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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE  
SUCCEED  
FOUNDED 1876

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

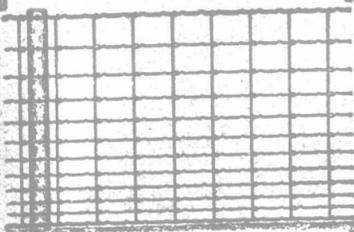
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Vol. XLIV.

LONDON, ONTARIO, MAY 13, 1909.

No. 868

## 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

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AT THE

**Dominion School of Telegraphy,**  
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**Telegraphy**

Is taught quickly and thoroughly. All students are placed in good positions immediately upon graduation.

**Seed Barley**—A quantity of the famous No. 21 barley, which is the best at O. A. C., and also most popular throughout the Province since first distribution in 1906.  
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## On Points

Ease of Operation,  
Efficiency,  
Durability,  
Sanitation,

## The De Laval

THE DE LAVAL SEPARATOR CO.

173-177 William Street, :: :: MONTREAL  
VANCOUVER WINNIPEG

Nothing else gives such life and staying quality to a roofing as Trinidad Lake asphalt.

## Genasco Ready Roofing

is made of Trinidad Lake asphalt and gives lasting resistance to sun, air, rain, heat, cold, and fire. It is mighty important to know what your roofing is made of.

Be sure you see the Genasco trademark and get the roofing with a thirty-two-million-dollar guarantee. Mineral and smooth surface. Write for the Good Roof Guide Book and samples.

THE BARBER ASPHALT PAVING COMPANY



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

PHILADELPHIA

New York San Francisco Chicago  
Roofers Supply Co., Ltd., Bay and Lake Sts., Toronto.  
Alex. McArthur & Co., 82 McGill St., Montreal.  
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## 25 Years

of actual wear is proof that Fire, Lightning, Rust, Rain and Snow has absolutely no effect on

## "EASTLAKE" Steel Shingles.

That's the kind of a roof you want on your house and barns. They are the cheapest, being easiest and quickest to lay, and last the longest.

Send us measurements of the roof you intend covering, and we will give you complete estimates of cost.



"A paper guarantee vs. a 25-year actual test. I will leave it to you which is the safest. I think actual proof is the best surety."

—The Philosopher of Metal Town.

THE METALLIC ROOFING CO. LIMITED, MANUFACTURERS, Toronto, 1898 Winnipeg.

## 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 pat. it deadlock. 25,000 of our Haying Machines in use, is the best guarantee that we build them right.

Write for catalogue of Carbons, Slings, Buckets and all kinds of tools near you who handle Buchanan's M.T. Buchanan & Co., Ingersoll, Ont.

**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 15 years of age; all will have passed through a period of training in 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.

**NEW IDEA GRATE**  
NO SIFTING OF ASHES  
SHAKING.  
DUMPING.  
PAT. DEC. 15, 08  
**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

The easiest way to prove a thing is to show it.

For years, we have advised farmers and their wives to let "bucket bowl" cream separators of all sorts alone—because they wash hard, rust easily, are easily damaged and wear out in consequence.

How do you like this solid dish pan full of disks? There is absolutely nothing in that pan but disks—just disks from the bottom up—and all from a "bucket bowl" machine a disgusted farmer and his over-worked wife discarded for a Sharples Dairy Tubular.

They got very tired of washing and drying it twice a day.

### What's In The Other Pan?

That little piece in the other pan is the triple tinned, pressed steel, wear forever dividing wall used in the Sharples Dairy Tubular Cream Separator bowl. It is about like a napkin ring in size and shape, is just as easily washed, is instantly removable and is absolutely all there is inside Sharples Dairy Tubular Cream Separator bowls.

You'll never forget this picture. Every time you think of cream separators you'll

## The Dish Pans Tell The Story



think of the difference between the Sharples Tubular and the "bucket bowl" kind—a difference in work, wear, efficiency and profits just as great as the difference in the contents of these two pans.

It is not surprising that Tubular sales exceed those of most, if not all, other separators combined. "Bucket bowl" sales are so reduced, by Tubular popularity, that some makers of "bucket bowl" separators resort to peddling in order to dispose of antiquated, cheaply-built machines that reliable dealers will not handle and farmers will certainly regret buying. What good is a peddler's guaranty? He's here today—gone tomorrow—and your money gone with him. What good is such a maker's guaranty? So little that reliable dealers refuse his goods—that's why he resorts to peddling.

The manufacture of Tubulars is one of Canada's leading industries. It is the world's greatest cream separator. It will give you greatest satisfaction—greatest profits—greatest wear. Get catalog No. 193

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



Will you wash one piece or a pan full? If you prefer one piece, then get a Sharples Dairy Tubular Cream Separator instead of a "bucket bowl" machine. Sharples Dairy Tubular bowls contain only one little piece, instantly removable and just like the single piece in the dish pan. All other separators are the "bucket bowl" kind—full of parts and works. The full dish pan contains the many disks used in one of the "bucket bowl" machines that are being discarded by the car load for Sharples Dairy Tubulars.

### BUILDING?

Before deciding on your roofing examine into the merits of Paroid. The superior "wear proof" water-proof solution with which our Paroid felt is saturated and coated positively insures a long wearing surface. Paroid cannot dry out, crack or buckle. It will resist wind, water and fire. Will not taint rain water.

## PAROID ROOFING

is easy to lay, is attractive. It will wear for years in any climate. Its use on Gov't buildings for years shows the approval of the Gov't's expert engineers. It has been used for years on factories and mills and by farmers and poultrymen everywhere.

**OUR GUARANTEE:** Buy PAROID ROOFING, apply it to your roof and then if you are not satisfied send us your name and address and we will send you a check for the full amount you have paid for the roofing, including the cost of applying it.

Write for sample of PAROID, also free booklet of plans entitled "Practical Farm Buildings" if about to build.

**F. W. BIRD & SON,**  
Established 1817,  
Dept. 114  
HAMILTON, ONT.  
Branch Office,  
Winnipeg, Man.

When Writing Please Mention this Paper!

**NO DUST**  
WHEN YOU SHAKE A "PEASE" FURNACE

## ALWAYS INSTAL A PEASE "ECONOMY" FURNACE

That is another strong point about a "Pease." There is absolutely no dirt—none in the cellar when you shake it, because the large dust flue takes it up into the Combustion Chamber. None in the air reservoir—because all horizontal joints are "cup" joints, and the cement lies in the "cup"—so the cement cannot fall away, all perpendicular joints are rivetted steel plates.

If you are building, or your present heat is not satisfactory—write us. All we want is a chance to tell you about our furnace—and leave the judgment to you. Write To-day for Catalogue.

**PEASE FOUNDRY CO., LIMITED, TORONTO AND WINNIPEG**  
Manufacturers Boilers, Furnaces, Combination Heaters, Etc. 1520

OVER 20,000 IN USE PUMPING WATER, GRINDING GRAIN, RUNNING CHURNS.

