reason to doubt, notwithstanding much ominous shaking of heads at the prospect of the patron's tiring of "crank exercise." That, properly cared for, it is a decided advantage in the raising of calves and pigs, is universally acknowledged. That it is a necessary hindrance to the making of A-1 creamery butter, we are reluctant to admit. Still, the warning of buyers, makers and experts is not to be ignored, and, if conditions can be improved, it is important that the actual state of affairs be realized, and suggestions sought looking to such improvement. With this end in view, "The Farmer's Advocate" has corresponded with a number of leading makers, instructors and others whose opinions are of value. Below will be found replies from several of these, and what they have to say merits careful attention.

Hand Separators and Creamery Butter

Editor "The Farmer's Advocate":

It is a well-known fact that the reputation of our creamery butter does not stand as high in the markets of Great Britain as it did before the advent of the hand separator and the cream-gathering system. The question naturally arises if either or both of the above are factors in the depreciation of the quality of our creamery product.

Before the advent of the hand separator there was a double incentive for the farmer to send his milk to the creamery. It relieved the women of the work of caring for the milk and of making up the butter, and more butter could be made out of the milk by the use of the factory separator than by the deep-setting or shallow-pan methods. There was no question as to the superior quality of the butter made under the factory system, but the system had its drawbacks, viz., the poor quality of skim milk returned to the patrons, and the limited area which could be covered.

The poor quality of skim milk returned to the patrons had more to do with the disappearance of the factory separator than any other factor, because the farmer has not been slow to realize that the hand separator gave him a much more valuable product in his skim milk than he could possibly get from any other way of creaming his milk. When the farmers realized this fact, and separators became somewhat numerous, it was seen that the factory separator system was doomed at no distant date, and those who had our butter industry at heart warned farmers of the dan-

ger they were forcing on the industry; but it was of no avail, as there were immense interests behind the movement forcing it along, and it soon swept all objections out of its path. The farmers were repeatedly told that they would be compelled to take a lower price for their butter if the cream-gathering system had to take the place of the factory-separator system, but they seemed satisfied to accept the situation, and the factory separator in Ontario is now almost a thing of the past, as far as creamery butter is concerned.

The question now is, "To what extent is the hand separator responsible for the depreciation in the quality of our creamery butter, or is it at all responsible?" Theoretically, butter made from cream which is taken from the milk while it is fresh, and in the very best condition for producing a first-class grade of cream, should naturally be of the finest quality, if properly handled from the cow to the finished product. Unfortunately, however, this does not always work out in actual practice, but it is quite evident that the fault does not lie with the separator.

If the milk is clean, and the separator is also clean, the resulting cream cannot be otherwise than of good quality, and up to this point everything would indicate first-class butter. But it is right here that the trouble often commences.

In the first place, most cream is separated too thin, and it is often mixed right away with the older cream, or, if allowed to cool till the next milking before adding to the older cream, it is usually not sufficiently cooled, and is cooled too slowly. To be of first-class quality, other things being right, cream must be cooled quickly, if it is to be held for two or three days, either by running over a cooler or by setting into cold water—ice-water preferred.

We do not wish to be advertising to the world the conditions under which much of our cream is produced on the farm, but we are compelled to say that many separators are left in a condition from one milking to another which makes it simply impossible to produce cream which is going to make a first-class-keeping butter. Dirty separators, thin cream, and lack of proper cooling, are the principal causes of poor cream.

No other utensil left unwashed will cause half as much trouble as will the separator, and any woman who is careless with her separator is liable to be careless all the way through. A rich cream, say 35 to 40 per cent., will almost invariably reach the creamery much better in flavor than will a 20 to 25 per cent. cream. A rich cream has less milk in it, and, as it is the sugar of milk which changes the lactic acid, or sours, we cannot get much acid in a rich cream, because there is but little sugar there to produce acid.

We have three methods of getting the cream from the farm to the creamery, viz.: Large tanks, the jacketed cream cans, and the small individual cans. The latter are undoubtedly the best, especially where the patrons deliver their own cream, as the cream goes direct from the farm to the creamery, and will arrive ten degrees lower in temperature than where it is carted around the country for hours on a hot day. Each patron's cream coming in separate, gives the man at the creamery a chance to inspect the cream and point out the faults, if any.

The tendency is to gather less frequently than formerly, as the cost is thereby decreased. Everything in connection with the business has increased in cost during the past five years, but the charge for making remains the same, and the only way the proprietor of a creamery sees out of the difficulty is to gather the cream twice a week, instead of three times, and we all know that this does not tend to improve the quality.

With the factory separator, the butter is made

within 48 hours from the time the milk is drawn from the cow, during the summer months, but in the cream-gathering system the cream is often four days old before it is churned, which seldom produces butter of first quality. Cream can be kept in first-class condition for buttermaking for four days, but everything must be kept scrupulously clean, and the cream submerged in ice-water.

Under present conditions, farmers in Ontario are losing from one to two cents per pound on their butter, but are they not making it up in other ways by the use of the hand separator? That answer, however, is not satisfactory, because the hand separator should give the best results of any system, if all conditions are right. If farmers could be induced to keep cows enough to make it profitable to gather the cream every day, and no sour cream taken at the creamery, we would then have no cause to complain about poor cream and the hand separator would have a chance to vindicate its superiority over its rival at the creamery; but under conditions in vogue in most creamery sections, it falls lamentably short of giving the best results of which it is capable.

About fourteen years ago, the Moody Creamery, of Iowa, purchased a large number of hand separators, and distributed them among a portion of its patrons, and the cream from those patrons was collected every day. In the creamery then there were three systems: Cream gathered every day from the hand separators; milk taken in every morning and separated at the factory, and cream gathered three times per week from the farm. The best quality of butter was made from the hand-separator cream gathered every day, the next best from the whole milk separated at the creamery, and the poorest from cream gathered three times per week.

If we are to have best results from the hand separators, the farmers must go back to the old method of putting in ice, or providing some way of cooling with well water; separators must be washed after each using, and the greatest possible care taken of the cream by every patron of a creamery. The cream-wagon must go after the cream as often as necessary to prevent loss of quality in that direction.

Ontario Co., Ont. J. STONEHOUSE.

Makers Can Remedy Matters.

Editor "The Farmer's Advocate":

Our experience with our own butter has not led us to believe that the farm separator has made it necessary for us to accept a lower price for our butter; it has enabled us to more than double our make. If all cream were handled the way we handle it, as good butter can be made from gathered cream as from whole milk; we don't accept any but sweet cream. This is delivered by the farmers themselves. If the butter-maker does not take the cream unless it is sweet, and of good flavor, there is no reason why he cannot make good butter out of it.

As far as we can see, it is the fault of the makers, for the patrons will only bring cream as good as they have to. The average farmer will produce cream that the maker will take. Our patrons know, if they bring cream that is not right, we will send it home; so, if their cream is not sweet, they do not bring it. A new patron sometimes does not know just how to handle his cream, but we tell him the way we want it, and he tries to make it suit. We don't know that we have lost more than two or three patrons by enforcing our rule of accepting only sweet cream. We have to compete with Toronto creameries, and also the Toronto milk business, and are gradually increasing our make.



A Snug Country Residence.

Farm home of C. N. Hagerman, York Co., Ont.

Probably the reason there is not more good butter made is because there is no money in it. About one or two cents is all the difference there is between good and bad or ordinary goods. And when they can make it cheaper, and do not have to take the same care of it, and get within a cent or so of top price, there is not much inducement to make the extra effort. We have been told that it does not pay us to take the trouble we do, but it is the only way we can hold our business, with the competition we have; and, besides, it is the only way we know how to make butter that suits us. We don't know how some manufacturers get it as good as they do.

LOCUST HILL CREAMERY CO.

Creamery-butter Reputation Ruined.

Editor "The Farmer's Advocate":

The introduction of cream separators on the farm has been the means of lowering the quality of creamery butter to a large extent. They have had even a more injurious effect on the price received for creamery butter than the manufacture of dairy butter on the farm, because, if dairy butter is inferior in quality, it does not come so closely in competition with creamery butter, dairy butter usually being sold as such.

Butter made in a whole-milk creamery is of much better quality than butter made from gathered cream. While this is an undisputed fact, it is not necessary that it should be so. Following are some of the reasons that such is the case: Cream is not gathered often enough, but is left at the farm till it is spoiled, or quality has deteriorated; farmers do not always clean their separator after skimming, separator agents being largely responsible for this, having told the farmer that once a day is often enough to clean a separator; a separator standing for ten or twelve hours after skimming, without being washed, is filthy, and unfit to put anything through that is to be used as human food; farmers generally skim a too-thin cream.

To remedy matters, cream should be gathered oftener, and cooled immediately after being separated. Separator and all utensils should be thoroughly cleaned after each skimming. Cream should not contain less than 30 per cent. fat.

If creamery butter had all been made in whole-milk creameries, and the milk had been received in nice fresh condition, farmers would receive at least two cents per pound more for butter than at present. This is a conservative estimate.

I can safely say I know whereof I speak. Cream being skimmed with dirty separators, put into utensils not as clean as they might be, and kept in unclean surroundings; standing at too high a temperature, with too low a percentage of fat, and left at the farm till very seriously injured, has almost ruined the reputation of Canadian creamery butter.

W. WADDELL.

Middlesex Co., Ont.

Dairy Products in Great Britain.

Observations of dairy conditions while in Great Britain leads I. W. Steinhoff, of Stratford, to arrive at the following conclusions regarding cheese and butter:

1. That Canada is no longer the only "pebble on the beach" in supplying cheese to the English market.
2. That, in the numerous warehouses visited in London, Liverpool, Bristol, Dublin, Belfast, Glasgow, Leith, Newcastle and Manchester, not one was without a free supply of New Zealand cheese.
3. That the quality of New Zealand cheese, although somewhat irregular, is much improved since my visit to England four years ago.
4. That there is an almost universal complaint that Canadian cheese, especially the fall make, is now arriving in England too immature.
5. That the quality of New Zealand cheese is not equal to Canadian, but a very close competitor.
6. That Canadian butter cuts rather a sorry figure in the English market, being spasmodic in supply, and secondary in quality, compared with Danish, Irish, New Zealand or Argentine.
7. That butter from New Zealand, Australia, Argentine, and some Danish, has what is known as "fancy finish" on top.

Received "The Farmer's Advocate" knife to-day, and am much pleased with it. As a farmer's knife, it is certainly fine; and as a premium for obtaining one new subscriber to your excellent paper, it is one of the best I have ever seen. Thanking you for kindness in sending me this very useful knife.

W. CAREW.

York Co., Ont.

Dairy Instruction for 1909.

The Ontario dairy instructors have this year, as usual, been required to take special instruction at the Dairy School, Guelph, or the Dairy School, Kingston, in preparation for the work of the season. The Western men met at Guelph, and had a very profitable week's work under the direction of Prof. Dean and Frank Hens, Chief Dairy Instructor for Western Ontario. The Eastern men had a somewhat longer course at Kingston, under the supervision of G. G. Puhlow, Chief Dairy Instructor for Eastern Ontario, now also Superintendent of the Dairy School.

The instructors will go to their respective districts better prepared than ever to render valuable service to the makers in the cheese factories and creameries. They have been directed by the Department to give as much time as possible in an effort to improve the raw material as received from the producer. The factorymen will be urged to co-operate with them. A full census of the factories and creameries will be secured early in the season, with a view to publishing from the Department of Agriculture a complete list for the season of 1909.

The instructors will observe the work not only of the chief makers in the factories, but also those who act as assistants. This information will be of value when issuing certificates or permits at the beginning of 1911 to those who have been employed in factory work during the season of 1909 and 1910. It will, therefore, be in the best interests of the chief makers and their helpers to keep their work well in hand at all times, and to see that cleanliness is observed in all details.

It is the intention of the Department to call together the two Chief Instructors and Prof. Dean, with a view to deciding upon the form of certificate or permit to be issued. The certificate or permit will give due recognition to the ability of experienced factorymen, even if they have not had the advantage of a dairy-school training.

The names of the instructors, together with their respective syndicates for 1909 are:

WESTERN ONTARIO.

Cheese Factories:

Chief Instructor—Frank Hens, London.
Syndicate—Listowel; Instructor—James R. Burgess; Address—Listowel.
London—Arthur E. Gracey, Dorchester.
Brantford—R. H. Green, Cavuga.
Ingersoll and Woodstock—E. N. Hart, Ingersoll and Woodstock.
Stratford—Alex. McKay, St. Mary's.
Simcoe—Geo. Travis, Tillsonburg.

Creameries:

Fred Dean, Guelph.
Mack, Robertson, St. Mary's.

EASTERN ONTARIO.

Cheese Factories:

Chief Instructor—G. G. Puhlow, Kingston.
Instructor in some of the creameries in Eastern Ontario, and assistant to the Chief Instructor—J. H. Sineleton, Kingston.
Syndicate—Napanee; Instructor—Geo. Bensley; Address—Napanee.
Kingston—H. Brintnell, Kingston.
Cornwall—M. J. Buro, Mille Roches.
Lindsay—D. J. Cameron, Campbellcroft.
Plantagenet—Jos. Charbonneau, Plantagenet.
Brockville, W.—S. S. Cheetham, Gananoque.
Ottawa—W. W. Dool, Ottawa.
Perth—J. H. Fehlin, Balderson.
Chesterville—T. J. Ellis, Chesterville.
Ottawa, W.—R. E. Elliott, Carp.
Kemptonville—W. G. Gardiner, Kemptonville.
Vankleek Hill—W. G. Graham, Vankleek Hill.
Campbellford—R. T. Gray, Campbellford.
Belleville—H. Howie, Belleville.
Finch—C. B. Larry, Finch.
Madoc—J. B. Lowery, Frankford.
Alexandria—A. McDonnell, Alexandria.
Brockville, N.—P. Nolan, Philipsville.
Morrisburg—C. W. Norval, N. Williamsburg.
Picton—T. E. Whittam, Picton.
Almonte—W. J. Ragsdale, Smith's Falls.
Ottawa, E.—I. Villeneuve, Casselman.
Peterboro—R. W. Ward, Peterboro.
Brockville, E.—A. H. Wilson, Athens.

Effects of Rusty Milk Utensils.

Experiments conducted at the Wisconsin Agricultural Experiment Station show that both tin and iron have an injurious effect on milk. Milk kept in a rusty pan gave evidence of retarding influence on the rennet action, as compared with that kept in a glass vessel. The bulletin says: "Milk which had been allowed to stand in iron dishes for several hours had a peculiar, bluish-gray color, indicating the presence of iron in solution. In several instances, the amount of iron dissolved in the milk was determined as iron oxide. The maximum quantities of iron dissolved in the milk ranged from 1 to 1½ pounds for every 1,000 pounds of milk. The lower acidity of the milk kept in contact with iron also supports the view that the acid of the milk acts upon the iron, and finally causes it to pass into solution, retarding rennet action."

"Milk comes in contact with iron in the form of rusty cans or poorly-tinned utensils in practically all creameries and cheese factories. The quality of the milk will, to a large extent, depend upon the condition of utensils into which the milk is poured, kept, and finally hauled to the factory. The degree of influence of iron on milk will depend largely upon the temperature of the milk, the length of time kept in the cans, and the amount of exposed surface.

"In progressive dairy countries of northern Europe, the quality of dairy products manufactured is generally uniform, and every precaution is taken to maintain a uniform product. Cleanliness is generally practiced at both the farm and factory. The utensils used are of superior quality, and, naturally, there is no occasion to consider this problem seriously. As a rule, the European utensils are stronger; the cans, for example, are of heavy steel, and well tinned. Experience shows that these heavy cans are the most economical in the long run, and there is less danger of denting in or wearing off the tin.

"It is not necessary to describe here the American milk can, and especially the cheaper ones; if not the first time, surely the second or third time these cans are used, one will find places where they have been dented in. As the number of indentations increase, the tins begin to crack, leaving fissures or inroads for milk and water, and acid. Often this thin layer of tin does not cover all of the iron, thus leaving microscopically small surfaces of iron exposed, which also become the sources of damage by water and acid. Under such conditions the tin peels or falls off, and it is then only a short time before the cans become unfit for use.

"The attention of the milk-producer and the factory-operator is called especially to the following points:

1. A better grade of utensils should be used in the handling of milk and its products. The iron or steel plate should be heavier, and more thickly coated with tin.
2. No milk should be accepted at a factory which has been kept in iron exposed pails or cans.
3. The factory or creamery should be an example of neatness and cleanliness, with all utensils in first-class condition.
4. Co-operation among the proprietors of creameries, cheese factories, and city-milk supplies, will tend to bring about cleanliness among patrons, and the use of better utensils.
5. Milk should be bought on its merits, by some satisfactory arrangement following well-founded, sanitary and hygienic rules, by which the production of milk of superior quality is encouraged, and milk of low grade either rejected or gradually improved."

Milk Casein and the Hart Casein Test.

Some investigations by Prof. H. H. Dean, concerning the Hart casein test, are thus summarized in the 1908 annual report of the Ontario Agricultural College:

CONCLUSIONS.

The present report should be considered as a preliminary one, on a comparatively new phase of dairy work; therefore, we do not feel justified in attempting to draw too many nor too hard-and-fast conclusions. Our work so far would seem to warrant the following:

1. The Hart casein tester appears to be a simple and reliable method for determining the percentage of casein in fairly fresh milk, but is not adapted, in its present form, to testing composite samples, although fairly good results were got by using a small amount of bichromate of potash as a preservative in milk samples for about six days.
2. The claim for "high-casein milk" which has been made for certain breeds of dairy cattle, is scarcely borne out by the results of the experiments, although a great deal more work will be needed before this matter can be said to be fairly settled.
3. The variation in the percentage of casein in milk does not appear to be so great as is the variation in the percentage of fat in milk. Generally speaking, milk with a high percentage of fat contains also a high percentage of casein, but the increase of the casein is not relatively so great as the fat.
4. As cows advance in lactation, they tend to increase in both the percentage of fat and casein in their milk. This is more marked when we compare the milk just before "drying up" with that given soon after freshening.
5. The evidence as to the effect of season on the percentage of casein in milk is somewhat conflicting. For the nine cows under experiment, the highest percentages of casein in the milk was found in the months of May, June and July. In the milk supplied by patrons to the cheese department, the highest percentages of casein were in June, September and October. The lowest average of the nine cows was in September, and the lowest average for the patrons' milk was in July. During a couple of weeks in July the

yield of cheese in our cheese-room was low, and it was found that the milk contained a comparatively low percentage of casein at that time. So far as we know, there was no special reason why the milk should have tested low in casein at that particular time.

The average casein tests of the vats of milk in the cheese-room were lowest, and fairly uniform for the months of April (2.3), May (2.28) and July (2.31). The highest vat tests were for June (2.46), September (2.45) and October (2.61). All the testimony seems to agree that the June milk is comparatively high in casein.

6. The cheese experiments confirm previous conclusions, viz., that the yield of cheese is not in proportion to the fat in the milk. The pounds of cheese per pound of casein in the milk was fairly uniform throughout the season, the extreme variation by months being 3.87 to 4.1. The variation in the percentage of casein in the milk of these experiments was from 2.28 in May, to 2.61 in October.

7. The addition of the factor 2, to the percentage of fat in the milk, makes a fairly reliable basis for distributing proceeds of sales at cheese-ries. At present, we do not think daily or weekly testing of milk for casein is practicable in factory work, but a Hart casein tester, along with the Babcock tester, ought to be part of the equipment in every cheese factory, to be used as required.

Green Feed to Supplement Pastures.

It will pay any dairyman or stockman in good hard cash to provide now, if he has not already done so, against a possible shortage of pasture in midsummer. The ideal supplement for scant pasture is about ten feet of silage, along with a field of alfalfa. Both together is better than either alone, although, unless one has a large herd, he may require to feed only silage while silage is being used to avoid spoiling or deterioration of the exposed layer from day to day. If he cannot have both, he may choose silage in preference to alfalfa, on account of the greater convenience in feeding, although the latter is better to keep up the milk flow, and better for the well-being of the cattle. It is perhaps just as well not to feed silage the year round, on account of the acid it contains. Where one has neither alfalfa nor silage, he should sow now from one to five acres of peas and oats, in several successive sowings, near the buildings, to be cut green for feeding before the new corn crop comes on. Three bushels oats to the acre of a mixture of half and half, or two bushels oats to one of peas, will turn off a lot of feed, and, if not all required for feeding green, the surplus may be cured as hay, or allowed to ripen its grain.

POULTRY.

Tuberculosis in Poultry.

Correspondence received by poultry authorities and by the agricultural press would seem to indicate that tuberculosis is becoming increasingly prevalent among farm flocks of poultry. A great many descriptions of symptoms, submitted to our Questions and Answers Department, have pointed to this serious disease, and Prof. Graham, of the Ontario Agr. College, states that he receives an average of a letter a week from farmers describing disease in their flocks, the symptoms of which answer to those of tuberculosis. In 1908, the Bacteriologist of the O. A. C. had nineteen tuberculous fowls sent to his laboratory for examination from various parts of Ontario. This, although not a large number, is an increase of 53 per cent. over any previous year, and one more than the total number sent in during the previous four years. The increase may be partly due to increased vigilance of poultry-owners, and greater readiness to avail themselves of scientific diagnosis; but, allowing for this, there seems no reason to doubt that the disease is widespread and increasing. As a means of acquainting our poultry readers with infection, course, symptoms and preventive treatment for this disease, we present herewith a synopsis of the illustrated article in the 1908 report of the O. A. C. Bacteriologist, Prof. Edwards.

NATURE OF AVIAN TUBERCULOSIS ATTACK

Tuberculosis may exist extensively among fowls, especially in large flocks, but seldom kills enough birds at one time to draw particular attention of the owner to the trouble. Many farmers say they have been losing a bird or two occasionally for a year or more, and that the loss is gradually increasing. But it is not always so gradual. Within the last few months two farmers have sent tubercular fowls, and each stated that he had lost about a hundred from the same disease within two years. A third had lost about one a week for over a year. Tuberculosis of birds is confined mostly to chickens, although other fowl may contract the disease. Two interesting cases were examined in the O. A. C. labo-

ratory in wild geese which had been kept some time in captivity. Both were badly affected, and from these we transmitted the disease to chickens. Pheasants, turkeys and pigeons may be affected. Authorities differ as to the susceptibility of ducks. Singing birds in captivity are said to be highly susceptible.

SYMPTOMS.

Diagnosis is not easy. There is no noticeable symptom of tubercular infection shown by live birds until the disease has progressed far enough to cause emaciation, which is nearly always present, and in advanced cases extreme. The comb, wattles and the skin about the head usually become pale. Emaciation is usually accompanied by lameness, and there is nearly always a persistent diarrhoea, the feces appearing yellowish or greenish-white. In the latter stages of the dis-

ease the feathers become ruffled, and the fowls weak, more or less mopy, and move about little. The eyes are bright in most cases until death is near. Appetite is good throughout sickness, and ravenous until a few days before death. It is often difficult for amateurs to distinguish the symptoms of tuberculosis from those of some other diseases.

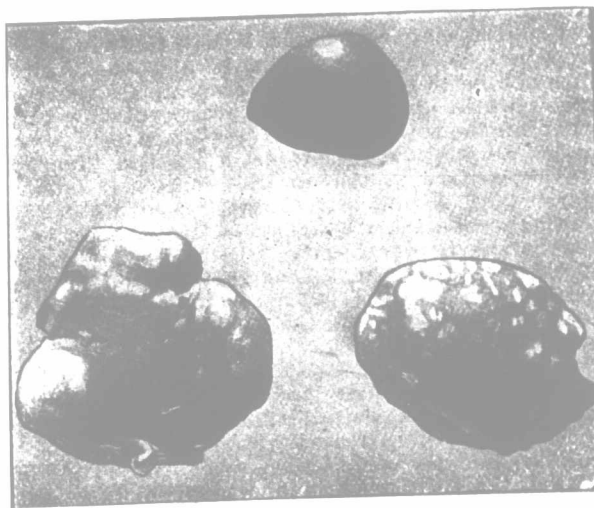


Liver of Hen that Died of Tuberculosis.

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POST-MORTEM APPEARANCE.

The liver is almost invariably affected. It is usually enlarged, and studded more or less abundantly with yellowish-white nodules, of a somewhat cheesy consistency, varying in size from a



Tuberculous Spleen.

Two tuberculous spleens from fowls dead of tuberculosis, and a spleen from a healthy fowl. (Nearly natural size.)

pin-head, or even smaller, to one-quarter inch or more in diameter. The nodules protrude more or less, and may be readily separated from the surrounding liver tissue. In this respect, the lesions vary from those of black-head, in which disease they are sunken below the surrounding tissue, are more yellow in color, and may be much larger. We have in some cases found a mixed infection with tuberculosis and black-head in the same organ. The spleen, a small, rounded, purple organ,

GERMS DISTRIBUTED IN DROPPINGS.

Tuberculosis is caused by a minute bacterial organism, *Bacterium tuberculosis* of birds. The bacteria gain entrance to certain portions of the body, and multiply there, causing the formation of the nodules or tubercles seen on autopsy. The spread of the disease occurs when the bacteria are transferred directly or indirectly from the affected birds to the healthy ones.

If an examination is made of the tubercles occurring on the walls of the intestine, they will be found in many cases to have a cavity in the center, which communicates with the interior of the intestine. A microscopical examination of the intestinal contents at such points shows that enormous numbers of tubercle bacteria are present. The conclusion that the bacteria are liberated with the droppings is unavoidable. We have made microscopic examinations of the droppings in a number of cases, and found the tubercle bacteria present. The droppings of tubercular fowls must, therefore, be regarded as one of the most important sources of infection of the healthy stock. The common farm practice of feeding from the ground, or in low dishes or troughs, furnishes ample opportunity for the food to become fouled with feces, and one or two sick birds passing tubercle bacteria might easily serve to infect a large percentage of a flock. Although sunlight is rapidly fatal to this germ, it does not have the opportunity to act freely on all infectious material. Indoors, the bacteria may remain alive and dangerous for many weeks, and may infect the healthy birds. There is always the possibility also of carrying infected feces on the feet to food outside of the chicken house. Another dangerous practice, all too frequent, is that of leaving carcasses of birds that have died of tuberculosis to be eaten by the hogs or chickens.

CONTROL OF TUBERCULOSIS IN FOWLS.

There is no cure for tuberculosis in fowls, and attempted treatment is a waste of time and money expended for, so-called remedies. The only course open is to adopt measures for eradicating the disease from flocks already infected, and for preventing future infection.

Eradication.—The quickest and most effective method of eradicating the disease is to destroy all the fowls, and thoroughly disinfect the premises. In small flocks known to be infected with tuberculosis, this measure is advisable. The fowls could be examined, and all that were found healthy could be sold, thus lessening the loss considerably. In larger flocks, or when it is desired to preserve a certain strain in breeding, less drastic measures may be adopted, with final satisfactory results. There is no known test to determine the presence of the disease until it has progressed so far as to cause lameness or emaciation. Ward, of California, has shown that tuberculin is of no value as a diagnostic agent for tuberculosis of fowls. There is good reason to believe that birds may be discharging the germs in the droppings, although the disease may not be far enough advanced to show noticeable symptoms. Hence, all individuals of the flock must be regarded as dangerous to those free from disease, and the latter should be kept separate. All fowls suspected of having the disease should be slaughtered, and the carcasses completely burned. Roosts, houses, etc., should be disinfected frequently. Inasmuch as affected birds may be continually distributing the bacteria in their feces, an occasional disinfection will be insufficient. No feed should be given the fowls on the ground. Feeding dishes or troughs should be frequently scalded with boiling water. It is not believed that this disease is transmitted through the egg. Hence, if the young chicks are placed on ground not previously inhabited by the old stock, the chances are very favorable for rearing them free from tuberculosis. Care should be observed, in purchasing new birds, that they come from flocks which are free from disease. Experience on some of the large poultry ranches of California has shown that the transfer of laying hens is an important factor in the transmission of the disease. Poultry-raisers should, as far as possible, raise their own stock.

Disinfection.—The first thing to do in putting the poultry premises in sanitary condition is to scrape the roosts, walls, floors and nests thoroughly clean. This loose rubbish, together with loose boards, etc., should be completely burned. When this has been done, the entire place should be whitewashed with lime-water—crude carbolic acid—solution, in the proportion of twenty gallons of lime water to one gallon of crude carbolic acid. Unslaked lime should be used, mixed with enough water to give it the consistency of thin

cream, and the carbolic acid then added. This mixture may be sprayed on or put on with a brush, due care being observed to see that every particle of surface in the poultry house is well covered. Coal-tar disinfectants may be used alone in place of the above mixture, but they are more expensive, and no more effective. After disinfection, clean boards may be placed beneath the roosts to catch the droppings, thus facilitating the work in future cleaning. Slaked lime placed on these boards will absorb the moisture from the droppings.

There is no way of effectually disinfecting soil. The yards, however, should be kept as clean as possible, and free from loose boards, and all unnecessary litter of any kind.

If there are occasional losses of fowls on the farm, and the cause is unknown, the birds should be examined after death for evidence of tuberculosis. If desired, specimens may be sent direct to this (O. A. C.) laboratory for examination. Such material should be securely packed and sent by prepaid express, so as to reach its destination as soon as possible after the death of the bird. The specimens will be examined, and reported upon, without further cost to the sender.

Orchard Range for Rearing Chickens.

The importance of sufficient range, if possible, over new ground, or at least ground that is well tilled, is worthy of serious thought. Prof. W. R. Graham, Poultry Manager, at the Ontario Agricultural College, raised, in 1908, about 700 chickens in the College orchard (nearly 20 acres in extent), and this range he found none too large to grow the chickens at their best. When the land, or at least a portion of it, is cultivated, he writes, the supply of tender green food, in the way of germinating weed seeds, etc., supplies ideal green food, and at the same time gives the chicks a place to scratch. The birds have not been destructive, not even to small fruits, some of which are near by; but it must be remembered that hoppers of wheat and corn and dry mash are near each colony house, so the birds are well fed. If they were underfed, or allowed to go hungry at times, they might develop bad habits, especially during the tomato season.

"We use a 6 x 8 colony house, and brooders or hens in the house. These houses are movable, and are moved from place to place in the field, or to new fields. The birds are fed about once each week, and barrels of water are drawn about twice each week. The chicks are shut in every night, and let out the following morning. We have found board floors necessary in the colony houses, in order to keep out rats, skunks, etc. The chicks are put in the house when hatched, and remain there until ready to fatten or to go into the laying-houses. The laying pullets are hatched mostly during April and May, and put in the laying-houses about October 1st, so that they may become accustomed to their new home before the bad weather begins. Should they show any signs of laying earlier, the change is made at an earlier date."

Lime and Vitality.

While explaining that their data on methods of incubation do not warrant any definite conclusions, Prof. Harcourt, Chemist, of the Ontario Agricultural College, states that the results of 1908 season's work serve to further establish their findings of 1907, viz., that there appears to be a marked relationship between the strength or vitality of a chick and the amount of lime which it has in its system at time of hatching. Whether lime is a cause or an effect, they do not undertake to decide definitely. The chick may be strong because it has absorbed much lime, or, on the other hand, there may have been a vital force in the egg germ which was tending to produce a strong chick in any case which, on account of its vital energy, was able to take up all the lime which it required for its normal development.

Cement Floors in Poultry Houses.

At the Poultry Department of the Ontario Agricultural College, among other improvements, the wooden floors have been taken out of two houses, and cement floors put in. "So far," says Prof. Graham, in his 1908 annual report, "these floors have worked well, and they have also been successful in keeping out rats. For a number of years we were unable to rid the houses of these pests, and they undoubtedly destroyed much grain, as well as numerous small chickens. The cement floors were made with a fairly smooth finish."

The manager of the Poultry Department at the Ontario Agricultural College claims that they can, for the time it takes to feed, clean out the pens, etc., make at least 50 cents per hour over and above cost of feed, by fattening chickens.

GARDEN & ORCHARD

Apple Growers Must Wake Up.

Editor "The Farmer's Advocate":

Having recently returned from a trip to Great Britain, where I marketed, during the months of February and March, my last year's crop of apples, raised here in Elgin Co., Ont., I believe my experience may be valuable. Baldwins, Rhode Island Greenings and Ben Davis apples, grown about two miles from Lake Erie, picked early in October into boxes, and stored in a warehouse by the orchard, and sorted, wrapped in paper, and tiered in boxes, soon after picking, were shipped at once to St. John, N. B., and placed there in cold storage. When sold at Liverpool, in March, they were equal to any American apple of same variety on the market, and brought higher prices per pound of fruit than any American apple of same variety on the market. I attended fruit sales in London, Manchester, Glasgow, Liverpool, from December to end of March, and I am convinced that no better apples were offered in those markets than those raised along Lake Erie. The boxes were sold as originally packed, and wrapped in paper. They were not repacked in the cold storage, and one thousand of my boxes were sold from the middle to the end of March.

My accounts are not in such shape that I could give either the aggregate or the average price I realized. As to expenses, my family and a hired man—eight or nine of us—did most of the work of picking, packing, hauling and shipping here, while, in the Old Country, I personally supervised the sale of the crop. They were our own apples, and I kept no book account. The commissions I had to pay brokers were likely different from those usually paid by shippers not located in Liverpool.

My orchard contains 25 acres—about 800 apple trees. Last year we sprayed about five or six times with different spray materials: Liquid lime and sulphur, and Bordeaux mixture with arsenate of lead, and dust lime and Paris green. I have done ordinary cultivation, trimming and manuring. I consider that the better an apple-grower cares for his orchard—cultivates, trims, fertilizes and sprays—the larger and cleaner crop he will have.

Any statement about what a grower gets for his apples, and his expenses, has nothing to do with the plain, self-evident fact that the better or finer-looking sample of apple you can deliver to your British market, the higher the price you can realize for it. I saw single apples for sale in Paris and England for 20 cents each. Workmen in the Old Country will pay ordinary prices for common fruit in barrels. First-class apples, wrapped in paper and tiered in boxes, handled much more carefully than eggs, will bring prices entirely dependent on the condition of the apples when opened in Liverpool, or any other market there. With first-class apples, as grown here, it is entirely a matter of packing and handling in shipment, or transit to the market. Then, it is largely a question of marketing. Growers of first-class apples do not "sling" their fancy apples at the Old Country markets, and offer to take what the buyers choose to send back. They use common sense. Having a first-class article, they stand behind it, and set their price according to the market.

Growers may rest assured that Ontario apples are equal to any raised anywhere in the world. I do not mean our scabby, wormy apples, but the apples which an intelligent grower can grow here. What apple-growers need to realize is that good apples always are acceptable in the Old Country.

The writer of the article in your issue of March 25th should leave Elgin out of his list of southern counties. I am perfectly satisfied he is in error as to our county, whatever may be true of Essex or Lincoln. I agree with you in your article of February 25th: "The sooner this question is discussed, the better for the apple industry."

The impression has got abroad that Lake Erie apples are not equal to those raised farther north. I am satisfied that Elgin apples are equal to anything raised anywhere, of the same variety, and my cash returns prove it. It is admitted that we produce apples of higher color, and undoubtedly the British prefer high color. I do not think anyone will say our apples are of poorer flavor than those grown farther north. In a Liverpool fruit store I saw Oregon Baldwins and Greenings for sale at \$3.00 per box, not a bit better than Elgin apples. The Baldwin class of apples will pay well in this county.

Emphatically, I want to say that Elgin apple-growers need to wake up. They have a heritage of apples equal to any produced anywhere in this world, and are asleep over it. But let me warn them that, unless they spray their orchards and produce clean fruit, they never will reap the benefit. Besides, they must box the fruit. I watched the British markets for three months, and I am satisfied that the box is the package for high-class fruit.

J. A. WEBSTER,
Elgin Co., Ont.

Classify Winter Apples on Storage Quality.

Editor "The Farmer's Advocate":

There is a great difference in the keeping qualities of winter apples, as grown in the different sections of the country. In the counties bordering on Lake Erie, winter apples are quite mellow in December—more so than those in the Georgian Bay section are in April. Apples from those sections would not be safe in ordinary storage for repacking and winter shipment, and it is essential to the apple trade that the marketing of the crop should spread over a good part of the year, at least from September to April, so that those from southern sections would evidently need to be handled in cold storage. It would be a good thing for the trade if a classification of the storage quality of the winter apples from the various sections were made, so that buyer and consumer might govern themselves accordingly. Those from southern sections would be placed in cold storage or sold for immediate use, while those from other sections that were known to keep well could be stored for future sale or consumption. When a man buys a few barrels of winter apples for use during the winter months, he buys them with the expectation that they will keep. If he finds them past their season, mealy and decayed, he will be wary about buying again. On the other hand, if he finds them good and sound, and satisfactory, he will not be afraid to purchase more. So that, the sooner this question of keeping quality in our apples is settled, and thoroughly understood by the consuming public, the better for all concerned.

G. C. CASTON,
Simcoe Co., Ont.

Future of Early-apple Growing.

Early-apple growing for Southern Ontario has been urged by Alex. McNeill, Chief of the Fruit Division, for many seasons. Invariably, he has been met with the argument that only in certain years could money be made from early apples.

Discussing the question with a representative of "The Farmer's Advocate," some time ago, Mr. McNeill said: "I have always maintained that early apples can be made to pay every year. Reports regarding returns from shipments made to Great Britain last season, on which the Department paid charges on four cold-storage chambers, show excellent profits on Astrachans and Duchess. Prices were equal to those obtained for any, but the very choicest winter sorts exported. The average profit was ahead of the average for winter apples, and very much above that for fall varieties. The shipments turned out to be the culmination of proof that Canada can compete with English apple-growers in early apples."

"This should be of value to growers in Southern Ontario. In the past the winter apples have been a failure as to receipts in districts where early varieties do best. Either the grower or the buyer is not infrequently a loser on Southern Ontario winter apples. In a few instances, proper handling gave fair returns. Cooling and prompt shipment are needed. If the apples are taken off the trees just when colored, put into cold storage, and shipped in refrigerator cars, they keep well on into the spring months."

"What Southern Ontario men should do is to make the most possible out of winter varieties now in bearing, but not plant any more. They can make larger returns from early varieties. We have tested the keeping quality, and find that the winter varieties from that part of Ontario, with ordinary handling, do not keep much past the New Year. A buyer is liable to lose if he cannot get a car to ship promptly. Frequently apples are in barrels, with no car available for ten days. I have advised growers to dump the apples, in order to avoid losing the barrel also. Several buyers have had sad experiences."

"There is a rapidly-growing market for the early sorts. Practically unlimited supplies are wanted in the Canadian Northwest and in Great Britain. With a greater supply, we will find better shipping facilities, and the only difficulty will be overcome. There is no danger of overdoing the supply in a quarter of a century. Canadians do not seem to realize that we can put early apples on the British market almost as early as United States growers. The apple-growing sections of the United States are not far south of Southern Ontario. Our growers always can hold the home market, and, in addition, gain a big share of the Old Country market. Shipments to Great Britain can be placed in the hands of the consumer in two weeks' time. To the Canadian West, the time taken to land car lots varies from five to ten days. The trade would be much better if consignments reached their destination in regular order. As it is, there is too much bunching of cars, forming a disastrous glut on the market."

The points brought out by Mr. McNeill are deserving of consideration by every grower. Co-operative effort and intelligent marketing of early apples no doubt would make profit, instead of

loss, on many orchards. As for obtaining reasonable prices on distant markets, there is more in regularity of supply than in the time taken to carry the fruit from the producer to the consumer. The selection of varieties for planting must be regulated by conditions which those who give the apple industry careful study know best. Soil, climate and demand are prime factors.

Peas and Strawberries.

Editor "The Farmer's Advocate":

In growing peas for the canning factory, a person must first find out if he has the right kind of soil for peas. A good rich sandy soil is best. I have always had good returns from sowing on a good clover sod which has been fallowed, or a stubble ground which has been manured and fall-plowed. I always try to get my peas sowed in April or the early part of May. I don't like late sowing. I sow about three bushels to the acre with the grain drill. The two kinds that have done the best for me are the Advance and Market Garden. I have grown over a ton of threshed peas to the acre; that would be over \$30 to the acre. They did not yield that last year, on account of dry weather. By plowing the ground as soon as the peas are harvested, it is in fine condition for fall wheat.

I do not grow as many strawberries as some, but I have three acres, and am setting out two acres more this spring. I manure the ground in the fall, and plow if I can. If I don't get it done in the fall, I do it as early in the spring as possible. I always like to follow a corn or potato crop, so as to have the ground as free from weed seed as possible. I work my ground thoroughly, so as to get it fine and mellow. Then I roll, and mark out in rows three and a half feet apart, and plant two feet apart in the row.

I have two varieties that have done splendidly for me—Improved Williams and Senator Dunlop—but have ordered some Sample and Haise for this spring's setting. I picked 4,000 baskets last year from one acre, and received nearly \$240.

Strawberries should be sprayed, the same as fruit trees, and with the same mixture. I intend to do so this summer, and I feel certain I will get a far larger yield.

Norfolk Co., Ont. GEO. B. HAVILAND.

Maritime Co-operation.

Editor "The Farmer's Advocate":

The Berwick Fruit Co. was organized and incorporated in September, 1907. The original subscribers and applicants for a charter were, S. C. Parker, L. F. Best, F. A. Hilsley, R. L. Palmer, John N. Chute, H. J. Chute, R. Harlow, Geo. L. Thomson, J. B. White, Samuel Creighton, Chas. Magee, and B. H. Lee. There were no special provisions at that time for the incorporation of co-operative fruit associations. Accordingly, the association was incorporated under the Joint-stock Companies Act.

The capital stock of the association is \$10,000, in shares of \$100. Each member joining the association must subscribe for 2½ shares. It is planned to call in 5 per cent. of the subscribed stock yearly until sufficient funds are raised to pay for the warehouse which the company has purchased.

Our warehouse is 40 x 100 feet, with a good basement. The company employs a manager, who has charge of the business and employs the help, with a foreman to oversee the packing and have charge of the men in the warehouse. Each member of the association is bound by a by-law to dispose of all his apples through the association. The apples are picked from the trees, turned carefully into apple barrels, which are carefully shaken down, headed, stenciled with the grower's name and the variety, and hauled to the company's warehouse. The members receive a receipt for the number of barrels delivered. Each member's apples and each variety are piled by themselves. When they are packed out, a careful check is kept of the different grades from each man's lot, so that he gets credit for his correct proportion of Fancy, No. 1, No. 2 and No. 3 grades. A careful record is kept of sales, and prices are averaged on each of the four grades, so that any man whose apples pack mostly into Fancy and No. 1 grades gets a much larger price than the one whose apples pack into No. 3 grade. The members who are best satisfied are those who grow the best apples.