### FAIRBANKS-MORSE

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

THE CANADIAN FAIRBANKS  
100 King St. W., Toronto.



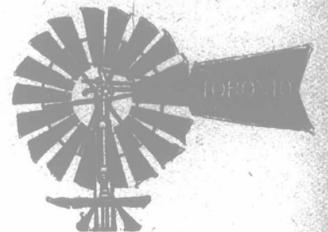
CUTTING WOOD, ETC. THE WORLD'S STANDARD OF EXCELLENCE.

### GASOLINE ENGINES

SAVE MORE YOUR FARM WORK & BUSINESS EXPENSES.

COMPANY LIMITED

### Absolutely Free



### IS YOUR POWER WHEN YOU HAVE Canadian Airmotor!

The most faithful implement around the Farm, Dairy or Pasture Field. Does more hard work in a month than a binder in a lifetime. Pumps, Grinds, as well as operating strawcutter, pulper, grindstone, etc. Have you seen our Water Pump and Cow Stanchions? If not, send at once for catalogue No. 15, and get interested. You will appreciate it.

**Ont. Wind Engine & Pump Co.**  
TORONTO, (Limited) ONTARIO.

### \$1,500 PROFIT MADE ON CIDER

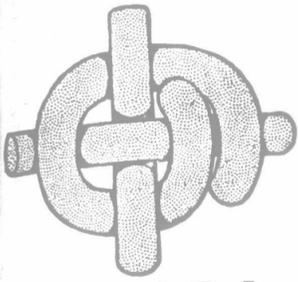
Write for our free catalog which fully describes and illustrates The Original Mt. Gilson Hydraulic CIDER PRESSES. For custom work in your locality they are money makers. Built in sizes 10 to 400 barrels per day. Hand or power. Also Steam Evaporators, Apple-Butter Cookers, Fully Guaranteed Visegar Generators, etc. We can show you how \$1,500 clear profit can be made. Hydraulic Press Mfg. Co., 110 Lincoln Ave., Mt. Gilson, Pa.



**GOES LIKE SIXTY SELLS LIKE SIXTY \$65 GILSON GASOLINE ENGINE**  
For Pumping, Cider Separators, Churns, Washers, etc. Ask for catalog—no charge.

**GILSON MFG. CO., 150 York St., Guelph, Ont.**

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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

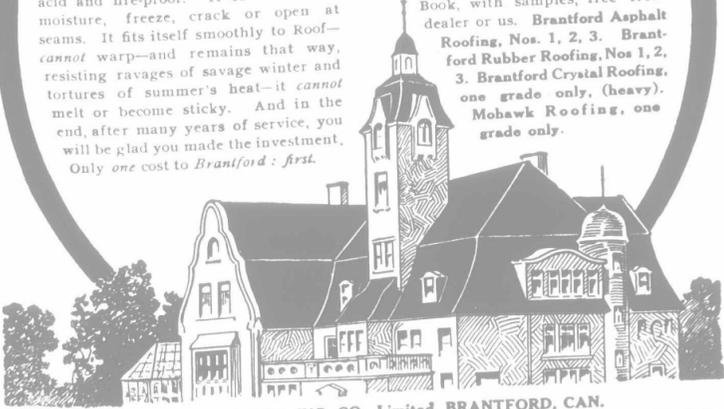
HOW LITTLE RAIN-WATER REBELS SECRETLY DESTROY MOST ROOFING

Rain-water is deadly to nearly all Roofing, except Brantford. It contains millions of little germs which eat away its very life, and you are not aware of this rebellion until Roofing is destroyed. Wood pulp, jute, cotton-cloth, etc., is used as a foundation in most Roofing. It is lifeless, and cannot fight for itself. The refuse coating which does not possess one particle of resistance, is itself injurious to Roofing. Slight bending will produce numerous cracks or open seams, because it is brittle. But the foundation of Brantford Crystal Roofing is a long-fibred, evenly condensed sheet of pure Wool, which goes through special Saturatory Process, forcing Asphalt saturation through and through, and being coming as hard as flint. This saturated Wool now, alone, is capable of resisting the onslaught of any enemy. But to make it doubly durable Brantford is heavily coated with weather-resisting, fire-proof Rock Crystals, which require no painting. After going through this process no Roofing Enemy can effect it.

Brantford Roofing

is pliable, and water, frost, snow, alkali, acid and fire-proof. It cannot absorb moisture, freeze, crack or open at seams. It fits itself smoothly to Roof—cannot warp—and remains that way, resisting ravages of savage winter and tortures of summer's heat—it cannot melt or become sticky. And in the end, after many years of service, you will be glad you made the investment. Only one cost to Brantford: first.

It needs no repairs, and anyone can lay it in any weather. Big Roofing Book, with samples, free from dealer or us. Brantford Asphalt Roofing, Nos. 1, 2, 3. Brantford Rubber Roofing, Nos 1, 2, 3. Brantford Crystal Roofing, one grade only, (heavy). Mohawk Roofing, one grade only.



BRANTFORD ROOFING, CO., Limited, BRANTFORD, CAN.

WHY THE BISSELL IS BEST

Because the "Bissell" is built for business it lasts for years and gives satisfactory service all the time. It is made strong and durable to stand any strain. Steel drums with solid pressed steel heads well riveted; axle of 2 in. solid steel, frame of hardwood reinforced with double truss rods and steel angles make it rigid and stout. Bearings are large anti-friction rollers which reduce friction to the minimum making the "Bissell" the lightest draft roller ever built. Nothing flimsy or shoddy about it. Free Booklet E tells why you should buy the "Bissell." Write today. T. E. BISSELL CO. Ltd., Dept. W, ELORA, ONT.



THIS IS THE SHEET METAL AGE.

To make a factory, warehouse, barn, shed or outbuilding of any description, wind, water, snow, fire and lightning proof cover it with

# Galt Corrugated Sheets

which are accurately pressed from the best and most durable British Steel it is possible to procure.

All corrugations are straight and true, assuring an accurate fit at both side and end laps without waste. Special hip and ridge covers make tight, neat joints at these points.

Where warmth is not important "Galt" Corrugated Sheets save three-fourths of the wood sheeting as well as considerable labor, and will give good service for a life time of at least fifty years.

It costs no more for a "Galt" Corrugated Sheet Steel Building than for a wood one. Which do you think is the better investment? Galvanized or painted material always in stock. Complete information in catalog "3-B."

The Galt Art Metal Co., Ltd., Galt, Ont.

Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.

Sovereign Treasure Steel Range.



TREASURE STEEL RANGES

ALWAYS PLEASE

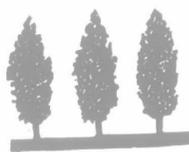
Finest in construction, durability and finish. Made of the very best Cold Rolled Wellsville Polished Steel, which requires no blacking. Castings made exclusively of high-grade No. 1 Pig Iron.

The Sovereign Treasure

is one of the best Steel Ranges to be had in Canada. Can be furnished with either right or left hand reservoir. Has lift-off nickel edges.