We now have thirty-two members, and have backed over 13,000 barrels. The average net price for our winter fruit, of the different grades, was as follows: Fancy, \$3.17; No. 1, \$2.75; No. 2, \$2.05; No. 3 grade, \$1.25. These prices would have been much better had we held back and shipped after Jan. 1st. We also buy our fertilizer and materials for spraying, and sell our potatoes through the association. There are three other such associations in the Valley, and they to be a number of others organized in the near future.

JOHN N. CHUTE.

King's Co., N. S.

Nitrates on Strawberries.

Editor "The Farmer's Advocate":

Although commercial fertilizers are being more extensively resorted to each year by farmers and gardeners, yet a large percentage of growers decline to handle the valuable fertilizers until more definite practical information is obtained. The various plant foods can be made responsible for considerable damage in the hands of incompetent persons. Commercial fertilizers for impoverished soils can be likened to medicine for the ailing, in this respect, namely, that, in each case certain directions have to be carefully observed before beneficial results can be obtained.

If the reader has a strawberry patch, and is desirous of using nitrate of soda on it, the following methods can be accepted as entirely reliable, being the results of practical experience by J. Davis, Middlesex County, Ont., who obtained handsome financial returns from its application.

The nitrate of soda should be applied the year the plants will bear fruit; that is, the season after the bed was planted. Select a still, fine day in spring, as soon as the plants have commenced to make growth, and before the blossoms open. The leaves should be absolutely free of moisture. If the bed has been mulched, it should be removed as much as possible, so that the plant food will have immediate access to the soil. Having selected a favorable day, fill a pail or other handy utensil with the nitrate of soda, then with the hand distribute it as evenly as possible. A person should follow immediately behind with a broom and brush the nitrate off the plants as clean as possible. It will then fall on the soil, to await natural or artificial irrigation before it will become available as plant food. If, during the operation of applying the fertilizer, it should rain, quit until the plants are again thoroughly dry. Never leave the nitrate of soda any length of time on the plants, for its action is such as to burn them.

By leaving a row or two unfertilized, you will later be able to satisfy yourself as to the value of nitrate of soda. The plants on the fertilized rows should be larger than the unfertilized; the fruit of better size, and earlier. As to the quantity per acre of the nitrate of soda to apply, it depends on what system the rows are grown—hill system, narrow-matted or double-matted rows. From 100 to 200 pounds per acre may be used.

Middlesex Co., Ont. WM. BARTLETT, Jr.

Orchard Spraying at College.

The general spraying of the orchard at Ontario Agricultural College, as shown by the comprehensive report just issued, was as follows for 1908:

1. Homemade lime-sulphur at the time the buds were swelling, but before growth started.
2. Bordeaux Mixture immediately preceding the opening of the blossoms.
3. Bordeaux immediately after the fall of the bloom.

In the second and third sprayings an arsenical poison was used, Paris green being applied to one-half of the orchard, and arsenate of lead to the other. The quantities used were six ounces of Paris green in one case, and two pounds arsenate of lead in the other, per forty gallons of water. No appreciable difference in the effectiveness was noted, but it was thought that the slightly higher cost of arsenate of lead was more than compensated by its greater uniformity of application, as well as by its power of adhering longer to the foliage.

Notes and comments contained in the report of the season's operations, are:

The apple scab was almost entirely controlled, and some really excellent results were secured on heavily-loaded trees of such susceptible varieties as Snow and St. Lawrence.

The number of sprayings given was not sufficient to control the scab on Flemish Beauty pear in those cases where the trees occupied a low situation lacking in atmospheric drainage. On higher ground, good results were obtained with this most susceptible variety.

Owing to the fact that our orchard is composed of very many varieties, of which fifty or more may be in bloom in any one season, we are not able to spray for the codling moth as thoroughly as we would wish. It is impracticable to spray each variety at the proper time, because of the wide variation in the dates of blooming of different varieties, and because several varieties are planted in the same row, without regard to the matter of convenience in spraying. Some kinds begin blooming ten days earlier than others, and the same degree of variation occurs in the dates on which bloom falls. The all-important spraying for codling moth is said to be that applied immediately after blooming. At the time when we make this application, we have, consequently, varieties in every stage, from falling bloom to bloom fallen as long as ten days. The results of our observations under these conditions confirm

the statement made above regarding the proper time for combating the codling moth. We find that trees sprayed during the falling of the bloom or immediately after, give a lower percentage of injury from codling moth.

This phase of protection from injurious insects has an important bearing on the laying out of orchards. It is, of course, desirable, in the first place, to limit the number of varieties in a commercial orchard. These varieties should then be arranged, in so far as possible, with a view to facilitating the spraying of each variety at the proper time. This is best done by planting either in solid rows or solid blocks of one variety. The writer prefers solid rows, as less delay is occasioned by the time taken in turning with the spraying outfit. On no account should varieties blooming at different dates be planted in the same row, or the ground will require to be covered twice in order to do thorough work.

Five Dollars' Worth of Information

I would not care to miss one copy of "The Farmer's Advocate." Last year I did some grafting, and had good success. I gained my information from "The Farmer's Advocate." That alone was worth \$5 to me. Send the welcome visitor another year. H. E. REDNER.
Prince Edward Co., Ont.

THE FARM BULLETIN.

License for Shooting.

Editor "The Farmer's Advocate":

A recent issue of "The Farmer's Advocate" contained an article deploring the destruction of birds for their plumage for millinery purposes. It is indeed time something was done for the protection of these harmless creatures of nature, which are almost a necessity, when we consider the important part they take in destroying the many kinds of injurious insects so common to the present-day farmer.

Another question of equal importance is the protection of our game, especially in the older-settled parts of Ontario. As the forest areas and wood-lots are continually reduced, our stock of game, through lack of protection, has greatly decreased, and in some sections has become almost extinct. In consideration, this plan has been suggested to me: Could not the enactment of a law be secured by the Game Protective Association prohibiting those who insist on destroying those animals whose furs are of commercial value, and other game of lesser value, and also the rare species of birds, which have become conspicuous by their absence, from hunting, except they purchase a license, for a reasonable amount, legalizing them to kill a certain kind or certain kinds of game during a limited season—a license to be good only for one season, made out somewhat after the form of a deer-hunter's license. Would like a little discussion by the farmers on this question. It is to their own interests.

Oxford Co., Ont. E. E. JAKEMAN.

Novel Farmers' Banquet.

The members of the Central Dumfries Farmers' Club, of Waterloo Co., Ont., held an enthusiastic banquet recently. It was the last of a series of very successful meetings during the winter months. Members and their wives and daughters were there. The menu shows a distinct preference for the best the farmer can produce. Some of the attractive, choice dishes on the bill of fare were: Soup—Extract of Alfalfa Hay; Boiled—Potted Head and Tail (this is to make ends meet); Dessert—Bran Mash on Toast.

Appropriate toasts, singing and recitations formed an interesting programme. F. C. Hart, B. S. A., Galt, who has been instrumental in organizing several clubs in that district, says that they have been a great social factor in the community.

Some Show Dates.

- May 12th to 15th—Montreal Horse Show.
- June 5th to 15th—International Horse Show, Olympia, London, England.
- June 22nd to 26th—Royal Show, Gloucester, England.
- July 5th to 10th—Alberta Provincial, Calgary, Alta.
- July 20th to 23rd—Highland Society's Show, Stirling, Scotland.
- July 10th to 17th—Winnipeg Industrial Exhibition.
- July 16th to 23rd—Brandon, Man.
- August 26th to September 10th—Canadian National, Toronto.
- September 10th to 18th—Western Fair, London, Ont.

Agriculture in New Ontario.

Interesting details regarding agriculture in New Ontario were brought out by an offer of prizes by The Weekly Globe for essays telling about conditions under which farming is carried on in that part of Ontario. The first-prize essay was written by F. Kosmack, a seven-year settler, of Milberta, and is as follows:

In discussing "Agriculture in New Ontario," I shall have special reference to the Temiskaming District, of which I have had seven years' experience.

There are two ways of going to this district. First, by Canadian Pacific Railway to Mattawa, thence by branch line to the foot of Lake Temiskaming, and by steamboat to New Liskeard; or by Canadian Pacific Railway or Grand Trunk Railway to North Bay; from there by Temiskaming and Northern Ontario to any station desired on that line. There is no agricultural land worthy of the name on either road till the north end of Lake Temiskaming is reached. From there north and west a most decided change takes place. Two rivers, the Blanche and the Wahbi, enter the lake here, and the drainage area of these two rivers is at least ninety per cent. agricultural land of the first quality. The height of land between the Blanche and the rivers flowing north into James Bay is a scarcely perceptible ridge. Here (across the ridge) the land is also good clay soil. There is next to no settlement there yet, and I have to confine myself to a description of the valleys of the Blanche and Wahbi.

The soil is almost exclusively alluvial-clay, light brown, yellow or white. Beds of gravel are rare, and never deep. Outcroppings of rock seldom occur, but they occur more frequently in the townships next to the height of land. The two rivers flow in deep channels, with banks 20 to 60 feet high. So easily is the clay dissolved in water that the banks are changing yearly. Sometimes, large areas of land, amounting to acres in extent, with the trees on it, slide into the river. Receding from the river, a flat of half to one mile is found. After that comes a rise of 30 to 60 feet; and, lastly, is found tableland, which comprises perhaps 80 per cent. of the total area. Over the clay is a black vegetable mould from 6 to 18 inches deep. The banks of the rivers, for 100 to 500 yards, have the least mould. Then an abrupt rise of two to four feet occurs, which is composed of turfy mould, intermixed with partly-decayed wood, or sphagnum-moss only slightly decayed. Towards the tableland this layer gets deeper, till a depth of eight feet or more is reached. This era is termed "muskeg." From the tableland numerous ravines drain into the muskeg. These never run very far, and leave the tableland an uninterrupted plain for many miles. The tableland has a fairly uniform covering of mould, except where it is burnt off by bush fires or in the process of clearing the land.

COVERED WITH FOREST.

The whole district, in its untouched state, is covered with thick, dark forest. The trees prevail in the following order: Spruce, white and black, are the most numerous; then balsam, poplar, balsam of Gilead, tamarac, white birch, and banksian, white and red pine. Cedars are not plentiful, except near rock outcroppings. The undergrowth consists of swamp alder, moose maple, mountain ash, ground hemlock, raspberries, blueberries and cranberries. The timber is largest near the ravines, and there alone pine is found. The wetter the land, the smaller the timber. In the muskegs, with now and then an exception, only black spruce and small, scrubby tamarac appear, which are three to five inches in diameter. On the tableland, near the ravines, there are white spruce up to thirty inches in diameter, and at 80 feet; yet, eight-inch trees are frequent. Balsams are remarkably sound, and are found up to 18 inches in diameter. Poplars grow to great size and length, but are mostly too old, and are, therefore, faulty. The first impression of the newcomer in the spring, or in rainy weather, is unfavorable. Even the tableland appears to be an endless, dreary swamp, ill-fitted for agriculture, and many people that are easily discouraged are turned back thereby. Those who have stayed have settled invariably near the ravines. It seems strange now that those who had the whole country to choose from took up inferior locations. It was soon discovered that the land everywhere had sufficient fall, and became dry enough when the bush and the fallen trees which blocked the run of the water were removed.

As was stated before, the soil is light brown, yellow or white, but the color seems to make no difference as to its agricultural value. If, in the process of clearing the land, the vegetable mould has not been burnt off unduly, the plow, at first plowing, goes down to the clay only in spots. When the clay is reached, it takes a good team to keep the plow moving, but, if once plowed, the soil keeps open and friable. I have often, with great interest, watched what a field would be like in the spring that had been plowed in the fall. Invariably, I found it in the most favorable condition imaginable for seeding. Any kind of light harrow, with two strokes, would make a perfect

seed-bed. No lumps appeared, and there was no need for a clod-crusher. This would not seem remarkable, as the action of the frost will pulverize almost any kind of clay, but the clay here will crumble down without the help of frost.

CLAY THAT CRUMBLES.

I give the following incident of my own experience: Our land is on a Government road; the road ditch is two and one-half feet deep. In the first year I determined to have at least some garden. I made beds six feet wide, with narrow ditches between. The first spade depth was black vegetable mould; the second brown clay. The clay resembled putty, and it was impossible to break it up. The more you worked it, the tougher it got. In disgust, I despaired to have a garden that year, and went at some other work. The weather was fine and warm, and to my astonishment, I found, within three days, the lumps of clay crumbling down, not baking, as I expected, to a solid lump. At the end of the week I was able to rake the mould and clay into a garden-bed that could not be excelled the world over. I may perhaps right here give the results of that and subsequent years in gardening. Peas always did best; onions, carrots, parsnips, lettuce, fair; blood and sugar beets, not so well; turnips and cabbage, medium at first. Leguminous plants do best; they are the most independent of the nitrogen in the soil, not by any means that the soil is deficient in nitrogen, but the land needs cultivation before the nitrogen becomes available for plant food. That is confirmed by the largely-increased crops after a few years of cultivation. We grow now any kind of vegetables, even without manure. Celery does well, but we must strive to get it planted earlier than we have so far. It is very pleasant to do gardening, as the surface never bakes nor cracks. Native weeds may be said not to exist. Fern roots and wild aster give some trouble, but are easily conquered. Of the grasses, blue-joint and brome grass are springing up, if after a burn the land is not quickly taken into cultivation. So will strawberries and raspberries.

FARMING OPERATIONS.

In coming to farming, it will not surprise anyone, after what has been already said, that peas and clover, red or alsike, grow pre-eminently luxuriously. Timothy also does well. Wheat, oats and barley need a crop of peas to precede them to do best, except when the land has been heavily burnt over. It is to be regretted that this leads many people to seek a heavy burn for the sake of a good first crop, which is secured at the expense of the future. Experience leads me to commend the following course: A light burn, removing only the moss, leaves and rotten wood from the surface, not the decayed black mould. A crop of peas, followed by oats, and seeded with clover and timothy, then left in meadow, as it will grow luxuriously for many years. Clover and timothy hay are the most remunerative crops. This will be easily understood when I state that three tons to the acre are common, and hay is worth from \$20 to \$30 a ton. This course will leave the settler free to devote all his time to the clearing of more land, preserving the fertility of the older land. There is no temptation here to grow wheat after wheat, and rob the soil of fertility stored up since the creation of the world, till it is exhausted, and then move on, as our Yankee friends are doing in the West.

MARKETING FACILITIES.

At present, on account of the great activity in prospecting, mining and timbering, the price of all farm and garden produce is very high. The settler needs to seek no market. Milk, butter, eggs, garden stuff, hay, hen feed and oats are eagerly sought at his house. The demand cannot to any extent be supplied, and much has to be imported, especially meat. At present, the production of beef does not receive the attention that would seem desirable, because it can be imported cheaper than produced here. There is no money in feeding a steer on hay worth \$30 a ton; roots at 75 cents to \$1 a bag; peas at \$1.50 a bushel, or shorts at \$1.75 per 100 pounds. The time when this country becomes an exporting country—that is, when it will seek the market on the seaboard—is not near, because the new settlement farther north, on the extension of the Temiskaming and Northern Ontario and the Transcontinental railways will absorb all that can be produced. When the time does come, this cannot fail to be the champion country for beef, butter and cheese production. The land being all good, settlement is continuous.

The roads are excellent, and the farm buildings are, in most cases, near the road, which make an ideal condition for creamery or cheese factory. Cattle are not yet plentiful, but what there are are mostly pure-breds of all breeds. Settlers are coming in from every county in Ontario, and each brings what prevails in his neighborhood. Cows brought in here scarcely ever do well the first year. Pasture, although plentiful in most localities, is not of the quality of that of cultivated grasses. As the pasture is a crown in the shadow of the forest, and the trees are mostly uncut and

to it. Mosquitoes, black flies and deer flies are so troublesome that cattle will not go into the woods till fly-time is past.

CLEARING THE LAND.

With regard to the clearing of the land, it must be divided into two classes, namely, tamarac and poplar land. Under the former class, I understand, is land on which tamarac predominates, mixed with spruce; the latter, where poplar (white wood) predominates, mixed with birch, balsam and banksian pine. The tamarac land is covered with 12 to 18 inches sphagnum-moss. In this alone the trees stand. When the moss is burnt off, the stumps sit on top of the ground, not only the tamarac, which are all dry, but the green spruce, also. The stumps must be drawn off, used for temporary fences, or burnt. No machinery is required; one good horse is sufficient. The stumps must come off, because the wide-spreading roots forbid the use of plow and narrow. Two years ago we had a dry summer, most favorable for the work. My son, with one horse, cleared an acre in three to five days, ready for mower and binder. With poplar land, the process must of necessity be different. No machine will pull out a big poplar stump. Dynamite, also, besides being costly, will not make good work. The intermixed balsam and pine also have a firm hold in the ground. The roots not spreading on the top of the ground, it is possible to cultivate between the stumps. The practice in that case is to get the land quickly into hay, and leave it so till the poplar stumps are well decayed. Then use a team, with block and line, or a capstan machine, for the final pulling of the stumps.

CLIMATIC CONDITIONS.

The winter is cold. For three or four months the thermometer never rises above freezing, but it is just as likely to be below zero as above. Clear, cold, calm weather prevails. Snow falls to the depth of two to four feet, and is almost always of a feathery lightness, so that a horse may walk right through it. No crust may be expected till March. Winter in earnest comes between the middle of November and the first of December, and the break-up about the first of April. The change is usually quick and decided. In summer it gets hot, often reaching 100 degrees F. in the shade. The nights are usually cool, but we have nights when a mosquito netting (a canopy of cheese-cloth) is all the covering required. It is pleasant to lie peacefully under such netting and listen to the concert given by a multitude of hungry musicians which would like to taste human blood. Summer frosts occur, and must be expected under the present conditions. The thick, dark forest covers perhaps 90 per cent. of the land; seldom a ray of the sun steals down to the ground. The snow is not all gone in the forest depths when vegetation is well started. Every night a great volume of cold rises out of the woods from melting snow or evaporating moisture, and as cold, like water, always seeks the lowest level, it falls into the as yet small clearings. As the percentage of bush to cleared land reverses, this condition will be more and more remedied.

The social conditions are good. Of course, there are cases where a pioneer of the pioneers penetrates ahead of the rest into the silent forest, and his brave wife (if he has one) may feel lonesome at times, but these instances are the exceptions.

EARLY SOURCES OF INCOME.

How does the new settler support himself and his family till the produce of his land is sufficient for his wants? The timber on his land is his, with the exception of the white pine. He sells tamarac, flat for railway ties, square for bridge timber; spruce and balsam as boards for pulp. Ties were 26 cents last winter; green lumber, on board car, \$13.50 to \$14 a thousand; 4-foot pulp spruce, \$5; balsam, \$3 per cord on the Temiskaming & Northern Ontario Railway track. For 16-foot pulp on the streams, \$3.25 per cord is paid. Sawmills are numerous. It is seldom necessary to draw the logs more than two miles to a mill, and the boards two to four miles to the car. Incredible quantities of pulp and logs were taken out last winter, which benefits the country in three ways: The settler has remunerative work in winter; the cutting and removing of the timber make the clearing of the land easier, and the letting in of the sun helps to prevent summer frost. Large sums are granted to make roads, and a settler may earn \$1.75 a day making a road for himself. It is no pleasure to stand to your ankles and dreer in water, throwing out clay that will not leave the shovel; but the reward, besides the pay, is a good road, and improved drainage of your land.

OPPORTUNITIES IN NEW COUNTRY.

Now, then, in conclusion, to the question: Does it pay to come here and make a farm? I say, most emphatically, "Yes." I say "Yes," although we hear the statement made very often that it does not pay; that it pays better to work for the great wages which prevail. The ex-

planation is simple. A very great percentage of the people here are often from the cities. They have been accustomed to receive their salary or wages monthly in cash. When a man here goes in for carving out a farm, he receives no money for his labor; he receives his reward in the improved value of his land. When working for wages, the pay comes immediately; in the other case, it takes two years before a return for the outlay commences to come in. If a man clears land, and it costs him \$30 an acre, he has the right to expect that it will bring him good interest for the \$30. He has no right to expect that he will also get his money back. If a man is not contented to take the reward for his labor in the shape of a good farm and a comfortable home; if he is not willing to put up with the inevitable hardships of a beginner, then let him keep away from here. But if he is willing to spend \$30 in clearing an acre of land that is sure to bring him interest on \$60, here is the place for him.

Oxford County Farm Notes.

So far the weather has been dull and cold, and there has not been much growth. Fall wheat and clover have come through the winter very well. I have not seen any spots killed out. This is very encouraging, when the price of wheat is so good, and if it keeps up through the summer, it is quite likely that a much larger acreage will be sown next fall. Our animals have all wintered pretty well, excepting pigs, which came rather late in the fall, and one that died we found was badly infested with worms six to eight inches long. We are now feeding a handful of wood ashes to each pen. We had a mare that had long worms, and we tried to feed her the powders recommended in "The Farmer's Advocate," but they were so bitter that she would not eat chop that they were put into. We gave her wood ashes a few times, and then a very strong purgative of aloes and linseed oil, and she is now thriving all right.

We are raising grade Holstein heifer calves on separated milk and boiled linseed meal. Two different seasons we fed calf meal, and last year we diluted the milk with hay tea, made from well-cured clover hay run through the cutting box. I believe our calves this season are doing better on the separated milk and linseed meal than they did on either of the calf meals or the hay tea. I think it a great help for calves to come early. We are getting \$1.00 for the calves we don't wish to raise.

The canned-chicken industry is still flourishing. Live hogs are now \$7.25, which is the highest price we have reached for some time. But when we consider the high price of feed, there is not much in hogs at even that high figure. Shorts are now selling at \$1.30 per 100 pounds, and bran the same. Potatoes are being shipped at all the railway stations to points in the States. The farmers are getting 70 cents per bag, and it is much nicer to deliver them in bulk on the car than to peddle them out in the cities and towns.

Our March cheese was sold for 12 cents, but I see one factory got 12½ cents. The prospects for the season are good, as it is generally believed that there is not much old cheese in the country. I have not heard of any more cases of abortion. Oats are bringing 50 cents, and barley for seed 70 to 80 cents. Wheat is now nearly all out of the farmers' hands. Great care should be exercised in working the horses, after the winter of idleness. They should gradually be brought into the hard work, and the feed very gradually increased. The colts' feet should be trimmed before they are turned out to pasture. We purchased a cream separator lately, and were amused to notice how stoutly each agent maintained that the make of separator he was selling was so much better than any of the other makes. Perhaps they are all good. We believe the cream separator is a good thing.

We had a terrible wind storm here, which did very much damage. A great many windmills, both power and pumping, were put out of business—some of them destroyed past repair. Quite a number of power-mills have been taken down, but ours is still giving good service, running its 9th year, with less than 50 cents per year for repairs, and it has done a great amount of work.

D. L.

Saskatchewan College.

In addition to selecting Saskatoon as the location of the Saskatchewan University, the Board of Governors also appointed Prof. W. J. Rutherford, Deputy Minister of Agriculture, Dean of the College of Agriculture. Prof. Rutherford will begin at once to mature his plans for the college buildings, and the management of the experimental farm which will be operated in connection with the college. It is also understood that J. Bracken, B. S. A., now Director of Agricultural Societies, will have charge of one of the departments in the new college—field husbandry, probably.

This week will see the bulk of the seeding over, writes an Essex County correspondent, under date of April 20th. "A few," he says, "finished last week (week ending April 17th)."

P. E. I. Seed Grain, Mussel Mud, and Dairying.

Spring is almost upon us. Are we ready for it? The winter has slipped pleasantly by—no storms of any account, and good roads and good hauling all winter; and, in consequence, this has been probably the best winter for digging and hauling the valuable fertilizer, mussel mud, that we have had for many years. There seems to be an endless supply of this mud still in our bays and rivers. Good as this article is, some farms have been almost ruined with it, by putting on too much to the acre, or by the second or third application to the same land. Twelve to 15 one-horse loads is sufficient for an acre of land, and that will do, as far as we know, for all time. Hundreds of carloads have been sent inland, and the further from shore, the greater seems to be the benefit from it. The Seed Fair at Summerside, this winter, was a great success. The entries more than doubled those of a year ago, and the fair of 1908 was said to be the best of its kind ever held in Canada. Exhibitors and visitors were there from all parts of the Province, as well as many from across the Straits. The latter, of course, were there to purchase pure seed. Prince Edward Island holds the reputation of being able to grow and sell the best seed grain of any part of Canada. The 102,000 bushels of seed oats sent from this Province to the Northwest by the Government one year ago was by far the best to be had. It is a regrettable fact that many parts of the Island have to give up wheat-growing for a time, at least, on account of the ravages of the joint-worm. Some excellent samples of wheat were shown at the fair this winter. And in the Domestic Science department, the lady who won the red ticket for best loaf of bread, baked it from Island-grown and Island-ground wheat, competing with the imported. In potatoes, there were over fifty baskets of one variety (the McIntyre) that the judge, R. Robertson, Nappan, N. S., had to examine and award ten prizes to, and it was no easy task. After he got through, several were heard to remark that surely he could have found a basket in the fifty that was free from dry-rot and other blemishes on which to place the red ticket. There is one matter which I hope will be settled definitely; that is, with regard to the right of the potato to be called the "American Wonder." For several years many farmers have been growing a large, deep-eyed, ugly potato, which they understood was the American Wonder, but it now turns out to be the old Jenny Lynn, grown forty years ago, for feeding stock. They yield enormous crops, but they are not fit to feed even a pig; in fact, pigs will refuse to eat them after they have been fed other kinds.

It has been the general opinion that clover seed could not be raised successfully on P. E. Island, but the samples on exhibition at the fair were of an excellent quality, and we hope, another year, to see many more competing for the liberal prizes offered for clover seeds. Donald Innis, Tobique, N. B., judged the wheat, barley and buckwheat, and, just to show the accuracy with which he performed the task, I might mention there were placed before him 17 samples (or bags) of White Russian wheat, out of which ten had to be selected and awarded prizes. And in that lot of wheat there were three bags, all out of the same pile, and owned by the one farmer, but entered in the names of himself and two sons; and Mr. Innis, being entirely ignorant of this, placed those three 5th, 6th and 7th, proving clearly that he understood his business. S. J. Moore and Mr. Fuller, Truro, judged the oats and other grain, with equal satisfaction. We also had with us Prof. M. Cumming, Principal of the Agricultural College, Truro, N. S., who spoke twice in the Market Hall, to the delight of the large gathering of farmers from all parts of the Province, who came to hear and to learn, and who went away satisfied that they had heard the best agricultural address ever delivered in Summerside. Prof. Cumming took for his subject, on the latter occasion, "In Dairying Lies the Salvation of Maritime Agriculture." He told us what they were doing in the dairy line at the Truro Farm, and said that almost any farmer could do the same if he went the right way about it. Eighty dollars may seem a lot to feed a cow for a year, but if for that eighty dollars' worth of feed that cow gives us \$180 worth of milk, he considered it a paying business. Taking those figures, this cow's milk was only reckoned at one cent per pound.

C. C. CRAIG.

Quarantine Lifted by U. S. Government.

Satisfied that the foot-and-mouth disease in cattle, sheep, other ruminants, and swine has been completely eradicated from the United States, Secretary of Agriculture Wilson has issued an order, effective April 24th, releasing the entire country from the federal quarantine on account of that disease.

Apiary Inspectors for 1909.

Following is a list of apiary inspectors, with districts, for the present year. The number has been increased from eight to fourteen. This is largely due to the fact that the eastern part of the Province has been given practically the same system of inspection for this year as the western part had last year.

Acting on the advice of the local Beekeepers' Association, the system of inspection will be limited, except in special cases, to the time from May 15th to August 15th.

In addition to his duties as inspector, Mr. Pettit will have charge of the apiary which is being started at Jordan Harbor, and will also lecture at the Agricultural College, Guelph. The apiary to be started at Jordan Harbor will consist of 25 colonies for this year. This will be increased until a good-sized apiary is established.

1. Inspector—J. S. Schrank, Port Elgin; District—Bruce and Huron.
2. D. Chambers, Poole—Waterloo and Perth.
3. W. A. Chrysler, Chatham—Lambton, Kent and Essex.
4. Jno. Newton, Thamesford—Middlesex and Elgin.
5. Jas. Armstrong, Cheapside—Oxford and Norfolk.
6. J. Alpaugh, Eden—Wellington and Grey.
7. H. G. Sibball, Claude—Simcoe, Dufferin and Peel.
8. Morley Pettit, Nixon—Brant, Wentworth, Halton, Haldimand, Lincoln and Welland.
9. W. Scott, Wooler—Peterboro, Northumberland, Hastings and Prince Edward.
10. J. L. Byer, Mt. Joy—Ontario, York, Victoria and Durham.
11. A. A. Ferrier, Renfrew—Renfrew, Lanark, Carleton.
12. J. Leslie McNaughton, St. Raphael West—Russell, Prescott, Glengarry.
13. M. R. Holmes, Athens—Lennox & Addington, Frontenac and Leeds.
14. Homer Burke, Tayside—Grenville, Dundas and Stormont.

To Ship Alberta Wheat to Britain Via Mexico.

Another route for wheat from Alberta to England is being talked about. A prominent C.P.R. official has recently returned from an extensive trip down the Pacific coast and across Mexico, and the report is that wheat from Alberta is to be taken across the mountains to Vancouver, shipped down the coast to Salina Cruz, and then carried across on the Tehuantepec railway, to Puerto, Mexico, a distance of 190 miles. There is already a line of steamers plying regularly between Vancouver and Salina Cruz. The Mexican railway will arrange handling facilities for transferring grain in bulk from steamer to railway, and from railway to steamer again. The route will be a much quicker one than around the Horn, and should be speedier even than through the canal. If it develops into all the C. P. R. people expect it to, Alberta wheat will go into the British market at the same rate as wheat from further east is carried to the same market by the Atlantic route.

To Our Club-raisers.

There are thousands of farmers who do not know what they are losing every year through not being subscribers to "The Farmer's Advocate and Home Magazine." Therefore, we want all readers of "The Farmer's Advocate" to act as club-raisers this year, and send us large lists of NEW SUBSCRIBERS.

If you send us two new names and \$3.00 to cover same (each new subscriber paying \$1.50), we will mark date on your paper forward one year as remuneration to you; or, for each single NEW NAME, accompanied by \$1.50, we will advance the date of your address label six months. Cash commissions or premiums, as preferred, for larger lists of new names.

In clubs of FOUR RENEWALS OR OVER, we will accept \$1.25 each.

Premiums not included in club offers.

Start raising your club immediately. Get "The Farmer's Advocate and Home Magazine" into every household in your locality.

On May 27th, the well-known Holstein breeder, A. C. Hallman, of Breslau, Ont., between Guelph and Berlin, will sell at auction, from his noted Springbrook herd, 35 head of registered Holstein cattle, bred direct from Advanced Registry stock; also, 30 head of pure-bred Tamworth swine. Fuller particulars next week.

THE BANK OF TORONTO

Head Office : Toronto, Can.
Incorporated 1855.

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Reserve Fund, - - 4,500,000
Total Assets, - - 40,000,000

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INTEREST half yearly.

EVERY CONVENIENCE of modern Banking.

PERFECT ASSURANCE that your money is safe.

COURTEOUS TREATMENT at all times.

MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, on Monday, April 26, receipts were 30 cars, consisting of 600 cattle, 60 hogs, 6 sheep, 92 calves. Export trade dull, owing to scarcity of shipping space; only two or three loads on sale. Prices unchanged. Prime picked lots here, \$5.25 to \$5.50; loads of good, \$5 to \$5.35; medium, \$4.60 to \$4.90; common, \$4 to \$4.50; cows, \$8.50 to \$4.50; milkers, \$3 to \$4; calves, \$3 to \$5.50 per cwt.; hogs, \$7.50 for selects, fed and watered at market, and \$7.25, f. o. b. cars at country points.

REVIEW OF LAST WEEK'S MARKET.

Receipts of live stock at the City and Union Stock-yards were moderately large, the railways reporting 315 carloads, comprising 5,122 cattle, 5,839 hogs, 674 sheep and lambs, 953 calves, and 173 horses.

The quality generally was medium, both for export and butchers' cattle, few finished loads being on sale. Trade was fairly good, but prices were easier at the close of the week.

Exporters.—Export steers sold from \$5.40 to \$5.90, the bulk of the best going at \$5.50 to \$5.60. Bulls, for export, sold at \$4.25 to \$5, the bulk going at \$4.40 to \$4.75.

Butchers.—Prime picked lots sold at \$5.30 to \$5.60; loads of good, \$5 to \$5.25; medium, \$4.50 to \$4.90; common, \$3.90 to \$4.40; cows, \$3.40 to \$4.40; canners and common cows, \$1.50 to \$2.65.

Feeders and Stockers.—Trade in feeders and stockers was a little more active, that is, more of both classes were on sale, but prices were unchanged. Best feeders, 1,000 to 1,100 lbs. each, at \$4.50 to \$4.75; best feeders, 850 to 950 lbs., \$3.90 to \$4.25; stockers, 400 to 700 lbs. each, \$3 to \$3.50.

Milkers and Springers.—The number of milkers and springers on sale was not as large as for some time past, but about equal to the demand. Prices ranged from \$30 to \$60, the bulk going from \$30 to \$60; the bulk of the best going from \$40 to \$55 each.

Veal Calves.—Receipts of veal calves were the largest of the season, which caused prices to decline, at \$3 to \$5.50 per cwt.

Sheep and Lambs.—The run of sheep and lambs was larger, but prices remained much the same. Export ewes, \$4.50 to \$5; rams, \$3.50 to \$4.25; choice yearling lambs, \$7 to \$7.75 per cwt.; common yearlings, \$5 to \$6 per cwt.; spring lambs, \$3 to \$6 each.

Hogs.—Receipts moderate, prices steady, at \$7.50 for selects, fed and watered at the market, and \$7.25, f. o. b. cars at country points.

Horses.—There was a fair trade in horses at both Monday and Wednesday's auction sales, at the Union Horse Exchange, West Toronto. Prime quality

horses brought fancy prices. The finest drafter gelding, weighing 1,800 lbs., seen on any market in Toronto this season, sold, to go to Montreal, for \$350; and another pair of mares, 3,000 lbs., sold at \$525. Prices were quoted as follows: Drafters, \$180 to \$220; expressers, \$140 to \$200; farm horses, \$150 to \$190; drivers, \$130 to \$175; serviceably sound horses, \$35 to \$90 each.

BREADSTUFFS.

Wheat.—Ontario, red, white, or mixed No. 2, \$1.18 to \$1.20, at outside points. Manitoba, No. 1 northern, \$1.27; No. 2 northern, \$1.24; No. 3 northern, \$1.22; on track at lake ports. Rye—No. 2, 72c. to 73c. Peas—No. 2, 96c. to 97c. Oats—No. 2 white, 45c. to 46c.; No. 2 mixed, 45c. to 45½c., at outside points. Barley—No. 2, 67c. bid; No. 3X, 63c., sellers; No. 3, for feed, 62c. Corn—American No. 2 yellow, 79½c. to 80c.; No. 3, 78½c. to 79c., Toronto freights. Buckwheat—No. 2, 63c. to 64c. Flour—Ontario, 90 per cent. patent, \$4.60 to \$4.80; Manitoba patent, special brands, \$6; second patents, \$5.50 to \$5.90; strong bakers', \$5.30 to \$5.40.

HAY AND MILLFEED.

Bran.—Car lots, in sacks, Toronto, \$24 to \$25, track, Toronto. Shorts—\$26, on track, Toronto. Hay—No. 1 timothy, \$10.50 to \$10.75, track, Toronto; No. 2, \$8.50 to \$9.50, track, Toronto. Straw—Prices ranged from \$6.75 to \$7.50, track, Toronto. Manitoba meal—\$28.50 per ton. Flax-seed meal, \$3 to \$3.25, in sacks, Toronto.

COUNTRY PRODUCE.

Butter.—Market firmer, for choice, fresh dairy or creamery of good quality. Creamery pound rolls, 26c. to 27c.; creamery solids, 21c. to 22c.; separator dairy, 24c. to 25c.; store lots, 19c. to 20c.

Cheese.—Market steady. Old, large, 14c.; twins, 14½c. New, 13c. to 13½c. Honey.—Market unchanged. Extracted, 10½c. to 11c.; combs, in dozen sections, \$2.75 to \$3.25.

Potatoes.—Prices firm, at 85c. to 90c. per bag, for car lots, on track, Toronto.

Beans.—Market firm. Primes, \$1.90 to \$2; hand-picked, \$2.10.

HIDES AND WOOL.

E. T. Carter & Co., wholesale dealers in wool, hides, etc., quote prices as follows: Hides—No. 1 inspected steers, 60 lbs. up, 10½c.; No. 2 inspected steers, 60 lbs. up, 9½c.; No. 1 inspected cows, 9½c.; No. 2 inspected cows, 8½c.; No. 3 inspected cows and bulls, 8c. to 8½c.; country hides, 8c. to 8½c.; calf skins, 12c. to 14c.; horse hides, No. 1, \$2.50 to \$2.75; horse hair, per lb., 30c. to 31c.; tallow, per lb., 5c. to 6½c.; sheep skins, each, \$1.25 to \$1.35. Raw furs, prices on application.

FRUIT AND VEGETABLES.

Onions, per bag, \$1.25 to \$1.40; turnips, 35c. per bag; parsnips, 50c. to 65c.; carrots, per bag, 30c. to 40c.; beets, per bag, 35c. to 40c. Apples—Prices very firm. Spies, \$5 to \$6.50 per bbl., and \$7 is being asked by the dealers; Baldwins, \$4 to \$4.50; Greenings, \$3.50 to \$4.25; Russets, \$3 to \$4 per bbl.

Chicago.

Cattle.—Steers, \$5 to \$7; cows, \$4 to \$5.5; heifers, \$3.25 to \$6; bulls, \$3.75 to \$5.25; calves, \$3.50 to \$6.60; stockers and feeders, \$3.30 to \$5.35.

Hogs.—Choice heavy shipping, \$7.35 to \$7.50; butchers', \$7.30 to \$7.45; light mixed, \$6.95 to \$7.30; choice light, \$7.10 to \$7.30; packing, \$7.15 to \$7.35; pigs, \$5 to \$6.60; bulk of sales, \$7.20 to \$7.40.

Sheep and Lambs.—Sheep, \$3.75 to \$6.60; lambs, \$5.50 to \$8.35; yearlings, \$5.25 to \$7.25.

Buffalo.

Cattle.—Prime steers, \$6.40 to \$6.75. Veals—\$6 to \$8.

Hogs.—Heavy and mixed, \$7.75 to \$7.85; Yorkers, \$7.40 to \$7.90; pigs, \$7.15 to \$7.25; roughs, \$6.50 to \$6.80; stags, \$5 to \$5.75; dairies, \$7.40 to \$7.70.

Sheep and Lambs.—Lambs, \$4.50 to \$7.50, a few at \$7.55; yearlings, \$6 to \$6.25; wethers, \$5.25 to \$5.40; ewes, \$4.50 to \$4.75; sheep mixed, \$2 to \$5.

Montreal.

The outlook for cattle shipments from Montreal during the month of May is excellent, the average weekly shipments being estimated at not less than 2,500 to 3,000 head. Demand for ocean freight space is all that could be expected, and better prices are being obtained than was thought likely some time ago. Half the May space to London has been taken at 25s. to 27s. 6d. per head, and about half the Liverpool space at 2s. 6d. more than to London. There has not been much demand for Manchester space, at 27s. 6d., while Glasgow is being slowly taken at 2s. 6d. more. Outside of Armour & Co., which firm has closed for a lot of space, American shippers have done but little freight business here. Some think shipments of cattle from the Canadian Northwest will be light this season.

Ontario distillery cattle were offered last week at 6½c. per lb. for steers, and at 5½c. to a fraction less for the bulls. There was a good demand for all kinds of live stock, butchers' being well cleaned out of their surplus stock purchased at Easter time. Choice stock sold at 5½c. per lb., fine at 5½c. to 5½c., good at 4½c. to 5c., medium at 4c. to 4½c., and common at 3c. to 3½c. per lb., bulls ranging from 3½c. to 5c. per lb. Owing to light supplies and good demand, the market for sheep and lambs was firm. Yearlings sold at 6½c. to 7c. per lb., and sheep at 5c. to 5½c. per lb. Spring lambs were in active demand, at \$3 to \$6 each, according to size. Calves sold at \$2 to \$3 each. Packers and butchers were after hogs, and as supplies were light, prices held firm, being 8½c. per lb., for selects, weighed off cars.

Horses.—Dealers were well satisfied with the week's work. They have been experiencing a good demand, both from local sources and from out of town, some nice horses having been bought for the East and New Brunswick, to fill requirements of lumber mills. The market held steady, prices being as follows: Heavy draft, weighing from 1,500 to 1,700 lbs. each, \$225 to \$300 each; light draft, weighing 1,400 to 1,500 lbs., \$185 to \$240 each; small or inferior horses, weighing 1,000 to 1,100 lbs., \$100 to \$150; and fine saddle or carriage animals, \$300 to \$500.

Dressed Hogs and Provisions.—The market for dressed hogs showed considerable firmness in sympathy with that for live, and prices advanced to 11½c. and 11½c. per lb., for fresh-killed, abattoir-dressed, demand being good. Bacon was in active demand, and the market held firm. Lard was steady, at 9c. per lb. to 9½c. for compound, and 13½c. to 14c. for pure.

Potatoes.—The market was exceptionally strong, and shippers in New Brunswick asked equal to \$1.15 per 90 lbs., in carloads, delivered in Montreal. It is doubtful if that figure was realized. This means that single bags, delivered into store, would cost about \$1.30. The strength of the market was due to the active demand from the United States. Green Mountain potatoes are referred to in the above figures, Quebec stock being less expensive.

Maple Products.—Production has been quite light, but quite a little was carried over from last year, so that there is no scarcity. Prices were about steady, at 5½c. to 6½c. per lb. for syrup, and 8c. to 10c. per lb. for sugar, according to quality.

Eggs.—The market for eggs held firm. Buyers succeeded in securing stock in the West at 17c. per dozen, and in the East at 17½c. Locally, sales were made at 19c. to 20c. per dozen. Some of the eggs were packed, but none have been lined. Demand was good, but not equal to production.

Butter.—The market gained strength. Old butter was not wanted, and has deteriorated in quality. It could be had at 19c. to 21c. per lb., for creamery, according to quality, and at 14c. to 16c. for dairy. New butter, however, was in good request, and 23½c. was paid for fresh creamery, in the Townships, making 23½c. to 24c. here, for fancy stock. Other qualities ranged down to 21c. per lb. Fresh rolls sold at 19c. to 21c. per lb. It is claimed that pasteurized creamery will be a feature of the market this season. On Monday, new creamery advanced sharply about one cent.

IMPERIAL BANK OF CANADA

CHARTERED 1875.

Capital Authorized, \$10,000,000.00
Capital Paid Up, - 5,000,000.00
Res., - - - 5,000,000.00

SAVINGS DEPARTMENT.

\$1.00 opens an account. Interest paid at highest current rate from date of deposit.

Farmers' sale notes discounted.

Branches throughout the Dominion of Canada.

Cheese.—There was practically nothing new to report.

Grain.—The market for wheat was very strong, but oats showed little change, being 51c. to 51½c. per bushel, store, for carload lots of No. 2 Canadian Western oats, ½c. less for No. 1 extra feed, and yet ½c. less for No. 1 feed. No. 2 Ontarios, also, are 50c. to 50½c., No. 3 being a cent less, and No. 4 yet a cent less. No. 2 pear were \$1.03 to \$1.04, No. 2 barley 66c. to 67c.; feed barley 59½c. to 60c., and buckwheat 69½c. to 70c.

Flour.—Manitobas were steady, at previous rises, but Ontarios stood higher, at \$5.60 to \$5.75 for patents, and \$5.60 to \$5.60 for strong bakers. Manitobas showed a wide range, at \$6.10 to \$6.50 per bbl. for first patents, \$5.60 to \$6 for seconds, and \$5.40 to \$5.80 for strong bakers'.

Millfeed.—The market for bran and shorts was very firm, and prices stood: Bran, Manitobas, \$22 to \$23, in bags; Ontarios, \$1 more; shorts, Manitobas or Ontarios, \$24 to \$25. Cottonseed and oil cake were, nominally, \$32.50 to \$35 per ton.

Hay.—Market steady, at \$12.50 to \$13.50 for No. 1; \$11.50 to \$12 for No. 2 extra; \$9 to \$10 for No. 2; \$8 to \$8.50 for clover mixed, and \$7 to \$7.50 for clover mixed, Montreal.

Seeds.—Dealers worked overtime in order to keep up with orders. Prices held about steady, at \$13 to \$14 per 100 lbs. for red clover; \$16 to \$18 for alsike, and \$5.25 to \$6.50 for timothy, in bag lots, Montreal.

Hides.—Beef hides were steady, at 7c., 8c. and 9c. per lb., for Nos. 3, 2 and 1, respectively, calf skins being 1c. dearer, at 13c. to 15c. per lb., sheep skins steady, at \$1, and lamb skins at 10c. each. Rough tallow was 1½c. to 3c., and rendered 5½c. to 6c. per lb.

British Cattle Markets.

London cables for cattle were steady, at 13½c. to 13½c. per lb. for Canadian steers, dressed weight; refrigerator beef was quoted at 9½c. to 10c. per lb.

Liverpool.—States steers, from 13½c. to 14c.; Canadians, 13½c. to 13½c.; cows and heifers, 13c. to 13½c.; bulls, 10½c. to 11c.

A HOG IS A HOG—WHEN?

An Iowa gentleman who has handled lots of 'em answers the question thus: "We are in receipt of a beautiful picture bearing your 'ear marks,' and we agree that the hog is 'in good hands.' We have been in the hog-shipping business for some years now, and have handled 'some hog' during this period. What a beautiful animal the hog is; what a blessing he is; what a source of joy and happiness he is; what a desirable and coveted necessity he is, and yet what a curse he is; what a source of grief and sorrow he is; what a trouble-maker he is; what a nerve-wrecking animal he is; and after all who likes pork chops better than the writer?"

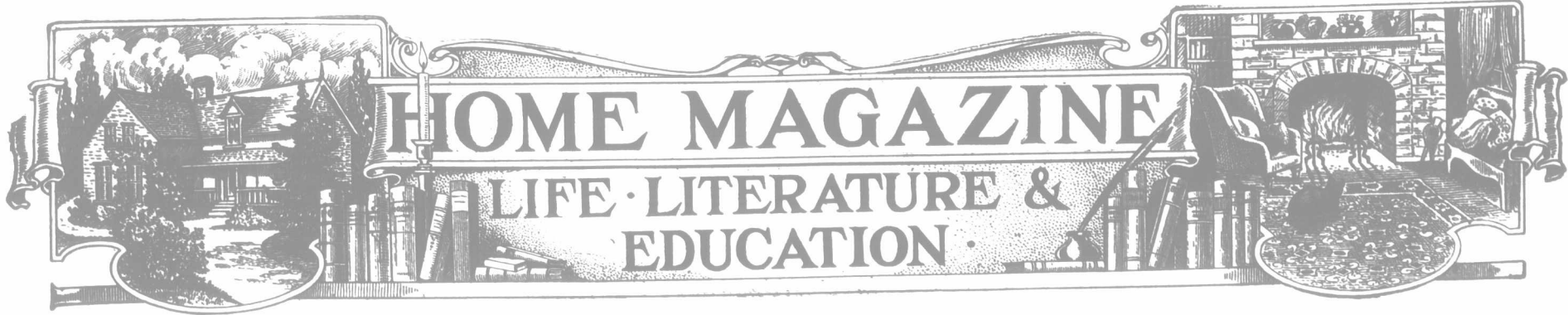
"We have looked at this hog-shipping business from all sides of both shipper and hog, and have found several meanings for the word 'hog.'"

1. A hog is a hog (from all points of view).

2. A hog-shipper is a hog (farmer's point of view).

3. A hog-raiser is a hog (shipper's point of view).

4. A hog salesman is a gentleman (his own view).



Among the good things that have been instituted in the Province of Ontario is the Provincial Educational Association. The County Teachers' Associations have been effective in their way, but it is eminently desirable that a more direct avenue to the center of education, such as the Educational Association (which is continually broadening in scope) affords, shall be open to the men and women who hold the education of the Province in their hands. Provided with such meetings, the body of teachers may appeal directly to the Minister of the Department in regard to grievances; may present original ideas in regard to educational matters which are too broad to be disposed of in the local conventions; and may go home with the inspiration that comes of a new insight into the scope of a work which is pre-eminently the greatest and most far-reaching work that is being carried on to-day, forming, as it does, the foundation upon which all other work must be built. Upon the educationists, more than upon any other class, depends the future of our country. This is a fact that is too often overlooked.

At the recent meeting of the Association, in Toronto, spirited debates took place; on the plan to introduce military training in the schools; on the undue supervision and direction of High Schools by inspectors, to the taking away of the initiative and originality of the principals, and the lowering of the dignity of the profession; on the curriculum, and kindred subjects; and on the effect which may result from the extraordinary number of female teachers now in charge of schools.

In regard to the last subject, which was introduced by Mr. McKnight, of Owen Sound, the speaker said he thought it must be a cause for regret to every Canadian to find that the youth of the land were being trained by an army of girls, whose outstanding characteristics as teachers are youth and inexperience; whose average age does not exceed twenty years, and whose average experience was not more than six years. He thought, if the plans prevailing in some other countries, of giving a residence and garden to the teacher, and a higher salary, were adopted here, male teachers would be attracted to and retained in the teaching profession.

Ostensibly, the question is more pertinent to the rural than to the urban districts. In the majority of the cities men are engaged as principals, hence the boys, in their progress through the public school, are at all times subject to the influence of, and must spend the last year under the direct control of, men. In the country this condition does not obtain.

We should be glad to hear the opinion of our readers in regard to this or any educational subject. We feel that not only the teachers and trustees, but all of the people, should be interested in everything that bears upon education, and that those who are unable to attend such institutions as the Educational Association should have some medium for expression of opinion; hence, we are glad to throw open the pages of our paper as such a medium.

The subject is a broad one, requiring deep and deliberate thought, and allowing no place for superficial or prejudiced opinion. Educational influences must be followed right down to their effect on character—the aim of all true education. Such thought

we require of our correspondents, and such thought we feel sure they can supply.

The writer of the interesting series, "The Woman's Invasion," now current in Everybody's Magazine," pertinently remarks: "If industrial labor ever becomes thoroughly what it might be—temperate in daily duration, wholesome in physical reaction, not unworthy (for body and for spirit) of the briskest, finest daylight hours of human lives,—we shall owe this, our completed humanization, to many causes; but among them will be the industrial presence of woman, of her along whose path, wherever she may move, some imperfect recollections of Paradise, for the perpetual preservation of mankind, must come following. We have a choice between two things. First: Debar women from industry; second, make industry fit for women. At present we do neither."

The writer was referring, of course, to woman as a factor of city industrial life, in factories, and stores, and telephone offices; but may not the question of woman in the rural life be included? The day has, perhaps, passed in which the farm woman was expected to raise a family of children, keep them clad and fed, and do duty as extra man in field and barn, beside; but even yet, in many homes in the rural districts, the wife and mother is little better than a slave to incessant toil. It is not enough that she shall clean and cook for a family—mother, cook, laundress, seamstress and baker in one—she must also be gardener, dairymaid, poultry-keeper, and even swineherd. It is no uncommon sight, on driving through the country, to see women dragging along with heavy pails of food towards a pigpen. Surely such toil, carried on day after day, year after year, is neither "temperate," "wholesome in physical reaction," nor worthy of the period which should be the brightest and best portion of human life. Woman is not constitutionally fitted for such a life. Overdoing on her part cannot but react harmfully in the weakening of her progeny, as well as of herself; and the man who is so poor that he cannot but lay such a share of work on his wife's shoulders, should not marry. A certain amount of physical exertion is valuable for either man or woman, but the balance must be preserved, if industrial labor, in town or country, is ever to become thoroughly "what it might be," or what it ought to be.

A Russell Co. Opinion on Local Option.

Articles have been appearing in your recent issues in regard to local option. As a general rule, those giving information as to the validity of local option, usually approve of the system. Sometimes we hear the statement, "There is more liquor drunk in such a place than before local option came into force," but such statements can be best judged by the source from which they spring. If this is true, why do we always find the liquor advocates enlisted in the campaign against local option?

On our city market we have an inspector employed to prevent anything of inferior quality being offered, and sometimes articles are confiscated which would be less harmful to the consumer than the liquor he can have access to just when he

pleases. When Mr. Farmer goes to the city market, he is not allowed to offer produce there if it falls below the market standard. In the same city, Mr. Farmer can meet a man so much under the influence of liquor that he is not capable of taking care of himself. Is the law equal in this respect?

Then, we have inspectors sent out to inspect the local dairies that supply milk to the city, that as pure a quality of milk as possible may be procured; use all precautions possible as to the milk supply, and still allow the liquor to play havoc with the consumers!

We have often read in the agricultural press about raising the standard of Canadian cheese. The general cry is, "Raise the standard of Canadian cheese; give our brethren across the waters a good article." So be it. But how about the liquor traffic over there? Any person who will take the trouble to investigate the statistics of the liquor consumption of England, is well aware that liquor is used more than would be necessary for medical purposes.

Should we not recognize that we are our brother's keeper, and, for the sake of those who have overtaken the fault of indulging in the use of intoxicating liquors, try to establish the local-option by-law in every part of our Province? The three-fifth clause is a handicap to the passing of this by-law in many places, but should not be, as there should be three-fifths of the people in any locality opposed to a traffic that is as injurious as is the liquor traffic. Wishing your paper all success, I hope we may hear from Sandy Fraser on this important subject.

J. W. SMILEY.

Russell Co., Ont.

Local Option Not a Failure.

Editor "The Farmer's Advocate":

Having read, from time to time, in your valuable paper letters re the temperance question, I would like to give my opinion of local option. Living about thirteen miles from Owen Sound, I have watched with interest during the past three years the workings of and the effect that the by-law has had on that town. When the measure was first proposed, and after it had carried, of course, there was great opposition to it, and a great many wiseacres predicted that the town would go to the dogs. Now, although some people still persist in saying that the town is being ruined, I don't think any fair-minded person would say that he cannot get as good a bargain there as he could before the by-law was put into force. Now, does it not stand to reason that people have to buy and sell? And are they going to stay at home to do it? I know for certain that there is not a farmer around that used the town three years ago to market his produce in, that will make a practice of going elsewhere for a market to-day. Of course, some say, "Well, it is the county-town, and one of the chief ports on the Georgian Bay, and there is more scope for market purposes, and it is those conditions that make it superior as a market. Agreed; that is all very true, but anti-local-optionists cried, "It will kill the town!" Has it done so? I say no, and it never will. I inquired of two of the leading business men of the town one day how they found business under the present conditions. One replied,

"Better," and the other that, although there was not much difference in the general business, yet their cash business was decidedly better; some months they would take in as much as one hundred dollars more than they did in corresponding months when there were licenses.

Then, again, the opposition say that there is more drinking now than formerly. Now, I admit that occasionally there may be seen an intoxicated man on the street, but every one that is seen now is more noticeable than formerly. I think I may safely say that, instead of being the rule, it is an exception to the rule, to see a drunken man. I know that liquor is sold, but to say that it is sold in larger quantities than formerly is an absurdity, or why do the hotelkeepers keep clamoring for their licenses? For surely, if they sell more without a license than with one, they must be making more money, and that is what they are after.

Last January, and the January previous, there appeared in one of the leading papers an open letter, signed by the mayor, and a petition signed by some of the leading business men of the town, saying what a curse local option was, and that the town was like a house divided against itself. Now, not one of these men is engaged in supplying the working man with his weekly necessities, such as groceries and meat, and there was not the name of a dry-goods merchant on it, so how were they to know how it affected the necessary weekly spendings? They were mostly wholesale merchants, that did the volume of their business outside the town, or else by large contracts.

Then, there was, and still is, the cry about accommodation. Of course, at first the hotelkeepers threatened to close up their stables, and lots of farmers believed they would do it; but, although the price for stabling is somewhat higher, I don't think anybody has been "broken" by it, but some begrudge five or ten cents extra for stabling, but would not think anything of spending a dollar for drink. For my part, I can always get all the stabling I want when I go to town, unless, of course, it is on some special day, such as Fair day, but those days used to come before. Anybody can get as good a meal at the temperance hotel for 25 cents as anywhere else for the same money, and I am told that the sleeping and boarding accommodation is excellent. Then, there are the restaurants; anybody can get a good meal there too. Some say, "Well, we have no place to warm ourselves, unless it is around some store stove." My answer is, get your business done and go home; it won't hurt you to be home a couple of hours sooner than you used to be. I think, when all the talk about the town going to the dogs is reckoned up, the only business that suffers is the liquor business; and the more it suffers, the better.

T. W. BALLARD.

Grey Co., Ont.

People, Books and Doings.

The average age of the men composing the Taft Cabinet is fifty-seven years.

The surviving members of the first Canadian Parliament were tendered a banquet in the Parliament restaurant, in Ottawa, last week.

Du Maurier's play, "An English-

man's Home," which set England in a panic, and caused the addition of thousands to the Territorial Army, but was subsequently hissed off the stage at Berlin, is being put on the stage in Toronto.

Guglielmo Marconi, the wireless-telegraph inventor, was recently the guest at dinner of King Victor Emmanuel of Italy. To His Majesty, Marconi made the statement that, by the erection of an extra powerful plant at Coltano, near Pisa, he expected, within twelve months, to have direct wireless communication with America.

The Saturday Evening Post tells this story of two Canadian writers now living in the United States: "Before Arthur Stringer came into the popular favor which he now enjoys as a writer of stories, he was living with a fellow-author, Harry O'Higgins, on the top floor of the old studio building at 146 Fifth Avenue, New York. It was very Bohemian, that top floor, with one whole wall, in what they called The Chamber of a Thousand Sorrows, papered with rejection slips from editors. But in winter it was as cold as charity, for the only steam-heat was in the halls. So Stringer and O'Higgins, in those early, 'lean' years, used to hang an old burlap curtain across their stair-head, and, when the rest of the house had settled down to slumber and quietness, used to take up their beds, or rather their two-dollar cots, and steal out in their pyjamas to the hallway, to slumber in that nice, warm and steam-heated atmosphere.

"Stringer had been wrestling with a safe-breaking story, and had read a vault advertisement in the back of a magazine where 'catalogues free' were announced. So, naturally enough, he ventured to write and ask for all descriptive catalogues dealing with extra-large, burglar-proof vaults. That Fifth Avenue address brought a silk-hatted and frock-coated representative of the well-known Broadway safemakers over, with the catalogues in question, the very next morning. He ascended those shabby studio stairs, fight by fight, with gradually darkening hopes. When he lifted the old burlap curtain and discovered that the recumbent frame on the two-dollar cot was his dreamed-of purchaser, he gave vent to one silent look of disgust, and departed without a word!

"And O'Higgins always claimed that Stringer threw a milk-bottle at the man for waking him up at ten o'clock in the morning!"

Pension Day: A Landmark in Britain's History.

The first day of this present year (1909) brought to the hearts of at least half a million of aged men and women in the Old Land an intense joy and relief of mind. Many of them had lived in grinding poverty, often without even a crust to save them from threatened starvation, but now a paternal Government had passed the Old-age Pensions Act, by which, in sums ranging from 25 cents to \$1.25 per week, such applicants as had reached the age of seventy years, and who had never been in receipt of public charity, or had been inmates of either workhouse of charitable institution, might become pensioners for life.

I am indebted to friends in the Old Land for many pathetic incidents which occurred not only on this the first "pension day," but on some subsequent ones, many being within their own knowledge; and in these stories pathos and humor were touchingly intermixed. Perhaps the man who can claim to be the first old-age pensioner of all was George Yabsley, of Salcombe, Devonshire, whom the postmaster found patiently waiting at the pay-wicket, when he lifted its latch as the town clock was striking 7 a. m. This applicant was a carpenter by trade. His age was 75, and he had been at work ever since he was seven years old.

THE OLDEST CLAIMANT.

London's oldest pensioner was Rebecca Clarke, who is 104 years old. At ten o'clock yesterday morning she rose unaided, dressed herself, and walked down the stairs of her son's house, 104, High-road, Wood Green. She was wearing a black dress, and a red shawl knitted by herself.

A suggestion that the visit to the post office on the top of the hill should be postponed until the sun shone was greeted with scorn. "If you say another word, I'll run there," said the old lady. Breakfast consisted of two slices of bread and butter and a cup of tea, and at noon, Rebecca Clarke, accompanied by her son, set out for her pension, wearing a Paisley shawl and a black velvet bonnet, adorned with a black-velvet feather.

Mrs. Clarke entered the post office with a businesslike air. Her neat blue book of checks was produced, with her name and mark on the inside of the cover. She knew where to put her mark on the check, and watched her son add his signature as witness. "A happy New Year," she said to the clerks on receiving the money, "I'll be here again next week."

"What will you do with the money?" she was asked.

"Buy boots," said the old lady of 104, promptly; "I'm a plaguery one for kicking out boots."

BLIND WOMAN'S REGRET.

A blind woman of seventy-six was led in by a kindly neighbor. "They told me I could send someone for it," she said, in her high, thin, patient voice, "but I wanted to draw it myself. Put the five shillings into my hand, please. Yes, that's right."

"I do wish my old man could see me now," she went on. "He only died two years back, and he'd be quite happy if it hadn't been for wondering what would happen to me. He was a pensioner, he was; bank messenger for forty-seven years. But his pension didn't go on no longer after he was dead. It's been a hard struggle since then. I can make a little by knitting, and a lady give me my rent-money, two-and-six a week, and the neighbors was always kind. But this five shillings here, and another next week, and the week after that, and every week as long as I live, why, it's like as if I owned a bank meself, same as the gentleman which employed my old man did."

WITH THE DEAF ONES.

With the deaf ones there was some little trouble. One old soldier who could not write, and therefore had to "make his mark," had brought no one to witness his cross. At first he thought the pleasant young woman behind the counter was telling him he had come on the wrong day. Then he imagined she was casting doubts upon his identity, and pulled out a mass of War-office documents which immediately fell in confusion all over the floor. Finally, with the help of a customer who had come in to buy stamps, he was made to understand what was wanted.

"Oh," he said, "my niece is coming to be my witness. Isn't she here?"

While he waited he offered some Crimean reminiscences to a little knot of sympathizers. "More'n fifty years ago it must be now," he said.

"Fifty-four," suggested one of his hearers.

"Yes; I said 'more,'" the old warrior answered, with an indignant glare. He had a bit of an allowance from the War Office—a shilling a day, and another three-and-six from a house he owned, so his old-age pension only came to two shillings. "But that'll help nicely," he chuckled. "Two bob a week is a lot o' money when you know how to lay it out well."

"NOW I CAN HAVE A FIRE EVERY DAY."

This was said by a tiny old woman in a faded and threadbare silk mantilla, which gave her a curious dignity. Her bright eyes glistened with enjoyment, and her tremulous

little body quivered as the genial heat of the office fire, by which she waited, penetrated to her old bones. Think of it, we Canadians who heap the fuel into our stoves and pour the coals into the open caverns of our furnaces!

"Haven't had a bit o' fire for three weeks, my dear," she said in a confidential whisper. "Hardly wanted it up to then, eh? Came two—three cold nights, and I treated myself to a warm. But then I lost sixpence out in the street one day. Never knew where it went, my dear. Just vanished, as you might say. And since then I've had no money for firing, not enough, to tell the truth, my dear, to get as much as I should have liked to eat. I've a good appetite, for all I'm small. Food first, fire after, is what I say."

ONE AMONGST THE TRAGEDIES OF THE DAY.

One pension-book was not presented for payment. One poor old soldier in the Army of Industry could not apply for the pension he has so honorably earned. A few days ago, at the end of a narrow alley, a hearse was waiting. A rough coffin was brought from one of the little houses and placed in it. As mourners, followed a woman of forty-five or so, and a little boy. She had that look of wise resignation in her face which one sees so often among women who have lived unsheltered lives.

"She don't look even sorry," murmured one of a little group of neighbors.

"She's sorry enough for herself, pore lamb," said another; "but he was glad to go, and she knows it. 'Live to draw your pension, daddy,' she'd say to him time and again, as I've heard her say it. But he'd only shake his head and tell her he was wearying for rest. 'Time for the old laborer to go Home,' he'd say. 'Ain't this home, dad?' she'd ask him. 'The Home where we shall all meet some day, I mean, dearie,' he'd answer her. And she'd just look at him and pat his old hand. Well, he's gone now where he don't want no pension. Came too late for him, it did."

Yet, I don't think we need feel sorry for the old man. With a touching, simple faith like his, who would not be "glad to go"?

Amongst my selected incidents, I will close with two out of several instances of unselfish gratitude:

In the offertory box of a parish church in Liverpool on Sunday there was a paper packet containing two half-crowns. On the paper was written, "My first week's pension, and I thank God for it." The incident was related by the Bishop of Liverpool. It is also stated that to a sale of work organized by the Primitive Methodists, at Dukinfield, Mrs. Sanderson, an aged Sunday-school worker, subscribed five shillings, the first sum she received under the new act.

It is pleasant to see recorded that, as a whole, the recipients of the old-age pensions were treated by the officials in charge with a courtesy and kindness which made it easy for even the most sensitive-natured amongst them to accept the provision made for them by a paternal government, not as a benefaction or as a dole, but rather as a recognition of their brave efforts throughout a long and strenuous life, to make, unaided, provision for themselves and families. H. A. B.

Dear Friend,—As I feel you to be through your message in the Quiet Hour of "The Farmer's Advocate," words can poorly express the blessing they are to me. I can only say I hope God may long bless you and help you to continue your noble work, as the Quiet Hour is the first place I look for on the arrival of the weekly mail.

Please accept my sincere thanks and good wishes for your work.

I am sending some poetry, which I thought you might some time find room for in your corner. M. M. N.

Very many thanks for your good wishes, and for the enclosed clippings, which will go into my scrap-book until needed.

DORA FARNCOMB.

Hope's Quiet Hour.

The Power of a Vision.

Your young men shall see Visions.— Acts 2: 18.

"Thought in the mind hath made us. What we are By thought was wrought and built. If a man's mind Hath evil thoughts, pain comes on him as comes The wheel the ox behind If one endure In purity of thought, joy follows him As his own shadow—sure."

James Allen, in his recently-published book, "As a Man Thinketh," says: "The Vision that you glorify in your mind, the Ideal that you enthrone in your heart—this you will build your life by, this you will become."

We hear a great deal about "New Thought" in these days, and people are marvelling over the power of thought, as though it were a new thing. But in reality, it is infinitely old, for out of God's Thought all things have proceeded. David seems to have realized the power of thought when, in his great public thanksgiving prayer, he says: "O, LORD God keep this for ever in the imagination of the thoughts of the heart of Thy people."

Our Lord was preaching the power of thought when He offended the Pharisees by saying to the multitude: "Not that which goeth into the mouth defileth a man; but that which cometh out of the mouth, this defileth a man." His explanation to the wondering disciples was: "Those things which proceed out of the mouth come forth from the heart; and they defile the man. For out of the heart proceed evil thoughts."

The prophet Micah is preaching the awful might of evil thoughts, when he says: "Woe to them that devise iniquity, and work evil upon their beds! When the morning is light, they practice it, because it is in the power of their hand."

But we want to look at the other side of the matter to-day, and begin to learn the power for good of a right ideal.

I have lately been reading the wonderful story of T. A. Edison's many discoveries along the line of electricity. It is easy to say that "he was a great genius, and, of course, his inventive powers must find outlet"; but it would be more true to say that the world owes a great debt of gratitude to Edison for his faithfulness to his Vision. The boy who spent every spare hour in experimenting with electric batteries and amateur telegraphy naturally developed into the man who spent every cent he could spare on his workshop and machinery, and deprived himself of needful sleep while he tried to work out his visions. The money he received for his discoveries was poured out lavishly in electrical experimenting. He could not submit to discouragement or own himself beaten, but fought on until he was victor. It is said that his year of heart-breaking experimenting, while trying to work out his vision of the incandescent electric light, revealed almost superhuman application and persistence. W. W. Atkinson says: "In order to give you an idea of what this experimenting meant, it is stated that the cost of securing the materials for the experiments, from all parts of the globe, from South America, China, Japan, Burmah, India, and many other places, was fully one hundred thousand dollars. There were about fifteen hundred species of bamboo known to science, and Edison secured a sample of every one of these. Nearly ten thousand samples of bamboo were experimented with before the half-dozen perfect varieties were selected. And then, the light being perfected, Edison undertook the formidable task of inventing the proper dynamo and machinery to run a large plant. He succeeded, of course—it's a way he has."

Of course he succeeded! It is certainly true that in all human affairs there are efforts, and there are results, and the strength of the effort is the measure of the result. A man who never loses sight of his Vision, never tires in his pursuit of his object, is bound to succeed. Failures are used as stepping-

stones on which he may climb to success; because every time he fails he learns to know his own weak places, and his determined purpose to win makes him doubly careful where he knows he is weak.

No one has time to devote himself thoroughly in a dozen different directions. In fact, no one who intends to live life enthusiastically can afford to waste energy by attempting the impossible feat of serving two masters; for he will surely find that he is holding to the one and despising the other. Of course, that does not mean that a man can't be an enthusiastic Christian, and at the same time an enthusiast on the subject of electricity. But the ruling ideal must dominate all lesser ideals; and, if they ever clash, the lesser ideals must infallibly go to the wall. Surely that is what our Lord means by His hard saying: "If any man come to Me, and hate not his father, and mother, and wife, and children, and brethren, and sisters, yea, and his own life also, he cannot be My disciple." Of course, He who lays down "love" as the fulfilling of the whole duty of man, cannot command His followers to "hate" their nearest and dearest. It is poor Christianity to "love your enemies" and fail in love to your own family. But the love that Christ demands is so dominant that all other affection must bow before it; just as the love for one's own life must be sacrificed at the imperative call of Duty. When a man must choose evil deliberately, or yield his life as a forfeit, the sum total of his whole past life decides which course he will take. But—

"Tis man's perdition to be safe,
When for the truth he ought to die."

If your Vision is a high one, and yet you feel that you are drifting away from it, rather than seeing it more clearly as the years roll on, it is very plain that you "did not want it hard enough." It is certainly true that everything really great which man has accomplished "has been attained largely by reason of the possession of the ardent, burning flame of desire that, acting on the water of thought in the boiler of the mind, produces the steam of will and action. . . . Without desire the world would never advance an inch."

The young men and women "see Visions"; but, if they don't care enough about winning them to press steadily towards the goal of their ambition, the Visions will fade away. A few minutes ago I received a letter from one of our readers, who says: "I am easily discouraged, I fear. I used to enjoy Christ's presence every moment in my youthful days, but cares distract and doubt enters. Things do not seem to be what they used to." She says that in speaking to an acquaintance about her loss of happiness in her religion, she was told that "then" she had been "young and happy" and influenced by one she loved, but that happiness would not last when she faced the "sterner realities of life." What a bit of discouraging information that was, to be sure! My dear "Anxious Mother," I can't take up all your questions to-day—being in the middle of my weekly chat when your letter was brought to me—but at least I can assure you that the Vision of the Master's Face need not fade out of our horizon. I am preparing a book on that subject, hoping to publish it very shortly, which may help to set your mind at rest on that point.

The beauty of the Vision attracts the beauty-loving eyes of the young. Then, if "desire" hardens into steady purpose, the soul fights on in spite of many falls, and the Vision grows steadily brighter. The path of the just is as the shining light, "that shineth more and more unto the perfect day," when we shall no longer see our Master dimly, in a vision, but "face to face." They who are untiring in their search will certainly find.

"Seek JESUS in all things, and in all shall thou find JESUS."

It is not enough to "see visions." A man who is satisfied with that becomes a visionary, an idealist. Edison was not satisfied with his visions of the possibilities of electricity. He transformed "potential" or possible power into actual power, visions into realities. Do you think he sees the goal of his desires nearer than at first? I expect it looks much farther away, for the more he uses

electricity the greater his vision of its power becomes. Do you think he grows tired in the pursuit of his vision? It doesn't look like it, when he can say things like this: "I have retired. . . . I am having the fun of my life—steering clear of anything that has money-making connected with it. I am trying some chemical experiments. . . . I have always felt as though something inside of me were driving me. . . . Why do I invent? We work because in some way it satisfies us. That is all we know."

Is it not so in the spiritual life? One who is following the Vision with all his might does not grow tired of the pursuit. No, it attracts him more and more, as any other "ruling passion" will do.

Where there's a will strong enough, a way will be found, or made—even if a tunnel has to be bored through a mountain. DORA FARNCOMB ("HOPE").

Enquirer is grateful to A Subscriber for answering questions in regard to Saints. And now, dear fellow-believers in Christ, since there are so many proofs that we are saints, why fear to take that name given by God Himself? So doing will not promote spiritual pride, or carelessness, but rather true humility, with prayerful watchfulness not to bring reproach upon that One, by Whom it is given. What would we think of children of an earthly monarch, who were indifferent to the titles given them by birth, or refused to accept them? Will Subscriber, or someone else, please answer the following: Are there Scriptures to prove that any of God's Saints are entitled to the word "Reverend," or to whom can it be applied?

ENQUIRER.

The Beaver Circle.

The Competition.

The picture in March 18th issue, which represented the skunk cabbage, seemed to puzzle a great many. Only two, in fact—Helen Colbeck and Dolly Gothorp—guessed right. We have sent both a prize, although Dolly should have written a little more about the plant than she did, and we are also sending Edna Coyle a book, not because of the competition, but because she wrote such an interesting letter.

Now, just a word about the skunk cabbage, so that you may be sure of it if ever you meet it in the bogs or damp woods. The picture shown represented the flowers, or rather the "spathes" surrounding the flowers, which appear sooner than the leaves. These spathe are green, veined with purple, and looking inside of them you find the clusters of tiny flowers, which scarcely look like flowers at all. Later, the leaves, which look a little like rhubarb leaves, appear, but from its first appearance you may know the plant by its strong skunk-like odor. In spite of this, however, you are likely to be quite fond of the skunk cabbage, for it is one of the very first signs of spring, and is so brave, pushing itself up without fear of rebuff from the cold March winds. Then its "green" is so cheery and wholesome looking that when you see it, especially if a robin is singing near, you begin to feel that summer is in sight. . . . Helen Colbeck says its odor kills insects. I have never heard this, nor can I find any reference to it in any of my books. There are not many insects about, except a few carrion flies, when it is in bloom. Now then, I must not take up any more space, as I wish to make room for the Beavers.

The Skunk Cabbage.

Dear Puck,—I saw in the Beaver Circle, in "The Farmer's Advocate," a picture which I think is the skunk cabbage. The skunk cabbage is a perennial plant, growing in moist places throughout the United States. (Also parts of Canada, Ed.) It is sometimes called "meadow cabbage," "skunk weed," "polecat weed." The root is stimulant, and slightly narcotic, and is used for a medicine. When the sap begins to run is when it

makes its appearance. It grows through ice and water, and is a very hardy plant. The reason it is called skunk cabbage is because its odor is like the skunk's.

Insects which visit this plant never make their escape, because the odor of the plant kills them. Later in the season, it becomes dry, and gradually loses its smell.

HELEN M. COLBECK (age 12).
Colbeck P. O., Ont.

Dear Puck,—I saw your competition picture in "The Farmer's Advocate" and I think it is the skunk cabbage more than anything else.

I hope that in the summer the Beaver Circle will have a lot of interesting letters on flowers and birds. I think that we might draw flowers we have in the woods around us. It might make us better acquainted with flowers.

DOLLY GOTHORP (age 11).
Hespeler, Ont.

I think your idea about drawing flowers a good one, Dolly. We will act on it a little later.

An Interesting Letter.

Dear Publishers and Readers,—On opening your last issue, and seeing my letter, and also the picture, I think that you are all ready to see me take my seat again.

That picture was queer looking, but I recognized it as soon as I saw it. It is a crawfish frozen in the bottom of a ditch, amidst the grass. While I was walking to school one day I observed one in about the same position. I examined it and found that it was about five inches in length, had three legs on each side, which, at the ends, were very big and hard, like a shell, but these were parted in the center; you will remember that it has strength if you ever let it pinch you with these. The pinchers were of a light red. At its head, near each eye, were long, black feelers. Its tail resembles that of a fish, but not of a fin form; it is white. Their tails help them to move, as they always go backwards. They make their holes in the bottom of the ditches, which in the spring are nearly covered at the bottom with little ones. Their eggs are black, and about twice the size of the head of a pin. They freeze in the winter and thaw out in the spring. The spring birds have made their return, and no doubt the wood-flowers are struggling amid roots.

Now, about a couple of games, one for indoor and another for outdoors.

The Three Books.—Place three chairs in a row. Put a book on each one, but on the third one put a plate of water, or, better still, a basin. Blindfold your companion's eyes and take him to each chair, tell him to kiss each book, but do not tell him about the water, and when he comes to the third one, shove his head in deep enough that he will not get a mere touch of it on his nose.

Slap Tag.—Two captains stand aside and choose from the number the best runners. (School boys and girls always know how fast each one can run.) After they have both chosen their runners they stand a distance apart, and the first chooser goes to the opposite side and slaps each hand, but he must slap one harder than the rest, and this one runs after him. If he touches him before he reaches his men, or his goal, he must go to the other side. The game continues until all are on one side.

Whoever does not know who this Puck is, I would like to speak to him privately, but I know I cannot do that here, so I will tell his history to all, and if he does not wish to have it known, he will kindly leave it out of my letter. Do not be afraid of him, for he is but a fairy, or if he is not, he has the name of one whose history I read. He lived in a lovely grove, where lovers traversed, and where flowers grew, and birds sang sweet songs in the tree-tops. This Puck (the fairy of Love) would trip about and touch the slumbering lovers' eyelids with his love charm. He played many tricks on them, and it is no wonder he wishes us to love the birds and flowers, if he was one of the fairy successors who lived in such a love place. I have not the book at hand, or I would tell you the rest, that I have completely forgotten, but we will trust that to Puck to tell us all.

Now, old friend, can you not see that every boy and girl is trying to pluck out of your friendly head, your history? If you wish us to call and treat you as a fairy, just say so, and we will kindly do it; but remember that a fairy always tells his history. Undoubtedly you are just the editor, but let us treat you as a fairy. I know that many would be amused by it.

I must retire, with the flowers, wishing the Beavers success.

EDNA COYLE (age 14).
Vereker, Ont.

Ah, but this fairy does not tell his history, Edna. Tell me, didn't you read the story of Puck in "Midsummer Night's Dream," Lamb's "Tales from Shakespeare"?

You have sharp eyes, little girl. See that you use them more than ever this spring.

When writing again, please write on but one side of the paper.

A Reasonable Guess.

Dear Puck,—I saw in "The Farmer's Advocate" of March 18th, a picture of some flowers, and we were to tell what they were.

Here is a picture of a clump of tulips in the corner of a garden. They are not out yet, but they soon will come out by the looks of them. In the fall we take the piece of ground intended for the tulips and fertilize it. Then we put the tulip bulbs in. The snow comes, and we forget our bulbs, as we have other things to think about, such as skating, and before we recognize it, spring comes along. We cannot do any skating now, so we think of the tulips again. As soon as it gets a little warmer, up come the tulip leaves. They are very broad and smooth. Next we notice round, fat buds, coming up beside the leaf. Soon, out peeps a large flower. In a day or so we see the tulip as large as it will be. One tulip is white, another is cream, and yet another a mixture of white and red.

We take great care to watch them, and, to our sorrow, we find them starting to wilt in four or five days, but we see that there are more to come out, as they are later than the first ones.

This takes place about the first of May, so they are early flowers. Well, I guess this is all I know about tulips.

Here is a very interesting and amusing game: Draw a donkey and fasten it to the wall. Then make a tail and put a pin through it. Blindfold a person and put him in the middle of the room. Give him the tail, and tell him to pin it to the donkey. You tell him when he is running into anything, but that is all. He pins it wherever he can.

Here is a game which is very amusing: Take the cards used in playing "snap" or "old maid" and take your turn in putting one down. When you get two the same, you say the names of animals chosen by the players, before starting to play, and say them first. If you do you get both bunches of cards.

Well, I guess I have written too long a letter now, so I must close, wishing the Beaver Circle success.

INA OSWALD (age 12).
Chesley, Ont.

Come again, little tulip girl.

A Woodsy Boy.

Dear Puck,—I enjoy reading the letters in the Beaver Circle very much, and thought I would like to join in the competition. What does this picture represent? I would say it is the leek, a plant or herb that grows in the woods very early in the spring, as soon as the snow has gone. It has a leaf quite like the lily of the valley, but smells very much like onions or chives. Sometimes the cows eat them and that spoils the flavor of the butter.

I think Peggie Ike is a boy, also.

R. W. G. COOK.
Grey Co., Ont.

Your letter makes me think of the woods, R. W. G. Did you ever ramble off into the woods at noon—a whole "bunch" of you from school—and eat leeks, and get scolded for it by the teacher when you came back? But the smell of them is mild compared with that of the skunk cabbage.

Agriculture for Women.

The possibilities of agriculture as a pleasant and healthful means of livelihood for women who must support themselves, seems to be arousing popular attention, if one may judge from the fact that three communications in regard to the subject have found their way to this office within a single week.

The first refers to the steps taken by the Women's Massachusetts Homestead Association towards inducing the State to supply small suburban farms to the 100,000 spinsters of that State who must earn their own living, the farms to be devoted to the raising of flowers, herbs, mushrooms, strawberries, vegetables, squabs, chickens, bees and pigs. . . . The second describes in detail the Women's French garden at Henwick, Newbury, England; while the third is given in full.

The Henwick garden, it appears, has been the pioneer of a series of similar gardens throughout Southern England, the nucleus, in fact, of a "cult" which promises to become somewhat the fashion. It is wholly managed and worked by women, but for the exception of a single workman, and has reached such a state of proficiency that during the whole year there is now no gap in the constant sale of large quantities of produce raised upon it. For further detail we quote from the Daily Mail of London:

"A record of the whole year has not been yet made out, but here are some of the results of the first six months. These were then sold off an acre:

17,000 lettuce, 1,707 bunches of radishes, 500 cauliflowers, 1,200 melons (in spite of some loss), 1,600 bunches of turnips.

"To these must be added a very large amount of tomatoes—fifty pounds a day were sent off over a considerable period—of carrots, one of the principal crops, of endive-chicory, and celery. The last, of which specimens were shown at Olympia, was perhaps the most wonderful. It was grown without any piling up of earth at all. Instead, the plants were planted very close together, and in the "golden soil" grew to over four feet in height, thus effectually blanching one another.

"The results in this pioneer garden have been so successful that the area has been doubled in size, and more than doubled in equipment. It now contains 3,000 cloches and 900 lights. The scene was singularly attractive when visited yesterday. A six-ft. fence, entirely built by ladies, surrounds the garden, and against it on the inside are espalier fruit trees. Immediately inside, a broad bed all round is reserved for the "outside" garden. Inside this again, beginning from the top, where the "Frenchman's" snug house is planted, are the lines of frames filled in every inch with lettuce and carrot and cauliflower in a happy family. Alongside these there are the cloches, each with four lettuces, and again the carrot seedlings.

"Below are the long, pointed ridges of heaped soil, already black. Between these and the frames was one frame-width of manure—two-thirds new, one-third old—over which some of the lady students were beginning to spread the six inches of black—or golden—soil from the near end of the piled ridges. Below the ridges again other students were preparing the ground for future melon frames, and several others were busy making frames in a shed within the garden.

"The heaviest item of expenditure during the year was £120 on manure, which is here expensive, but the gardeners look forward cheerfully to spending £240 this year.

"The whole capital outlay when the two acres are fully equipped, including two deep wells, oil engines, fencing, the house for the "Frenchman," his wife and five children, as well as all garden paraphernalia, will amount to rather less than £1,000.

AGRICULTURE FOR WOMEN.