Notice the handy "TREASURE" way to broil, toast, or fix the fire. Every "TREASURE" Stove or Range is accompanied by the Company's guarantee.

THE D. MOORE COMPANY, LIMITED, HAMILTON, ONTARIO.



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

to customers from the late—the rush is now on.

A. G. HULL & SON, ST. CATHARINES, ONT.

WHEN WRITING ADVERTISERS, PLEASE MENTION "THE ADVOCATE."

## Only One Kind of Roof I Know of is Guaranteed for 25 Years.

**O**SHAWA Galvanized Steel Shingles make a roof that is not only guaranteed, under seal and with \$250,000 back of it—guaranteed to be and to remain a perfect roof for twenty-five years: It is the only roof I know of that is sure to be a good roof for a hundred years. It's steel, you see, to start with—heavy (28 gauge) sheet steel of high quality. Can you imagine steel wearing out?—on a roof.

**S**TEEL'S only real foe is rust; but rust cannot get at the steel of an Oshawa-shingled roof, because every shingle is heavily galvanized on both sides—coated with a tin-and-zinc smelter that perfectly protects the steel against every form of rust.

**T**HAT is why you will never need to paint an Oshawa-shingled roof; it doesn't need painting, because the heavy galvanizing is a far better protection than paint could ever be. Think what you save by putting on a roof that needn't be painted, and yet will be a good roof for a hundred years!

**D**ON'T imagine our guarantee is any mere form of words. It says, in plain English, that if any Oshawa-shingled roof, put on right, leaks, or is at all unsatisfactory within 25 years, we will supply and put on a new roof free of all cost to you. Is that fair and square? Did you ever hear of another roof that had such a guarantee back of it?

**D**ON'T get the idea, either, that cost is a big factor in roofing really right. An Oshawa-shingled



roof's first cost is no more than the cost of an ordinary wood-shingled roof! Its final cost is ten times less than the cheapest wood-shingled roof! And an Oshawa-shingled roof is more than rain-proof, more than snow-proof,

and lightning-proof—the bolt may strike the structure, but it can't damage it. Such a roof is far, far better insurance against lightning than any lightning-rod system that ever was.

**A**NYBODY who can use a hammer and snips (tinner's shears) can put these Oshawa Shingles on right—easily and quickly. They lock underneath, on all four sides, so that every nailhead is completely covered with galvanized steel, and the whole surface hasn't a seam nor a crevice.

**S**UM it all up—a roof that costs one-tenth what cheapest wooden shingles cost; a roof that is absolutely weather-proof, fire-proof, lightning-proof—a roof that is guaranteed to be a perfect roof for 25 years (or a new roof for nothing)—sum it all up—wouldn't it be wise for you to send to-day for the booklet that tells why YOU should roof right? Just send a post card to-day to our nearest warehouse.

### OSHAWA GALVANIZED STEEL SHINGLES

A new roof for nothing if they leak by 1934.

more than wind-proof. It is not only an absolute insurance against leaks, but it is an insurance against fire and against lightning! Is that worth considering?

**O**F course you know that flying sparks or red-hot embers couldn't possibly set fire to a roof covered with one seamless sheet of steel. That one fact alone makes an Oshawa-shingled roof earn money, because such a roof gets you a lessened fire-risk premium on any building.

**A**ND lightning cannot damage a building covered with Oshawa Steel Shingles, because these in-

Ask for Roofing Right Booklet No. 16

*G. A. Pedlar*

**P**EDLAR PRODUCTS include every kind of sheet metal building materials—too many items to even mention here. You can have a catalog—estimate—prices—advice—just for the asking. We'd like especially to interest you in our Art Steel Ceilings and Side Walls—they are a revelation to many people. More than 2,000 designs. May we send you pictures of some of them?

## THE PEDLAR PEOPLE OF OSHAWA ESTABLISHED 1861

ADDRESS OUR NEAREST WAREHOUSE:

MONTREAL 321-3 Craig St. W. OTTAWA 423 Sussex St. TORONTO 11 Colborne St. LONDON 86 King St. CHATHAM 200 King St. W. WINNIPEG 70 Lombard St. VANCOUVER 821 Powell St. QUEBEC 127 Rue du Pont. ST. JOHN, N. B. 42-46 Prince William St. HALIFAX 16 Prince St.

WE WANT AGENTS IN SOME SECTIONS. WRITE FOR DETAILS. MENTION THIS PAPER.

# The Farmer's Advocate and Home Magazine

"Persevere and  
Succeed."

Established  
1866

Vol. XLIV.

LONDON, ONTARIO, MAY 13, 1909

No. 868

## EDITORIAL

### Cream Separator Logic.

Farmers in all parts of Canada are comparatively well acquainted with arguments urged by representatives of the various firms that manufacture cream separators. That all argument is not logic, is illustrated by a large display advertisement used by one company in placing its machine before the American public. Small glass tubes are pictured, purporting to show that its machine is capable of extracting some twenty-five per cent. more cream than one competitor, and fifty per cent. more than another.

To one who knows anything at all about cream separation, the spurious nature of this claim is apparent at a glance. Almost any centrifugal cream separator on the market to-day will remove all but a trace of the butter-fat, if properly set and properly handled. While closeness of skimming is a legitimate talking-point used by almost every separator agent, and while there probably is a difference in this regard, yet, as between any of the recognized standard makes, this difference is so small as to be unobservable to the naked eye, so long as cream of equal richness is taken in each case. The best separators now on the market will, with good care, in an intelligent farmer's hands, leave not over one-twentieth to one-tenth of one per cent. of fat in the skim milk. When, therefore, an enthusiastic salesman, in a skimming test, undertakes to "extract" appreciably more cream from a given quantity of milk than is taken by a competing machine, what it really amounts to is that he is taking more milk serum (skim milk) than is necessary along with the butter-fat. This, so far from being an advantage, is a distinct disadvantage.

One of the serious objections to cream supplied to creameries from farm separators is that it is too thin. Dairy experts and buttermakers persistently urge that cream should contain at least thirty per cent. of butter-fat. When it contains in the neighborhood of twenty per cent. fat, it is not in the best condition for buttermaking. Such cream has to be churned at a higher temperature, and even then it takes longer to churn, and there is a greater loss of fat in the buttermilk. Besides this, thin cream is more likely to arrive at the creamery in a sour or off-flavored condition. So the result of sending thin cream is that the buttermaker is inconvenienced, makes a slightly smaller quantity of butter, and often of poorer quality, while the patron gets no more, generally a trifle less, for the fat in his milk, and loses a considerable quantity of skim milk that he would otherwise have for feeding. Remember that creameries and most purchasers of cream pay for it according to the amount of butter-fat it contains, as determined by Babcock test. The patron cannot fool them by including an extra quantity of skim milk with the fat; he only fools himself. It pays to consult the creameryman in the matter, and if one finds that he is sending a thin cream, adjust the cream screw or skim-milk screw (according to the make of separator) to skim a richer cream. As for the separator company's claim that its machine will extract an extra 25 or 50 per cent. of cream, this is sheer humbug. The only reliable means of ascertaining closeness of skimming of various separators is to have a Babcock test made of the skim milk.

Some makes of separators will not take a thirty-per-cent. cream and do clean skimming. Such a separator should never be allowed to remain in the dairy.

### A Premium Upon Misrepresentation.

A trenchant arraignment of protective tariffs as possible, and not only as possible, but as commonly-employed levers used by combines to throttle industry, and realize extravagant profits by extorting inordinate prices from home consumers, appears this week in "The Farmer's Advocate," as the third of a very instructive series contributed by E. C. Drury, Master of the Dominion Grange. Mr. Drury buttresses his cogent reasoning with examples calculated to dissociate sentiment from logic in the handling of the tariff question. He states, for instance, that the Canadian cotton manufacturers, while pleading inadequate protection as a reason why they could not employ more hands or pay more wages, were yet able to pay dividends amounting to fifty per cent. of the cost of the common stock, seven per cent. on preferred stock, and six per cent. on bonds, besides a large amount for repairs and betterments.

As to the alleged necessity for protection in various lines, Mr. Drury touches a very important point where he says, "Excessive profits are hid from the public eye under the mask of over-capitalization." Thus, a capitalist, reaping an annual dividend of, say, four per cent. on stock held, may be actually realizing eight or ten dollars for every hundred dollars he ever put into his business.

When the farmer's business does not pay, he has to find means to make it pay, or quit. When a manufacturer in a protected country is not making as fat a dividend as he would like, he puts on a poor mouth, and runs to the Finance Minister for help—that is, for protection—and if his complaint is loud enough, if he can secure the support of a section of the newspaper press, if he can maintain a sufficiently effective Parliamentary lobby, and if the Government is sufficiently complacent, he stands a good chance of getting what he asks, which, in its working out, has the effect of enabling him to assess still higher prices on farmers and other purchasers.

It is not the least of the numerous evils of protection that it relieves industrial imprudence and mismanagement of its normal penalties, detracts from the protected parties' independence, and places a premium upon misrepresentation, deceit, corruption and casuistry.

### Fair Prices for Potatoes.

The recent advance in potato prices, following the reasonably good figures that have prevailed since the digging season of last year, no doubt will tend to increase the acreage sown to that crop for 1909. For those who have the land in fit condition, and the facilities for giving the necessary attention, an increase in area devoted to potato-growing may be profitable. An increased supply naturally has a tendency to lower prices, but, on good soil, the yield generally is sufficient to leave a handsome profit, even at prices lower than have been obtained during the past few months. In addition, proper cultivation leaves the soil in ideal condition for other crops in 1910.

It would be folly, however, to allow the prevailing good prices to induce the planting of potatoes extensively on land that has not been prepared for the crop, or that is not in condition to give good returns under ordinary conditions. With judicious planting of good seed, and proper cultivation and spraying during the season, the returns will not likely be disappointing, but it is easy to exceed the reasonable limit when prices are encouraging.

### Farm Separator Cream.

For the manufacture of butter from cream taken from the milk by the farm separator, it is essential that the machine be kept scrupulously clean, that a rich cream be drawn, and that the cream be cooled as quickly as possible before being mixed with cream from a previous milking. These three points have been urged by almost every contributor on the farm-separator question in the discussion carried on in "The Farmer's Advocate" during the past three weeks. Those who have followed the articles cannot but be convinced that there is great room for improvement.

In the manufacture of butter in creameries, the interests of the producer of the cream, as well as those of the buttermaker, must receive due consideration. Scarcity of farm help has led the farmer to adopt whatever method would dispose of the raw product from his herd, with minimum loss of time, as long as he obtained fair returns. Studying, also, the value of skim milk in feeding young stock, he has learned that it pays to feed it fresh and sweet. The advent of the cream separator met his requirements in these two particulars. Encouraged by the unfair claims of unscrupulous separator agents, he has, however, in some cases, overstepped the mark in regard to saving labor, and machines are washed too infrequently. Coupled with this cardinal neglect has gone the absence of cooling facilities, and the tendency to skim a thin cream. Both of these can readily be overcome.

Several of our correspondents justly place the onus of improving conditions on the makers. As Superintendent Wilson, of Saskatchewan, points out, however, it is necessary that they arrive at a uniformity of opinion as to what constitutes an ideal cream. Then they can work together, and advise patrons as to what is wanted. If need be, they can do as the manager of Locust Hill Creamery does, and absolutely refuse to accept cream that does not come up to the standard. Experience has demonstrated that it pays.

As has been wisely stated, a great deal depends on the man in charge of the creamery. Dairymen have adopted the cream separator as an essential farm implement. They must be educated to meet the increased responsibilities that attend the use of this machine. Since it is agreed that a cream testing thirty, thirty-five or even forty per cent. is more desirable than one testing twenty-five per cent. or lower, the richer cream should consistently be demanded. By way of assisting in the battle for cooling the cream to fifty degrees Fahrenheit, or lower, the suggestion that the maker provide standard thermometers for his patrons at cost price merits consideration. The gospel of cleanliness requires frequent repetition. Despite the advice of some separator agents, all who have the interests of butter manufacture at heart agree that every cream separator should be washed thoroughly after each operation.

Too great anxiety to curtail expenses connected with gathering cream seems to be responsible for much of the trouble. It is false economy to save money on hauling expenses of the raw product, and lose by being obliged to sell inferior butter. Other things being normal, it pays to maintain the quality.

Conditions that are applicable to the manufacture of butter in the creamery, also apply to the home dairy. In every case, the butter made from a rich cream properly cooled is more satisfactory as to time taken to churn, and as to quality of product.

The various points mentioned by our correspondents demand careful study. With a definite ideal on the part of the manufacturers, and

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

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JOHN WELD, MANAGER

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,  
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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday.  
It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairy-men, gardeners, stockmen and home-makers, of any publication in Canada.
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judicious co-operation with those who supply the cream, there is no reason why the quality of creamery butter from gathered cream should not be of superior quality.