The question of "Woman's Lot on the Farm" leads us to another important subject, viz. Agriculture for women.

Now, with the exception of a few isolated instances, general or mixed farming, or specialized farming in the usual acceptance of the term, such as exclusive grain or stock-raising, has not been found suitable or profitable when undertaken by women, but there are a number of branches of agriculture for which women are peculiarly fitted, e. g.: Poultry,

bees, horticulture, floriculture, and fruit-farming, and from which rough and heavy manual labor—man's work—is conspicuous by its absence.

Doubtless it will be objected that the nature of the work will entail a certain amount of isolation and lack of social intercourse; also, perhaps, that it is beneath the dignity of a fairly well educated woman to do outdoor work. Let us, for a moment, consider these two objections. The former is easily surmounted by the system of co-operation which has worked out exceedingly well in several

she has appealed to the Dominion Government to extend to women emigrants the grants of free land. It is questionable whether there would be many such applications, unless from widows, with children who are eligible for free grants.

The Superintendent of Immigration at Ottawa has informed the lady alluded to, that women with a little capital may find a suitable opportunity to become dairy, poultry, fruit and vegetable farmers in the neighborhood of railway stations, on small plots of land which are now being bought for this purpose in many



General View of the "French" Garden and Vegetable Farm, Henwick, Near Newbury, Eng.

cases, not only in providing a comfortable and happy existence, but also in a pecuniary sense. As regards the work being derogatory, surely this is a notion of "false-pride." Many women of culture and refinement, including Queen Alexandra, take a pleasure and pride in personally superintending their dairies and gardens and orchards, and this, not simply as a hobby or pastime, but often as a profitable pursuit.

The Gold Medal of the Royal Horticultural Society, England, has often been gained by educated women, and two of them have lately joined forces and taken a small farm not far from the great

districts of Eastern Canada, especially in Ontario.

The whole question is fraught with great potentialities, and it can be argued that for many women, who are of highly-strung and sensitive natures, but who nevertheless, have to make their own living, the outdoor life would in every way be better than the drudgery and confinement of the factory, work-room or store.

ATCHESON IRWIN.

Fairy Land.

Over hill, over dale,

Through bush, through brier,



Preparing Soil in the Forcing Frames, French Garden, Henwick.

metropolis for the purpose of raising to-matoes, cucumbers, mushrooms, asparagus, flowers, and other dainties of the table, and their efforts look like being crowned with much commercial success.

Quite lately, an optimistic account of the opening for women in the agricultural line in Canada has appeared in a well-known English weekly journal. The writer, an Englishwoman, says that she has been farming in Western Canada for three years to see if it would be a practical and profitable occupation for women, and that she has proved it to be entirely practicable and reasonably profitable and

Over park, over pale,

Through flood, through fire,

I do wander everywhere.

Swifter than the moon's sphere,

And I serve the fairy queen,

To dew her orbs upon the green;

The cowslips tall her pensioners be;

In their gold coats spots you see;

Those be rubies, fairy favors;

In those freckles, live their savors,

I must go seek some dew-drops here,

And hang a pearl in every cowslip's ear.

—Midsummer Night's Dream, II. 1.

The Ingle Nook.

[Rules for correspondents in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen-name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on.]

A Budget of Questions.

Dear Dame Durden,—I have been helped a great deal from letters to and from the Chatterers, and I feel I would like to help someone. Someone asked for lemon biscuits; mine are excellent.

Lemon Biscuits.—Two cups sugar, 1 cup lard, 2 eggs, 5 cts. oil of lemon, 5 cts. ammonia, 1 cup milk, flour to stiffen; knead 20 minutes.

Lemon Pie.—Two eggs, whites for frosting; 3 tablespoons cold water, 1 lemon, rind and juice; 1 cup boiling water, 1 cup white sugar, 3 even tablespoons cornstarch. Grate and squeeze the lemon, add the rind to the juice, beat the eggs and pour the juice on eggs, stirring well. Put the cornstarch and cold water into a granite pan, mix thoroughly, stir in boiling water, add sugar, and cook until quite clear. Stir the egg mixture into cornstarch; put into baked crust. Beat whites stiff for top, and brown in oven.

Packed Eggs.—The best way is to get a large box, cover bottom well with salt, then put in eggs small end down, and so on, until the box is full, leaving room for a good supply of salt on top. Put lid on, and you will have a supply of good eggs until June.

I have some questions to ask, but if it is too much do not bother.

1. Are the "Lazy Wife's pole beans" for a pickle, or to be cooked like freshly-picked beans? Do you put salt in water to keep beans?

2. Would like to hear something about bread-mixer; also more about fixing over the old home, to be handy and save steps.

3. Would like to get a good book that would explain to my children about life through flowers.

4. Would like a good recipe for short-bread.

5. Would like to hear how someone else cooks liver.

6. Does anyone know how to make pancakes, with bread soaked in buttermilk, and very little flour?

7. Does dipping butter-print into buttermilk hurt the butter?

8. Do any of the busy mothers use a dish-drainer?

Have good recipe for dandelion wine. I missed recipe for scalloped potatoes sent by Jack's Wife.

Many thanks for omelet recipe from Merry and Polly, and others.

With many thanks to "Hope" for help and encouragement received through the Quiet Hour, also for the many helpful letters through the Ingle Nook.

AUNTIE.

P. S.—Can paint be removed from brick wall that has been on for years; outside wall?

Ans.—1. Will the member who wrote re "Lazy Wife's pole beans" kindly answer this question?

2. At the Women's Institute Convention at Guelph last fall the question was asked as to how many present used the bread-mixer. A great many held up their hands, and all but two or three expressed themselves as well pleased with the machine. Miss Van Rensselaer, of Cornell University, who was the speaker for the time, said she thought the reason the latter were dissatisfied was that they were not using the mixer properly. In her work in New York State, she had talked with many who used it, but had failed to find one who, on learning to use it properly, would go back to the old way. The bread-mixer costs about \$3, and should mix the dough in from three to five minutes. . . . In regard to the question about fixing over the old home, if you will send us a plan of the house as it is at present, we will see what we can do for you.

3. Grant Allen's "The Story of the Plants," published by George Newnes, Southampton street, Strand, London, Eng., is probably what you want. Price

can be had on application. I think it is about 50 or 60 cents.

4. Shortbread.—Take 1 lb. fine, dry flour, 6 ozs. caster sugar, and $\frac{1}{2}$ lb. butter. Knead well together, roll out, and cut into shapes. Place on a buttered baking tin and bake very slowly.

5. Creamed Liver.—Cut 1 lb. calf's liver in inch squares and cover with cold water in a saucepan. Add two cloves, dash of pepper, and a teaspoon lemon juice. Simmer one hour, then add half a pint rich milk, and salt to taste. Thicken slightly with 1 tablespoon flour, and serve on squares of thin buttered toast.

Spiced Liver.—Split a calf's liver, parboil, scoop out center. Mince the portion taken out with 1 onion, a little parsley, sage, browned salt pork, bread crumbs, salt and pepper to taste. Fill the cavities, sew edges of liver together. Put in pan and bake. Baste with a mixture of water, vinegar and spices while baking.

Diced Liver.—1 lb. beef liver cut into small cubes. Melt 2 dessertspoons butter in a hot pan, put in the liver and let cook to a light brown. Boil 1 cup milk; when hot stir in 1 teaspoon cornstarch, blended in a little cold milk.

Add salt, dash of red pepper, and parsley cut fine, and stir all well; then add the liver and 1 teaspoon tomato catsup. Fried Liver.—Fry about 3 slices pork to a pound of liver, also a few sliced onions.

Liver Scrapies.—Scrape a piece of tender liver and season. Beat yolk of egg and 1 tablespoon cream. Mix all together, and drop by spoonfuls on a pan of hot grease. Turn quickly and serve on a hot plate.

Liver Cutlets.—Buy $\frac{1}{2}$ lb. liver and slice thin; scald it, then wipe dry. Beat yolk of 1 egg, dip the slices in it, then in cracker or bread crumbs. Sprinkle with salt and pepper, fry in bacon drippings and serve on a hot platter. Use white of egg for a meringue for pie or pudding.

6. Pancakes.—1 qt. milk. Add crumbs to make a thin batter, 3 eggs, beaten; a little salt and 2 tablespoons flour. If buttermilk is used, add a little soda.

7. A correspondent of this paper wrote some time ago, stating that she found it very satisfactory to dip print in buttermilk. This might be all right, provided the fresh buttermilk was used. At all the dairy contests, however, (at Toronto Exhibition, and elsewhere) the approved method is to rub the prints, etc., which have been previously thoroughly cleaned and scalded, with salt, then dip into cold water.

8. Will the members please answer? 9. It will probably be rather hard to remove paint from a brick wall. You might try the following, from Scientific American: "Mix 1 part by weight of American pearlsh with 3 parts quickstone lime, by slaking the lime in water and then adding pearlsh, making the mixture about the consistence of paint. Lay the above over the whole of the surface to be cleaned with an old brush; let it remain 14 or 16 hours, then scrape the paint off." If any still remains, probably sandpapering will finish the work.

Pickled Rhubarb.

My call must be a short one this time, but as the season for rhubarb, or pie plant, will soon be here, I should like to send a recipe for pickled rhubarb, which we think very fine. The proportions are as follows: 6 cups rhubarb, cut fine; 3 cups vinegar, 3 cups brown sugar, cinnamon to suit taste. Put all on stove and cook about 15 or 20 minutes; then bottle, or put in small sealers.

Now, Dear Dame, I should like to come again some time if I may, and will sign this as CHEERILY O. Russell County, Ont.

We shall be delighted to have you come again.

Letter from "June Eve."

Dear Dame Durden and Chatterers All, I am at last at the pen and ink, trying to scribble a few words of thanks to all those who so kindly answered my request. You see, my leg got better after thirteen months going on crutches. It varied from inflammation of the veins to inflammation of the nerves, and I have had another attack of it this winter, but was able to do my own work on crutches the last eight weeks, and can go a little better without them. How would Jack's leg be like that, and her baby to work

for, too? I have a little girl, three years old, and my boy is six, and you would hardly believe the help they are to me. For the benefit of those who have inflammation of the nerves, I will tell you how I did; but perhaps someone knows better how to cure it than I do. Well, I kept my foot and leg sweating, and used the electric battery, and kept it up on a soft stool, also took nerve food. I have enjoyed the chats all along, and especially those about new houses, as we expect to build one in the near future.

Here is my recipe for lemon biscuits, which are extra good: $2\frac{1}{2}$ cups white sugar, 2 eggs, 1 cup butter, 1 cup lard, 1 cup sweet milk, 5 cents' worth baking ammonia, and 5 cents' worth oil of lemon, and 1 dissolve the ammonia with hot water.

Ginger Snaps.—1 cupful molasses, 1 cupful sugar, white; 1 tablespoonful ginger, 6 tablespoonfuls butter, 4 tablespoonfuls hot water, 2 teaspoons cinnamon, 1 teaspoon soda, 1 teaspoon salt; flour to mix hard. Roll thin, and bake in a quick oven. "JUNE EVE." Huron Co., Ont.

On Stencilling.

Dear Dame Durden.—I am an interested reader of your helpful page in "The Farmer's Advocate," and always enjoy reading the members' letters—the helpful hints contained therein.

Will you please give me, through your columns, some pointers on stencilling? For instance, where can I get the stencil dye, or would common Diamond Dye be

hem more evenly and quickly than could be done by hand.

Brooms of natural color are said to wear better than those which are colored green.

A correspondent of Boston Cooking School says that she has found a plan to greatly economize on fuel during warm weather. She has a pan made of sheet iron, three inches deep, with a rim so as to fit exactly into one of the front pot-holes of the stove. When anything requires long cooking, she simply sets the saucepan containing it into this pan, and it is kept simmering with very little fuel. This plan also does away with the soot that gathers on the bottom of saucepans when they are set directly over the fire.

The following is also taken from Boston Cooking School: "In a case of persistent vomiting, two ways of nourishing the patient are worth trying. A teaspoonful or two of milk, with one or two drops of lime water added, is given every hour. The white of an egg, beaten into a glass of lemonade (which should either be unsweetened or only slightly sweetened), is given every three hours, or less often." These suggestions were given by a trained nurse.

If you have a pair of kid gloves that would be quite wearable were it not for the dirt on them, try cleaning them with a little milk and toilet soap. Put the glove on the hand, dip a bit of rag into milk, rub it on the soap, and clean the glove, bit by bit. It is better to leave

the glove on the hand until dry, if possible.

The following method of eradicating bedbugs has been recommended. Early in spring, take the bedsteads apart and give both bedsteads and slats a good coat of hot varnish, thinned with turpentine. If the bugs are in the room, go over every crevice with gasoline or coal oil. While using the gasoline be sure to keep the windows open, and have no fire or light of any kind in the room. Repeat the treatment when necessary.

Before putting furs away for the summer, hang them out of doors in the bright sunshine for a while, and beat them lightly, to make sure that no moths are present, then put them away in a moth bag, or in a thick flour bag, tied so tightly that no moth can possibly get in.

Sponge Candy.

A few weeks ago someone asked for a recipe for sponge candy. We have since procured a recipe as follows: Boil together 2 large cups light brown sugar and a cupful of water until a little dropped into cold water can be moulded with the fingers. It should be less brittle than for taffy, but not quite as soft as for fudge. Have the white of an egg beaten to a stiff froth, and pour the hot syrup slowly into this, beating all the time as rapidly as possible. While doing this, add vanilla flavoring to taste. When beaten very light, drop the candy from the tip of the spoon in small heaps on waxed paper.

Our Scrap Bag.

Before hemming new napkins or tablecloths, it saves much time and trouble to turn the hems by means of the machine. Adjust the hemmer and run along without needle or thread, thus creasing the

Current Events.

The contract for the new public-school readers in Ontario has been given to the T. Eaton Co., Toronto.

A bill to stiffen the law with respect to the carrying of offensive weapons, and traffic or holding of indecent literature or post cards, is to be introduced into the Dominion Parliament.

The Sultan of Turkey's fear of the growing power of the Young Turks increases, although he asserts that he is in no way responsible for the Mohammedan uprising. He has offered to give up his power, and to place the government in the hands of the reform element, but it is doubtful if his offers can now avail him much. His entire fleet, including his private yacht, has gone over to the Macedonians, and the order for his deposition has been signed. In the meantime, too little has been done to check the work of the furious Mohammedans, who are still killing out of face in the more backward regions of the kingdom. It is estimated that, since the beginning of the mutiny, upwards of 15,000 men, women and children have fallen at their hands.

Under the Greenwood Tree.

Under the greenwood tree
Who loves to lie with me,
And turn his merry note
Unto the sweet bird's throat—
Come hither, come hither, come hither I
Here shall we see
No enemy
But winter and rough weather.

Who doth ambition shun
And loves to live i' the sun,
Seeking the food he eats
And pleas'd with what he gets—
Come hither, come hither, come hither I
Here shall he see
No enemy
But winter and rough weather.

—As You Like It, II: v.

Athol Forbes tells a good story about the late Archbishop of Canterbury, Dr. Temple, in the current issue of the "Young Woman." The Archbishop had officiated at a society wedding, and promised to propose the health of the bride at the breakfast. A few minutes after they were seated, Dr. Temple rose: "Ladies and gentlemen," he began, "I must claim your indulgence for proposing this toast now instead of later, but as you know, I am an old man, and one of my legs has been giving me trouble lately and cause for grave anxiety. You will excuse me leaving you when I tell you I have been pinching my knee for the last five minutes, and cannot find any sensation there at all—"

"Pardon me," interrupted the Duchess of —, who sat at his right, "but it was my knee that you were pinching." For once in his life the Archbishop looked confused, and sat down without a word.—T. P's Weekly.



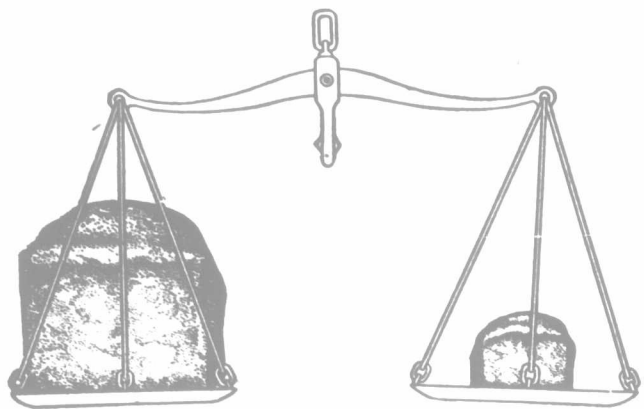
Dispatching to Market.

Miss Peers and Miss Hughes-Jones, the two Principals of the Establishment, French Garden, Henwick.

all right? Also, in stencilling on cheese-cloth, how would one keep the dye from spreading in the goods, and where could I get patterns?

How many of the Nookers have chickens running and scratching in the orchard? (This was written April 9th.) I have some nearly three weeks old, and they are not happy unless running out, and they are doing well, too. G. R. G. Simcoe Co., Ont.

Draw the stencil pattern on pasteboard and cut out with a sharp knife, leaving a clear, firm edge. Place pads of blotting paper on the board upon which the material for stencilling is to be laid, place the material over, then put the stencil in place and fasten down firmly with thumb tacks. Have your coloring matter ready—it may either be tube paint, dissolved in gasoline, turpentine, or naphtha, or ordinary dye, made with hot water, and strained—and a few stubby brushes. If gasoline or naphtha is used, there must be no fire or lighted lamp in the room. Now scrub the color in (through the "hole") with the brushes, using as little coloring matter as possible to prevent danger of running. When done, remove the stencil, clean it thoroughly, and place in the next position, repeating until the work is done. Some varnish the pasteboard stencil on both sides with shellac to prevent soaking, others have it cut from tin, while yet others procure the ready-made article. If you prefer to buy the stencils, write to the Sherwin-Williams Co., 639 Centre street, Montreal,



The light bread or the leaden loaf is a matter of *choice*—not luck. Choice of method—choice of yeast—but, above all, the choice of the *flour*.

Royal Household Flour

is made from the finest, selected Manitoba wheat, which contains more gluten (that quality which makes bread light) than any other wheat.

It is milled under the most sanitary conditions,—there is no other flour in Canada upon which so much is spent to insure its perfect quality

Ask your grocer for Ogilvie's Royal Household—the flour that makes light bread and perfect pastry.

Ogilvie Flour Mills Co., Limited, Montreal. 15



For Farmers' Use Only—Jones Patent Hay and Grain Elevator

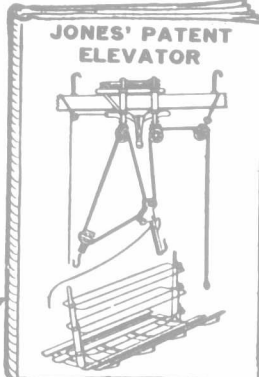
The Only SLING OUTFIT on the market that can LOWER its load in the mow. This SLING OUTFIT will unload your whole harvest of Hay and Grain bound or unbound, such as Hay, short dry Clover, loose Barley, Peas, Sheaves, Seed, Clover and Cornstalks. And the beauty of it is, it places its load in the mow in such nice shape. The sling load don't have to fall all the way from the track, in the peak of the barn, down to the mow, as with all other Horse-forks or Sling-outfits.

The JONES PATENT ELEVATOR LOWERS its load from the track right down to the man in the mow—then he can take his fork and swing load to any part of mow and trip it. In this way mow is kept level at all times, saving nearly all the work of mowing away, besides doing away with old time packing down of hay and grain in centre of mow.

The JONES PATENT ELEVATOR is made of finest malleable iron and steel of double weight and strength. It is the strongest elevator, and unloads any load of hay or grain in three lifts.

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5 Hamilton, Ont.



TRUE ECONOMY IN

Organ Buying

Paying \$10 to \$20 less for an organ does not mean you have saved that amount of money. It really means you have secured that much less value. It is an easy matter to steal \$10 to \$20 on the interior construction of an organ. The purchaser will not know the difference—until the lower-priced organ has been in use a few years, when the mechanism, the action, and bellows will commence to deteriorate in quality and power.

Sherlock-Manning Organ Co., London, Ont.

True economy in organ buying is to pay an honest price for the

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ORGAN

and procure an honest instrument that will give "lasting" satisfaction.

"The Farmer's Advocate" Fashions.



6279 Empire Waist, 32 to 40 bust.

6279.—To be made with low or high neck, long or short sleeves.

In the illustration it is shown made of crepe meteoré combined with heavy applique and simple embroidered net, the girdle and the narrow bands being of messaline, but pongee and foward would be pretty so made, soft-finished satins continue all their vogue and cashmere and henrietta cloth are among the best-liked materials for the simpler gowns of indoor wear. For the little gathered frill, or tucker, as our English friends call it, and the long sleeves, any pretty thin material is appropriate; net, lace, chiffon, or anything of the sort. For the girdle and the bands, the same material, or one in contrast, may be used as preferred.



6263 Misses' Tucked Princess Gown, 14 and 16 years.

The princess dress that is not over-severe in its lines is one of the most becoming that a young girl can wear. This one is novel, and in the height of style, and suits almost an infinite number of occasions. It can be made from fine lawn or embroidered muslin, or some similar material, and utilized for graduation; it can be made from any pretty muslin and become a dainty summer frock. It can be made from such simple silks as messaline, crepe de Chine and India silk, and used for dancing and occasions of the sort, and its guimpe portions are appropriate for the tucked net illustrated, for fancy net, for chiffon, for all-over lace, for any material of the sort, while trimming can be any preferred banding. In the illustration, Persian lawn is trimmed with Cluny insertion and combined with chemisette and long sleeves of tucking.

Price of above, 10 cents per pattern. When ordering, give bust measure. Address: "Fashions Department," "The Farmer's Advocate," London, Ont.

A Philadelphia woman, whose given name is Mary, as is also the name of her daughter, had recently engaged a domestic, when, to her embarrassment, she discovered that the servant's name too was Mary.

Whereupon there ensued a struggle to induce the applicant to relinquish her idea that she must be addressed by her Christian name. For some time she was rigidly uncompromising.

"Under the circumstances," said the lady of the house, "there is nothing to do but to follow the English custom and call you by your last name. By the way, what is it?"

"Well, mum," answered the girl, dubiously, "it's 'Darling'."

The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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CHAPTER XV.

The Charming Josephine

The few words of sympathy dropped by Bigot in the secret chamber had fallen like manna on the famine of Caroline's starving affections as she remained on the sofa, where she had half fallen, pressing her bosom with her hands, as if a new-born thought lay there. "I am sure he meant it!" repeated she to herself. "I feel that his words were true, and for the moment his look and tone were those of my happy maiden days in Acadia! I was too proud then of my fancied power, and thought Bigot's love deserved the surrender of my very conscience to his keeping. I forgot God in my love for him; and alas for me! that now is part of my punishment! I feel not the sin of loving him! My penitence is not sincere when I can still rejoice in his smile! Woe is me! Bigot! Bigot! unworthy as thou art, I cannot forsake thee! I would willingly die at that feet, only spurn me not away, nor give to another the love that belongs to me, and for which I have paid the price of my immortal soul!"

She relapsed into a train of bitter reflections as her thoughts reverted to herself. Silence had been gradually creeping through the house. The noisy debauch was at an end. There were trappings, voices, and footfalls for a while longer, and then they died away. Everything was still and silent as the grave. She knew the feast was over and the guests departed; but not whether Bigot had accompanied them.

She sprang up as a low knock came to her door, thinking it was he, come to bid her adieu. It was with a feeling of disappointment she heard the voice of Dame Tremblay saying, "My Lady, may I enter?"

Caroline ran her fingers through her disordered hair, pressed her handkerchief into her eyes, and hastily tried to obliterate every trace of her recent agony. She bade her enter.

Dame Tremblay, shrewd as became the whilom Charming Josephine of Lake Beauport, had a kind heart, nevertheless, under her old-fashioned bodice. She sincerely pitied this young creature who was passing her days in prayer and her nights in weeping, although she might rather blame her in secret for not appreciating better the honor of a residence at Beauport and the friendship of the Intendant.

"I do not think she is prettier than I, when I was the Charming Josephine!" thought the old dame. "I did not despise Beauport in those days, and why should she now? But she will be neither maid nor mistress here long, I am thinking!" The dame saluted the young lady with great deference, and quietly asked if she needed her service.

"Oh! it is you, good dame!"—Caroline answered her own thoughts, rather than the question—"tell me what makes this unusual silence in the Chateau?"

"The Intendant and all the guests have gone to the city, my Lady; a great officer of the Governor's came to summon them. To be sure, not many of them were fit to go, but after a deal of bathing and dressing, the gentlemen got off. Such a clatter of horsemen as they rode out. I never heard before, my Lady; you must have heard them, even here!"

"Yes, dame!" replied Caroline, "I heard it; and the Intendant, has he accompanied them?"

"Yes, my Lady; the freshest and foremost cavalier of them all. Wine and late hours never hurt the Intendant. It is for that I praise

him, for he is a gallant gentleman, who knows what politeness is to women."

Caroline shrank a little at the thought expressed by the dame. "What causes you to say that?" asked she.

"I will tell, my Lady! 'Dame Tremblay!' said he, just before he left the Chateau. 'Dame Tremblay'—he always calls me that when he is formal, but sometimes when he is merry he calls me 'Charming Josephine,' in remembrance of my young days, concerning which he has heard flattering stories, I dare say—"

"In heaven's name! go on, dame!" Caroline, depressed as she was, felt the dame's garrulity like a pinch on her impatience. "What said the Intendant to you on leaving the Chateau?"

"Oh, he spoke to me of you quite feelingly—that is, bade me take the utmost care of the poor lady in the secret chamber. I was to give you everything you wished, and keep off all visitors, if such were your own desire."

A train of powder does not catch fire from a spark more quickly than Caroline's imagination from these few words of the old housekeeper. "Did he say that, good dame? God bless you, and bless him for those words!" Her eyes filled with tears at the thought of his tenderness, which, although half fictitious, she wholly believed.

"Yes, dame," continued she. "It is my most earnest desire to be secluded from all visitors. I wish to see no one but yourself. Have you many visitors—ladies, I mean—at the Chateau?"

"Oh, yes! the ladies of the city are not likely to forget the invitations to the balls and dinners of the bachelor Intendant of New France. It is the most fashionable thing in the city, and every lady is wild to attend them. There is one, the handsomest and gayest of them all, who, they say, would not object even to become the bride of the Intendant."

It was a careless shaft of the old dame's, but it went to the heart of Caroline. "Who is she, good dame?—pray tell me!"

"Oh, my Lady, I should fear, her anger, if she knew what I say! She is the most terrible coquette in the city—worshipped by the men, and hated, of course, by the women, who all imitate her in dress and style as much as they possibly can, because they see it takes! But every woman fears for either husband or lover when Angelique des Meloises is her rival."

"Is that her name? I never heard it before, dame!" remarked Caroline, with a shudder. She felt instinctively that the name was one of direful omen to herself.

"Pray God you may never have reason to hear it again," replied Dame Tremblay. "She it was who went to the mansion of Sieur Tourangeau, and with her riding-whip lashed the mark of a red cross upon the forehead of his daughter, Cecile, scarring her forever, because she had presumed to smile kindly upon a young officer, a handsome fellow, Le Gardeur de Repentigny—whom any woman might be pardoned for admiring!" added the old dame, with a natural touch of the candor of her youth. "If Angelique takes a fancy to the Intendant, it will be dangerous for any other woman to stand in her way!"

Caroline gave a frightened look at the dame's description of a possible rival in the Intendant's love. "You know more of her, dame! Tell me all! Tell me the worst I have to learn!" pleaded the poor girl.

"The worst, my Lady! I fear no one can tell the worst of Angelique des Meloises—at least, would not dare to—although I know nothing bad of her, except that she would like to have all the men to herself, and so spite all the women!"

"But she must regard that young officer with more than common affection to have acted so savagely to Mademoiselle Tourangeau?" Caroline, with a woman's quickness, had

caught at that gleam of hope through the darkness.

"Oh, yes, my Lady! All Quebec knows that Angelique loves the Seigneur de Repentigny, for nothing is a secret in Quebec if more than one person knows it, as I myself well recollect; for when I was the Charming Josephine, my very whispers were all over the city by the next dinner hour, and repeated at every table, as gentlemen cracked their almonds and drank their wine in toasts to the Charming Josephine."

"Pshaw! dame! Tell me about the Seigneur de Repentigny! Does Angelique des Meloises love him, think you?" Caroline's eyes were fixed like stars upon the dame, awaiting her reply.

"It takes women to read women, they say," replied the dame, "and every lady in Quebec would swear that Angelique loves the Seigneur de Repentigny; but I know that, if she can, she will marry the Intendant, whom she has fairly bewitched with her wit and beauty, and you know a clever woman can marry any man she pleases, if she only goes the right way about it; men are such fools!"

Caroline grew faint. Cold drops gathered on her brow. A veil of mist floated before her eyes. "Water! good dame! water!" she articulated, after several efforts.

Dame Tremblay ran and got her a drink of water, and such restoratives as were at hand. The dame was profuse in words of sympathy. She had gone through life with a light, lively spirit, as became the Charming Josephine, but never lost the kindly heart that was natural to her.

Caroline rallied from her faintness. "Have you seen what you tell me, dame, or is it but the idle gossip of the city, no truth in it? Oh, say it is the idle gossip of the city! Francois Bigot is not going to marry this lady? He is not so faithless!"—to me, she was about to add; but did not.

"So faithless to her, she means, poor soul!" soliloquized the dame.

"It is but little you know my gay master if you think he values a promise made to any woman, except to deceive her! I have seen too many birds of that feather not to know a hawk, from beak to claw. When I was the Charming Josephine I took the measure of men's professions, and never was deceived but once. Men's promises are big as clouds, and as empty and as unstable!"

"My good dame, I am sure you have a kind heart," said Caroline, in reply to a sympathizing pressure of the hand. "But you do not know, you cannot imagine what injustice you do the Intendant"—Caroline hesitated and blushed—"by mentioning the report of his marriage with that lady. Men speak untruly of him—"

"My dear Lady, it is what the women say that frightens me! The men are angry, and won't believe it; but the women are jealous, and will believe it, even if there be nothing in it! As a faithful servant I ought to have no eyes to watch my master, but I have not failed to observe that the Chevalier Bigot is caught, man-fashion, if not husband-fashion, in the snares of the artful Angelique. But may I speak my real opinion to you, my Lady?"

Caroline was eagerly watching the lips of the garrulous dame. She started, brushed back with a stroke of her hand the thick hair that had fallen over her ear—"Oh, speak all your thoughts, good dame! If your next words were to kill me, speak them!"

"My next words will not harm you, my Lady," said she, with a meaning smile, "if you will accept the opinion of an old woman, who learned the way of men when she was Charming Josephine! You must not conclude that, because the Chevalier Intendant admires, or even loves, Angelique des Meloises, he is going to marry her. That is not the fashion of these times. Men love beauty, and marry money; love is more plenty than matrimony, both at Paris and at Quebec, at Versailles,

DIAMOND DYES

Make Your Faded Summer Dresses Like New

"I want the girls, and their mothers, too, for that matter, to know what it is possible to do with last summer's dresses that have become faded and lost their pretty freshness.

"I had such a lovely pale blue lingere Princess muslin, that I kept for dress occasions until the last of the summer, when it began to fade, and then between the washings and the sun it lost all its beauty.

"This season I dyed it blue again with Diamond Dyes for cotton, and it's every bit as pretty as it was when I bought it. I have since gone over my last summer's clothes and renewed the color of any dress or waist that was at all faded or stained, and the result is that I shall not need a single new dress this summer."

Mrs. Florence Faulkner, Syracuse, N. Y.



"The Cost is Trifling to Dress My Children."

"We find your Diamond Dyes are wonderful helps to us in dressing economically and neatly.

"Last year, as far as dresses for myself and two little girls are concerned, the cost was trifling—some sixty or seventy cents for trimmings, while we saved many dollars in dress materials.

"We find it very easy to change the color of an old and faded dress with one of the fashionable colors of the Diamond Dyes, that we really enjoy the work. My husband will drive miles for the Diamond Dyes rather than buy any of the poor dyes sold by some storekeepers."

Mrs. T. Chas. Gardener, Lake Ainslie, N. S.

DIAMOND DYES

are all-the-year-round Dyes. They renew all that is dingy and faded in your household furnishings, as well as your wardrobe.

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Diamond Dyes are the Standard of the world and always give perfect results. You must be sure that you get the *real* Diamond Dyes and the *kind* of Diamond Dyes adapted to the article you intend to dye.

Beware of imitations of Diamond Dyes. Imitators who make only one kind of dye, claim that their imitations will color Wool, Silk or Cotton ("all fabrics") equally well. This claim is false, because no dye that will give the finest results on Wool, Silk, or other animal fibres, can be used successfully for dyeing Cotton, Linen, or other vegetable fibres. For this reason we make two kinds of Diamond Dyes, namely: Diamond Dyes for Wool, and Diamond Dyes for Cotton.

Diamond Dyes for Wool cannot be used for coloring Cotton, Linen, or other Mixed Goods, but are especially adapted for Wool, Silk, or other animal fibres, which take up the dye quickly.

Diamond Dyes for Cotton are especially adapted for Cotton, Linen, or other vegetable fibres, which take up the dye slowly.

"Mixed Goods," also known as "Union Goods," are made chiefly of either Cotton, Linen, or other vegetable fibres. For this reason our Diamond Dyes for Cotton are the best dyes made for these goods.

Diamond Dye Annual—Free. Send us your name and address (be sure to mention your dealer's name and tell us whether he sells Diamond Dyes) and we will send you a copy of the famous Diamond Dye Annual, a copy of the Direction Book, and samples of dyed cloth, all FREE. Address:

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as well as at Beaumanoir, or even at Lake Beauport, as I learned to my cost when I was the Charming Josephine!"

Caroline blushed crimson at the remark of Dame Tremblay. Her voice quivered with emotion. "It is a sin to cheapen love like that, dame! And yet I know we have sometimes to bury our love in our heart, with no hope of resurrection."

"Sometimes? Almost always, my Lady! When I was the Charming Josephine—nay, listen, Lady; my story is instructive." Caroline composed herself to hear the dame's recital. "When I was the Charming Josephine of Lake Beauport, I began by believing that men were angels sent for the Salvation of us women. I thought that love was a better passport than money to lead to matrimony; but I was a fool for my fancy! I had a good score of lovers any day. The gallants praised my beauty, and it was the envy of the city; they flattered me for my wit—nay, even fought duels for my favor, and called me the Charming Josephine, but not one offered to marry me! At twenty I ran away for love, and was forsaken. At thirty I married for money, and was rid of all my illusions. At forty I came as housekeeper to Beaumanoir, and have lived here comfortably ever since I know what royal intendants are! Old Hocquart wore night-caps in the daytime, took snuff every minute, and jilted a lady in France because she had not the dower of a duchess to match his hoards of wealth! The Chevalier Bigot's black eye and jolly laugh draw after him all the girls of the city, but not one will catch him! Angeliqne des Meloises is first in his favor, but I see it as clear as print in the eye of the Intendant that he will never marry her—and you will prevent him, my Lady!"

"I! I prevent him!" exclaimed Caroline in amazement. "Alas! good dame, you little know how lighter than thistle-down floating on the wind is my influence with the Intendant."

"You do yourself injustice, my Lady. Listen! I never saw a more pitying glance fall from the eye of man than the Intendant cast upon you one day when he saw you kneeling in your oratory, unconscious of his presence. His lips quivered, and a tear gathered under his thick eyelashes as he silently withdrew. I heard him mutter a blessing upon you, and curses upon La Pompadour for coming between him and his heart's desire. I was a faithful servant, and kept my counsel. I could see, however, that the Intendant thought more of the lovely lady of Beaumanoir than of all the ambitious demoiselles of Quebec."

Caroline sprang up, and casting off the deep reserve she had maintained, threw her arms round the neck of Dame Tremblay, and, half choked with emotion, exclaimed:

"Is that true? good, dear friend of friends! Did the Chevalier Bigot bless me, and curse La Pompadour for coming between him and his heart's desire! His heart's desire! but you do not know—you cannot guess what that means, dame?"

"As if I did not know a man's heart's desire! but I am a woman, and can guess! I was not the Charming Josephine for nothing, good Lady!" replied the dame, smiling, as the enraptured girl laid her fair, smooth cheek upon that of the old housekeeper.

"And did he look so pityingly as you describe, and bless me as I was praying, unwitting of his presence?" repeated she, with a look that searched the dame through and through.

"He did, my Lady; he looked, just then, as a man looks upon a woman whom he really loves. I know how men look when they really love us, and when they only pretend to? No deceiving me!" added she. "When I was the Charming Josephine—"

"Ave Maria!" said Caroline, crossing herself with deep devotion, not heeding the dame's reminiscences of Lake Beauport. "Heaven has

heard my prayers! I can die happy!"

"Heaven forbid that you should die at all, my Lady! You die? The Intendant loves you. I see it in his face that he will never marry Angeliqne des Meloises. He may indeed marry a great marchioness, with her lap full of gold and chateaux—that is, if the King commands him; that is how the grand gentlemen of the Court marry. They wed rank, and love beauty—the heart to one, the hand to another. It would be my way, too, were I a man, and women so simple, as we all are. If a girl cannot marry for love, she will marry for money; and if not for money, she can always marry for spite—I did, when I was the Charming Josephine!"

"It is a shocking and sinful way, to marry without love!" said Caroline, warmly.

"It is better than no way at all!" replied the dame, regretting her remark when she saw her lady's face flush like crimson. The dame's opinions were rather the worse for wear in her long journey through life, and would not be adopted by a jury of prudes. "When I was the Charming Josephine," continued she, "I had the love of half the gallants of Quebec, but not one offered his hand. What was I to do? 'Crook a finger, or love and linger,' as they say in Alencon, where I was born?"

"Fie, dame! Don't say such things!" said Caroline, with a shamed, reproving look. "I would think better of the Intendant." Her gratitude led her to imagine excuses for him. The few words reported to her by Dame Tremblay she repeated with silently-moving lips and tender reiteration. They lingered in her ear like the fugue of a strain of music, sung by a choir of angelic spirits. "Those were his very words, dame?" added she again, repeating them—not for inquiry, but for secret joy.

"His very words, my Lady! But why should the Royal Intendant not have his heart's desire, as well as that great lady in France? If anyone had forbidden my marrying the poor Sieur Tremblay, for whom I did not care two pins, I would have had him for spite—yes, if I had had to marry him as the crows do, on a tree-top!"

"But no one bade you or forbade you, dame! You were happy that no one came between you and your heart's desire!" replied Caroline.

Dame Tremblay laughed out merrily at the idea. "Poor Giles Tremblay my heart's desire! Listen, Lady, I could no more get that than you could. When I was the Charming Josephine, there was but one, out of all my admirers, whom I really cared for, and he, poor fellow, had a wife already! So what was I to do? I threw my line at last in utter despair, and out of the troubled sea I drew the Sieur Tremblay, whom I married, and soon put cosily underground, with a heavy tombstone on top of him to keep him down, with this inscription, which you may see for yourself, my Lady, if you will, in the churchyard where he lies:

"Ci git mon Giles,
Ah! qu'il est bien,
Pour son repos,
Et pour le mien!"

"Men are like my Angora tabby: stroke them smoothly and they will purr and rub noses with you; but stroke them the wrong way, and whirr! they scratch your hands and out of the window they fly! When I was the Charming—"

"Oh, good dame, thanks! thanks! for the comfort you have given me!" interrupted Caroline, not caring for a fresh reminiscence of the Charming Josephine. "Leave me, I pray. My mind is in a sad tumult. I would fain rest. I have much to fear, but something also to hope for now," she said, leaning back in her chair in deep and quiet thought.

"The Chateau is very still now, my Lady," replied the dame, "the servants are all worn out with long attendance, and fast asleep. Let my Lady go to her own apartments,

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which are bright and airy. It will be better for her than this dull chamber."

"True, dame!" Caroline rose at the suggestion. "I like not this secret chamber. It suited my sad mood, but now I seem to long for air and sunshine. I will go with you to my own room."

She ascended the winding stair, and Caroline seated herself by the window of her own chamber, overlooking the park and gardens of the Chateau. The huge, sloping forest upon the mountain-side, formed, in the distance, with the blue sky above it, a landscape of beauty, upon which her eyes lingered with a sense of freshness and delight.

Dame Tremblay left her to her musings, to go, she said, to rouse up the lazy maids and menservants, to straighten up the confusion of everything in the Chateau after the late long feast.

On the great stair she encountered M. Froumois, the Intendant's valet, a favorite gossip of the dame's, who used to invite him into her snug parlor, where she regaled him with tea and cake, or, if late in the evening, with wine and nipperkins of Cognac, while he poured into her ear stories of the gay life of Paris and the bonnes fortunes of himself and master—for the valet in plush would have disdained being less successful among the maids in the servants' hall than his master in velvet in the boudoirs of their mistresses.

M. Froumois accepted the dame's invitation, and the two were presently engaged in a melee of gossip over the sayings and doings of fashionable society in Quebec.

The dame, holding between her thumb and finger a little china cup of tea, well laced, she called it, with Cognac, remarked: "They fairly run the Intendant down, Froumois; there is not a girl in the city but lays her boots to distraction, since it came out that the Intendant adorned a neat, trim ankle. I had a black ankle myself when I was the

Charming Josephine, M. Froumois!"

"And you have yet, dame—if I am a judge," replied Froumois, glancing down with an air of gallantry.

"And you are accounted a judge—and ought to be a good one, Froumois! A gentleman can't live at court, as you have done, and learn nothing of the points of a fine woman!" The good dame liked a compliment as well as ever she had done at Lake Beauport in her hey-day of youth and beauty.

"Why, no, dame," replied he; "one can't live at Court and learn nothing! We study the points of fine women as we do fine statuary in the gallery of the Louvre—only the living beauties will compel us to see their best points, if they have them!" M. Froumois looked very critical as he took a pinch from the dame's box, which she held out to him. Her hand and wrist were yet unexceptionable, as he could not help remarking.

"But what think you, really, of our Quebec beauties? Are they not a good imitation of Versailles?" asked the dame.

"A good imitation! They are the real porcelain! For beauty and affability, Versailles cannot exceed them. So says the Intendant, and so say I," replied the gay valet. "Why, look you, Dame Tremblay!" continued he, extending his well-ringed fingers, "they do give gentlemen no end of hopes here! We have only to stretch out our ten digits, and a ladybird will light on every one of them! It was so at Versailles—it is just so here. The ladies in Quebec do know how to appreciate a real gentleman!"

"Yes, that is what makes the ladies of Ville Marie so jealous and angry," replied the dame; the King's officers and all the great catches land at Quebec first, when they come out from France, and we take toll of them! We don't let a gentleman of them get up to Ville Marie without a Quebec engagement tacked to his back, so that all Ville Marie can read it, and die of pure spite! I say

we, Froumois; but you understand I speak of myself only as the Charming Josephine of Lake Beauport. I must content myself now with telling over my past glories."

"Well, dame, I don't know but you are glorious yet! But tell me, what has got over my master to-day? Was the unknown lady unkind? Something has angered him, I am sure!"

"I cannot tell you, Froumois; women's moods are not to be explained, even by themselves." The dame had been sensibly touched by Caroline's confidence in her, and she was too loyal to her sex to repeat even to Froumois her recent conversation with Caroline.

They found plenty of other topics, however, and over the tea and Cognac the dame and valet passed an hour of delightful gossip.

Caroline, left to the solitude of her chamber, sat silently, with her hands clasped in her lap. Her thoughts pressed inward upon her. She looked out, without seeing the fair landscape before her eyes.

Tears and sorrow she had welcomed in a spirit of bitter penitence for her fault in loving one who no longer regarded her. "I do not deserve any man's regard," murmured she, as she laid her soul on the rack of self-accusation, and wrung its tenderest fibres with the pitiless rigor of a secret inquisitor. She utterly condemned herself while still trying to find some excuse for her unworthy lover. At times a cold, half-persuasion, fluttering like a bird in the snow, came over her, that Bigot could not be utterly base. He could not, thus forsake one who had lost all—name, fame, home, and kindred—for his sake! She clung to the few pitying words spoken by him as a shipwrecked sailor to the plank which chance had thrown in his way. It might float her for a few hours, and she was grateful.

Immersed in these reflections, Caroline sat gazing at the clouds, now transformed into royal robes of crimson and gold—the gorgeous train of

the sun filled the western horizon. She raised her pale hands to her head, lifting the mass of dark hair from her temples. The fevered blood, madly coursing, pulsed in her ear like the stroke of a bell.

She remembered a sunset like this on the shores of the Bay of Minas, where the thrush and oriole twittered their even-song before seeking their nests; where the foliage of the trees was all ablaze with golden fire, and a shimmering path of sunlight lay upon the still waters, like a glorious bridge leading from themselves to the bright beyond.

On that well-remembered night her heart had yielded to Bigot's pleadings. She had leaned her head upon his bosom, and received the kiss and gave the pledge that bound her to him forever.

The sun kept sinking—the forests on the mountain-tops burst into a bonfire of glory. Shadows went creeping up the hillsides, until the highest crest alone flamed out as a beacon of hope to her troubled soul.

Suddenly, like a voice from the spirit-world, the faint chime of the bells of Charlebourg floated on the evening breeze. It was the Angelus, calling men to prayer and rest from their daily labor. Sweetly the soft reverberation fluted through the forests, up the hillsides, by plain and river, entering the open lattices of Chateau and cottage, summoning rich and poor, alike to their duty of prayer and praise. It reminded men of the redemption of the world by the divine miracle of the incarnation announced by Gabriel, the angel of God, to the ear of Mary, blessed among women.

The soft bells rang on. Men blessed them, and ceased from their toils in field and forest. Mothers knelt by the cradle, and uttered the sacred words with emotions such as only mothers feel. Children knelt by their mothers, and learned the story of God's pity in appearing upon earth as a little child, to save mankind from their sins. The dark Huron,

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setting his snares in the forest, and the fishers on the shady stream, stood still. The voyageur, sweeping his canoe over the broad river, suspended his oar as the solemn sound reached him, and he repeated the angel's words, and went on his way with renewed strength.

The sweet bells came like a voice of pity and consolation to the ear of Caroline. She knelt down, and clasping her hands, repeated the prayer of millions:

"Ave Maria! gratia plena!"

She continued kneeling, offering up prayer after prayer for God's forgiveness, both for herself and for him who had brought her to this pass of sin and misery. "Mea culpa! Mea maxima culpa!" repeated she, bowing herself to the ground. "I am the chief of sinners; who shall deliver me from this body of sin and affliction?"

The sweet bells kept ringing. They woke reminiscences of voices of by-gone days. She heard her father's tones, not in anger as he would speak now, but kind and loving as in her days of innocence. She heard her mother, long dead—oh, how happily dead! for she could not die of sorrow now over her dear child's fall. She heard the voices of the fair companions of her youth, who would think shame of her now; and amidst them all, the tones of the persuasive tongue that wooed her maiden love. How changed it all seemed! and yet, as the repetition of two or three notes of a bar of music brings to recollection the whole melody to which it belongs, the few kind words of Bigot, spoken that morning, swept all before them in a drift of hope. Like a star struggling in the mist, the faint voice of

an angel was heard afar off in the darkness.

The ringing of the Angelus went on. Her heart was utterly melted. Her eyes, long parched, as a spent fountain in the burning desert, were suddenly filled with tears. She no longer felt the agony of the eyes that cannot weep. The blessed tears flowed quietly as the waters of Shiloh, bringing relief to her poor soul, famishing for one true word of affection. Long after the sweet bells ceased their chime, Caroline kept on praying for him, and long after the shades of night had fallen over the Chateau of Beaumanoir.

(To be continued.)

The Wee Pair o' Shoon.

"Oh, lay them canny doon, Jamie,
An' tak' them frae my sight!
They mind me o' her sweet, wee face,
An' sparklin' e'e sae bricht.

Oh, lay them softly doon beside
The lock o' silken hair;
For the darlin' o' thy heart and mine
Will never wear them mair!

But, oh! the silvery voice, Jamie,
That fondly lisp'd yer name,
An' the wee bit hands sae aft held out
Wi' joy when ye cam hame!
An' oh, the smile—the angel smile,
That shone like simmer morn;
An' the rosy mou' that socht a kiss
When ye were weary worn!

The eastlan' wind blows cauld, Jamie—
The snaw's on hill and plain—
The flow'rs that deck'd my lammie's grave
Are faded noo an' gane!
O, dinna speak! I ken she dwells
In yon fair land aboon;
But sae's the sicht that bin's my e'e—
That wee, wee pair o' shoon."

—Jas. Smith.

A Green Heaven.

"Not streets of gold for weary, earth-
worn feet,
But grassy ways, made fair with flow'r
and fern,
And leafy boughs to make a cool re-
treat,
Where tired steps may turn;
And sunshine, and the sighs of many a
breeze,
And glimpses of far hills between the
trees.

Dear God, no crystal sea, but cool,
green waves,
That croon a love song to a greener
land,

A summer sea, whose shining ripple
laves
A stretch of silver sand;
And 'mid the meadow-grasses let there be
Tangles of tiny streams that seek the
sea.

[And] in a world of dear familiar ways
With those we love to hear and help the
strain,

Our thankful hearts would sing Theo
songs of praise
Freed from their Sorrow's stain.
So hear our pray'r, dear God, and let
there be
Green paths for gold, cool waves for
crystal sea."

—From "Songs from a Twilight Nook,"
by Winifred Sutcliffe.

The Duke's Reproof.

Among the innumerable stories told of the Duke of Wellington is that which relates that as he was standing one day on the pavement opposite his house in Piccadilly, waiting an opportunity to cross the street between the crowd of passing vehicles, a gentleman—an entire stranger to him—stepped up and offered

his arm to the Duke to assist him in crossing. Although Wellington hated assistance of any kind, he accepted the stranger's arm, who, having secured a passage by signing to the drivers of the vehicles to stop, conducted the great man in safety across the street.

"I thank you, sir," said the Duke, releasing his arm, and proceeding to his house-door.

But the stranger, instead of moving off, raised his hat, and delivered himself to the following effect:

"My lord, I have passed a long and not uneventful life, but never did I hope to reach the day when I might be of the slightest assistance to the greatest man that ever lived."

"Don't be a damned fool!" responded the Duke, and turned on his heel.

Mottoes for Famous Men.

Find Your Own in Them.

When you turn to your reading of the Bible, find the ancient line:

"As a man thinketh in his heart, so is he."

This is the truth that lies at the foundation of all mottoes of men—signal lights, guide lines, inspirations.

Strong men usually choose one motto to guide them in their careers. Here are a few that have been selected in the past; see if you find one that fits you, that you can make part of yourself.

Abraham Lincoln: Right makes might.
Louis Kossuth: There is no difficulty to him who wills.

Theodore Roosevelt: Face the facts as you find them; strive steadily for the best.

Albert J. Beveridge: Be honest with the world, and the world will be honest with you.

John Ruskin: To-day!

John Wanamaker: Do the next thing.

Alexander H. Stephens: Time and tide wait for no man.

Neal Dow: Deeds, not words.

William Gladstone: One thing at a time and that done well.

Lord Beaconsfield: What has been done can be done again.

Ralph Waldo Emerson: Hitch your wagon to a star.

George W. Childs: Do good to others.

Cornelius Vanderbilt: Never use what is not your own.

Robert Louis Stevenson: Earn a little and spend a little less.

John Randolph: Pay as you go.

Edward Everett Hale: Look up and not down.

William Osler: The master word is work.

Carroll D. Wright: Do the duty of the day.

Edward W. Bok: Love work for the sake of your work.

Rufus Choate: Would you live long, work hard.

Theodore Cuyler: No one was ever lost on a straight road.

John Wesley: Always in haste, but never in a hurry.

Anthony Comstock: Faithful in the least, faithful also in much.

A. C. McClurg: It is better to deserve success than to have it.

Jeremy Bentham: The greatest good of the greatest number.

Grover Cleveland: Your honor first, your desires after.

Benjamin Harrison: Build for character, not for fame.

Rutherford B. Hayes: Live to win confidence and respect.

According to all accounts, the arrival of the Cameron Highlanders in Pekin to replace the Middlesex regiment as legation guards created something of a sensation among the inhabitants. The kilt is a source of great wonderment. The China Times asserts that the natives are hard at work trying to assimilate the Scotch language. They are reported as already making favorable progress. Instead of their favorite expression, "Me no savvy," they now employ "I dinna ken," and they greet the foreigner with "Guid mornin'" with an excellent Auchtermuchty accent.

It is added that some Chinese com- pradors, who are men of inquisitive turn of mind, want to know "What for new soldier man catchee clothes allee same missis?" which recalls the story of the Russian Crimean veteran, who declared that the best fighters in the British army were the women!—[Saturday Night.

The Patriot.

My father was a patriot, though on the scroll of fame
 You may not read in letters red his title or his name.
 He fought not with Montcalm, or Wolfe, or Louis Papineau,
 Yet, conquered by his strong right arm, the forest lords lay low.
 He was not with the sturdy men who marched with dauntless Brock,
 And on old Queenston's butting heights rolled back the alien shock.
 He did not shoot the Red-man down; he was the Red-man's friend,
 The truest patriot is he who serves some peaceful end.
 Sweeter to him his wife's clear call, than battle's bugle-horn;
 Fairer than serried fields of men, his serried fields of corn;
 More worth than valleys red with blood, are vales with golden grain;
 Angels that smile o'er fields of sheaves, mourn fields of mortals slain.
 The revelations fresh from God, he placed above old creeds,
 And on them raised his fellow-man to holier thoughts and deeds.
 My father was a patriot; his flag — you cloud unfurled;
 His King was Christ; his creed was Love; his country was the world.

EDGAR M. ZAVITZ.

Coldstream, Ont.

To Father Time.

Backward, turn backward, O Time in thy flight!
 Give us an autoless day and a night.
 Give us a "yellow" sans headlines to scan,
 A rustleless skirt, and a hustleless man,
 A babe teddy-bearless, a microbeless kiss,
 A fistie fight fakeless, a straight-frontless miss,
 A giggleless schoolgirl, and—better than that!
 A summer-clad college man wearing a hat!
 I know, Father Time, that I'm asking too much,
 But turn to a day ere a dinner was lunch.
 Swing back to an age peroxideless for hair—
 An son ere "rats" made their rendezvous there—
 An old-fashioned breakfast without Shredded Hay,
 A season when farmers went whineless a day,
 A burgh moving-pictureless—ah, what a treat!
 A gumless-girl town and a trolleyless street;
 I'm asking too much, but I pray, Daddy Time,
 For days when a song had both substance and rhyme!
 —The Bohemian.

Value of Raw Apples.

Many persons fancy that raw apples are indigestible and only endurable in the early morning. Doubtless the old adage that fruit is gold in the morning, silver in the middle of the day, and lead at night, is to some extent answerable for this (to my way of thinking) erroneous impression.

Dietitians tell us that ripe, raw apples contain more phosphates in proportion to their bulk than any other article of food, fish not excepted. A recent writer on this point boldly declares that in this lies the secret of healthful longevity. They correct biliousness and act as a sedative upon racked nerves and allay insomnia.

"Eat uncooked apples constantly, although, of course, in moderation, and drink distilled water only and years will be added to your life, while the evidence of age will be long in coming."

This argument is based on the supposition that as age advances the deposits of mineral matter in the system increase, and that aging is little more than a gradual process of ossification.

Phosphoric acid contains the least amount of earth salts, and for that reason is probably the nearest approach to the elixir of life known to the scientific world.

But apples are far more wholesome than sweet, and all, like potatoes, should be eaten ripe when eaten—Sel.

THE SPICE OF LIFE.

Glancing over the files—the files-on-parade, as it were—of magazines and newspapers, one notices that the parodies of ten years ago ran strongly to the bicycle. "Maud Muller," "Excelsior," "Hiawatha," "The Psalm of Life," "Break, Break, Break!"—all the old stand-bys were done to death. Five years ago the automobile parodies began. It was "Come Into the Tonneau, Maud," and "Leave Me Here, and When You Want Me, Sound Upon the Auto Horn," and "We Were Crowded in the Tonneau, Not a Soul Would Dare to Leap," and so on ad infinitum.

No great power, no egregious ability to dip into the future is needed to foresee the next few years' parody crop. To the Parodists' Legion a few bare hints are hereby offered:

Thou too sail on, Airship of State—Longfellow.

A knight was pricking on an aeroplane.—Spencer.

I shot an airship into the air; it fell to earth, I knew not where.—Longfellow.

When swift Camilla scours the aeroplane.—Pope.

Don't give up the airship.—Oliver Hazard Perry.

As idle as a painted airship.—Coleridge.

The judge rode quickly o'er the lane in his latest model aeroplane.—Whittier.

I am flying, Egypt flying.—Lytle.

Not to mention the boy standing on the airship's deck, a life on the rolling clouds, the various and space-filling rides of Messrs. Gilpin, Revere and Sheridan, and one or two more that are really too good to be given away.—Franklin P. Adams, in Life.

Wauken Up!

Will I hae to speak again
 To thae weans o' mine?
 Eight o'clock, and weel I ken
 The schule gangs in at nine.
 Little hauds me but to gang
 And fetch the muckle whup—
 O, ye sleepy-headed rogues,
 Wull ye wauken up?

Never mither had such faucht—
 No' a moment's ease.
 Cleed Tam as ye like, at nicht
 His breaks are through the knees,
 Thread is no' for him ava'—
 It never hauds the grup:
 Maun I speak again, ye rogues—
 Wull ye wauken up?

Tam, the vary last to bed,
 He winna rise ava',
 Last to get his books and slate—
 Last to won awa';
 Sic a limb for tricks and fun—
 Heeds na' what I say:
 Rab and Jamie—but thae plagues—
 Wull they sleep a' day.

Here they come, the three at ance,
 Lookin' gleg and fell.
 Hod they ken their bits o' claes
 Beats me fair to tell.
 Wash your wee bit faces clean:
 And here's your bite and sup—
 Never was mair wiselike bairns
 Noo they're waukened up.

There, the three are aff at last:
 I watch them frae the door,
 That Tam! He's at his tricks again
 I count them by the score.
 He's put his fit afore wee Rab,
 And coupit Jamie doon,
 Could I lay my hands on him
 I'd mak' him claw his croon!

Noo to get my work on hand,
 I'll hae a busy day.
 But, losh! the hoose is unco quate
 Since they're a' away.
 A dizen times I'll look the clock
 When it comes roon to three;
 For, cuddlin' doon or waukenin' up,
 They're dear, dear bairns to me.

WHERE THE LINEN BUGS FELL DOWN.

"This country is all well enough," said the Peevish Irishman, "but I can't help wishing my father hadn't failed in business over near Belfast, so I could be there on the old sod making my living, and happy with my people, instead of sparring around here."

"What was your father's business?" asked the interested Englishman.



PAQUET
 Guaranteed
CLOTHES
 MAKE A PERMANENT
 FRIEND OF EVERY MAN
 WHO WEARS THEM.

ONCE YOU get into the habit of having your Clothes made for you, in the Paquet Way, you will never be satisfied with the old-fashioned, "hit or miss" Ready Made Clothes again. PAQUET Guaranteed CLOTHES are cut to your exact measurements BEFORE they are made up. That's why we can GUARANTEE them to fit YOU, and not some average type ALMOST your build. Our NEW System of Clothes Making is the nearest approach to Custom Tailoring of any system yet devised, and the cost is just about HALF what you would pay for Custom Tailoring of equal style and quality.

We keep your measurements on file and can make your Clothes for you, at short notice, whenever you need another Suit or Overcoat. Well-dressed Men in all parts of Canada are now taking advantage of our facilities.

PAQUET Guaranteed CLOTHES are GUARANTEED to be the best value in Canada to-day at from \$10.00 to \$13.75—worth \$13.50 to \$18.00.

Write to-day for FREE Style Book, showing samples of the very latest patterns from the English looms. Don't put it off until another time—you'll get the Style Book by return mail. It'll surprise you.

PAQUET
 COMPANY
 LIMITED
 QUEBEC, CANADA

"He ran a linen farm."
 "Linen farm?"
 "Sure, a linen farm. Didn't you ever hear of a linen farm? We had one of the biggest in all the North of Ireland. Why, my father, at one time, owned three thousand linen bugs."
 "Linen bugs?"
 "Yes, linen bugs. Where were you born that you don't know about linen bugs? We had seven fields, all with the linen bugs working busily in them. In one field they made linen collars and cuffs, in another linen handkerchiefs, in another linen tablecloths and napkins, and so on through all the seven fields, and we were getting rich. But my father's passion for experiment ruined us."
 "What happened?"
 "Why, he read about silkworms one day and sent over to China and got a lot. The idea was to cross the silkworms with our linen bugs in the shirt field and make silk shirts with linen collars and cuffs. But we failed. It ruined us."
 "Didn't it work out?"
 "It did not. There was a mistake somewhere. Instead of making silk shirts with linen collars and cuffs, the bugs got mixed and made linen shirts with silk collars and cuffs, and nobody would buy them."—Saturday Evening Post.

"Bishop Potter was a wonderfully effective preacher," said a Brooklyn clergyman. "His method was reserved and quiet. He always had himself well in hand.
 "I once delivered a sermon before him.

I was young and enthusiastic at the time. I let myself go in that sermon. My voice and my gestures shook the pulpit.
 At luncheon, afterwards, I am ashamed to say that I fished for compliments. I leaned over the Bishop and asked him in a low voice to give me some advice on preaching.
 "Dear knows what I expected him to reply—probably that I was beyond any advice from him. At any rate, what he did reply was this:
 "My dear young friend, never mistake in the pulpit perspiration for inspiration."
 "Habits are hard to break," said Walter Princharde Eaton the other day. "Perhaps you've heard of the automobile enthusiast who bought a motor boat?"
 "He took a day's instructions in the art of managing it and keeping the machinery in running order, and then started out on his first trip alone. It was late in the afternoon when he returned home. He came in by the back way. His clothes were wet and his hair was hanging over his eyes in strings.
 "John" exclaimed his wife. "What on earth—"
 "It's all right, Mary," he hastened to assure her. "No, I didn't upset. Everything's all right. But when I had been out on the water a couple of hours something went wrong with the motor and—"
 "Yes—?"
 "Well, before I—er—realized it I was over the side and trying to get under the blame thing to fix it."

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 30 cents.

A WINTER-LAYING strain White Leghorns. Thirteen, 75c; forty, \$2. Geo. Easton, Jr., Whitney.

BARRED Rock, Buff Orpington. Fertile eggs from best laying strains. \$4 per 100; \$1 per 15. Wilbur Bennett, Box 938, Peterboro, Ont.

BARRED ROCKS—Twelve females mated to full brother, first Ontario cockerel; eggs two dollars per fifteen. Albert Butler, Burtch, Ontario.

BARRED ROCK eggs from heavy-laying prize-winning stock. Dollar for fifteen. Two dollars for forty. Chas. Hilliker, Norwich, Ont.

BUFF Orpington eggs—Two pens specially selected for excellent laying and market qualities; headed by large, very vigorous males, unrelated. \$1 per 15, \$2 per 40. Edgar Staples, Bright, Ont.

BUY 95% FERTILE EGGS—That will produce winter layers. Ascona eggs, \$1.50 per fifteen; Single-comb White Leghorns, \$1 per fifteen; \$4.50 for one hundred. Free circulars for stamp. Edward C. Apps, Box 224, Brantford, Ont.

BEST RHODE ISLAND REDS in Canada—Rose and Single-comb. Won silver cup for best collection at the Provincial Winter Fair. Eggs \$2 per 15, \$5 per 50. Barred Rock eggs \$1 per 15, \$4 per 100. O. A. C. stock. Wm. J. Mihm, No. 1 Richardson St., Guelph.

BARRED Rock eggs, safely packed in Morgan baskets. One dollar per fifteen. C. H. Chalmers, Smith's Falls, Ont.

BUFF Orpington pure-bred eggs for hatching; 9 chicks guaranteed. Illustrated catalogue free, tells all about them. Hugh A. Scott, Caledonia, Ont.

CLARK'S BUFF ORPINGTONS—Oldest and largest breeder in Canada. 12 years specializing. Exhibition and egg production combined. Greatest winter layers in America. 11 breeding pens. Eggs from 1st 4 pens, \$5 per 15, infertile replaced free. Eggs from pens 5, 6, 7, 8, 9, 10, 11, from \$1 to \$3 per 15. 50 eggs, \$3; 100 eggs, \$5.50. Crates free. Illustrated catalogue free. J. W. Clark, Cainsville, Ont.

EGGS for Sale—Houdans—\$2 for 15. First hen, first cock, Guelph. Barred Rocks, \$1 for 15. E. O. Penwarden, 20 Jackson St., St. Thomas.

EGGS FOR HATCHING—Barred, Buff and White Rocks, Rhode Island Reds and Black Minorcas, \$1 per 15. Joseph Forter, Brampton, Ont.

EGGS from choice Indian Runner du. ks, 10c each. Single-comb Brown Leghorns (money-makers), \$1 per 15. Frank Bainard, Gleanworth, Ont.

EGGS for hatching. White Wyandottes. Good laying strain. \$1 per setting. L. Turnbull, Pt. Colborne, Ont.

EGGS—Buff Wyandottes, from good winter layers, \$1.50 per setting; \$5 per hundred. Chas. Hardy, Mandamin, Ontario.

EGGS FOR SALE—White Wyandottes, Black Minorcas, Columbian Wyandottes, one dollar per setting. Stock for sale at all times. John Thomson, Fergus, Ont.

EGGS FOR HATCHING from large, vigorous Black Minorcas, Brown Leghorns and Barred Rocks. Grand layers. Five excellent cockerels to sell at bargain. Satisfaction guaranteed. Price list with full description free. Mrs. C. Day, Highgate, Ontario.

EGGS from Golden and Silver Spangled, Golden and Silver Penciled and Black Hamburgs, Golden, Silver and White Crested Black Polish, \$2 per 15. White Wyandottes, Buff Orpingtons and Black Minorcas, \$1.50 per setting. Prizewinning stock. Point Fortune Poultry Yards, Point Fortune, Quebec.

EGGS FOR HATCHING—"Edelweiss" White Rocks. Trap-nests used all the year. Only hens used as breeders that have proven "worth while" pullets. \$1.50 the 13. J. A. Butler, M. D., Box "F F," Baden, Ont.

EGGS FOR HATCHING—From pure-bred prize-winners, Barred Plymouth Rocks, seventy-five cents; White African guinea fowl, two dollars per fifteen. Satisfaction guaranteed. Geo. S. Hammond, Poole, Ontario.

EGGS FOR HATCHING—Barred and White Rocks, White and Silver Wyandottes, Black and Buff Orpingtons, Brown and White Leghorns, Black and Spangled Hamburgs, Houdans, Black Javas, Dorkings, Single and Rose Combed R. I. Reds. These birds won over 300 1st prizes at nine shows. \$1 per fifteen eggs. F. W. Krouse, Guelph, Ont.

FOR SALE—Pure-bred S.-C. White Leghorn eggs. Settings, \$1 and \$1.25. R. Hughes, Collingwood, Ont.

GET THE BEST—Single-comb Brown Leghorns. For 16 years winners at Toronto, London, Guelph, Woodstock, Brantford, Simcoe and Paris. Stock for sale. Eggs, \$2 per 15. Orr & Cruden, Paris, Ontario.

HIGH-CLASS White Wyandotte eggs for hatching from prizewinning stock. \$1.50 per 15; \$2.50 per 30. Brown Bros., Colville, Ont.

INDIAN RUNNER DUCKS—The sensational laying and paying kind. Eggs, \$1.25 for 12. Easy to raise. H. E. Moffat, Woodstock, Ontario.

KLAGER'S Rhode Island Reds—both combs. 8 breeding pens. Enclose 5c for catalogue. Klager's Poultry Yards, Hespeler, Ont.

LARGE fertile eggs from excellent laying strains—S.-C. White Leghorns. Write for information and true photograph. \$1 per 15. Enos M. Beer, Bethany, Ont.

LOOK—Rose-comb Black Minorcas that win prizes at the good shows. Have an egg record of over 200 eggs per year. Campbell's, Fould's and Lloyd Mishler strains, the best winter layers in Canada. Two dollars per setting. Square deal to all. Walter Bowron, care Sanford Co., Hamilton, Ont.

MONEY IN EGGS—If you keep Silver Spangled Hamburgs that never set; send \$1.25 for a setting to H. Lacey, Box 35, Kirkfield, Ontario.

PEAHENS for sale; price, \$2 each. Apply Carman E. Stothers, Malckong, Ontario.

PURE-BRED S.-C. White Leghorns, Wyckoff's and Spelman's exhibition and great laying strains. Eggs, 15c; 108, \$4.50. Wm. Leibold, Zurich, Ontario.

RHODE ISLAND REDS—Rose-comb. Bred ten years from carefully selected heavy winter layers of large brown eggs. Eggs, dollar half per fifteen. Satisfaction guaranteed. Jno. Luscombe, Merton, Ont.

R-C. RHODE ISLAND REDS—Best farmers' fowl. Eggs from winners reasonable. Circular free. \$1 per 15. Partridge Wyandottes, \$1.50 per 15. Bert Smith, Colville, Ontario.

ROSE-COMB Brown and Single White Leghorns, bred from some of the best laying strains in America. Eggs, \$1.50 per 15, or \$2.40 per 30; also Rouen ducks at \$1 per 6 or \$2 per 13. J. N. Rutherford, Caledonia East, Ontario.

RELIABLE POULTRY YARDS—"The breed that lays is the breed that pays." Single-comb White Leghorns, acknowledged the best everywhere. My pens won at the leading shows (Guelph included). 1 setting, \$1.50; 2 settings, \$2; \$5 per 100 for utility eggs. Address: H. B. Foster, box 359, Bowmanville, Ont.

SEEK Advertisement in April 22nd issue; eggs, highest quality. Rev. J. H. Cameron, Collingwood, Ontario.

S. C. WHITE LEGHORNS—Heavy winter-layers; everlasting workers; on free range. \$1 per setting. Linscott Seven Acres, Brantford, Ontario.

S. C. W. LEGHORN EGGS—Settings ten cents an egg. Five dollars a hundred. Good laying strain. Martin Robertson, Kent Centre, Ontario.

S. C. BLACK MINORCA pure-bred eggs for hatching. One dollar per thirteen. Also a few cockerels for sale. Oscar Eaman, Wales, Ont.

SINGLE-COMBED BLACK MINORCAS—Eight prizewinning hens weighing up to 8½ lbs., mated to two extra choice large cockerels; score 95. Single-combed Brown Leghorns (twelve hens, two cockerels) that won four firsts, three seconds, two specials, Collingwood and Owen Sound. Barred Rocks—first cock, eight choice hens, including four prizewinners. Eggs from above pens \$1.50 setting. Blue Andalusians only. Four prizewinners Collingwood, Owen Sound, Hamilton, Guelph, Toronto, \$5 per setting. Golden Poland from three prize birds, \$2.50 setting. Rev. J. H. Cameron, Collingwood, Ont.

WHITE Rock eggs for sale, also a few cockerels. Apply to Howard Smith, Winona, Ont.

WHITE Wyandotte eggs from choicest matings, \$1.50 per 30, in Morgan crates. W. A. Bryant, Cairngorm, Ont.

WHITE WYANDOTTES—Splendid layers. Grand birds. Free range. Eggs: one dollar per fifteen; five dollars per hundred. Satisfaction guaranteed. Chas. E. Rogers, Dorchester, Ont.

WANTED, your order for Barred Rock eggs, winners at Toronto, London and Guelph. Prices reasonable. Leslie Kerns, Freeman, Ont.

WHITE WYANDOTTE eggs, from Ontario. Show winners, \$2 per 15. Satisfaction guaranteed. Sid. Saunders, Guelph, Ontario.

WHITE WYANDOTTE eggs: 15, \$1; 100, \$4. Silver-laced, headed by Guelph 3rd-prize cockerel; first pen and pair local fair: 15, \$2. Burt Wees, Sarnia, Ontario.

Single-comb White Leghorns

Bred from best prizewinning and grand-laying strains. Eggs one dollar per fifteen. A hatch guaranteed.

Geo. D. Fletcher, Binkham P. O., Ontario
Erin shipping station, C. P. R.



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

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 50 cents.

BEAUTIFUL COLLIE DOG—Well trained kind disposition, nicely marked, eighteen months old. \$5. Clovernook Kennels, Dundas and Bloor, Toronto, Ontario.

BRITISH COLUMBIA LANDS—Handsomely illustrated catalogue of apple and farm lands in B. C. Mild climate, rich soil, cheap lands. Write F. J. Hart & Co., Ltd., Vancouver. Established 1891.

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

TRACTION DITCHER—Have a new Buckeye Traction Ditcher for digging underdrains. Jobs wanted in the Niagara peninsula, and large jobs outside the peninsula. Walter Day, Beamsville, Ontario.

TWENTY-FIVE-ACRE farm for sale, in good heart. Good house and good barn. Well fenced and watered. Location would make it a very desirable poultry farm or market garden. Full particulars given. C. Saunders, Real Estate, Etc., Burford, Ont.

WANTED—Girls to work in large Hosiery Knitting Mill in attractive Ontario town. Highest wages paid. No experience necessary to start. Apply Box 11, "Farmer's Advocate," London, Ontario.

WANTED—A man and a woman, for general farm work. Also a man. Must be able to milk. Long-distance. W. W. Ballantyne, Stratford, Ontario.

GOSSIP.

SALE DATES CLAIMED.
May 25th.—G. H. Manhard and G. A. Gilroy, at Brockville, Ont.; Holsteins.
July 1st.—John Davidson, Ashburn, Ont.; Shorthorns.

It will be the part of wisdom to go slow in the matter of turning the stock out to grass. Too early pasturing in the spring removes the very lungs of the grass, and results in a shortage of the pasture for the whole summer. The early grass is watery and over-laxative, and so palatable that it takes a lot of it to satisfy the animals, while it spoils their appetite for dry fodder if it be offered to them. Keeping them in the stables till the grass has had a good start, is better for the pastures and also for the stock.

TRADE TOPICS.

A potato planter and sprayer is a necessity in these times, to save labor and ensure a profitable crop. The T. C. Rogers Company, of Guelph, Ont., as intimated in their advertisement, supply the Aspinwall Potato Planter and Sprayer at the moderate price of \$37.50, free on cars at Guelph, or freight allowed when cash accompanies order. Plants five to ten acres a day, uniformly. Spraying is essential in potato culture to destroy the bug and prevent the blight, which has so seriously affected the crop in recent years.

CREAM-SEPARATOR HISTORY.—By way of showing in the most illustrative and conclusive manner possible the originality and leadership of De Laval Separators from the beginning of centrifugal separation to the present, the De Laval Separator Co. has issued a handsome booklet, briefly describing a few of the 500 cream separator patents owned, controlled and developed by that firm. It is pointed out that many of the forms patented by them were discarded as inferior, or worthless, but that would-be competitors use those same forms in their machines with only slight modifications. The claim is set forth that all cream separators now manufactured are copies, or imitations of some type of construction originally invented and developed by the De Laval Company, and later discarded and abandoned in the course of progress and utilization of improvements. Separator advancement is traced from the time of the first continuous-flow centrifugal machine in 1878, to the modern 1908-09 type. The original "hollow" bowl type, the "bevel gear" type, the "spur gear" type, the "tubular" shaped bowl, the original "disc" type, the "blade" or "vertical division" type, the "bottom feed" type, the "suspended" bowl type, the original "star" or "pine-apple" cone-shaped series of cylinders type, and the original "curved" or "converging" disc type, are all described and illustrated. The original "split wing" tubular shaft cream separator, the modern "alpha disc" type has stood the test, and in combination with new features of frame and operating mechanism, is claimed to put De Laval machines of 1909 from 10 to 30 years in advance of all would-be competitors.

VALUABLE JEWELRY FREE
BOYS and GIRLS—Your Chance!

Any one of the above illustrated pieces of jewelry—Lady's Gold Brooch set with 8 flashy brilliants, with pearl and colored stone centres. Watch and pocket watch, cuff links, etc. to plenty, and also a setting of diamonds, gold-plated ring, and lady's set with small diamonds and large and stone centres, given free for selling only 6 boxes of Dr. Snyder's Famous Vegetable Pills at 25 cents each. It is the greatest remedy known for Indigestion, Catarrh, weak or flabby bowels, and also for Colic, Headache, and other ailments. The pills are quickly acted upon and are safe and reliable. Write at once for a Postal Card with 5c. The Reliable Premium Co., Waterbury, Conn.

THE SPICE OF LIFE

He was a man of peace, and he came upon two youths in a back street fighting. Accordingly, he pushed through the crowd and persuaded the combatants to desist.

"Let me beg of you, my good fellows," earnestly besought the peacemaker, "to settle your dispute by arbitration. Each of you choose half a dozen friends to arbitrate."

"Hurrah!" yelled the crowd. "Do as the gentleman says, boys."

Having seen the twelve arbitrators selected to the satisfaction of both sides, the man of peace went on his way rejoicing in the thought of having once again prevailed upon brute force to yield to peaceful argument.

Half an hour later he returned that way and was horrified to find the whole street fighting, while in the distance police whistles could be heard blowing and police rushing to the spot from all quarters.

"Good gracious! What is the matter, now?" asked the peacemaker of an onlooker.

"Shure, sor," was the reply, "the arbitrators are at work."

The Farmer Feeds Them All.

The politician talks and talks,
The actor plays his part,
The soldier glitters on parade,
The goldsmith plies his art,
The scientist pursues his germs
O'er this terrestrial ball,
The sailor navigates his ship,
But the farmer feeds them all.

The preacher pounds the pulpit desk,
The broker reads the tape,
The tailor cuts and sews his cloth
To fit the human shape,
The dame of fashion dressed in silk
Goes forth to dine or call,
Or drive, or dance, or promenade,
But the farmer feeds them all.

The workman wields his shining tools,
The merchant shows his wares,
The aeronaut above the clouds
A dizzy journey dares;
But art and science soon would fade,
And commerce dead would fall,
If the farmer ceased to reap and sow,
For the farmer feeds them all.

—Minna Irving, in Leslie's.

Among the wealthy matrons of the official set of Washington society is a lady of Western origin whose surroundings have not always been as luxurious as now.

During an inclement spell of weather lately the lady was so unfortunate as to contract a painful affection of the throat, and she accordingly accepted the advice of a friend that she consult a specialist noted for the bigness of his fees.

"Your ailment is not a serious one," said the specialist, after examination. "You'll soon be all right. Just now, I should like to touch an affected part of your throat with this nitrate of silver."

"Oh, doctor," protested the wealthy indignation, "do use nitrate of gold! The expense is quite immaterial to me!"

A Scotchman stood beside the bed of his dying wife, and in tearful accents asked was there anything he could do for her.

"Yes, Sandie," she said, "I am hoping you'll bury me in Craeburn Kirkyard."

"But, my lass," he cried, "only think of the awful expense! Would ye no be comfortable here in Aberdeen?"

"No, Sandie, I'd no rest in my grave unless I were buried in Craeburn."

"It's too much you're askin'," said the loving husband, "and I cannot promise you any such thing."

"Then, Sandie, I'll no give you any peace until my bones are at rest in my native parish."

"Ah, weel, Maggie," said he, "I'll just gie ye a three months' trial in Aberdeen an see how ye get along."

QUESTIONS AND ANSWERS.
Miscellaneous.

PAINT FOR ROUGH SURFACE.

As my buildings are all sound and good, but are unplanned and quite rough; also my gates are just of rough-sawn lumber, what can I get to color them red, as one could not paint with oil? I would like something cheerful and businesslike, of a penetrating and durable nature.

Michigan. J. K. F.

Ans.—You might try the "Government" whitewash, with some coloring matter added. It is prepared as follows: Slake half a bushel of lime in boiling water, covering the receptacle during the process in order to keep in the steam. Strain the liquid through a fine sieve. Add to this a peck of salt that has previously been dissolved in warm water; 3 pounds of ground rice, boiled to a thin paste and stirred in while hot; 1/4 pound of Spanish whiting, and 1 pound of glue, also previously dissolved by soaking in cold water in an ordinary gluepot. Add five gallons of hot water to the mixture, stir well, and allow it to stand for a few days protected from dirt. The lime-wash should be applied hot, and should, therefore, if possible, be kept in a portable furnace. One pint of the mixture will cover a square yard of ordinary surface, and it is said to retain its brilliancy for many years. Coloring matter may be put in to make it any shade, though a neighbor who has used it, tells us that he found the coloring matter relatively more expensive than the whitewash.

DAIRY STABLES — COOLING,
BOTTLING AND KEEPING
MILK.

1. Give plan of a good dairy stable, with stanchions for tying; how to construct manger for the stanchion; would also like some advice from some practical dairyman who has had experience with stanchions, and without any partition between cows. Would from 25 to 30 cows be too many to stand together?

2. How soon could milk be bottled and sealed after milking for best keeping?

3. Would you advise stirring milk which is being kept in cans, on ice, while it is warm? Would it be better to aerate it? Would it be best to keep lids on cans overnight? Should milk have air while cooling?

W. J. G.

Ans.—1. An illustrated description of a sanitary, up-to-date dairy stable appeared in "The Farmer's Advocate" of September 17th, 1908, page 1439. Others have been published in former issues. Will some of our dairy subscribers with modern facilities for the housing of their cattle, submit further plans and suggestions? To our mind, the ideal dairy stable is a low annex, with a nine- or ten-foot ceiling, and a straw and feed loft overhead, about one-third of the stable wall-space being window (double glass), and either King, Rutherford or muslin-curtain system of ventilation, or a combination of the latter with one of the former, being installed. The cows should be in a double row, standing either tails to tails or heads to heads, there being something to say for either arrangement. Stanchion arrangements are the very acme of simplicity, all that is necessary being a well-supported iron pipe or light timber running horizontally along over the manger edge, with another pipe or low scantling at the bottom. Between these two horizontal pipes or scantlings are the swinging stanchions attached at top and bottom. Practical dairymen who have dispensed entirely with stall partitions, tell us they find their stables very satisfactory, though the experience of others would be welcome. Twenty-five or thirty cows are not too many to stand in a row, though we think it is wiser not to confine more than fifty head in one stable, as the larger the apartment the more difficult it is to keep it properly ventilated without uncomfortable drafts. Before completing arrangements for stalls and stanchions, it is well to correspond with the manufacturers of the various makes of stanchions advertised in "The Farmer's Advocate" and procure their catalogues.

2. As soon as cooled, the sooner the better. Cooling should be done at the earliest possible moment after the milk is drawn from the cow. For summer, a temperature of 38 to 40 degrees Fahr. is advised; for winter it may be higher,

to lessen trouble from freezing in transport.

3. Mr. Barr's experiments last summer with milk for cheese-making purposes indicated that it was a mistake to stir or aerate the milk in any way whatever. Aeration of milk is an exploded hobby. For the keeping of milk, as for the keeping of fruit, the sooner and more thoroughly it can be excluded from the air the better.

GOSSIP.

HOLSTEIN COLORS.

The craze for white Holsteins is a move in the wrong direction, and much to be regretted. Beginners are much misled by it, and should be set right. There is nothing in color-markings but their beauty, and light-colored Holsteins are no larger producers than dark ones, and yield no larger quantities of milk. The rich milkers are not all light-colored, nor are any notable percentage of them so marked. If there is any objection on grounds of color-markings, it probably is against nearly white Holsteins, which are subject to the same general tendency that all blonde animals are. But a few years ago, a spotted Holstein was not regarded as a beautiful one, and people are quite likely to return to their original views on the subject.—Holstein-Friesian Register.

The Lowly Hen.

By Judd Mortimer Lewis.

I'm for the hen, the lowly hen;
She lays an egg to-day and then
To-morrow goes about her biz
And where her nest of rubbish is
Lays us another. Cluck on cluck,
Day after day with endless pluck;
Happy if in solitude
She may at last hatch out a brood
Of fluffy chicks with yellow legs,
To become hens and lay more eggs.

She knows no holidays at all,
Nor Sundays. At the clarion call
Of Mr. Rooster, with a lurch,
She lunges down from off her perch,
And, once upon a footing firm,
She goes to hunt the early worm.
She takes a worm, a piece of grit,
A bug, and makes an egg of it
That will pass muster until met
In scramble, fry, or omelet.