### Tile Drainage and Corn-growing.

To extend the area and increase the yield per acre of well-matured corn, is an achievement of first-rate importance to the Canadian farmer. To this end, the Ontario Corn-growers' Association will devote all its energies and all the resources at its command. These objects it will aim to accomplish directly by the improvement of seed of the best-adapted varieties, and by improved methods of cultivation. But the more the subject is considered, the more clearly does it become apparent that President J. O. Duke was getting down to fundamentals in classing drainage as a foremost prerequisite in the process of highly-successful corn-growing. Early maturity is the problem of problems which it is confidently believed that drainage will help to solve. Climatic reasons frequently restrict the length of our corn-maturing season, but the advent of the tile, wherever sufficient fall can be secured, will lengthen it, and reduce the labor consequent upon any system of surface drainage. To the busy corn-grower, time means money. It is probably well within the mark to say that land well underdrained can be worked satisfactorily from a week to ten days earlier than fields not thus relieved of their saturation of water. That length of time added to the corn season frequently means easily the difference between failure and success in securing a properly-matured crop of ears and fodder. An underdrained field, too, can be sooner cultivated after heavy summer rains, and does not suffer to the same extent from the incidental filling of furrows and watercourses in the process of intertillage. As a rule, the early planted crop is the best crop. More frequent tillage, earlier cultivation and more effective weed-killing are made possible; and it is probable that, in a well-drained district, the effects of occasional early frost will be very greatly reduced. Trouble

from flooding by heavy summer rains is also avoided in large measure. Through the aeration and warming of the well-drained soil, the more rapid growth of the corn plant will be promoted, and this means more speedy growth, ahead of autumn frosts, and readiness for the harvester, the silo and the corn crib. Corn will not stand cold, wet feet, and, by planting even good seed of an early-maturing variety under such conditions, is to defeat the objects which the grower has in view. The splendid and necessary educational campaign of the Corn Association, with its judging schools, exhibitions, and corn clubs or institutes, will doubtless include drainage as one of its main doctrines.

### A Demonstration Orchard.

Faith backed up by works is the faith that carries strongest conviction to the doubting mind. For so many years, "The Farmer's Advocate" has been preaching the gospel of better orchard practice, that reiteration has grown tiresome, yet to-day, thanks to a combination of circumstances, into which we need not enter here, the apple trees of Ontario are, with the exception of a few orchards and a few localities, disgracefully neglected, the owners having long since lapsed into a chronic state of apathy and inertia. One of the worst districts in this regard is the fertile and otherwise progressive County of Middlesex, which A. E. Sherrington declined to represent in the councils of the Ontario Fruit-growers' Association, declaring it a "dead county."

With a view to demonstrating by a practical example the results that can be produced and profits made from an apple orchard in Western Ontario, by means of up-to-date orchard practice, the publishers of "The Farmer's Advocate" this spring leased for a period of three years, a three-acre apple orchard, consisting of standard winter varieties, twenty-two years planted, near the village of Lambeth, Middlesex Co., Ontario, between six and seven miles from London. This orchard is being pruned, sprayed, plowed, and will be thoroughly cultivated until some time in July, when it will probably be seeded to a cover crop, to be plowed under the following spring. No crop but apples will be harvested from the land. The orchard will be manured next year, and, incidentally, a small fertilizer experiment is being conducted with material supplied by the Dominion Agricultural Offices of the Potash Syndicate. Accurate account, is being kept of every item of expenditure, liberal wages paid for doing the work, and, at the balancing of the books, a fair and full statement of expenditures, income, and profit or loss, will be published in "The Farmer's Advocate." While operations are necessarily conducted at a disadvantage, as compared with the farmer who has the orchard on his own farm, and can do the work himself at his convenience, it is hoped to show a fair profit. In any case, a candid statement of results will be made public, and if our readers are interested in the experiment, and derive a degree of instruction therefrom, we will feel liberally repaid for any effort and expenditure put forth.

### Trusts and Combines Under Protection.

The very word "combine" has come to have a sinister meaning. We at once think of an immense organization controlling a certain line of production, conscienceless and brutal, "without a body to be pricked or a soul to be damned," using its remorseless power to crush weaker rivals out of existence, to oppress its own employees, and to pillage the general public. And, looking at the matter in the light of what revelations have been made of their methods of operation in this and other countries, we must calmly acknowledge that this view, extreme though it may appear, is not more so than facts would warrant. And yet it would be untrue to say that all combines are of this class. I am a firm believer in the utility of combinations. Very often a group of men engaged in any industry can combine, cooperate—call it what you will—to their mutual advantage, and the advantage of the general public. They can introduce cheaper methods of production and marketing, can do away with wasteful competition, can buy to better advantage, and many other things advantageous to themselves, their workmen, and the consuming public. But when a combine uses its power to restrict production, to crush rivalry, and to fix the price of

its product, it becomes a robber organization, and worthy of our strongest censure.

It is worth noting that a long-continued policy of protection, particularly in a young country, is almost certain to result in the formation of combines of the last-named class. Protection is at first designed to help "infant industries," industries which are not yet firmly established, but which it is intended shall finally grow beyond the need of protection. They, of course, do not begin to supply the wants of the home market; and so, as we pointed out in a previous article, experience at once the full effect of the protective tariff in a rise in the price of their product. This at once stimulates production, new establishments spring up, and the business prospers. But soon comes a time when the home market is supplied, or nearly so. If the industry continues to grow, prices must soon be fixed by that received for the exported surplus—in other words, the world price—less by the rate of duty than the protected price. This must mean reduced profits for those engaged in the business. In order to avoid this, a combine is formed, and one of two lines of policy is adopted, either: (1) Production is restricted to less than the needs of the home market, that the tariff-enhanced price may still be enjoyed, and a policy of destructive competition is carried out against rivals that may refuse to come into the combine, and against new establishments that may threaten to increase the total output; (2) two prices may be fixed, one for home consumption, at the old protected rate, and one for export at the world-price. This does not necessarily stop the growth of the business, as the first method does. A modification is found when the establishments enrolled in a combine agree to pay out of their profits a bonus on the exported output of such a number of establishments as will leave the home market undersupplied by the rest. There is every evidence that all these methods are in use by combines in Canada at the present time.

In February last a deputation from the Dominion Grange waited on the Dominion Government, pointing out that there was every indication of the existence of combines formed to restrain trade, and asking that some action be taken in the matter. The deputation consisted of James McEwing, M. P. P.; H. J. Pottypiece, ex-M. P. P., and the writer. With us we had J. W. Currie, K. C., formerly Crown Attorney in Toronto, and of large experience in the investigation of illegal combines; and J. W. Woods, of the Gordon Mackay Co., a merchant and manufacturer, able to speak with authority. The evidence which these gentlemen were able to furnish was truly astounding. Quoting from the report of the proceedings of that deputation, we find it stated that, "Evidence collected in Toronto by J. W. Currie, K. C., when that gentleman was Crown Attorney, indicated that there were then well on to a hundred trade combinations in Ontario, and that these were collecting, in the aggregate, millions of dollars a year in the form of unfair profits." It would be too great a trespass on space to give in detail the statements made. It is enough to say that it was shown beyond a doubt that combines existed; that they crushed rivals by cutting prices till they again controlled the field; that they restrained production; that they persecuted to ruin any firm succeeding from the combine; that they prevented importation by underselling, in the cover of the tariff, whenever this was attempted, and that they divided their customers into classes of more or less favored dealing, this policy bearing most heavily on the small country dealer. These practices can be called by no other name than robbery. They are designed to get unfair profits, they oppress the consumer, and undo the very object for which the protection they enjoy was given, by preventing the expansion of their own business.

The cotton manufacturing industry, which has shown no increase in number of establishments since 1891, and which is employing fewer hands now than in 1901, in spite of the fact that the consumption of cotton goods and their importation into our country is rapidly increasing, affords an illustration of the way our protective tariff encourages the growth of industries. This industry is practically controlled by one company, whose interest is certainly not to overstock the home market. It is true, these people blame their lack of expansion to insufficient protection. In a circular, issued to their employees at the time of the recent strike in Quebec, it is stated, "Unfortunately, the cotton trade of this country does not receive sufficient protection, and it is possible for the manufacturers of England and the United States to undersell us, which means that we do not secure all the business to which we have a right." But, in evidence given before the commission to inquire into that strike, the secretary-treasurer of the company testified to the payment, out of profits of the business, of a fifty per cent dividend on the cost of common stock, of a dividend of seven per cent, on preferred stock, and of six per cent, on bonds, besides a very large amount for repairs and betterments. Surely a business paying such profits is not prevented from expanding by "insufficient

protection." Is it not rather the result of a deliberate plan to keep the home market understocked, that the higher prices, due to tariff protection, may be enjoyed?

Long-continued protection, thus, in the end defeats itself. It results in the creation of a combine, whose interest it is to prevent the expansion of its own line of business. A new concern, attempting to start under these conditions, finds a competition more to be feared than any possible foreign competition. Instead of new establishments being built up, an absolute bar is put on expansion. The net result is found in the stagnation of industry, the oppression of the consumer, and—a few millionaires.

There is every reason to believe that combines, whose object is to restrain trade, are rife in Canada. Home competition, which protectionists assure us will regulate prices, is a myth. In nearly all cases the full, protected price is charged to the consumer. Production sufficient to supply the home market is jealously guarded against, or, if this point is reached, two prices, one for export, and another—and higher—for home consumption, are fixed. Scant mercy is shown to weaker rivals, or to new concerns, and thus the expansion of business is prevented. Excessive profits are hid from the public eye under the mask of overcapitalization. In the end, the farming community find themselves paying a dollar and thirty cents for what should cost a dollar, paying more for labor, and for all kinds of service—not to build up urban industries, not to create a "home market" for their produce, but to pay dividends of fifty per cent. on the capital of some manufacturing concern, and to create an aristocracy of wealth, which even now seriously threatens our country, and which, as years go on, must increase in its power for harm. E. C. DIRURY.

### "For the Night Cometh."

Editor "The Farmer's Advocate":

This has been a bonny fine day, conseederin' it was the Sawbath, an' naethin' wad dae the auld wumman, but we must gan tae the kirk. I'm no' so spy at attendin' tae ma reelegious duties as I was in the days o' lang syne, for the rheumatiz has gie'n me twa or three bad twists, an' I canna' be takin' the proper attitude o' reverence when the meenister will be prayin' an' so on; but, onyway, I went the day, an' auld an' experienced as I am, I got sic a hantel o' instruction an' gude advice that I'm thinkin' I'll no' be richt till I get a muckle pairt o' it oot o' ma system, an' sae, wi' yer permission, I'll be passin' it on tae the readers o' yer journal, wi' the hope that you yersel' may get a pointer or twa oot o' it a', that may help ye tae steer clear o' the mony rocks I ken ye find in yer course.

The preacher was ane o' the auld-fashioned kind, wha tak' a text an' stick tae it tae the end. The text was, "Wark, for the night cometh," an' I couldna' help wunnerin' what he wad mak' oot o' advice like that, an' him preachin' tae a congregation o' farmers an' their wives, wha didna' ken muckle o' onything else but wark, from daylight till dark the year round. But he didna' leave me to wunner lang. Says he: "There is three kinds o' wark that we are called on to dae on this airth, an' the first kin' I will be drawin' yer attention tae is physical wark, or the wark we dae wi' oor hands, an' maybe wi' oor feet an' backs, too. This kin' o' wark ye

will say ye ken mair aboot, a great sicht, than yer preacher, an' nae doot ye dae. All I want tae say on this head is that ye all gie sae muckle attention tae it that ye hae hardly a meenute tae gie tae twa ither kin's o' wark that are o' equal importance, an' tae which I am gaein' tae noo draw yer notice. O. aye," says he, "ye mauna' forget the physical wark, but dinna' forget that 'the night cometh,' an' that means that there is a time tae stap.

"An' noo," says he, "for the second kin' o' wark. Ye will a' be daein' a little o' it, for ye canna' be daein' the ither wark I spoke aboot, gin ye dinna' mix some o' this up wi' it; but the amount some people get along wi' is unco' wee, an' ye will ken this when I tell ye that this second wark is mental.

"When we were wee laddies gangin' tae the schule, we had an idea that gin we could get awa' frae hoein' the corn an' herdin' the coos, an' that sort o' thing, oor troubles wad be at an end, but we hadna' got vera far in oor studies when we found oot that there were twa roads rinnin' tae the same place, an' we had only got aff ane tae get on to the ither. Wark is wark, gin it be physical or mental, but I want tae say tae ye farmers that the last seems tae come a mighty sicht harder on ye than the first, judgin' by the way ye neglect it. Gin ye wad gie as little attention tae warkin' yer land as ye dae tae the development o' yer mental apparatus, it wouldna' be lang till ye had a starved body, as well as a starved mind, an' the twa dinna' mak' a vera happy combination. Why ye farmers that ca' yerselves independent, an' boss o' yer ain time, dinna' manage so as tae tak' a wee bit o' that time every day for readin' a gude book, or magazine or paper, or clearin' the cobwebs oot o' yer brain in some way or ither, is a question ye maun each answer for yersel', but when it comes tae layin' up a supply o' money or a stock o' knowledge, I ken, for me, which I wad dae. Gin ye draw on the first, ye will mak' it less ilka time, but a deposit in the bank o' knowledge mak's sae muckle interest that ye can never mak' it less, no matter hoo much ye tak' oot. Ma irien's," says the preacher, "wark yer mental apparatus, for the night cometh.

"An' lastly," says he, "we hae come tae the wark that mony amang ye will be puttin' aside for us meenisters an' ithers o' oor kin', never thinkin' for a minute that ye hae ony interest in the matter. An' this last relates to naethin' mair nor less than the development o' the moral side o' yer character. It's yer moral wark. As farmers, ye hae every opportunity o' livin' a healthy, clean life, an' o' builidin' up a strong moral character, but are ye all daein' it? For instance, are ye all as straight in yer business transactions as ye could be? I hae heard o' farmers rolling up a stane in a coo-hide, an' lettin' the buyer hae it for six cents a pound, an' o' ithers pittin' sand in the wheat an' snaw in the aits, an' o' some pilin' cordwood wi' mair holes in the pile than was needed for ventilation, but I dinna' say I believe it a'. Oh, na, I wouldna' say that. What I want tae say is that ony wark o' this kin' is no juist the way I wad recommend for the building o' moral character. It may tear it doon, if there was ony to start wi', but that's the best it can dae. For the wark o' moral development, ye must hae honest dealings wi' yer fellow mon first an' a' the time. Then, gin ye hae ony leisure, ye can be exercisin' a wee bit o' self-control when it comes tae dealin' wi' yer horses an' cattle an' ither beasts on the farm.