And does she rest with one egg laid,
And lounge around beneath the shade
Of some tall tree? Not much! not she!
She scorns the shade of fence and tree,
And across shady bits and sun
She keeps a bug-world on the run,
And scratches with her toil-worn feet
Barnyard and garden, lane and street,
And with her bill doth search and poke
The stuff for albumen and yolk.

Egg after egg, day after day,
In unobtrusive, cheerful way,
And when her laying life is done,
She lounges not in shade or sun.

But with a rash that rest doth mock
She lays her head upon the block,
And, the piece de resistance of
Some boarding-house feast, shows her
love

For humankind in death. Brave hen!
Example for roosters and men!
—Exchange.

Under the department of "Locals," that spicy little monthly, the O. A. C. Review, publishes many a bright and fitting sally perpetrated by staff and students of the O. A. C. and Macdonald Institute. The following samples are from a recent number:

Baldry (to stock-food agent at Winter Fair):—"Any carbo-hydrate in that stuff?"

Agent—"Oh, no, sir; nothing of that sort, I assure you."

Why are the garments made by the Home-makers always given to big or little sisters?

Miss C. (pulling out crop in cooking class):—"For goodness' sake, this chicken has a blister in its neck."

PURITY FLOUR

And Its Keeping Qualities

SOME people find it necessary to buy a considerable quantity of flour at one time—sufficient to last for a long period. Naturally they are anxious to procure a flour of the kind best adapted to lengthy storage.

There are two important reasons why PURITY FLOUR possesses these qualities. One is that it is made entirely from Manitoba Hard Wheat. The other lies in the fact that the careful milling necessary to produce "Purity" absolutely excludes all low-grade particles of the wheat berry. It's the high grade Manitoba Hard Wheat Flour that keeps—stands longest storage.

That's "Purity."

"Purity" flour may cost a little more, but is more than worth the difference. Try it. Watch results both for quality and yield.

"More Bread
and better Bread"

WESTERN CANADA FLOUR MILLS CO., LIMITED
Mills at Winnipeg, Goderich, Brandon.



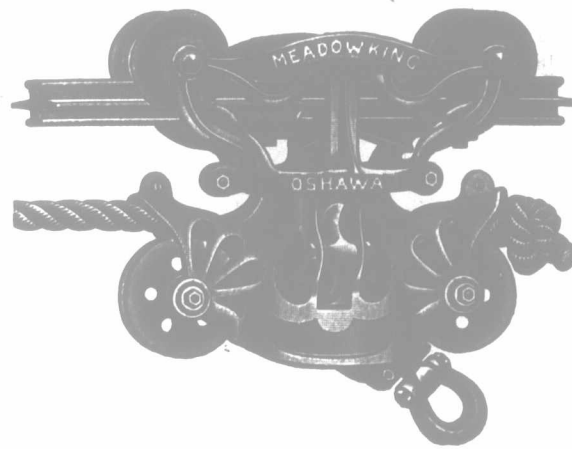
Money to Loan

We will lend you money on your farm or city property. The interest will be at the lowest current rates. No charge for application forms, land inspection or renewals. If you cannot call, your letter will receive prompt and courteous attention. All business transactions strictly confidential.

**HURON AND ERIE
LOAN AND SAVINGS CO.**

442 Richmond St., London.
366 Talbot St., St. Thomas.
Incorporated 1864 - Assets over \$11,500,000

We Have
What
You Want



The best that's made.
Write for particulars.

R. DILLON & SON
South Oshawa, Ont.

Rats We want your
shipments. Hides

Write for our latest prices.
JOHN HALLAM, 111 Front St. E., TORONTO.



Bruce's New Century Swede Turnip.

Sales season 1901, when first introduced, 16 lbs.; 1906, 4,351 lbs.; 1908, 9,370 lbs. The best all-round variety. It is one of the few Swedes that resist mildew; the best shipping variety, and for cooking purposes cannot be excelled by any other Swede. It is a purple-topped variety resembling Wesbury, of splendid uniform growth, of fine quality, a heavy cropper, and roots are clean and of handsome shape. In sections where large quantities are grown for the American market, the growers and shippers will have no other. $\frac{1}{4}$ lb., 12c.; $\frac{1}{2}$ lb., 18c.; 1 lb., 30c.; 4 lbs., \$1.15. Postpaid.

Bruce's Mam. Inter. Smooth White Carrot.

Sales season 1891, when first introduced, 14 lbs., now 1,352 lbs. The best of all field carrots, and invaluable for horses. This grand half long carrot is of large size, solid, productive, of finest quality, a splendid keeper, and has the advantage of being much more early harvested than the old long varieties. $\frac{1}{4}$ lb., 12c.; $\frac{1}{2}$ lb., 33c.; 1 lb., 55c. Postpaid.

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

John A Bruce & Co., Hamilton, Ontario.
SEED MERCHANTS. ESTABLISHED 1850.



QUESTIONS AND ANSWERS. Miscellaneous.

BREEDS OF SWINE.

Kindly publish, if available, what conformation (and color in latter) goes to make what is at present considered an ideal Yorkshire and Berkshire hog. Have you any book on this subject? If so, please state price. W. F.

Ans.—To meet the requirements of the export trade, for the English market, which is our best market at present, the same general type applies to the two breeds named, and by judicious selection and mating in recent years of animals nearest approaching the desired type, both breeds have been greatly improved, the principal characteristics being smoothness of shoulders, good length of body, spring of ribs, and strength of loin, the back being slightly arched, the hind quarters of good length, the hams and heart girth full, without flabbiness, the bone clean and strong, and the pasterns upright.

As to color in Berkshires, the standard of excellence reads: "Black, with white on feet, face, tip of tail, and an occasional splash on the arm." "Swine," by Professor G. E. Day, price \$1.25, postpaid, from this office, gives the history and excellent descriptions of the twelve principal British and American breeds, together with much other useful information regarding breeding, feeding and management.

CHEESE-FACTORY REGULATIONS—MILK FEVER—WINDGALL.

1. Had a cow about due to calve, took sick; laid down and could not get her up. Sent for vet. and he came and said she had milk fever, and treated her for same, and she afterwards died. Will a cow have milk fever before parturition? One vet. says it is impossible.

2. Horse has windgall on right hind leg. What will remove same other than a strong blister?

3. Farmer A owns and operates a cheese factory at B, having about forty patrons. How close to B can a joint-stock factory be erected, and is there any law passed, or in the House at present, relative to same? T.

Ans.—1. We have never known a case of so-called milk fever before parturition, though veterinarians claim to have known such cases.

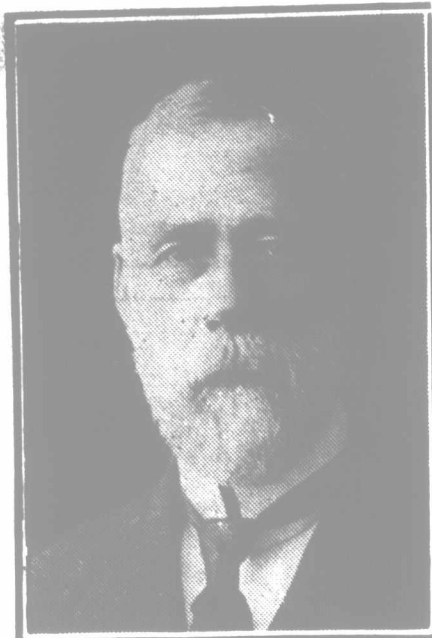
2. The treatment of windgalls often results in failure, especially in cases of long standing, though curative properties are claimed for certain proprietary specifics advertised. The free use of warm or cold water applications, followed by bandaging, in which case soft pads are found of use, and should be adjusted in such a manner as to press directly upon the enlargements. Astringent or acid liniments are also helpful in some cases, as also is blistering.

3. There is no law on the statute books of the Dominion of Canada, or the Province of Ontario, forbidding the erection of one cheese factory within any particular distance of another. There was an act passed in the Ontario Legislature last session, introduced by Hon. Jas. S. Duff, for the provisions of which see page 533 of "The Farmer's Advocate" of April 1st, and editorial April 8th.

J. S. KEMP, The Inventor of the Manure Spreader and the President of the W. I. Kemp Co., Ltd., Stratford, Ont.

MANUFACTURERS OF

Kemp Manure Spreaders AND Imperial Horse-Lift Drills



In calling the attention of the farmers of Canada to my latest improved Spreader for 1909, I would state that I built in the Township of Magog, Province of Quebec, in the year 1875, for use on a farm that I owned there, the first practical Spreader ever built, and that I have been engaged in farming and the manufacturing of the Spreader ever since.

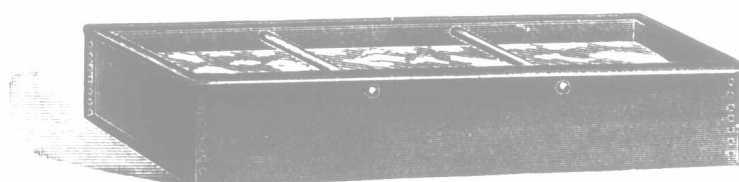
In 1906 I sold out my patents in the United States for \$50,500, this gave me a chance to devote my time to the Spreader business in Canada, where it had been started in Stratford, Ont. I moved there in the fall of 1908, and with the experience of 34 years in the business, and the experience of my sons, we are manufacturing by far the best Manure Spreading Machine ever built. This year we are equipping the Spreader with what we call the reversible self-sharpening, graded flat-toothed beater which handles every grade of material successfully, and with much less power.

To those wishing to know my experience in the use of a manure Spreader, I will be very glad to give same upon application. Most respectfully yours, J. S. KEMP, 552 Ontario St., Stratford, Ont.

Write for Manure Spreader and Seed Drill Catalogues, which fully describe these machines. Live agents wanted in unoccupied territory.

W. I. KEMP CO'Y, LTD., STRATFORD, ONT.

PERFECT STEEL TANKS



Our great specialty is Steel Tanks—perfect Steel Tanks. You want good ones—something that will stand the severest test. We make that kind making tanks is our business. We like it. How perfect we can make them is our aim. We study to see how we can make still better tanks. We take more pride in a good tank than most people do in a fast horse. We begin right down at the bottom. We send to the mills in the Old Land and get the finest quality of material. We buy in large quantities to get it cheap. We select it heavy, so it will stand the test. We employ expert workmen to make it up. We take no chances on it. Our factory is equipped with power machinery, this enables us to build up heavy tanks at the same price other people charge for light ones. It enables us to make them last. Our tanks are galvanized, so they won't rust. Thoroughly riveted and soldered so they can't leak. Finished around top with heavy steel angle, so they are strong and rigid and self-supporting. We brace them inside to prevent any bulging with weight of water. What more need we say? Look here! If our tanks are not as represented when they reach your station, just fire them back at our expense. We don't want your money if we can't give you big value for it, at least as good as three of the best wooden ones. We would not make you this offer if we had not great confidence in our goods. We supply any kind. Barn tanks, bath-room tanks, gasoline tanks, windmill tanks, milk-cooling tanks, threshers' tanks, any shape, round, square or oblong. Anything in heavy sheet steel. Write us.

THE STEEL TROUGH & MACHINE, CO., LTD., TWEED, ONT.

Farmers and Cattlemen, Read This!

When you cannot sell your export cattle at satisfactory prices at home, and wish to ship them to the Old Country markets, write or wire for steamer space, market and shipping information to

Donald Munro, Live-stock Forwarding Agent and Commission Salesman, 43 St. Sacrament St., Montreal

Load your cattle carefully, and bill them to me. I provide the necessary feed, insurance, etc., pay freight and all other expenses from shipping point, and give liberal cash advances on all consignments. Cattle are loaded on steamer under my personal supervision, and placed in charge of capable attendants for the ocean voyage. I represent the most reliable salesmen at all the different British markets.

BUSINESS ESTABLISHED 1890. REFERENCES: THE MONTREAL BANK, MONTREAL

WAGES FOR HOLIDAYS.

What is right regarding holidays for hired men? I know men can take all the public holidays, if so minded, but should they collect pay for those days they did not work in working for eight months or one year, at so much per month? G. McI.

Ontario.

Ans.—When working by the year or month, unless otherwise specified, a man is entitled to take all or any of the recognized public holidays which fall within his time, including Sundays, subject, however, in each case to the doing of such chores as must of necessity be attended to daily, and the employee is entitled to full pay for his time.

INSPECTION FOR HACKNEY REGISTRATION.

I noticed, in a letter printed in "The Farmer's Advocate," that the Canadian Hackney Society are making efforts to get suitable mares inspected for registration. Would you please give some information as to what the society would call suitable mares, such as standards of breeding to qualify, and qualifications required in general. SUBSCRIBER.

Ans.—The society does not bar any breed or breeds, so long as the mares are of a Hackney type, sound, and have good conformation. If you write the Secretary, H. M. Robinson, "The Bungalow," Don Mills Road, Doncaster, Ont., giving as many particulars as possible, he will be pleased to have the committee appoint an inspector to look at your animals, and will also send you application forms to fill in.

GOSSIP.

Official records of 153 Holstein-Friesian cows were accepted by the American Holstein Association from March 31st to April 14th, 1909. This herd of 153 animals, of which less than the usual proportion were heifers with first and second calves, produced in seven consecutive days 63,477.6 lbs. of milk, containing 2,227.11 lbs. of butter-fat, thus showing an average of 3.51 per cent. fat. The average production for each animal was 414.9 lbs. milk, containing 14.556 lbs. of butter-fat, equivalent to 59.3 lbs., or over 28 quarts of milk per day, and 17 lbs. of the best commercial butter per week. These averages are immense, being the largest yet reported.

TRADE TOPIC.

ZENOLEUM.—Mr. H. C. Stork, of Brampton, Ontario, better known as the Zenoleum man, is now Canadian distributor for popular Zenoleum, Animal Dip, Disinfectant, Lice Killer and Sheep Dip. Zenoleum is favorably known in Canada, being widely used by leading stockmen for the above-named purposes. It is easily prepared, safe and effective as a disinfectant, also for the destruction of lice on cattle and hogs, and ticks on sheep, as well as for the prevention and cure of scabies in sheep. As sheep-shearing time is approaching, a supply should be secured for dipping the flock. See the advertisement and write for free booklet.

"Protein and Fat."

Protein and fat are the important and valuable parts of feeding stuffs. The object in using Herbageum is to enable the animal to extract the maximum amount of value from the feeding stuffs. If Herbageum were pure protein and fat, it would be useless for this purpose. An even tablespoon of Herbageum, fed twice daily, ensures the thorough assimilation and digestion of ordinary feed. This means that more rough feed can be utilized. That horses will keep a good heart while doing the heavy spring work. That calves can be raised on skim milk without danger of scours, and all this at a cost which is very small.



Was it the Song or the Singer that you liked?

Often the singer's personality is charming, but it is the song you want.

You get every inflection of the voice, every vocal expression in the Edison Phonograph. Wonderful progress has been made in the perfection of the Edison Phonograph, until it is today the most perfect sound-reproducing instrument. The latest invention is

AMBEROL RECORDS for The EDISON PHONOGRAPH

—the Records which play four minutes instead of two. They are no larger than the regular Edison Records, and can be played on any Edison Phonograph (except the Gem) now in use by means of an attachment which, however, will not interfere with playing the Records you now have. If you buy a new Phonograph, it has the attachments to play both Records. Hear the Edison at a dealer's today.

FREE. Ask your dealer or write to us for illustrated catalogue of Edison Phonographs, also catalogue containing complete lists of Edison Records, old and new.

We Want Good Live Dealers to sell Edison Phonographs in every town where we are not well represented. Dealers having established stores should write at once to

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RENNIE'S

A MILK PRODUCER

JUMBO SUGAR BEET

One-pound packages, 25c. At all dealers. A big cropper.

WM. RENNIE CO., Limited, Toronto,
Montreal, Winnipeg, Vancouver.

SEEDS

GOSSIP.

HIGHEST-RECORD JERSEYS.
Cows five years and over:
Highest authenticated yield of butter-fat in one year: Jacoba Irene 146443, 952 lbs. 15.4 ozs.
Highest yield of milk—Jacoba Irene 146443, 17,253 lbs. 3.2 ozs.
Highest percentage of fat—Olive Dunn 188832, averaged 6.766 per cent.
Highest records, any age, year's test:
Highest yield of butter-fat—Jacoba Irene 146443, 952 lbs. 15.4 ozs.
Highest yield of milk—Jacoba Irene 146443, 17,253 lbs. 3.2 ozs.
Highest percentage of fat—Lassie of Sheomet 180927, averaged 7.023 per cent.
Authenticated fat estimates, seven days:
Highest yield of butter-fat, any age—Jacoba Irene 146443, 20 lbs. 8.8 ozs.
Highest yield of milk, any age—Jacoba Irene, 146443, 444 lbs. 6.4 ozs.
Highest percentage of fat, any age—Lorne's Oonan 135969, averaged 7.3 per cent.—Jersey Bulletin.

The well-known trainer, Harry Stinson, who has so successfully trained the horses at Cruickston Farm, Galt, Ont., for several years, will sever his connection with that establishment this month, and will train a public stable at some good mile track this season. Among the good colt trotters Mr. Stinson has brought out and raced while at Cruickston Farm is: Kentucky Todd, the son of Todd, that he gave a three-year-old record of 2.08½. Another is Katherine L., by Liberty Chimes, that he drove to a three-year-old record of 2.12½. Still another, and perhaps as good a colt as he ever trained, is Oro Lambert, that he gave a two-year-old record of 2.17½, and that he drove in a race as a three-year-old. He also gave Vanity Oro, a sister to Oro Lambert, a record of 2.24½ as a two-year-old, and drove her a trial of 2.15½ at that age. The famous mare, Sadie Mac, 2.06½, by Peter the Great, also took her record under Mr. Stinson's driving, and he is still of the belief that but for her untimely death, he would have driven her to a record of 2.02 or better.

TRADE TOPIC.

A MUCH-TRAVELLED SUIT-CASE.—The labels on a certain suit-case, bound from San Francisco to Japan, tell a story of world-wide travel. The first label pasted on it, indicates a stop at Honolulu, and then it enters the Mikado's domain through the port of Yokohama. On through this progressive Oriental country it presses its way, stopping at Kobe preparatory to breaking in upon the exclusiveness of Chinese society at Hong Kong, Singapore, and Shanghai. From thence, it turns westward in its course, and lands at Manila in the Philippines. Then it drops down for a friendly visit to Australian towns, and we see it fitting about from Adelaide to Perth, and from Perth to Sidney, and from Sydney to Melbourne, not even forgetting the Tasmanian towns of Hobart and Launceston. Then, coming to New Zealand, here is Wellington, Dunedin, and Auckland. Now comes a mighty leap to the far-away shores of tropical Africa. A hearty welcome is waiting from the civilization of this dark continent at Johannesburg and Pietermaritzburg, and a fond adieu is given at Port Elizabeth, for another long voyage is ahead to the shores of Western India, where a landing is made at Bombay. On to the Indian interior this suit-case presses its way till it reaches Calcutta. Then, after a brief rest, it takes up the longest lap of its Oriental wanderings, and takes passage for England. Here we trace it to Dover, to London, and Liverpool. After a world-tour embracing a year and a half, this famous suit-case now sets its face towards home and embarks for New York. The suit-case in question contained Genasco Ready Roofing, which is advertised in "The Farmer's Advocate." The company does business in all parts of the world, because their roofing, made from Trinidad Lake asphalt, is adapted to all climates, and does not crack, break, rot, or leak. Write the firm for catalogue.



Don't Throw it Away

USE MENDETS

They mend all leaks in all utensils—tin, brass, copper, granite-ware, hot water bags, etc. No solder, cement or rivet. Anyone can use them: fit any surface, two million in use. Send for sample pkg., 10c. COMPLETE PACKAGE ASSORTED SIZES, 25c. POSTPAID. Agents wanted. Collette Mfg. Co., Dept. K. Collingwood, Ont.

"SAVE-THE-HORSE" SPAVIN CURE

REG. TRADE MARK

WATCHES RESULTS FOR OVER A YEAR.

Middleton, N. S., April 12, 1909.
Troy Chemical Co., Binghamton, N. Y.:
Gentlemen.—Enclose please find check, for which please send me at once one bottle of "Save-the-Horse," prepaid to my address. This is for a gentleman of very conservative nature, who has been watching all that has been used in this vicinity, and after a year's careful study has decided that it will do what it claims.
Yours truly,
DR. LOUIS LAUNDERS.

Read What One of the Most Prominent Bankers and Business Men of Northern Ohio Did with "Save-the-Horse."

Cleveland, O., March 18, 1909.
Troy Chemical Co., Binghamton, N. Y.:
Gentlemen.—It is my pleasure to say that I never wish to be without a bottle of "Save-the-Horse." In the fall of 1907, while at Lexington, Ky., I bought one of the finest saddle and carriage horses that it was ever my pleasure to own. During the winter of 1907 and 1908 he threw out as large a thoroughpin as I ever saw on a horse. You can imagine my disappointment in having such a fine animal disfigured with a blemish of that kind. I had heard of your remedy and bought one bottle, applying as per instructions with the result that the lump on both sides of the hock is entirely gone and has been a matter of comment on the part of everyone that has seen it. The hock is to-day absolutely clean and there is no indication of thoroughpin, and I shall be glad to show this horse to the most expert veterinary in the land to show that there is no trace of the trouble. I cheerfully recommend its use to everyone whose animals have been similarly afflicted, as I regard it as invaluable.
Yours very truly,
W. F. Murray,
Prop. Murray Stock Farm, West Mentor, Ohio.

"SAVE-THE-HORSE" PERMANENTLY CURES Bone and Bog Spavin, Ringbone (except Low Ringbone), Curb, Thoroughpin, Splint, Shoe Boil, Wind Puff, Injured Tendons and all lameness, without scar or loss of hair. Horses may work as usual.

\$5.00 per bottle, with guarantee as binding to protect you as the best legal talent could make it. Send for copy and booklet.

At druggists and dealers, or express paid.
TROY CHEMICAL CO.,
148 Van Horn St., Toronto, Ont.;
and Binghamton, N. Y.

Reliable Farm Help

FOR 1909

can be secured from the

S. A. COLONIZATION AGENCY.

Send for information and application forms to:

LIEUT.-COLONEL HOWELL, TORONTO,
22 Albert Street.

Mention Farmer's Advocate.

FREE Big Magic Lantern

For selling only \$2.70 worth of Vegetable and Flower Seeds. You get it all complete, with one dozen Slides of Colored Views, good amp and magnifying lenses. You can work it yourself and give performances for your friends.

The seeds are assorted varieties, both vegetable and flower, in 5c. (small) and 10c. (large) packages and sell fast. Send to-day your name and address, plainly written. A postcard will do.

RELIABLE PREMIUM CO., Dept. X, Waterloo, Ont. 24

Make With An American Money SAW MILL

Lumber is high. A car load or two pays for an American Mill. Supply your needs and your neighbors'. No experience needed. Hand mill to timber if desired. All Sizes—All Prices. The Variable Friction Feed, Combined Ratchet Set Works and Quick Re-ceder mess in most work with least power.

Free Catalogue lists all kinds of wood working machinery. Ask for it.



American Saw Mill Machinery Co.

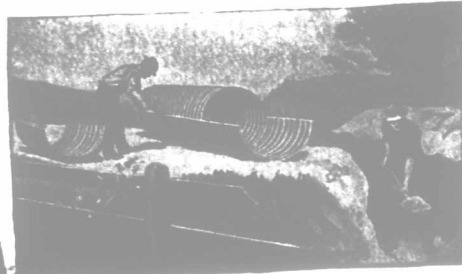
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Send Now For Sample And Booklet **PEDLAR**

For any work any culvert can be put to, nothing else yet made quite equals this new Pedlar product—Pedlar's Perfect Corrugated Galvanized Culverts. Only the Pedlar People in all Canada make a culvert of Best Billet Iron, in semi-cylindrical sections, corrugated under enormous pressure (over 60 tons to the

square inch!) and Galvanized After being shaped

PERFECT CORRUGATED GALVANIZED CULVERT



Most compact and portable culvert made, and the easiest to put in place.



This Is The Practical Culvert

Not only is the iron that makes Pedlar Culverts best quality money can buy, but it is unusually heavy—from 14 to 20 gauge, instead of lighter gauges common to inferior goods. This extra-strength enables a Pedlar Culvert to stand heavy traffic upon roads, even though protected by only a very thin cushion of soil. Mark, also, that this is the ONLY culvert made that is galvanized AFTER being curved and corrugated,—thus insuring it positively against rust and decay.

Not a Bolt
Nor a Rivet
About It

Unskilled
Labor Can
Easily Lay It

Extra-Heavy, Strong, Rust-Proof

The peculiar Pedlar flange, or locking-rib, along the whole length of each side of these Culverts, clamps together easily and most rigidly. There are no bolts, no rivets, no lock-nuts of any kind,—simply clamp the edges of the flanges together, making a triple thickness of inter-sealed heavy metal along the sides of the pipe (read below here how this is quickly done) and you have a Culvert that is enormously strong, tight, and not only leak-proof but strain and rust and frost-proof, the rib allowing for expansion and contraction.

Made of
Best Heavy
Billet Iron

Galvanized
AFTER
Being Shaped

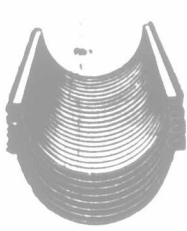
You cannot appreciate the value and the simplicity of this until you have seen the culvert itself. It is the easiest culvert to put together, and it is better when put together. It is the most portable. It costs less per linear foot to ship by freight, and a whole lot less to haul,—it nests, that's why, of course. And it will serve any culvert use better.

I KNOW it's pretty hard to make some folks believe a new thing is better than what they've been used to—a Pedlar Culvert, for instance, than concrete or wood or whatnot. But I feel pretty sure that you will SEE it is, if you will just look in to the question fairly and squarely before

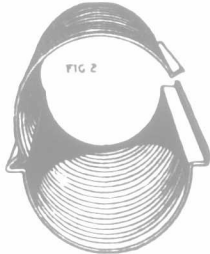


you undertake any more culvert construction, or road improvement, or ditching. Don't judge this NEW culvert by anything you've heard about other culverts. MINE IS DIFFERENT—a whole lot different, and a whole lot ahead of any other. Write to my people and make them show you why and how. We're making this in all standard diameters, from 8 inches up to 6 feet, so your wants can probably be supplied. Write and ask questions anyhow.

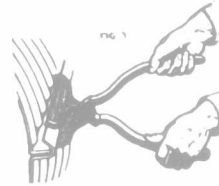
G. A. Pedlar



When the sections of Pedlar Culvert, of any diameter—it's made from 8 inches to 6 feet—reach you, they are nested like Fig. 1. Note the two distinct flanges—the radial and the recurved. These fit into each other, and are FLAT, while the CURVE of the culvert is corrugated. Place section on top of section, and the flanges, or locking-



ribs, engage easily, as you see in Fig. 2. The joints between one length and another are "broken"—no over-lap reaches more than half-way round the culvert's diameter; and this is possible with NO OTHER metal culvert made. It is a most valuable feature, for it reduces the chance of leakage to the very least minimum.



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THE PEDLAR PEOPLE of Oshawa

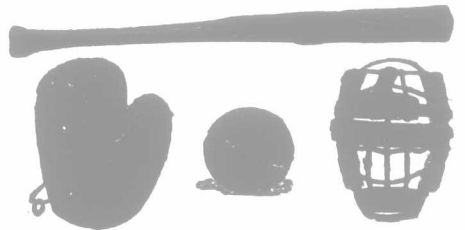
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CHATHAM



BOYS! Baseball Outfit FREE

This has done our bit, exactly as illustrated above, given free for selling only \$3.75 worth of our easy-selling Picture Post Cards, English and Canadian Views, or Collar Buttons. Send us your name and address and we will mail you the Post Cards or Collar Buttons, whichever you wish to sell. Post Cards sell 6 for 10c. Collar Buttons, set of 4, for 10c. Write at once—1 post card will do. **THE RELIABLE PREMIUM CO., De. X. Waterloo, Ont. 19**

BESSEMER GAS ENGINE OIL

Will make your engine run better and last longer. Write now for our free trial offer, and Helpful Facts for Gasoline Engine Users.

A. W. PARKS & SON,
Gasoline Engine Experts. Petrolia, Ont.

TRADE TOPIC

Some important "inside secrets" of the wire-fence business are told in plain English in the third edition of E. L. Dyer's little book, just off the presses. This expert tells facts that everybody who buys wire-fencing ought to know before buying, and it contains advice about the right and wrong ways of erecting wire fence, setting posts, testing wire for strength and elasticity, etc. Mr. Dyer writes that he will send a copy of this manual free to anyone who encloses a two-cent stamp to pay postage. His address is King Street and Atlantic Avenue, Toronto, Ont. As the edition is limited, requests for this good work should be made immediately. Mention "The Farmer's Advocate" when you write.



Is absolutely pure, strong and healthful. Delightful in flavor, nourishing, economical. Cocoa should be boiled three or four minutes in either milk or water to produce best results.

The Cowan Co. Limited,
Toronto. 86

QUESTIONS AND ANSWERS. Miscellaneous.

BROILER RAISING IN ENGLAND

Do you think if I bought a farm in England, in South Devon, and went in for raising broilers for the market, that I could make a success of it? I should breed pure stock, and buy my grain. Would it pay me? M. G.

Ans.—Better try it in Canada first, commencing in a small way, as a sideline to other employment. Certainly one would not be justified in undertaking such a business as a specialty unless equipped with thorough experience and an intimate knowledge of the conditions and market requirements of the vicinity where one proposed to operate. Even then the chances would be for much work, exacting demands on his time, and precarious profits.

RAISING WATER.

We have a drilled well, drilled down about one hundred and thirty feet. In drilling, the drill dropped about five feet, and the water raised thirty-six feet from the surface, and one can neither flood nor lower the water an inch. Our barns are on the other side of the road, and are thirty feet lower than the surface of the well. By going down hill a little farther, we can get ten feet lower yet, making it forty feet, four feet lower than the height of the water in the well, so that would make a fall of four feet. The pipes are already laid between the well and the barn.

Would there be any chance of working a hydraulic ram, and how could we get the water started to run, or would it run at all? WENTWORTH.

Ans.—An hydraulic ram would not work, because there is in the well no fall of water to afford the necessary pressure, and a siphon would not raise the water over the height of 36 feet high, because a column of water 36 feet deep is heavier than the column of atmosphere above it. Theoretically, the weight of a column of atmosphere at sea level is equal to about 33 feet of water, but in practice one would require to allow a few feet for variation in atmospheric pressure. If by burying the siphon pipe the summit over which the water need be raised could be reduced to 28 or 29 feet above the level of the water in the well, the siphon should work satisfactorily; otherwise a pump should be installed.

MOLD IN SILAGE—OATS AND BARLEY.

1. Could you give any reason for corn molding in a silo? It comes out in big chunks of solid mold all through it. It is a stone silo, 12 x 30 feet, inside, plastered smooth inside; corn was cut one day and filled in silo the next. Do you suppose it was put in too green, or what is the matter?

2. What variety of oats is best to sow with barley, to ripen about the same time?

READER FOR 25 YEARS.

Ans.—1. Mold spores are commonly present on the corn when cut, and when ensiled all the conditions except one are favorable for its development as noted. This one exceptional condition is the oxygen supply. If by thorough levelling, tramping and settling, the air can be excluded from the mass, then the mold spores cannot develop, but if the corn is rather loose, dry and coarse, when put into the silo, if it is not well-tramped and freely settled, or if the silo walls are porous, the air which is present in the loose areas, enables the mold-spores to germinate and develop. Carelessness in removing the silage when feeding, by jabbing fork tines or shovels down under the surface, also admits air and tends to the development of mold. Especially when a small quantity is fed per day, great care should be taken to keep the surface level and not to disturb any but the layer actually removed.

2. Poulney or Alaska oats ripen fairly well with Mandscheuri barley.

CORRUGATED IRON

"All corrugated looks alike to me," says the novice. "Looks alike, yes," replies the experienced builder, "but what a difference in quality!" . . . The contents of most buildings with corrugated iron roofing or siding are exceptionally valuable—factories, barns, warehouses, elevators, etc. . . . Only the best is good enough for such structures—Metallic Roofing Co.'s Corrugated Iron. . . . Absolutely free from defects—made from very finest sheets. . . . Each sheet is accurately squared, and the corrugations pressed one at a time—not rolled—giving an exact fit without waste. . . . Any desired size or gauge—galvanized or painted—straight or curved. . . . Send us your specifications.



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Better Crops Less Work

Every farmer wants to grow better crops and he wants to lessen the labor of growing them—that's the reward he gets when he owns and uses

THE BISSELL STEEL LAND ROLLER

The roller that increases farm profits and lightens the labor. Runs light, does splendid work, and lasts a life-time. Don't buy until you get "The Bissell Book" telling all about this roller. Book's free—write today. Address Dept. W.

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Buchanan's Swivel Carrier

For unloading Hay and all kinds of Grain.

For wood track, steel track, red and cable track. Made entirely of malleable iron; no springs. Fitted with our patent deadlock. 25,000 of our Haying Machines in use, is the best guarantee that we build them right.

Write for catalogue of Carriers, Slings, Stackers etc.—and name of dealer near you who handles Buchanan's M.T. Buchanan & Co., Ingersoll, Ont.

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind, or Choke-down, can be removed with

ABSORBINE

on any Bunch or Swelling. No blister, no hair gone, and horse kept at work. \$2.00 per bottle, delivered. Book 3 D free.

ABSORBINE, JR., for mankind. \$1.00, delivered. Reduces Goitre, Tumors, Wens, Varicose Veins, Ulcers, Hydrocele, Varicocele. Book free. Made only by

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LYMAN'S Ltd., Montreal, Canadian Agents.

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For selling only \$1.50 worth of our Vegetable and Flower Seeds. You can have any one of the above-illustrated articles of Jewelry—Lady's Gold Brooch set with 8 flashy brilliants, with pearl and colored stone centre, pair Sun's Gold plated Jewel Cuff Links with pretty cut stone setting, or Lady's Gold plated Ring, brilliantly set with small diamonds and large cut stone centre. The seeds are assorted varieties, in 1/2, 1/4 and 1/8 (three) packages. Are fast sellers. Send at once—your name and address. A post card will do. **The Reliable Premium Co., Dept. X, Waterloo, Ont.**

GOES LIKE SIXTY SELLS LIKE SIXTY \$65

GILSON GASOLINE ENGINE

For Pumping, Cream Separators, Churns, Wash Machines, etc. **FREE TRIAL.** Ask for catalog all sizes

GILSON MFG. CO. LTD., 150 York St., Guelph, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

HENS LOSING FEATHERS.

Why do chickens only one year old lose their feathers at this time of year?

INQUIRER.

Ans.—It may be due to feather-pulling, to the depluming mites, or to a disease called favus. There are differences in the symptoms of these several affections. Had our inquirer been more explicit, a more useful answer could be given.

IODIDE OF POTASSIUM FOR FRESHENING COWS.

Please let me know whether feeding potassium iodide to a cow due to calve in a couple of weeks, be injurious to her or the calf. Had I better wait until she calves? I intend letting the calf suck.

R. C. F.

Ans.—As the iodide of potassium treatment induces a degree of systemic disturbance it would probably be better to wait until a few weeks after parturition before commencing treatment, especially if the disease (lump jaw) is not in a very advanced stage.

VETERAN LAND GRANTS.

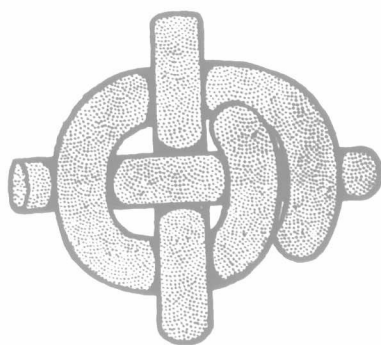
1. What settlement duties are attached to South African veteran Northwest land warrant or scrip?
2. Can such duties be done by anyone who may purchase such scrip?
3. Will the Government accept settlement duties as done by a person other than the one who files on a homestead in the Northwest?

VETERAN SUBSCRIBER.

Ans.—1. According to the Volunteer Bounty Act, the ordinary homestead provisions of the Dominion Lands Act apply to perfecting of the entry and the performance of the settlement duties. Declaration is demanded to the effect that the applicant is over 18 years of age, that the land applied for is agricultural, and open to entry, and that no person resides on the land; that application is made for his exclusive use and benefit, with the intention of residing on and cultivating the said land. The time for the perfecting of the entry by the commencement of residence thereon is six months from the date of entry, but under certain conditions the Department may grant an additional six months. Residence is required in a house for six months in each year, during a period of three years, and said house must be worth at least \$500 before application for patent. Cultivation is required each year, a total of at least thirty acres being under cultivation before applying for patent.

2. The person becoming the substitute of a volunteer under the form provided in the Volunteer Bounty Act, 1908, takes the place in all respects of the volunteer whose substitute he becomes, and is therefore entitled and required to do the duties attaching to the grant.

3. The regulations require that the duties attaching to a homestead shall be done by the homesteader in person; the residence duty particularly cannot be done by proxy. The same rule obtains with regard to the volunteer land grant.



The Lock that makes "Page Fences Wear Best."

Nowadays, poke your head out of door and you meet a Fence Agent.

They all have the "Best," the "Guaranteed-to-give satisfaction" kind, etc., so that the only practical

guide you have is price. Because one galvanized wire looks just exactly as good as another, you conclude that all fences are alike.

Say, if you had that booklet "How to Prove and Test Wire," which we mail free upon written request, you would not have to take everybody's say-so. Make 'em prove up—Page dealers and all, and, if possible, make the Tests from rolls of fence actually made up for use, not "samples" sent for the purpose. The day for buying fence without proving the quality to be as-good-as-the Page, is past.

That booklet—it is really a practical text-book on the fence question. Every farmer or property owner ought to have it. Formerly had a big sale at ten cents per copy, but as the Page Wire Fence Co., Limited, have acquired the copyright, they mail it free to enquirers. Send for it to-day.

THE PAGE WIRE FENCE COMPANY, Limited
WALKERVILLE TORONTO MONTREAL ST. JOHN

IMPORTED SHIRES At their St. Thomas stables, the John Chambers & Sons Co., of England have for sale stallions and fillies from their noted Shire stud, high-class representatives of the breed. Correspondence solicited. Address **DR. C. K. GEARY, St. Thomas, Ont.**

IMPORTED CLYDESDALES My new importation of Clydesdale stallions and fillies, landed a short time ago, are an exceptionally choice lot, full of flashy quality, style and character, and bred right royally. I will sell them at very close prices, and on terms to suit. **C. W. BARBER, Gatineau Point, Quebec.** "Close to Ottawa."

NEW IMPORTATION OF CLYDESDALES. My new importation of Clydesdales are now in my stables: 14 stallions, 2 fillies. Visitors will find them as choice a lot as ever seen in Canada. Big, full of style and quality, and bred right royally. **T. D. ELLIOTT, Bolton, Ontario, P. O. and Station**

COMPLETELY SOLD OUT! EXPECT TO LAND MY NEW IMPORTATION OF CLYDESDALES AND HACKNEYS about March 10th. My motto is: Quality, not quantity. **THOS. L. MERCER, MARKDALE, ONT., P. O. AND STA.**

IMPORTED CLYDESDALES My new importation for 1908 has now arrived—stallions and fillies—personally selected. Richest in breeding; highest in quality; with abundance of size and character. Sold on terms to suit. **GEO. G. STEWART, HOWICK, QUE.**

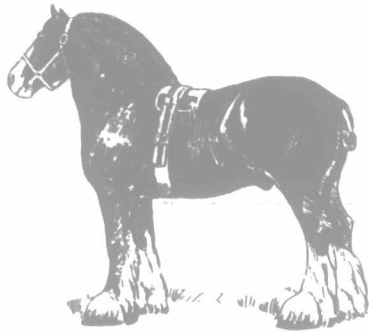
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**GOUBAULT'S
CAUSTIC
BALSAM.**

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.

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Just as you insure your Buildings.

The loss of a stallion represents a certain capital, the reimbursement of which comes in handy to replace the lost animal whether death be due to accident or disease.

On payment of a small premium our Company will insure your stallion, as well as your Horses, Mares, Colts, Fillies, Bulls, Cows, Calves, Hogs and Sheep, against death by accident or disease.

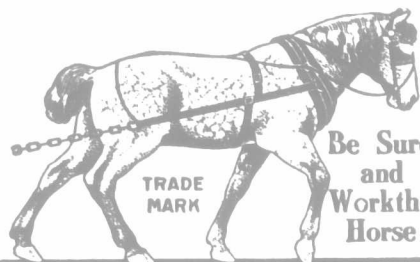
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CO. OF CANADA.

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HE CAN WORK EVERY DAY

If you use Bickmore's Gall Cure your teams can work right all day and be cured of Saddle and Harness Galls, Chafes, Rope Burns, Cuts, Scalds, Gores, Grease Heels, etc., while in harness. The more work the quicker the cure.

BICKMORE'S GALL CURE

is the standard Remedy for all these and similar troubles. Is excellent for Manes and Sore Heats in cows. Above trade mark is on every box. For sale by dealers. Money refunded if it fails. Sample and Horse Book every farmer should read free.

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Ormsby Grange Stock Farm, ORMSTOWN, P. Q.

DUNCAN McEACHRAN, F. R. C. V. S., D. V. S.,
Proprietor.

Importer and breeder of
high-class pure-bred **CLYDESDALES.**
Farmers or ranchmen starting breeding Clydes,
pure or grade, specially invited to correspond.

FOR SALE: Three Registered Clydesdale
Stallions, rising four years old, also one
registered brood mare, in foal to imported sire, four
years old. One of these stallions is imported,
others Canadian-bred. All three good heavy ones,
with lots of quality. Apply to: **R. T. Brownlee,
Hemmingford, Que.**



VETERINARY INSTRUMENTS (Trocars, Hopples, Impregnators) for Horses,
Cattle, Swine, Poultry, etc. Received
only award World's Fairs, Chicago, St.
Louis. Write for illustrated catalogue,
Haussmann & Dunn Co., 392 So. Clark
St., Chicago.

GOSSIP.

A Boston undertaker refused to sign a petition to restrict the speed of automobiles on the ground that the restriction would injure his business.

Whiskey never cured or could cure the bite of a rattlesnake, declares a scientist. We assent. At the same time it is worth mentioning that it has created rattlesnakes with purple feathers.

No matter the age, do not sell the brood sow as long as she produces good, strong litters. But if a sow is not a good breeder, sell her, regardless of her age.

An advantage in feeding pure-bred pigs is that they are ready for the market at any age. A pure-bred of from 200 lbs. to 250 lbs. will often sell for more per pound than a heavier and older pig.

A HEALTHY CLIMATE.

"The climate is considered very healthy here, I believe," remarked the tourist in Arizona. "Yes, if you mind your own business," replied the native.—Philadelphia Record.

A four-year-old half-bred Hackney stallion is advertised in this issue for sale, by Henry M. Douglas, formerly of Meaford, now of Stayner, Ont., on the Alandale to Collingwood branch of the G. T. R., where he has purchased a 90-acre farm adjoining the town.

BETTER TO COMPROMISE.

"Which do you favor, protection or free trade?" "Well," answered the orator, "it depends on the audience I am addressing. In most cases I find it advisable to compromise on the humorous anecdotes."—Washington Star.

A letter from a large farmer in Saskatchewan says: "I have sold twelve horses lately, and could have sold forty or fifty if I had them to spare, but I must hold enough for my own use. I made \$385 off a pair of three-year-old mares the other day, and directly they were sold, another buyer wanted them at \$400." This proves that there is life in the draft-horse trade in the West, and there is no doubt that breeders will benefit by the activity which prevails there. The same writer says: "I have just sold 5,000 bushels of oats, and have done the hauling alone, which is quite a job. The town is four miles distant, and I made three trips a day with 160 bushels to the load, and two days out of three I also went to the creek (two miles each way) for a load of water, but, of course, I changed horses." This shows that the Canadian farmer gets a move on his times.

THE COW WAS ALL RIGHT.

Railway men—conductors, engineers and brakemen—are so accustomed to communicate with each other by means of gestures that the habit of looking for such dumb signals becomes a kind of second nature. In this connection a Western railway official tells of an amusing incident in that part of his State, where it is so common for cattle to be run over that the manager of one "era-water" line required his engineers to report all such accidents, with full particulars as to place, time and circumstances.

One day a complaint was received at headquarters that a valuable cow had been killed on a certain trestle and by a certain engine. The case was referred to the proper department, but reference to the files showed that the engineer had failed to report such an accident. Accordingly he was sent for and asked why he had omitted to report the matter. "I didn't know I hurt the cow," he said.

"Then you remember hitting her?"
"Yes, and I slowed up as she rolled over on her back, but she waved her feet for me to go ahead, and so I concluded she was all right."—Harper's Weekly.



EWING

"Quality" SEEDS



Mean a whole lot to the man who wants to get the utmost out of his time, labor and money.

Nature will do her share, but she cannot produce good hardy crops from poor, weak seeds.

The purchasing price of "EWING'S SEEDS" may seem dear when compared to some bargains, but the wise sower will look to the future.

The value of good SEED is apparent at harvest time. EWING'S SEEDS are good seeds, they sell on their merits.

FREE—Our '09 Illustrated Catalogue. Write for it.

WM. EWING & CO.,
Seedsman,
142 McGill Street, MONTREAL.

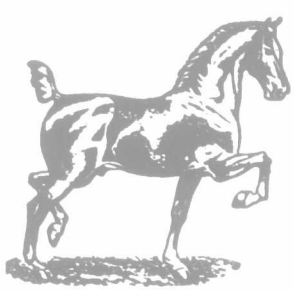


No. 10 Piano Box BUGGY.
Price, \$57.00.

INTERNATIONAL CARRIAGE CO., BRIGHTON, ONTARIO.

Fifteen Years Selling Direct

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 15 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 today.



UNION STOCK-YARDS Horse Exchange

WEST TORONTO, CANADA.

The Greatest Wholesale and Retail Horse
Commission Market.

Auction sales of Horses, Carriages, Harness, etc., every Monday and Wednesday. Horses and harness on hand for private sale every day.

The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. Northwest trade a specialty. HERBERT SMITH, Manager. (Late Grand's Repository).

FOR SALE: "RIVAL DUKE"

Imported English Shire Stallion

Sure foal-getter—One of the best Shire stallions in Canada. Also one 2-year-old stallion and two registered mares, 3 and 4 years old. Retiring from horse business. Will sell cheap to close them out.

H. E. GEORGE, Crampton, Ontario.

NEW CLYDESDALE IMPORTATION.

My new importation of 24 Clydesdale stallions is now in my stables. I invite inspection and comparison. I think I have the best lot for size, style, character, quality and action ever imported. 27 Clyde stallions and 8 Hackney stallions to select from. Prices right, and terms to suit.

T. H. HASSARD, MARKHAM, ONT.

POST OFFICE, PHONE AND STATION.

CLYDESDALES AND SHORTHORNS.—Both Imported and Canadian-bred, at Columbus, Ont., the Home of the Winners.


Our last importation landed in August. They include the pick of Scotland from such renowned sires as Baron's Pride, Everlasting, Baron of Buckley, Hiawatha, Marsells, Sir Everest, and Prince Thomas. We have on hand over 30 head to choose from, from the above noted sires, from 1 to 6 years old, and including stallions and mares. Correspondence solicited. Call and see them at our barns, Columbus, Ont., before purchasing elsewhere. Our prices are right. Long-distance phone in houses. Phone office, Myrtle station, Myrtle station, C.P.R.; Brooklin station, G.T.R.; Oshawa station, G.T.R. Smith & Richardson & Sons, Columbus, Ont.

Clydesdales and Hackneys

We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. HODGKINSON & TISDALE, BEAVERTON, ONTARIO.

IMP. CLYDESDALE STALLIONS AND FILLIES.—Our new importation of stallions and fillies are the best we could select in Scotland, particularly well bred, with the size, smoothness and quality that Canadians admire. Show-ring stuff. Come and see them. Will sell on terms to suit. JOHN A. BOAG & SON, Queensville P. O. Ont.; Newmarket Sta., G. T. R. Telegraph and telephone one-half mile from farm. Metropolitan Street Ry. from Toronto crosses the farm.

Lump Jaw



The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durably bound, indexed and illustrated. Write us for a free copy.

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Used and endorsed by 45 Agricultural Colleges. Write to me for information and Free Booklet.

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For Lamé Horses

For curb, splints, spavin, wind puffs, sprains or swellings of any kind, use Tuttle's Elixir. Results are quick and permanent. Tens of thousands of farmers, the owners of great city stables, the race horse men, all swear by

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Best for colic, distemper and founder. Also makes the most effective leg and body wash.

Only 50 cents a bottle at all dealers. Keep Tuttle's Worm Powders, Condition Powders and Hoof Ointment on hand also. If not at your dealer, we'll ship by express.

Valuable Veterinary Book Free. Write for a copy today. Full of important pointers to every horse owner. A 100-page illustrated guide free, but it is worth dollars.

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ARTIFICIAL MARE IMPREGNATORS

For getting from 1 to 6 mares in foal from one service of a stallion, \$3.50 to \$6.00. Safety Impregnating Oufit for barren and irregular breeders, \$7.50. Serving Hobbles, Stallion Bridles, Shields, Supports, Service Books, etc. prepaid and guaranteed. Stallion Goods Catalog FREE.

CRITTENDEN & CO., Dept. 38 Cleveland, Ohio, U.S.A.

For Sale or Hire

A choice half-bred Henckey 4 years old, with star and white hind stockings. A superior individual, and a good actor all round. Winner of first at three of the biggest shows in Canada. Price \$400. Rent \$200.

HENRY M. DOUGLAS, STAYNER, ONT.
Formerly Meaford.

Hereford Bulls

One two-year-old. One yearling. Both from prizewinning stock. The best of breeding, and in fine order. Prices low to quick buyer.

H. D. Smith, Hamilton, Ont.
"INGLESIDE FARM"

The Sunny Side Herefords.

The herd that has the best of breeding and individual merit. For sale: Bargains in 2-year-old, yearling and bull calves. Some cows and heifers to spare. Write for prices. Long-distance phone.

M. H. O'Neil, Southgate, Ont.

Aberdeen-Angus Cattle

For Sale: Cows, Heifers, Bulls.

Good strains at reasonable prices. Apply to:

Andrew Dinsmore, Manager,
"Grape Grange" Farm, Clarksburg, Ont.

For sale: The right sort, some of them by Klondyke, imp. Drumbo station.

WALTER HALL,
Washington, Ontario.

Wanted! Young Shorthorn Bull

Write, giving full description and price, to:

R. P. ROBINSON, WHITNEY, ONTARIO.

QUESTIONS AND ANSWERS. Miscellaneous.

MILK DRAWING.

At a cheese-factory meeting last fall, it was passed by a vote that where a milk wagon was on the road, no patron be allowed to put in his own milk. That has been the rule for ten or twelve years. The directors were to hire the milk drawn.

1. Can any patron who puts in his own milk claim pay for it? The milk is drawn by the ton.

2. Two wagons are on the one road for a mile or so, and one drawer offers to draw for those on the other side for less than the usual rate. Their milk always went to a wagon another road. If the directors say that their milk is to go to the wagon as always, have the patrons or the other milk drawer any claim against the directors for damages? Ontario.

Ans.—1. No; assuming, of course, that there was on the road, and available to the patron, a milk wagon employed for the purpose by the directors.

2. No.

HOLSTEIN REGISTRATION RULES.

Please give information regarding Holstein registration in both C. H. H. B. and H.-F. H. B., with cost of same; also what does the letters A. R. O. stand for, giving conditions of entering same; also give explanation of the seven and the thirty-day tests. W. H. M.

Ans.—In order to have an animal registered in the Holstein-Friesian Herdbook of Canada, the owner must fill out a form for application for registry, which will be supplied free by the Secretary, G. W. Clemons, St. George, Ont., which form must be signed by the breeder, by the owner, and by the owner of the bull at the time of service. The sire and dam of the animal must be registered previously, and if either has been sold, a certificate of transfer of ownership, forms for which are furnished by the Secretary free, must be procured. The fee for registry is \$1 for an animal under one year, and \$2 for one over one year, for members, while for non-members the fee is \$2 for an animal under one year, and \$4 for one over one year. The membership fee is \$5, and there is an annual fee of \$1. Members receive, free of charge a copy of each Herdbook issued after the date of their application for membership.

The letters "A. R. O." are used in the United States for "Advanced Registry Official," which means official records, made under the rules of the Advanced Registry. The system of official testing in Canada is called "Record of Merit." The records accepted in this Record must be supervised by a representative of an Agricultural College, and must be sworn to by the owner, the milker, and the official tester. In order to be accepted in this Record, a two-year-old cow must produce 8 lbs. of butter-fat in 7 days, a three-year-old cow must produce 10 lbs. butter-fat, a four-year-old cow must produce 11 1/2 lbs. butter-fat, and a mature cow must produce 13 lbs. butter-fat. The rules for 30-day tests are the same as for the 7-day test. The supervisor must oversee the test for the whole length of the test. For blank forms for official tests, write the Secretary. The Record-of-merit rules are printed on the back of these forms.

For rules of registry and testing in the American Association, write the Secretary, F. L. Houghton, Brattleboro, Vermont.

Veterinary.

BURSAL ENLARGEMENT.

Mare has developed a fluctuating swelling on the posterior aspect of hock, near the seat of curb. She shows slight lameness after a long drive. W. A. M.

Ans.—This is a bursal enlargement, and will be very hard and tedious to reduce. Get a liniment made of four drams each of iodine and iodide of potassium, and four ounces each of glycerine and alcohol. Rub a little well into the enlargement once daily. If it blisters, cease the application, and apply a little sweet oil daily until the scale is removed. Then use the liniment again, etc. V.

For Your Pocketbook's Sake Read This.

I am so confident that the Olds Engine is the most economical and most durable engine you can buy that I will make this proposition to every buyer of an Olds Engine:

I agree to replace, free of charge, any part of an Olds Engine that breaks or becomes worn, from any cause whatsoever, within one year from date of shipment, provided the replacement is one you think should be borne by the manufacturer. You are to be the only judge. There is to be no argument, no delay in returning old parts and getting new ones; you decide and I abide by your decision.

J. B. SEAGER, Gen'l Mgr.

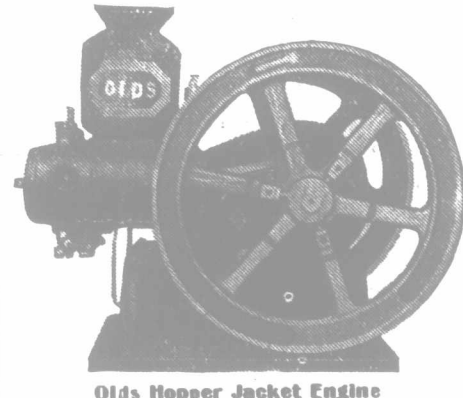
Do you think this proposition could be made on any engine but a practically perfect one? You can easily see that to stand this supreme test of durability and perfect workmanship it must be built right, of the very best material, of the simplest construction. This is the kind of an engine you want. You take no chances in buying an Olds. All of my representatives can furnish these repairs without any delay. They do not have to consult me. Write to my nearest agent. He can fix you out with the best engine you can buy, no matter what others cost.

OLDS ENGINES

Give you the power you need at the price you can afford to pay for it.

DO NOT THINK OF BUYING AN ENGINE WITHOUT INVESTIGATING AN OLDS.

Write To-day for Our Handsome Catalogue.



Olds Hopper Jacket Engine

It contains many fine pictures of the very latest models of Olds Engines, with a detailed description that makes the engine question as plain to you as an open book. It contains letters from farmers who have used the Olds Engines, and give their practical, every-day experience with it. Olds Engines are made in all sizes to suit every kind of work on the farm. We have exactly the kind of engine you want. Tell me what you want to do, with it, and I will tell you just exactly the kind of engine you want to buy to do the work. It will be an expert opinion that costs you nothing.

E. B. ECHLIN,
19 York St., Hamilton, Ont.
MAIN OFFICE:
Olds Gas Power Co.,
Lansing, Mich.



STANDARD WIRE FENCE

Look at it yourself. See how "The Tie That Binds" is driven farther around, so that it has a hook on the line wire that can't slip off. Being driven at an angle, it can't injure the running or upright wires. Study the wire fence question in our book. Sent free on request. Also sample lock.

THE STANDARD WIRE FENCE CO. OF WOODSTOCK LIMITED, WOODSTOCK, ONT.

WILLOWDALE SHORTHORNS

I have for sale some very fine young stock bulls and heifers ready to breed. Descendants of Joy of Morning, Broad Scotch and other noted sires. Also Chester White Swine and Imported Clydesdale Horses.

J. H. M. PARKER, LENNOXVILLE, QUE.

WE ARE PRICING VERY REASONABLY

10 Choicely-bred Young Shorthorn Bulls

Also one extra good imported bull, 22 months old. We have always something good to offer in females. Imported or home-bred. Write for what you want, or come and see them. Bell phone at each farm. **W. G. PETTIT & SONS,** Farms close to Burlington Jct. Sta., G. T. R. **FREEMAN, ONTARIO.**

SHORTHORNS

Calves for sale by our grand quartette of breeding and show bulls: Nonpareil Archer, Imp., Proud Gift, Imp., Marigold Sailor, Nonpareil Eclipse. Females, imported and from imported stock, in calf to these bulls. An unsurpassed lot of yearling heifers.

Belmar Parc. John Douglas, Manager. **PETER WHITE, Pembroke, Ont.**

WANTED—HERDSMAN

Capable of taking charge of show and breeding herd. Apply, giving full particulars, to **J. A. WATT, SALEM, ONT. ELORA STATION, G. T. R. AND C. P. R.**

Now

is the time to buy a bull for service next year, because we sell CHEAPER now than we do next spring. Why not write to us RIGHT AWAY for a BARGAIN in bulls from R. O. M. dams? Or better yet, call and see us.

E. & F. MALLORY, Frankford, Ont.

A \$5,000 DAN PATCH STALLION FREE

This New Picture of **DAN PATCH 1:55** in Six Brilliant Colors
MAILED FREE



DAN PATCH 1:55

This new picture of Dan Patch 1:55, in the finest I have ever gotten out for framing. It is printed in six brilliant colors and is free of advertising. It gives his age and a list of all the fast miles paced by Dan. Being made from a "Speed Photograph" it shows Dan as lifelike as if you stood on the track and saw him in one of his marvelous and thrilling speed exhibitions. You ought to have a fine picture of the King of all Harness Horse Creation and the Fastest Harness Horse the world has ever seen. I will mail you one of these Large, Beautiful, Colored Pictures of Dan Patch 1:55 free With Postage Prepaid and full particulars concerning my plan of Giving Away a \$5,000.00 Dan Patch stallion if you will simply write me.

A \$5,000 DAN PATCH STALLION FREE

An Absolutely Free Hair Counting Contest Without Money or Purchase Consideration And Open To Any Farmer, Stockman or Poultry Breeder. Can you count the number of hairs drawn in a picture of "Forest Patch," sired by Dan Patch, and by Monac by Belmont. Write for one of the Above Dan Patch Pictures. I will also mail you a photo engraving of "Forest Patch," the fine Registered Stallion to be given away and ALSO Drawing showing hairs to be counted and also stating any conditions. Every stock owner will want to count the hairs on this splendid \$5,000.00 Dan Patch Stallion because it means a small fortune free for someone. We paid \$50,000 for Dan Patch and have been offered \$100,000. We would have lost money if we had sold Dan for One Million Dollars. "Forest Patch" may secure this \$5,000 Dan Patch Stallion Absolutely Free. "Forest Patch" might make you a fortune of \$25,000 to \$50,000 as a great stock horse for any community because he will make a 1500lb. stallion with great style and beautiful conformation.

E. B. SAVAGE, Toronto, Canada.

International Stock Food Co.

300- Mail this Free Coupon To-Day to E. B. SAVAGE, Toronto, Can.

YOU MUST FILL IN THE THREE BLACK LINES IN THIS FREE COUPON

CUT OFF HERE

E. B. Savage, International Stock Food Co., Toronto. Will you please mail me Postage Paid one of the Beautiful Six Color Pictures of Dan Patch 1:55, the World's Champion Harness Horse, described above, and also full particulars of your plan of Giving Away a \$5,000.00 Dan Patch Stallion. I have filled out the coupon, giving the number of live stock I own, and my name and address.

I own..... Cattle..... Hogs..... Horses..... Sheep
 Name.....
 Post Office..... Province.....

Scotch Shorthorns



Have yet for sale, two extra good bulls, imported, just ready for service; also one good roan Canadian-bred bull, grandson to Batton Chancellor, imp.; also a grand lot of heifers. Write or call on

H. J. Davis,
 Woodstock, Ont.

Long-distance Bell 'phone. C. P. R. & G. T. R.

SHORTHORNS!

A few cows and heifers with calves at foot by Good Morning, imp. No bull to offer of breeding age. Office both stations.

SCOTT BROS., HIGHGATE, ONT.
 M. C. Ry P. M. Ry

Shorthorns and Shropshires

Herd headed by Imp. Queen's Counsellor = 64218 = (96594). For sale - Three young bulls; also cows and heifers bred to Queen's Counsellor.

The Shropshires are yearling rams and ewes, bred from imported Buttar ram.

H. L. STEAD, Wilton Grove, Ont.
 London, G. T. R., 6 miles; Westminster, P. M. R., 1 mile. Long-distance 'phone.

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.

WM. SMITH, Columbus, Ontario
 Brooklin and Myrtle Stns.

Shorthorns, Cotswolds, Berkshires.

Nine bulls from 9 to 14 months, from imp. and home-bred cows, and sired by Pride of Day 55192; also cows, heifers and heifer calves. Nothing to offer in Cotswolds or Berkshires.

Chas. E. Bonnycastle, Campbellford, Ont.
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MAPLE HOME SHORTHORNS

Our present offering: Two choice young bulls; also some good heifers and young cows. Away above the average. Pure Scotch and Scotch-topped.

A. D. SCHMIDT & SONS, Elmira, Ont.

Scotch Shorthorns For sale. Broad-horns Prince (imp.) 55002; also 4 choice bulls got by him. Good red and dark roan - 11 to 18 months, out of grand milking dams. Also cows and heifers. Lowest prices for quick sale. DAVID MILNE, FREL, ONT.

Scotch Shorthorns We now offer four heifer calves 10 and 11 months old. All reds. Bred from imp. sire and dams. Will be sold right. C. RANKIN & SONS, Wyebridge P. O., Ont. Wyevale Stn.

7 Imported Scotch Shorthorn Bulls 7

Six imported bull calves from 9 to 14 months old, 3 reds and 3 roans. They are of such noted families as Clara, Jilt, Roan Lady, Butterfly, Claret and Broadhorns. One imp. bull 2 years old, red; a most valuable sire. One bull 11 months old, roan, from imp. sire and dam; promising for a show bull. Two bulls 12 months old, from imp. sire and dam; suitable for pure-bred or grade herd. Also females all ages. Write for catalogue. Prices reasonable. Farm 1/4 mile from Burlington Junction station, G. T. R.

FRED. BARNETT, MANAGER.

J. F. MITCHELL, BURLINGTON, ONT.

ROBIN HILL FARM

SHORTHORNS AND CLYDESDALES.

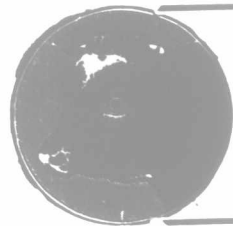
We offer our stock bull, Merry Master (imp.) = 45197, for sale or exchange; one heifer from imported sire and dam. We also offer a few registered Clydesdale fillies and mares in foal.

Wm. Ormiston & Sons, Columbus Ontario
 Brooklin, G. T. R.; Myrtle, C. P. R.
 Phone Brooklin Centre.

Scotch Shorthorns!

I am offering a few choice young bulls, also heifers in calf to imp. bull. Will be pleased to furnish pedigrees and prices upon application.

JOHN MILLER, Brougham, Ontario.
 Clarendon Stn., C. P. R.



SOME SHOW PROPOSITIONS IN BOTH MALE AND FEMALE

SHORTHORNS

as well as a number of the useful sort of both sexes. Prices right. Large lot to select from. Up-to-date in breeding, etc. Catalogue.

JOHN CLANCY, H. Cargill & Son, Cargill, Ont.
 Manager.

SPRING VALLEY SHORTHORNS

One 14 months' old imported bull, bred by A. M. Gordon. Good enough to head any herd. Five Canadian-bred bulls from 12 to 16 months. Will be priced very reasonable, as we do not want to run them over.

KYLE BROS., AYR, ONT.

Greengill Shorthorns!

Our present offering consists of 10 young bulls, from 8 to 20 months. All nice reds and roans. A number of them from imp. sire and dam. Prices right.

R. Mitchell & Sons, Nelson P. O., Ont.
 Burlington Jct. Sta.

WHY NOT BUY A HIGH-CLASS SCOTCH SHORTHORN COW, Or a Heifer, Or a Bull, Or a Few Shropshire Ewes, Or a Few Cotswold Ewes, NOW, While You Can Buy Them Low?

I can offer you something in any of them that will make a start second to none. Write for what you want. ROBERT MILLER, STOUFFVILLE, ONT.

Scotch Shorthorns

Canada's greatest living sire, Mildred's Royal, heads my herd. For sale are young bulls and heifers, show stuff and Toronto winners, out of Stamford, Lady Ythan, Claret, Emeline, Matchless and Belona dams. A visit will be appreciated. GEO. GIER, Grand Valley P. O., Ont. Waldemer Sta., C. P. R.

JOHN GARDHOUSE & SONS

Always have for sale a number of first-class Shorthorns, Shires and Lincolns, of both sexes. Drop us a line, or better, come and see for yourself. HIGHFIELD P. O., ONTARIO.
 Weston Sta., G. T. R. & C. P. R. Long-distance 'phone in house.

SHORTHORN BULLS

farmers' prices. Females for sale. Write, or come and see. H. SMITH, EXETER, ONTARIO.

Herd-heading quality and breeding. Also good ones at Farm adjoins town.

Shorthorn Cows and Heifers.

I have Village Maids, Village Blossoms, English Ladies, Lancasters and Wimples, for sale. Four with calves at foot, and one yearling heifer fit for any show-ring. One mile east of St. Mary's.

HUGH THOMSON, Box 556, ST. MARY'S, ONT.

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My herd are profitable milking Shorthorns. For sale are a few females and two good red bulls, of good milking dams, for spring service. I. A. Wakely, Bolton, Ont., P. O. and Station. Farm within 1/2 mile of station.



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For sale - a grand young bulls from ten to eighteen months old. Young cows with calves at foot, and ten one and two-year old heifers. All our own breeding. Some are very choice show animals. Also young sows, and a one-year 12 months old. S. J. PEARSON, SON & CO., MEADOWVALE P. O. AND STATION, C. P. R.

QUESTIONS AND ANSWERS.

Miscellaneous.

SYMPTOMS OF MILK FEVER.

What are the symptoms of milk fever? How does a cow act when she has milk fever? Does it attack them suddenly? G. W. F.

Ans.—See answer to J. G., April 13 issue; page 653.

CURB ON COLT—CEMENT FOR STABLES.

I have a valuable yearling colt which has a slight curb on his right hind leg. 1. Would this be counted a blemish on a heavy horse? 2. Can it be removed? 3. I put a cement floor in my cow stable two or three years ago. I would now like to make some changes in the gutter. Can I do so? If so, what strength of cement will I need to use? 4. Would you advise me to put in a cement floor in my horse stable? Would I need to set a piece into cement to nail a floor for the horses to stand on? R. W. B.

Ans.—1. Yes. 2. Curbs are very hard to remove. Repeated blistering is the standard treatment. Some claim to have had good results from the use of one or other of the advertised specifics for such ailments. 3. You can tear out the old floor where necessary, and by leaving rough surfaces, build in the gutter to suit. One part Portland cement to five parts of sharp sand and gravel is suitable for stable floors. Two inches or less, on a solid bottom, is satisfactory. 4. Cement floors in horse stables are popular. Some bury timbers to which the planks in the stall can be nailed, others have a sill along the front under the mangers, to which the stall flooring can be hooked or nailed; others again leave the contractor or framer to fit in the stall flooring securely, with the kicking posts as the main support.

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MANGELS AND SUGAR BEETS—FLAT OR DRILL CULTURE—SEED NEEDED—SOAKING THE SEED.

1. What difference is there in the feeding qualities of mangels and sugar mangels? Will I get a larger yield per acre by sowing the common mangels? 2. Are they better sown on the flat or in drills? 3. Would it do to sow them with the grain-seed drill? 4. Would you advise rolling after sowing? 5. How many pounds per acre ought to be sown? 6. Are mangel seeds better soaked before sowing? L. J.

Ans.—1. Shaw says: "Owing to the high sugar content of sugar beets (sugar mangels) they are more highly relished than other field roots, and are also more valuable for fat-production, but they are not more valuable for feeding young animals to promote growth, and are probably less valuable for producing milk." The latter point may, perhaps, be open to question, but considering the fact that ordinary mangels outyield sugar mangels by several tons per acre, we think they are more profitable to grow for young stock and dairy cattle; for hogs the sugar mangels are rather to be recommended.

2. Some growers are successful with each method. If the land is fairly clean, and is to be well cultivated, and especially if it is inclined to suffer from drouth, sowing on the level is a good plan. Experiments with sugar beets at the O. A. C. indicate a slight advantage of flat over ridged cultivation. By sowing on the level and making frequent use of the weeder, both before and after thinning, some fine yields of mangels have been grown, with a minimum of hand labor.

3. Fairly well. 4. Yes, that is to say, the soil should be firm about the seed, but it would be better, if practicable, that the surface should be loosened afterwards to a shallow depth. Possibly a weeder might be used to advantage in this connection.

5. About four pounds of good seed is sufficient. Seed houses recommend four to six pounds. 6. O. A. C. experiments indicate a no-tangible advantage from soaking mangel seed for 12 hours before planting.

YOUR DANGER BEGINS WHEN YOUR BACK ACHES.

It is the First and the Sure Sign of Kidney Disease.

Doan's Kidney Pills

sure the aching back by curing the aching kidneys beneath—for it is really the kidneys aching and not the back.

They act directly on the kidneys and make them strong and healthy, thereby causing pure blood to circulate throughout the whole system.

Mrs. Frank Foss, Woodside, N.B., writes:—"I was a great sufferer with backache for over a year, and could get nothing to relieve me until I took two boxes of Doan's Kidney Pills and now I do not feel any pain whatever, and can eat and sleep well; something I could not do before."

Doan's Kidney Pills are 50 cents per box or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The Doan Kidney Pill Co., Toronto, Ont.

1854-Maple Lodge Stock Farm-1909

Shorthorn bulls and heifers of extra quality and breeding, and from best milking strains.

Leicesters of first quality for sale. Can furnish show flocks.

A. W. SMITH, Maple Lodge P.O., Ontario. Lucan Crossing Sta., G. T. R., one mile.

Registered SHORTHORN Yearling Bull This is a bull of superior quality. Dark red. Sired by Bapton Chancellor (imp.), that noted sire of prize stock. Will be sold worth the money. James R. Wood, Preston, Ontario.

"I canna leave ye thus, Nancy," a good old Scotchman wailed. "Ye're too auld to work, an' ye couldna' live in the almshouse. Gin I die, ye maun marry anither man, wha'll keep ye in comfort in yer auld age."

"Nay, nay, Andy," answered the good spouse. "I could na' wed anither man, for what wad I do wi' twa husbands in heaven?"

Andy pondered long over this, but suddenly his face brightened.

"I ha'e it, Nancy," he cried. "Ye ken auld John Clemmens? He's a kind man, but he is na' a member of the kirk. He likes ye, Nancy, an' gin ye'll marry him, 'twill be all the same in heaven—John's na' Christian."

HE TOOK A FRIEND'S ADVICE

And Dodd's Kidney Pills soon Cured His Backache.

How Malcolm McKinnon Found Complete and Permanent Relief From His Kidney and Stomach Troubles.

Shunacadie, Cape Breton Co., N. S., April 26.—(Special.)—Suffering with backache so much that he could not work, Malcolm McKinnon, a well-known resident of this place, took a friend's advice and used Dodd's Kidney Pills. The result is that he is back at work and his backache is gone.

"Yes," he says, in speaking of his case, "I was troubled with backache, due to wet feet and hard work. It got so severe at last I was quite unable to do my work."

"It was through a friend's advice I started to use Dodd's Kidney Pills, and I was soon aware that they were doing me good. My back was easier and I had less pain in urinating."

"As Dodd's Kidney Pills had done me so much good, I thought I would try Dodd's Dyspepsia Tablets, and I did so, with marvellous effect. Two boxes set my stomach right."

With Dodd's Kidney Pills to keep my kidneys well and the blood pure, and Dodd's Dyspepsia Tablets to put the stomach in shape so that the body receives the nourishment it needs, you are assured of the two first essentials of health. Any doctor will tell you that.

QUESTIONS AND ANSWERS. Miscellaneous.

TRANSPLANTING EVERGREENS.

In the past, I have not been fortunate in getting evergreen trees to live in school grounds. I have tried a number of times, but very few of these trees have lived. Will you kindly give me some instructions in the matter? Maples have always lived well for me. E. W. W.

Ans.—Much more care has to be exercised in transplanting evergreens than deciduous trees, such as maples. A slight exposure of the roots of an evergreen to the sun or drying wind will often cause the death of the tree, whereas maples and trees of that nature will stand considerable exposure of this kind. In either case, however, the roots should be protected as much as possible from sun or drying wind. The hole for the roots should be dug large, and good, mellow surface soil should be placed in the bottom, and nothing but good soil placed around the roots. The earth should be tramped firm around the roots as soon as they have been nicely covered, and surface soil should be left loose and open to act as a mulch. It is a good plan to place straw, or something of that kind, around the tree after it is planted, to act as additional mulch and hold moisture, which insures conditions most favorable for rooting of the tree.

O. A. C. H. L. HUTT.

ALFALFA WITH TIMOTHY—LIMING LAND.

1. How would alfalfa do to mix with timothy seed instead of clover to sow with oats, in part clay and loam soil?

2. Would dry slaked lime be good to put on a meadow instead of manure? How, and how much to an acre should I put on? How would it do on a field of potatoes? B. S.

Ans.—1. While some few farmers follow this plan, and advance good reasons for doing so, it is open to several objections. Alfalfa does not usually yield best until the third or fourth year after sowing, hence its maximum value is not derived when grown in a short rotation. In the second place, alfalfa should be cut much sooner than timothy is ready, if its greatest feeding value is to be obtained. Another objection is that the long, tough taproots of the alfalfa render the sod somewhat difficult to plow. To our way of thinking, red clover is a more satisfactory seed to sow with timothy, although when the chief reliance is on the legume and not on the grass, there is something to be said in favor of alfalfa instead of clover, the main advantages being that alfalfa, if well cured, makes better feed, and does more to improve the land by deep subsoiling and otherwise. In short, it excels clover in most of its own virtues, though also in its vicissitudes. All things considered, we recommend for Canadian conditions, sowing clover in rotation, and alfalfa in a separate meadow, or as a component of a permanent-pasture mixture.

2. Lime should not be regarded as a substitute for manure, for, while it adds one minor element of fertility (calcium), its main virtue is the neutralizing acidity and in promoting chemical reactions which tend to liberate plant food already in the soil. Manure, on the other hand, adds the three important elements of fertility, to wit: nitrogen, potash and phosphoric acid, and also the humus, or vegetable matter, so necessary for a satisfactory physical condition of the land. Nevertheless, lime may often be applied to advantage in moderate quantities, say thirty to fifty bushels of air-slaked lime per acre, it being especially beneficial to legumes, particularly alfalfa, which demands an alkaline or sweet condition of the soil, and plenty of calcium to build up into its tissues. Applied to a meadow, the most noticeable effect would be to stimulate a growth of clovers, these responding to lime more kindly than the grasses. Broadcast in spring, with a shovel, or, better, with a manure spreader. It would be unwise to apply lime to potato land, unless in an extremely sour condition, for an alkaline condition of the soil, such as lime would bring about, favors the development of potato scab.

You Fertilize! Why not Fumigate The Soil?

Countless millions of Slugs, Moths, Ants, Lice, Flies and Beetles live in the ground and are hatched out in warm weather.

These millions live by feeding on and destroying your crops.

They can easily be killed, IN THE GROUND, by using APTERITE—the wonderful soil fumigant.

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Fumigation is just as important as fertilization. As a rule, the richer the soil, the more insects it contains.

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Shorthorn Cattle AND LINCOLN SHEEP.

Females of all ages for sale of the thick-fleshed, low-down kind that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes, bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale.

J. T. GIBSON, DENFIELD, ONT.

A. Edward Meyer,

P. O. Box 378, Guelph, Ontario,

Breeds SCOTCH SHORTHORNS Exclusively

Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.)—55042—(90065) 295765 A. H. B.; Gloster King—68708—283804 A. H. B. Young stock for sale. Long-distance phone in house.

An Opportunity MAPLE SHADE FARM.

Long-distance telephone. JOHN DRYDEN & SON, BROOKLIN, ONT.

GEO. AMOS & SON, Moffat, Ontario.

For sale: Imp. Ben Lomond—45160—80468, that grand stock bull, sire of first-prize calf herd at Toronto, 1908; and Augustus, a good Bruce Augusta bull calf; also females, various ages. Write, or come and see us. Farm 11 miles east of City of Guelph, on C. P. R.

PRINCE GLOSTER 40998

IS FOR SALE. Also four yearling bulls, and a few heifers. Shorthorns that will do good. Good breeding and show quality.

STATIONS: MYRTLE, C. P. R. BROOKLIN, G. T. R.

JOHN DRYDEN & SON, BROOKLIN, ONT.

SHORTHORNS

Nine bulls from 8 to 20 months old, reds and roans; 10 yearling heifers and a few cows. Will sell very cheap to make room in stables.

CLYDESDALES

One pair of bay mares and one dark brown, heavy draft and two spring colts.

JAMES McARTHUR, Gobles, Ontario.

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way to arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls. 100 head to select from. Imported Pentiac Hermes, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented. Putnam station, near Ingersoll.



H. E. GEORGE, Crampton, Ont

MAPLE GLEN For sale: Only 1 bull, 11 months old, left; dam is sister to a 26-lb. tested cow. Any female in herd for sale, 7 with records 20 1/4 to 26 1/4 lb. official tests. An 8-yr.-old G. D. of Paul Beets De Kol, in calf to Oakland Sir Maida—her record 21.88 as a 5-yr.-old. Price \$400, or will dispose of herd en bloc, a great foundation privilege. G. A. Gilroy, Glen Buell, Ont. Long-distance phone connects with Brockville.

BUSINESS HOLSTEINS!

Over 60 head to select from. Milk yield from 60 to 85 lbs. a day, and from 35 to 47 lbs. a day for 2-yr.-olds. There are 10 2-yr.-old heifers, 8 1-yr.-olds, and a number of smaller calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. W. Higginson, Inkerman, Ont.



LAKEVIEW HOLSTEINS We have for sale 4 young bulls ready for service, 2 of them by Brightest Canary, whose several nearest dams average 25 lbs., and whose B. F. test shows 4 1/2; the other 2 equally as well bred. We have also for sale a few pure-bred females and a number of heavy-milking H.-stein grades. LAKEVIEW FARM, BRONTE, ONTARIO. Write us for particulars. W. D. Brecken, Manager. Long-distance phone



HOMEWOOD HOLSTEINS

For Sale: Only thirty bull calves from 4% R. O. M. cows; some will make great herd headers and show animals. Write for prices and description. Station on the place. M. L. & M. H. HALEY. Springford, Ont.

The Maples Holstein Herd! RECORD-OF-MERIT COWS.

Headed by Lord Wayne Mechthilde Calamity. Nothing for sale at present but choice bull calves from Record of Merit dams; also a few good cows at reasonable prices. WALBURN RIVERS, Folden's Corners, Ont.

MR. A. I. HICKMAN,

Court Lodge, Egerton, Kent, England,

EXPORTER OF PEDIGREE LIVE STOCK Of all descriptions. During the summer months the export of show and stud flocks of sheep will be a speciality. Who can do better for you than the man who lives on the spot? Mr. Hickman will be at the Bell Hotel, Gloucester, during the week of the Royal Show, and will be pleased to meet all foreign and colonial visitors there.

HOLSTEINS Two bull calves, two yearling heifers, two two-year-old heifers. Prices right for quick sale. White Rock and Buff Orpington eggs. Utility pens, \$1 per setting; exhibition pens, \$2 per setting. DAVID RIFE & SONS, Hespeler, Ont.

Boo Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists
75 Church St., Toronto, Ontario

CANADIAN PACIFIC

NO CHANGE OF CARS GOING TO

Western Canada

ON C. P. R.

Homeseekers' Excursions

Special Trains from Toronto
April 20th and every second
Tuesday until September 21st.

Low Round-Trip Rates. Colonist and Tourist Sleeping Cars.

For copy of Homeseekers' Pamphlet, rates and full information, apply to nearest C. P. R. Agent, or R. L. Thompson, D. P. A., Toronto.

FAIRVIEW HERD

The greatest A. R. O. herd in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose secondary records average 294 pounds each, and over 43% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple, 31.62 pounds butter in 7 days, and 126.56 pounds in 30 days, at 4 years old. Cows and heifers in calf to the above two bulls for sale, also young bulls sired by them out of large-record cows. Write, or come and inspect our herd. **E. H. DOLLAR, Heuvelton, St. Lawrence Co., N. Y., near Prescott, Ont.**

Centre and Hill View Holsteins

We are now offering 8 choice young bulls from 6 to 10 months of age, with high official backing. These are a grand lot of young bulls. We are entirely sold out of females for the present.

P. D. EDE,
Oxford Centre P. O., Woodstock Sta., Ont.

WOODBINE STOCK FARM

Offers a few fine young Holstein bulls and bull calves, sired by Sir Mechthilde Posch. Sire's dam holds world's largest two-day public test record, dam Ianthe Jewel Mechthilde, 27.65 lbs. butter in 7 days; average test, 4.46 per cent. fat; out of dams with superior breeding and quality.

Shipping stations—Paris, G. T. R.; Ayr, C. P. R.
A. KENNEDY, Ayr, Ont.

IMPERIAL HOLSTEINS!

For sale: 13 bulls of serviceable age, sired by Tidy Abbe Kirk Mercedes Posch, whose 7 nearest dams have records within a fraction of 27 lbs. Out of show cows, with high official records. A high-class lot of young bulls. **W. H. SIMMONS, New Durham, Ont., Oxford County.**

Glenwood Stock Farm

Holsteins and Yorkshires. Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock.

Thos. B. Carlaw & Son, Warkworth P. O., Ont., Campbellford Stn.

Holsteins at Ridgedale Farm

Eight bull calves on hand for sale, up to eight months old, which I offer at low prices to quick buyers. Write for description and prices or come and see them. **R. W. WALKER, Utica P. O., Ont.**

Shipping stations: Myrtle, C. P. R., and Port Perry, G. T. R., Ontario Co.

For Sale! "HOLSTEIN BULLS"

Either of TWO Yearling "HOLSTEIN BULLS" Both dams have official records over twenty pounds of butter in seven days, and top-notch breeding on the sire's side. **FRID ROW, Currie's Crossing, Oxford Co., Ontario.**

Maple Hill Holstein-Friesians

Special Offering: One cow (bred), freshened in December. Two bull calves, calving in December; very choice.

G. W. CLEMONS, ST. GEORGE, ONT.

QUESTIONS AND ANSWERS.

Miscellaneous.

DYING WITHOUT A WILL.

Father died without any will. He leaves a wife and several children.

1. What portion of the land property can mother claim by law? What portion of the money, stock, implements, and household furniture can she claim? Can one heir receive his portion before the others, that is to say, five or six months before the rest do?

Ontario.
Ans.—1 and 2. The widow may either take her dower (that is, a third of the lands for life), and a third, absolutely, of the personal property; or one-third, absolutely, of the entire estate, real and personal. 3. Generally speaking, no.

FORMS FOR MILK RECORDS AND SERVICE.

1. Who is the right person to apply to for blank milk-weight forms for keeping milk records, and do they cost anything; and do those who get them have to make a report?

2. Who do you apply to for blank service forms for Clyde horses?

S. J. M.
Ans.—1. Apply to Prof. J. H. Grisdale, Central Experimental Farm, Ottawa. There is no charge for the forms, but we understand it is expected that those who use them shall report.