The mon wha breaks a whip on his horse an' a york-handle on his coo, is no' in ony high state o' moral evolution.

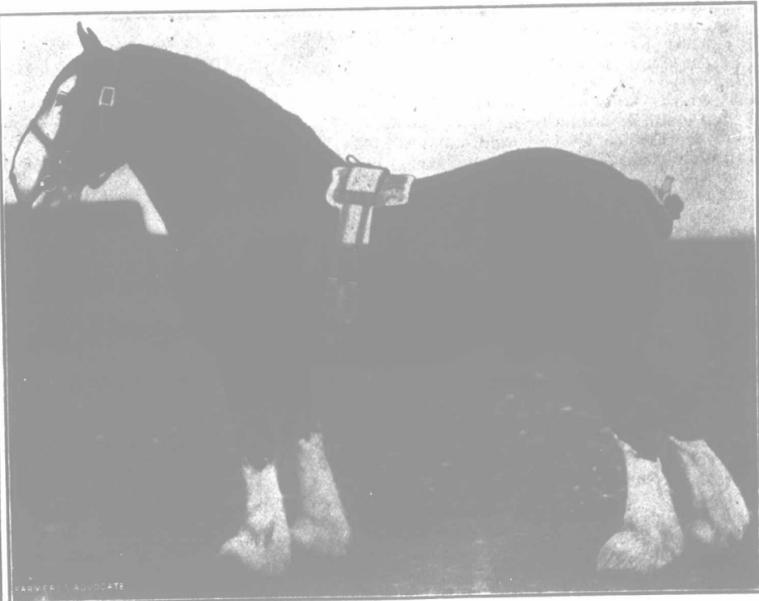
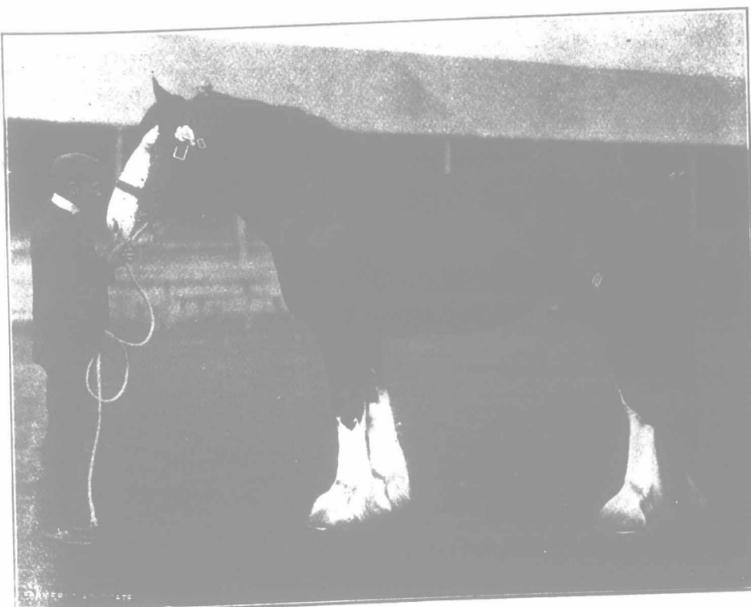
"But it winna' dae for me to be gaein' intae this matter ony further, or ye might be thinkin' I was gettin' personal, which is no my intention. What I want to impress on ane and all is that it's oor actions that are gaein' to mak' oor character; an' it's what we are, an' not what we hae or ken, that makes it worth while pittin' in the time on this auld airth. Gin oor actions are straight, we'll hae a straight character wi' us when we tak' oor departure for pairts unknown, an' as a character is the ane thing we can carry wi' us, it wad be a muckle peety to gae wi' a crooked one. An' gin it's a crooked one we hae the noo, we canna' begin tae get the kinks oot o' it a meenute too soon. Wark, for the night cometh!" SANDY FRASER.

### Benefits of Farmers' Clubs.

The number of new Farmers' Clubs that are being organized all the time, in different parts of Ontario, are the weathervanes that show which way the wind blows. They show that the farmers of the Province are slowly waking out of their stupor, and beginning to recognize themselves as not only farm laborers, but business men. The spirit of independence is beginning to assert itself. The farming occupation has often been, and is yet, looked upon as inferior, or an occupation that a man may go to when he can't go at anything else. But this view is fast being superseded by a better one. The farmer who views his occupation as inferior is soon crowded out. The agricultural class, too, are beginning to see that, while all other lines of labor have organized to promote their welfare, the farmer is the only one that has never thought of doing so. In fact, it hasn't been necessary, because of the farmer's great independence. While the value of other labor and products has increased 100 to 150 per cent., that of the farmer has not increased in the same proportion. The farmer is suffering through lack of organization, and I believe the forming of farmers' clubs is the thin edge that will lead to the organization of the farming industry. When I say farmers are suffering, I mean they are not getting what they should.

That there is a place for farmers' clubs, everybody who has caught on to this spirit of progress will admit. A few of the benefits resulting from the forming of these clubs will here be considered:

1. Many a young, ambitious farmer, if given the chance, would become a useful man in his community, but the lack of opportunity to use or develop his abilities and talents kills his career in the bud. These clubs offer this opportunity to get used to platform-speaking, and to enter public life.
2. The existence and doings of a club are often an inspiration to the young would-be farmer, who otherwise would leave the farm for the city. It raises the conception of farming to a higher level. The elevating influence of a club in a community is very noticeable.
3. There are many political topics that affect the farmer, which should be discussed by farmers, and the club offers this opportunity.
4. An appeal to Parliament from a number of organized clubs would be worth twice the number of individual signatures. The voice of the



Everlasting (11331), at Two Years Old and at Maturity.

—Bloodstock stallion, bay, foaled March, 1900; sire Baron's Pride (9122); dam Rose of Purston Hall (113328), by Prince of the Loway (8919), by Prince of Wales (673).

farmer should be considered, as well as the voice of the manufacturer and workman.

5. With a little co-operation, better prices could be procured for products, and cheaper rates for things farmers have to buy, as seed, etc.

6. The sociability and mutual help that would result from these clubs is also a very desirable thing in any community.

No doubt, more good reasons could be given why every community should have a farmers' club, but the foregoing should be sufficient to start the wheel a-rolling in many a community in which a club has not yet been organized.

Bruce Co., Ont.

A. E. W.

### "3-o'clock-in-the-morning" Farmers.

Editor "The Farmer's Advocate":

In "The Farmer's Advocate" of April 22nd, "Farmer," of Grey Co., Ont., takes Sandy Fraser to task for misrepresenting the average Canadian farmer in his article on woman's rights, which appeared in a recent issue. I am an interested reader of your valuable magazine, and have been interested, as well as amused, with friend Sandy's contributions. I do not think he claimed to represent the average farmer in the article referred to, but if "Farmer" would come and spend a half-day with me, I could introduce him to several three-o'clock-in-the-morning farmers, and others that do not get up quite so early, that are fairly well depicted in Sandy Fraser's article.