2. Accountant National Live-stock Records, Department Agriculture, Ottawa.

ACCIDENT TO EMPLOYEE.

I hired a married man for the year at \$250 per year, with his board, but in the winter the man was cutting wood with me in the bush and accidentally cut his foot with the axe, and was nine days at the house.

1. Can I make him put in the nine days he lost?

2. Or can I stop it out of his wages?

3. Can I make him pay for his board the time he was at the house?

4. Can he recover from me in the courts the nine days he has worked over his year, meaning the nine days he put in for the time he lost?

Ontario.
Ans.—1, 2, 3, and 4. No.

HUNTING AND HOUNDS.

1. Have persons the privilege of shooting on a farmer's property without his permission at any time of the year?

2. Can they also use hounds?

3. How can a farmer prevent persons from bringing hounds on his property, when hounds have, on different occasions, worried sheep in the neighborhood?

4. Could he shoot them at sight, if not accompanied by their owner, if he posted notices to that effect?

Ans.—1 and 2. Not if they have had notice not to do so.

3. The farmer should give notice as prescribed by Sec. 25 of the Ontario Game and Fisheries Act (1907).

4. Probably not. See Revised Statutes of Ontario, 1897, Chap. 271, Sec. 9, as to circumstances under which the farmer may kill dogs.

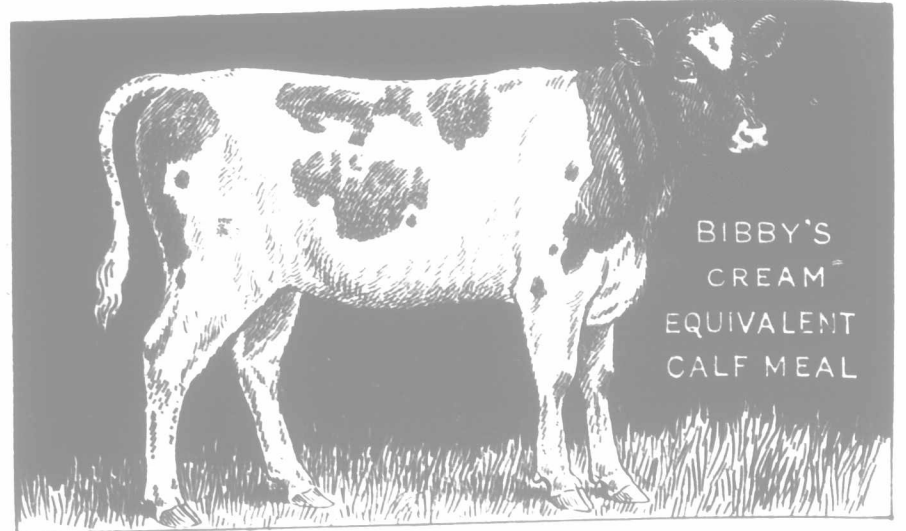
FLUES FOR RUTHERFORD VENTILATION SYSTEM.

What number and size of outlets and inlets would be required for the Rutherford system of ventilation in a barn 60 feet square, to hold ten horses and twenty-five cattle?

J. W. S.
Ans.—In a barn of the dimensions mentioned, supposing the cattle and horses to be in one and the same compartment, that is, there being no divisions, I would suggest two inlets on each side, each about 8 inches square, or, if not that size, at least of that area. These inlets might pass under the wall or through the wall. If they pass through the wall, then a small box should surround the opening on the inside so as to deflect air and give it an upward tendency when it enters the building.

Two outlets, each two feet square, will be sufficient for a building of this size containing the number of cattle mentioned. Care should be taken to provide the outlets with good keys to control the flow of air. The outlet pipes should be so located as to be possible of extension two or three feet above the highest part of the roof. If constructed to such a height, they will be certain to give satisfaction, if power they are not always perfect working perfectly.

J. H. GRISDALE.



BIBBY'S
CREAM
EQUIVALENT
CALF MEAL

GOOD TO THE LAST DROP

There is no other calf food, save new milk itself, which contains so much nourishment as BIBBY'S CREAM EQUIVALENT MEAL.

It is heartily relished by young stock, is practically predigested, and can be fed with perfect safety to the youngest animals. It is a perfect substitute for new milk, and contains the same elements of nutrition. Mixed with milk and water, separator milk, or water only, it makes a nutritious feed that cannot be equalled for bringing calves and young piglets up to first-class condition, and preventing scouring and other ailments. BIBBY'S CREAM EQUIVALENT is in constant use by most of the leading breeders of high-class stock. Calves relish it, and thrive well upon it; it is easy to prepare, and costs much less per meal than other preparations.

For sale by all dealers or direct from W.M. RENNIE CO., Ltd., Toronto, Montreal, Winnipeg, Vancouver.



Stonycroft Ayrshires

Choice young bulls and heifers of the very best breeding, combining show and dairy quality.

Large Improved Yorkshire Pigs from imported sires and dams, now ready to ship.

Stonycroft Stock Farm, Ste. Anne de Bellevue, Que.

Prizewinning Ayrshires

FOR SALE:

5 High-class Bulls, from 6 to 24 months of age; 10 Cows and Heifers, from 6 months to 5 years of age.

All bred from the deepest-milking strains.

A. Kennedy & Son, Vernon, Ontario.

Hillview Stock Farm, Winchester station, C. P. R.

SPRINGBROOK AYRSHIRES

are large producers of milk, testing high in butter-fat. Young stock for sale.

Ord. is booked for calves of 1909, male and female. Price—right. Write or call on

W. F. STEPHEN, Box 163, Huntingdon, Que.

Ayrshires from a Prizewinning Herd—Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to

W. M. STEWART & SON, Menie P. O., Ont.

BURN SIDE AYRSHIRES

are in such demand that I have decided to make another importation. I intend attending the great dispersion sale of the world-renowned Barcheskie Herd, belonging to Mr. And. Mitchell, Kirkcubright, Scot., where some 300 of the choicest Ayrshires ever offered will be sold. Orders entrusted to me will be carefully attended to. Breeders, take advantage of this great sale, and replenish with a few good ones. Correspondence solicited and satisfaction guaranteed. Long-distance phone in house.

R. R. NESS, HOWIE K. QUE



HOWGLEN AYRSHIRES!

For sale: 75 pure-bred registered Ayrshires, all ages; prizewinners; many imported. Apply to

ALIAN P. BLUF, Fustis Quebec.

AYRSHIRES

bull and heifer calves from producing dams. Right good ones.

Hickory Hill Stock Farm, Dundas Station and telegraph.

N. DYMENT, Clapton, Ont.

CATTLE AND SHEEP LABELS

SIZE. PRICE. DOZ. 50 TAGS.

Cattle 75c. \$2.00

Light Cattle. 60c. 1.50

Sheep or Hog 40c. 1.00

Postage paid. No duty to pay.

Cattle labels with name and address and numbers; sheep or hog labels with name and numbers. Write for sample free.

F. G. JAMES, BOWMANVILLE, ONTARIO.

Brampton Jerseys

Canada's premier herd. Dairy quality. Bulls all ages for sale, from best dairy and show cows in Canada, and by best sires. Our herd is 175 strong.

B. H. BULL & SON, BRAMPTON, ONT.

Maple Villa Oxfords, Yorkshires

The demand for Oxford Down sheep and Yorkshires has been the best I ever had. I have still for sale shearing ewes and ewe lambs, and young sows sale in pig. These will certainly give satisfaction.

J. A. CERSWELL, BOND HEAD P. O., ONTARIO
Simcoe County.

IMPORTED HORNED DORSETS

I have for sale a few of both sexes, the get of last year's champion all round the circuit, Imp. Romulus 2nd. Canada's banner flock of Dorsets.

JAS. ROBERTSON & SONS, Milton P. O. and Sta. C. P. R. and G. T. R.

THANKS TO CUSTOMERS!

We fully appreciate the many kind words of commendation of Sheep and Barley shipped on mail orders. Not having had a single word of complaint makes us feel rather good as to our past seasons. Kindly accept of our heartiest thanks.

J. & D. J. Campbell, Fairview Farm, Woodville, Ont.

CLAYFIELD Buy now of the **Champion Cattle Stock** world flock of America, 1906. Flock of different FARM! headers, ranch farms, ewes of different ages. All of first-class quality, and prices reasonable. Write, or call on **J. C. ROSE, Box 61 Jarvis, Ont.**

Oxford Down Sheep, Shorthorn Cattle, Hogs.—Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Buena Vista Farm, Harriston, Ont.**

SOUTH DOWNS AND COLLIES.

Long-distance Telephone.

Orders now solicited for especially-fitted sheep. Your choice of early lambs from imported and prizewinning Canadian-bred ewes, and by the sire of the Grand Champion wether at Chicago, 1907. Twenty shearings, the choice of last year's lamb crop, also for sale.

ROBT. McEWEN, Byron, Ont. Ry. Stn., London, Ont.

Please Mention The Farmer's Advocate

BRONCHITIS

Bronchitis is generally the result of a cold caused by exposure to wet and inclement weather, and is a very dangerous inflammatory affection of the bronchial tubes.

The Symptoms are tightness across the chest, sharp pains and a difficulty in breathing, and a secretion of thick phlegm at first white, but later of a greenish or yellowish color. Neglected Bronchitis is one of the most general causes of Consumption.

Cure it at once by the use of



Mrs. D. D. Miller, Allandale, Ont., writes: "My husband got a bottle of Dr. Wood's Norway Pine Syrup for my little girl who had Bronchitis. She wheezed so badly you could hear her from one room to the other, but it was not long until we could see the effect your medicine had on her. That was last winter when we lived in Toronto.

"She had a bad cold this winter, but instead of getting another bottle of Dr. Wood's Norway Pine Syrup, I tried a home made receipt which I got from a neighbor but found that her cold lasted about twice as long. My husband highly praises 'Dr. Wood's,' and says he will see that a bottle of it is always kept in the house."

The price of Dr. Wood's Norway Pine Syrup is 25 cents per bottle. It is put up in a yellow wrapper, three pine trees the trade mark, so, be sure and accept none of the many substitutes of the original "Norway Pine Syrup."

IF YOU'VE NEVER WORN
TOWERS
SLICKER
you've yet to learn the bodily comfort it gives in the wettest weather
MADE FOR
HARD SERVICE
AND
GUARANTEED
WATERPROOF
AT ALL GOOD STORES
TOWERS CANAMAR Co. TORONTO, CAN.

The young man and the girl were standing outside the front door having a final chat after his evening call. He was leaning against the doorpost, talking in low tones. Presently the young lady looked around to discover her father in the doorway, clad in a dressing gown.

"Why, father, what in the world is the matter?" she inquired.

"John," said the father, addressing himself to the young man, "you know I have never complained about your staying late, and I'm not going to complain of that now; but for goodness' sake stop leaning against the bell-push and let the rest of the family get some sleep."

DODD'S KIDNEY PILLS
CURES ALL KIDNEY DISEASES
RHEUMATISM
BRIGHT'S DISEASE
DIABETES BACKACHE
NUMBER 23 THE PRODUCE

QUESTIONS AND ANSWERS. Miscellaneous.

SHARE OF TENANT AND LANDLORD.

A wishes to let his farm on shares for one year, the plowing being nearly all done. There are twelve acres of alsike and about eight acres of hay on farm.

1. What share of alsike and hay should A get?
2. What share of grain crop should A get, tenant to find seed and leave same amount of plowing done.

Ontario.

Ans.—1. We think the better way would be for the tenant to undertake to leave an equivalent amount of land in hay and alsike at the termination of his lease, and to take the same share of this year's crop as of other crops raised on the farm, but if this plan is not acceptable or feasible, we should say the tenant should make the hay and harvest the alsike seed, if any, for, approximately, one-third of the yield, depending, however, upon the character of the meadow and prospective amount and value of the crop. In case of the alsike, we should think the straw might all be allowed to the tenant, providing he used it on the farm. Probably the landlord should pay a share of the threshing expenses.

2. Much depends, of course, upon conditions, including location, buildings, and productiveness of the farm. Merely by way of affording a basis for calculation, we should suggest that if the landlord pays taxes and the tenant finds everything, including seed, a fair basis of division would be one-third to the landlord and two-thirds to the tenant.

SEPARATOR MILK VS. PASTEURIZED WHEY.

Would you please say, through the columns of "The Farmer's Advocate," what difference in feeding value per hundred pounds between separator sweet milk and pasteurized whey from a cheese factory for feeding pigs and calves? W. B.

Ans.—Except for the fact that whey is not infrequently diluted with a certain proportion of wash water, it may be said that pasteurized whey and sweet skim milk contain about the same percentage of albuminoids, sugar and ash. The whey is minus practically all of the casein and most of the fat found in whole milk, the average residue of fat being about one-quarter or three-tenths of one per cent. Separator milk should contain not over a tenth of one per cent. of fat, but retains practically all the casein. The difference in the feeding value of pasteurized whey and skim milk is, therefore, the difference between say, two-tenths of a pound of fat and 24 pounds of casein. Just what this is, we are not prepared to say. There is need for a great deal of experimental work to settle this problem of the relative values of sweet separator skim milk and pasteurized whey. The skim milk has been rated at from 15 to 25 cents per cwt., and our conviction is that it is cheap at 20 cents. Prof. Day's experiments last summer would seem to indicate that sweet unskimmed whey was worth, approximately, that amount for pig-feeding, though until these results are substantiated by further work, one would not be justified in placing too much reliance upon them, as Prof. Day himself has pointed out. Our idea is that the feeding value of good whey is considerably greater than has been commonly credited. While hesitating to name figures, we think it well within the mark to say that placing skim milk at 20 cents per cwt., pasteurized whey (allowing for a certain amount of dilution with wash water) should be easily worth ten cents, or a shilling. Some dairymen who have fed pasteurized whey to calves, claim that it is nearly if not quite equal to separator milk.

Mr. W. P. Ross, of Grenfell, Sask., has recently imported a number of Shire horses from England, including a stallion, a winner at the Royal Show; also a Hackney mare, which was a winner at the London Hackney Show. By the same ship came Mr. E. Evans, an English Hackney breeder, who is taking up farming near Edmonton, Alta., and who brought with him half a dozen choice mares and fillies.

SEA GREEN & PURPLE SLATE ROOFS NEVER WEAR OUT

SEA GREEN AND PURPLE SLATE is nature's own product—not man made. Quarried from solid rock—split into convenient form for laying, and then in its natural state ready for the roof. **SOLID ROCK CAN NOT WEAR OUT.** It can't burn, rust, warp, crack, tear, or decay. That's why Sea Green or Purple Slate Roofs never wear out and never require painting and repairing like all other roofing. Sea Green & Purple Slate Roofs are suitable for any building, new or old. Give perfect protection. Reduce insurance rates because spark and fire-proof. Afford clean cistern water. Not affected by heat or cold. First cost—only a trifle more than short lived roofing. Settle your roof question for all time. Don't spend more money for poor roofing. Write to us for our free book "ROOFS"—it will save you money. Give name of your local roofer. Write today. **AMERICAN SEA GREEN SLATE CO., Box 3 Granville, N. Y.**

ROOFS NEVER WEAR OUT

NEWCASTLE TAMWORTHS, SHORTHORNS AND CLYDESDALES. Present offering: 1 registered Clydesdale mare due to foal April 30 to imp. Clyde stallion; 3 Shorthorn cows with heifer call at foot; 3, 4 and 5 months old respectively and bred again; a choice lot of Tamworth boars and sows from 6 weeks to 5 months old, also a few choice sows bred to farrow in April, May and June. **A. A. COLWILL, NEWCASTLE, ONT.**

DUROC-JERSEY SWINE Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either sex also Embden geese. **MAC CAMPBELL & SONS, HARWICH, ONT.**

MONKLAND YORKSHIRES are the easily-fed, quick-maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now. **JAMES WILSON & SONS, FERGUS, ONTARIO.**

Willowdale Berkshires! Won the leading honors at Toronto this fall. For sale are both sexes and all ages, from imp. stock on both sides. Show things a specialty. Everything guaranteed as represented. **J. J. WILSON, MILTON, ONT., P. O. AND STATION, C. P. R. AND G. T. R.**

PINE GROVE BERKSHIRES. Sows bred and ready to breed. Nice things, three and four months old. **W. W. BROWNIDGE, Milton, C. P. R. Ashgrove, Ont. Georgetown, G. T. R.**

OHIO IMPROVED CHESTER WHITES. Largest strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 6 weeks to 6 months old. Pairs furnished not skin. Express charges prepaid. Pedigrees and safe delivery guaranteed. **E. D. GEORGE Putnam Ont.**

Pine Grove Yorkshires At the late Guelph Winter Show we won decidedly the best of it in the bacon classes. Our Yorkshires are noted for superior excellence. Both sexes and all ages for sale. **J. Featherstone & Son, Streetsville, Ont.**

Hilton Stock Farm Holsteins and Tamworths. Present offering: 6 yearling heifers and seven younger ones. All very choice. Of Tamworths pigs of all ages and both sexes, pairs not skin. **R. O. MURROW & SON, Hilton, Ont. Brighton Tel. and Stn.**

MAPLE GROVE YORKSHIRES! A very choice bunch of sows, mostly imported. Boars ready for service. Pigs of all ages. M. G. Champion -20102-, champion, Toronto, 1907, is stock boar. A square deal or none is our motto. **H. S. McDiarmid, Fingal, Ont., Shelden Sta.**



Don't Starve Your Nerves

A great many people suffer from ailments caused by weak, impoverished nerves, and try to cure these troubles by dosing their stomach with drugs. It is impossible. Drugs are poisons, and poisons wreck the nerves.

If you are weak, run-down, nervous and unambitious; if you suffer frequent headaches and have spells of despondency, it means that your nerves are starving for new energy, electricity. That's all they need, and nothing else will cure them.

Dr. McLaughlin's Electric Belt saturates the nerves and vitals with electric life while you sleep. It builds up strength and vitality in every weakened organ and drives out pains and aches.

Dr. McLaughlin's Electric Belt is the only successful appliance for infusing electricity into the body. Its influence is powerful, yet soothing and pleasant to the nerves. All night long it sends a volume of electric energy into the ailing part. It will cure all such troubles as Lumbago, Sciatica, Insomnia, Nervousness, Rheumatism, Weakness of any kind, and Stomach, Kidney, Liver and Bowel disorders.

Your Belt has done wonders for me. I have not suffered with my back or bladder for two years. Your Belt is all right and does its work as represented. I thank you for the kind attention you have given my case.

J. M. GRENO, Newport, N. S.

If you are skeptical, all I ask is reasonable security for the price of the Belt, and you can

PAY WHEN CURED

Call or write for our free 80-page book of information. This book is written in plain language and choke-full of interesting facts for every sufferer. It is handsomely illustrated. It is worth much to any man, but we'll give it free and pay postage if you will mail us this coupon.

Consultation free. Office hours—9 a. m. to 6 p. m. Wednesday and Saturday till 8.30 p. m.

DR. M. S. McLAUGHLIN,
112 Yonge St., Toronto, Can.

Please send me your Book, free.

NAME

ADDRESS

Hundreds of Buildings Unroofed

**HEAVY STORM WIDESPREAD ALL OVER
ONTARIO. DOES GREAT DAMAGE.**

"Safe Lock" Shingles demonstrated their wind-resisting power. Not one roof reported damaged.

The heavy wind storm of April 8th, which extended all over Ontario, is estimated to have unroofed hundreds of buildings in various parts of the Province. Not in years has there been a storm so widespread and of equal severity.

Roofs seemed to be the special toy of the wind, and immense damage from this source was sustained.

An interesting yet instructive incident of the storm, is that not so much as the loss of a single Safe Lock Shingle has been reported. An enquiry at the Head Office of the Metal Shingle & Siding Co., Limited, Preston, Ontario, brought out the information that the shops were working night and day to replace roofs of other makes that had been carried away by the high winds.



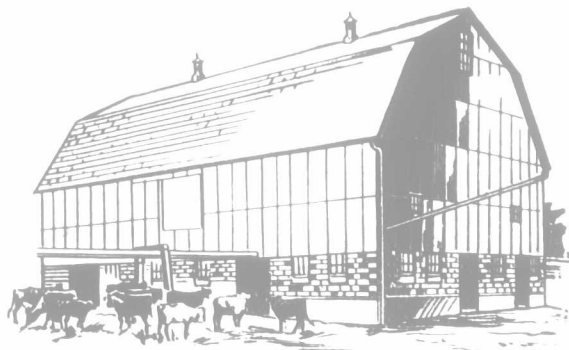
**Metal Built Residence in Preston, which Demonstrated
Storm-resisting Qualities.**

"We have made careful enquiry," said Mr. Dolph, president of the company, "and not a single damaged roof can we find that was covered with Safe Lock Shingles."

"The reason, as I take it, is," he went on to say, "that Safe Lock Shingles are the only shingles that actually lock on all four sides. Other metal shingles fasten at top and bottom, but the sides are only held by one being slipped into a groove in the other. The wind can easily get under such a shingle and rip it off. Once started, the whole roof will go. Indeed, we know of some instances in which roofs of this style were torn off, although they had been laid not more than two years ago."

"I believe it is absolutely impossible for any wind storm to unroof a house covered with Safe Lock Shingles. The wind would destroy the building first."

Mr. Dolph produced a photograph of a residence in Preston, which was right in the storm center. This building is not only covered with Safe Lock Shingles, but is made entirely of stamped metal siding, porch and everything except the veranda railing. It clearly demonstrated the storm-resisting qualities of Safe Lock roofing and metal construction.



**Metal Built Barn, which Defied Thursday's Storm,
April 8, 1909.**

Another photograph showed a barn near St. Thomas, built in an exposed position, but it was not hurt by the wind.

The result of this experience is convincing. It is clear that metal shingles should lock on all four sides to be wind-proof, and the only shingles that do so are the "Safe Lock."

Another feature of these popular shingles is that the manufacturers give a lightning guarantee with every Safe Lock roof. Those of our readers interested should send to the

Metal Shingle & Siding Co., Ltd.
PRESTON, ONTARIO, and MONTREAL, QUEBEC,

for a copy of their booklet, "The Truth About Roofing." Send for it to-day.

GOSSIP.

Two young Hereford bulls of the best of breeding, from prizewinning stock, in fine condition, and at a moderate price, are advertised for sale by H. D. Smith, Ingleside Farm, Hamilton, Ont.

H. Cargill & Son, Cargill, Ont., write: "One of our recent sales of Shorthorns is the bull, Royal Blossom, to David Milne, of Ethel, Ont., and we want to congratulate him right now upon his selection, as we are satisfied he has bought a stock bull of the first class, which, mated with such heifers as we have seen Mr. Milne exhibit, makes the result a foregone conclusion. Royal Blossom was sired by our chief stock bull, Blood Royal (imp.), and out of Mistletoe Blossom, by Lord Mistletoe, the best of breeding, while quality, character and conformation leaves no room to doubt his value. We wish Mr. Milne every success with this bull."

William Thorn, Lynedoch, Ont., in sending in a change of advertisement, writes: "My Ayrshires have come through the winter in fine condition; cows are milking extra well. I have added a few more extra-good ones to my herd, and now have the finest herd I ever owned. I still have a few extra-good young cows for sale, at very reasonable prices, considering quality. Sales have been very good this winter. I have sold a number of good animals recently, including one prize two-year-old heifer and one yearling bull, to E. Heiser, Comber, Ont.; one yearling imported bull, Garclough Gold Finder, also one heifer and one young cow to Fred Sanderson, Boston, Ont.; one of my old show cows to S. T. Rion, Fraserville, Quebec; one three-year-old heifer to T. W. R. Arnold, Ivy, Ont.; one two-year-old heifer to James Fleming, Reaboro, Ont.; one bull calf to Samuel Lyons, Dunnville, Ont.; one yearling bull to Geo. W. Cridland, Port Rowan, Ont.; one heifer calf to D. M. Ross, Embro, Ont."

HORSES DISPLACE AUTOMOBILES.

For several weeks past the representative of a big firm of New York City horse dealers, has been in the Middle West States selecting good horses suitable for delivery work. The order calls for 840 horses, and the agent states that he has travelled over a large amount of ground and has not yet been able to complete the order. The horses he has selected are of a high type of work horses and he pays good prices for them. These horses are being selected on an order from two of the largest department stores in New York City, stores which some time ago gave up their horse-drawn vehicles and substituted the automobile. Now the automobiles are to be discarded so soon as the horses can be procured.

This is due to the fact that the managers of the delivery departments of these two big stores have found that automobiles are not only more expensive to maintain, but that they have lost the advertising power they had when that service was first inaugurated. There was a time when the automobile was a novelty, and when the people would "sit up and take notice" when an auto delivery wagon appeared on the streets. Now, no more attention is paid to them than to the street cars. On the other hand, a fine pair of horses always attract attention. No matter how many horse-drawn wagons there are on the streets, the sight of a nice team, well-appointed, never ceases to command admiration, and any kind of a team has it over the automobile. The big store managers never forget the advertising side of any feature, and when it is also demonstrated that the horse-drawn delivery wagons are cheaper to maintain, there was no hesitation in discarding the expensive pieces of machinery and purchasing new wagons and new horses.

This comparison in favor of the horse is also the more striking when it is remembered that these New York stores buy the most expensive work horses on the market. Feed and stable room is also expensive in that big city, so that if the experts there decide in favor of the horse, there can be no question about it in other cities where a less expensive horse is purchased, and where feed is considerably lower.—Western Horseman.

HERE ARE Good Machines

**NECESSARY AND RELIABLE,
TO MAKE FARM BUSINESS
AGREEABLE AND PROFITABLE**

- 1st. **National Cream Separators.** Noted for their perfect workmanship, easy running and general satisfactory work and durability.
- 2nd. **The Perfection Seed and Grain Separators.** What you should have if you would sow good seed and gain five to ten bushel per acre extra.
- 3rd. **The Aspinwall Potato Planter and Sprayer.** Necessary to save labor and grow potatoes profitably.
- 4th. **The Gilson Gasoline Engine** that "Goes Like Sixty" and does good work. Another economical, valuable and convenient power machine. Just what you may need.
- 5th. **The Maple Leaf Sewing Machines.** A perfect beauty, reliable, and the kind you will enjoy. Send for prices and descriptive catalogue. They are the best of their kind, and we want more of them sold in your district.
- 6th. **The Hamilton Patent Extension Ladder.** New, and the right kind to buy and sell. Agents wanted.

Your order or inquiry will receive courteous attention.

THE T. C. ROGERS CO'Y
Wholesale Agents. GUELPH, ONT.

Western Homesteaders

FOR

**The Last Great West
Wheat Fields of Canada**

South Africa Veterans' Script for sale, entitling the purchaser to select 320 acres of land for Homesteading. No registration or patent fees required. This is the opportunity of the day. Prices and particulars on application.

J. H. McDIARMID, Toronto.
Saturday Night Building.

LAND FOR SETTLEMENT!

Lands are offered for settlement in some cases FREE, in others at 50 CENTS per acre, in various districts in NORTHERN ONTARIO. Write for information as to terms, homestead regulations, special railway rates, etc.

HON. JAMES S. DUFF,
Minister of Agriculture,
Thee. Southworth,
Director of Colonization, Toronto.

BROOKS' NEW CURE

FOR
RUPTURE!
Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lymphol. No ties. Durable, cheap. Pat. Sept. 10, '01. SENT ON TRIAL. CATALOGUE FREE.

C. E. Brooks, 9789 Brooks Bldg., Marshall, Mich.

Can Fruit & Vegetables

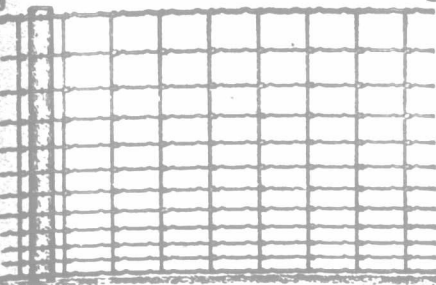
with THE BARTLETT CANNER
FOUR SIZES, \$65 to \$200.
There's MONEY in it.
Write CANNERS' SUPPLY CO., Detroit, Mich.

FITS CURED

For proof that fits can be cured, write to
Mr. Wm. Stinson,
134 Tyndall Ave.,
Toronto, Ontario.
For pamphlet giving full particulars of simple home treatment, 20 years' success. Over 1,000 testimonials in one year. Sole proprietors:
Trench's Remedies, Limited, Dublin.

DAHLIAS 16 KINDS (my selection) \$1.
Send for beautiful illustrated catalogue of new dahlias.
H. P. VAN WAGNER, STONY CREEK, ONT.

AMERICAN FENCE



MADE BY
THE Canadian Steel & Wire Co. LIMITED

A sound, substantial, enduring fence, built on elastic, hinged-joint principle—the most scientific, practical and perfect fence principle known. It yields to great and sudden pressure but returns again to the original shape.

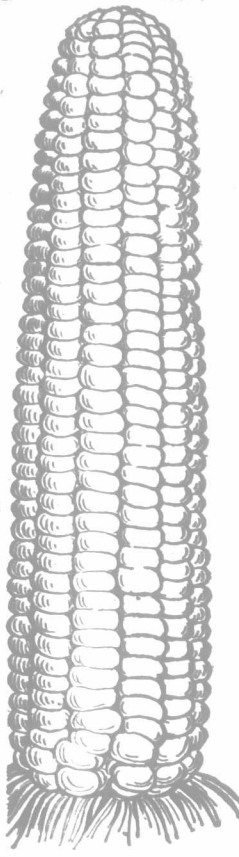
Thoroughly galvanized and protected against weather.

FORSALE BY

Reliable dealers everywhere. Insist on having fence that will give you absolute satisfaction. If your dealers cannot supply you, write us at

HAMILTON, ONTARIO, or WINNIPEG, MANITOBA.

Canadian-grown SEEDS



For Farmers and Market Gardeners.

DEVITT'S EARLY SUGAR CORN.

Originated by Ben. Devitt, Esq., of Waterloo, about 30 years ago, and steadily improved by him.

It is the table corn par excellence—just what you gardeners want for your select trade, the sweetest of all, very early—white kernels and good size ears. We are the only seed men in Canada growing on their own fields vegetable, flower and field seeds. It is of vital interest to you.

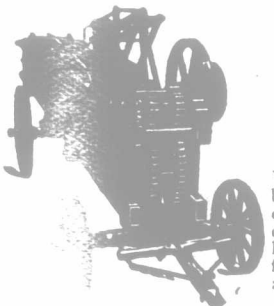
FREE PACKAGE.

Write for complete catalogue and free package of Devitt's Early Sugar Corn; also give names of your neighbors.

ONTARIO SEED CO'Y.

Pioneer Canadian Seed Growers, 37 King St. Waterloo, Ont.

100 Men Wanted



to sell the
Columbia Hay Press

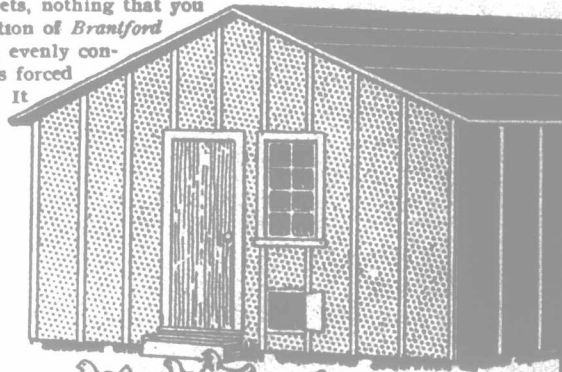
We guarantee it the best belt press made or no sale. Capacity, 50 tons in 10 hours. Write for full description and agency.

Columbia Hay Press Co'y, KINGSVILLE, Ont.

HOW THE VERY LIFE IS EATEN OUT OF MOST ROOFING.

Not two Roofings in a hundred can withstand the slow, secret, dangerous attacks of acid—a deadly enemy to most Roofing. Because few Roofing makers care to spend the extra money necessary to make such Roofing. Acids are caused by green or damp hay, or the cattle in your sheds. These cattle sweat, producing vapor which contains acids and gases destructive to most Roofing. These enemies attack the underside—which is weak in most Roofing—and does its ruinous work where you cannot see it, till too late. The first you know that it is not what the fellow claimed is the startling sight of a million "pin-holes" all over. Examine the Roofing of your barn now—you'll likely find this defect. This is caused by weak insides, which should be the strongest part, but the portion hopelessly slighted by most makers because you won't test it. Nearly all Roofing, except *Brantford*, has as a foundation wood pulp, jute, cotton cloth, etc., which cannot absorb sufficiently. It possesses nothing to hold it together, and is coated with cheapest covering obtainable: animal fats, greases, oils, tar, or some other refuse. These dangerous coatings are so weak that they are readily at the mercy of the acids. And the foundation! It has no barrier! It has already wilted. No amount of supposedly preventatives can save this Roofing. It is bound to go to pieces sooner or later and just when you least expect. Most Roofing makers will try to avoid the issue if asked to show insides of their Roofing. But we encourage tests of *Brantford Asphalt Roofing*. There are no secrets, nothing that you shouldn't know. The foundation of *Brantford Asphalt Roofing* is long-fibred, evenly condensed pure wool. Asphalt is forced into wool, soaking every fibre. It is heavily coated with special waterproof coating into which Silicia Sand is rolled under pressure. *Brantford Asphalt Roofing* is wear resisting, fire, water, weather, acid and smoke-proof. Rain or snow can't freeze or crack it; heat of sun cannot melt it. Its pliability prevents cracking or opening at seams. There are many other *Brantford* specialties. Our Big Roofing Book with *Brantford* samples is free. Write us or your dealer now.

Brantford Roofing



Brantford Roofing Co., Limited, Brantford, Canada.

We Supply These Made of Steel

SILOS

Easy to Erect, Durable, Cheap

Waterous Engine Works Co., Limited, Brantford, Ont.

STRENGTH AND ECONOMY

You can depend absolutely on **PEERLESS** Fencing to hold live stock under any and all conditions. It is made of all No. 9 steel wire heavily galvanized and has lots of spring in it, making ample provision for contraction and expansion due to changes in the temperature, sudden shocks, etc.

PEERLESS

The Fence That Saves Expense

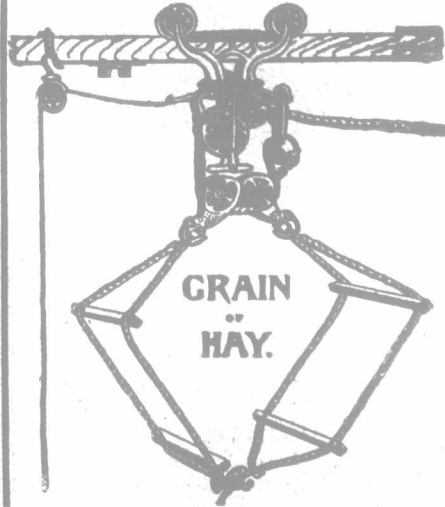
is held together by the **Peerless** lock which holds the wires securely and makes **Peerless** Fence absolutely stock proof. The lock cannot be slipped or knocked loose. Write for our new book—it will interest you. It's free.

THE BANWELL HOKIE WIRE FENCE CO., Ltd., Dept. B
Hamilton, Ont. Winnipeg, Man.

All Eyes are on this Invention.

TOLTON'S Fork and Sling CARRIERS

THE FAVORITES OF THEM ALL. Unequalled for simplicity, durability and efficiency.



The most successful unloader, as no man power is required. Thousands now in use, giving the best of satisfaction.

All kinds of Slings, Forks and Carriers, suitable for wood, rod or steel track. Send for descriptive circular, or see our local agent.

TOLTON BROS., LTD., 12 HUSKISSON ST., GUELPH, CANADA.

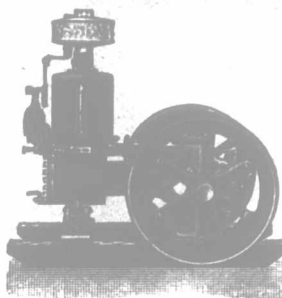
DO YOU KNOW

THAT WORN OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER.

NOW IF YOU HAVE A PIECE OF LAND THAT WON'T GROW ANYTHING BUT WEEDS TALK WITH US ABOUT IT AND LET US SUGGEST

THE RIGHT FERTILIZER

WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE. SO YOUR LAND WILL PAY. CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED. AGENTS WANTED FOR TERRITORY NOT TAKEN UP BY W. A. FREEMAN, 19 LINDEN ST. HAMILTON, ONTARIO



The "Stickney" Gasoline Engine

is the essence of SIMPLICITY

NO USELESS CONTRACTIONS

to get out of order and cause trouble.

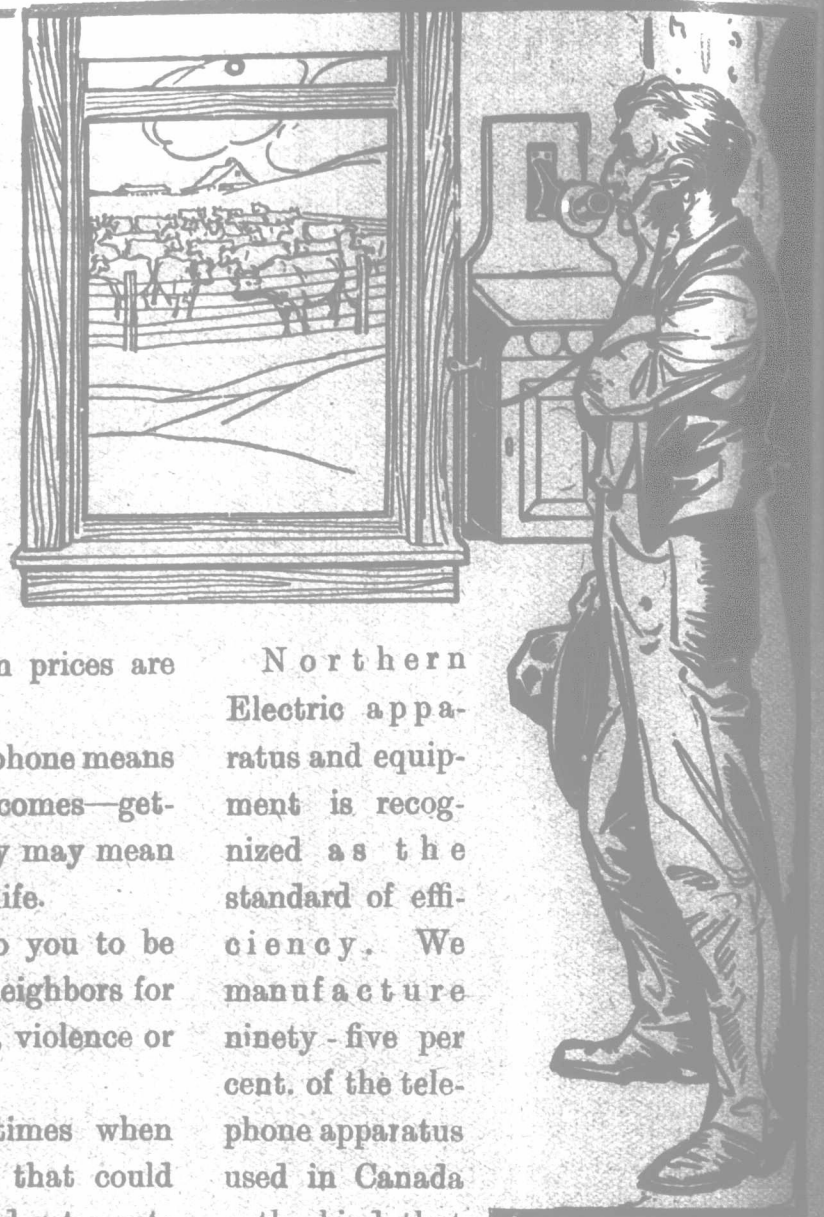
NO PIPES TO FREEZE!!!

Ours is the open-tank cooling system. We defy any engine on the market to-day, that can produce a machine with so many good points. Power is guaranteed with every engine. Send for Booklet No. 57, and get wise.

Ont. Wind Engine & Pump Co., Ltd. TORONTO, ONT.

PLEASE MENTION THIS PAPER.

Do you realize exactly what a telephone means to you, and at what little cost you can have an efficient service—



HAVE you ever gone carefully into the advantages of having a telephone on your farm?

Have you ever considered what help it would be to you? What money and worry it would save you?

Let us just see what it does mean to you?

When you want something from town—a new part for your reaper, a particular kind of wire fencing, or any of the many things that you may want from time to time which requires a special explanation—under ordinary circumstances you have to go into town yourself and lose a half-day that could be profitably spent on your farm.

Over the telephone you can explain exactly what you want, make sure your dealer has it, and then send a boy for it.

When you are ready to sell your cattle, grain, hay, etc., you stand to lose considerable money unless you know what the current prices are before you ship your produce into town. With a telephone it takes you but a moment to find out how the market stands, and you can

sell your products when prices are highest.

Just think what a telephone means to you when sickness comes—getting the doctor in a hurry may mean the saving of a priceless life.

Think what it means to you to be able to call upon your neighbors for assistance in case of fire, violence or accidents.

Haven't there been times when you could save an animal that could be ill spared, if you could get a veterinarian in time?

Besides this, think what it means to your women folk—social chats that brighten the day, arranging of visits, getting up parties,—the telephone puts you in close, intimate touch with your neighbors in spite of the distance that separates your homes.

You can have this valuable service at very little cost.

But the only way to get the right service is to get the right telephone. You must have one that you can depend upon day in and day out—one that will always give you perfect service. A reliable telephone is of inestimable value—a poor telephone is worse than none.

Northern Electric apparatus and equipment is recognized as the standard of efficiency. We manufacture ninety-five per cent. of the telephone apparatus used in Canada—the kind that is in use from Halifax to Vancouver. So if you want accurate, dependable service, buy and use only Northern Electric apparatus and equipment.

The first step towards getting such a service is to write for our book "Rural Telephone Equipment" and talk it over with your neighbors.

Write us and say you are interested getting the right telephone service in your community, and we will send you full particulars. Ask for Bulletin No. 1216, and we will send you detailed particulars.

Write to-day.

THE NORTHERN ELECTRIC AND MANUFACTURING CO. LIMITED

MONTREAL
Cor. Notre Dame and Grey Sts.
TORONTO
60 Front St. W.

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

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