In reading "Farmer's" article, I was reminded of an incident, said to have happened to a well-known divine, now deceased. He and his wife were out driving, and their horse became unmanageable, and they were thrown out of their carriage. The lady escaped without injury, and immediately proceeded to thank the Lord for their escape from injury. Her husband suggested that she speak for herself, as he had some pretty sore bumps. Now, Mr. Editor, I would suggest that "Farmer" from Grey Co. speak for himself, and he can well afford to leave Sandy Fraser alone.

FARMER FROM GLENGARRY.

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

## HORSES.

### Stallion Legislation.

Editor "The Farmer's Advocate":

I have carefully read, in your issue of April 22nd, "Old Country Joe's" letter re licensing stallions, and, as he invites further discussion, let me say that, in my opinion, should all our horsemen in this country look at the stallion business as he does, Canada would be a poor place to buy horses.

I certainly will agree with him that there are some good Canadian-bred stallions, and that some poor horses are imported, yet some importers buy the very best animals they can procure, and why should they not get some protection for endeavoring to better the horse industry in this country?

What we want is legislation to provide competent Government inspectors, and any stallion, imported or Canadian-bred, if not up to the standard, should be castrated.

If I am not mistaken, there is such compulsory law in France to-day, and until we have legislation to that effect, fifty per cent. of Canadian horses will be bred from scrubs. Proper legislation should protect breeder and importer.

Labelle Co., Que.

A. G. COOKE.

### Weight of Clydesdales.

Editor "The Farmer's Advocate":

I see by your number of April 29th an importer's views on Clydesdales, giving as his opinion that to consanguineous breeding is largely attributable lack of substance and constitution in the popular type of Clydesdales. However, we know that the typical Clydesdale of to-day has great action for a draft horse. Also, as to the Clydesdale controversy, I do not know the weight of the winners at the Glasgow Stallion Show, or those at last year's Highland Society Show, but I know we have a stallion, not yet two years old, which weighs 1,505 pounds, and is not nearly so fat as the general run of stallions, but has lots of good-quality bone, with good action and constitution. He has the same g-grandam as Baron o' Buchlyvie, the sire of three of the first prize winners at the late Glasgow Show, and his dam is the winner of the Cawdor Cup, 1908, and his dam has the same grandsire as Baron's Pride.

Middlesex Co., Ont.

JOSEPH ROBSON.

### Ailments of Horses' Shoulders.

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

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

mentioned cases is made by mixing together two ounces of tincture of iodine and six ounces of extract of witch-hazel. This should be applied with a brush night and morning, and before the horse is put to work a little carbolized vaseline may be applied to the sore. It is much better, however, to operate than to bother with the treatment of these tumors an entire season, without the hope of final cure.

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

### Horse Rations.

Some valuable information has come to hand regarding the feeding of draft horses. A Yorkshire (Eng.) stud of 240 horses, used for draft purposes, have been kept for a long period, at moderate cost. The stud has not been troubled by colic, and ailments of any kind have been very few. On an average, not more than two horses per week were unable to work, and this is an unusually small number in so large a stud.

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

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

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

### More Size for Clydes.

Duncan McEachran, F. R. C. V. S., speaking recently before an audience of horsemen, of Quebec, stated that, in the future show-ring, judges will have to give more value to general conformation in the Clydesdale, to size, weight, color and action, and give up the present, exclusive attention to feet and ankles. Judges, he declared, would have to adopt a happy medium as to the size of the feet and length and obliquity of the pasterns. Decisions would have to be based upon the essentials, upon such points as strength, endurance and soundness of the body, the joints and constitution—a combination of those qualities that give the animal the highest commercial value.

Dr. McEachran believes that the time has come when Clydesdale breeders must make a supreme effort to increase the size of the breed. The market demands a heavier type of horse. One has only to visit such large commercial centers as Glasgow, Liverpool, London, Paris, Berlin, to see that most of the goods handling is now done by single horses approaching and exceeding a ton in weight. This is an economic necessity, and it is reasonable to expect that all carriers will adopt the large one-horse, instead of the double team hitherto in use. Asphalt pavements and improved streets make this practicable.

The demand, wherever horses are used, is for heavier animals. Clydesdale breeders may ignore the demands of horse-users for a time, but ultimately they must breed in size and conformation to meet those demands, or else cease claiming a heavy-draft horse altogether. In this country the demand is for weight. Clydesdale breeders who have given attention for generations to the foot and bone qualities of their stock have an opportunity now, if they will breed animals of greater substance, combining better than the breeders of any other of the heavy-draft breeds, quality with weight, and horses of that kind are what the market at the present time cannot get enough of.

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



A Pair of Twins — Which?

Photo by K. M. Robb, Middlesex Co., Ont.

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

**Horse Will Not Back.**

I have had a horse a year. He drives well, but will not back when in a rig of any kind. He backs all right with harness on, when not hitched, but absolutely refuses to back when hitched.

W. A. T.

Ans.—As kindness has apparently failed to teach this horse to back, you will have to try force. Hitch him to some light rig, preferably a cart with long shafts, so that he cannot rear or fall backwards. Put strong harness on. Give him a few lessons with the harness before hitching. Say "back!" sharply, and at the same moment draw quickly and strongly on the lines. By using the word and action at the same time, teach him to connect the action of backing with the word "back" and tension on the lines. Then hitch him, and, while standing on the ground yourself, treat him the same. If he still refuses to back, get an assistant to stand in front of him with a whip, and give him a smart cut on the nose or fore legs when you say "back!" After a few lessons this way, put a little resistance on rig, to teach him to put force on the harness. Gradually increase the load he has to force backwards. This treatment may appear crude, but this is a case in which the horse knows what he is wanted to do, but refuses, and the only means of teaching him is to overcome his stubbornness by force, and, if necessary, punishment.

Watch the mare at foaling time. While in many cases parturition will be accomplished satisfactorily without manual assistance, in some instances a little timely and intelligent human aid may relieve much distress, and possibly save the life of foal or mare, or both. Do not allow her to suspect, or, at any rate, to be conspicuously reminded, of your presence, but be near enough to render assistance, if necessary, at the critical moment. The advantage of such attendance in the exceptional cases when needed, will repay the trouble of making it a rule.

**LIVE STOCK.**

**Young Pig Management.**

A hog is half made when past the weaning period without a stunt or kink in its growth. Every check or halt in prosperity through its first two months is more expensive than at any later period. Too much rich, feverish milk of the dam, causing thumps or other ailment, may leave harmful results, perhaps as much so as scant feeding or other neglect of the sow. More injury may be done to a pig's growth in two or three days than can be repaired in a month, even if he is made the subject of special care, which, where many are raised, is not the rule, nor easily practicable. "Good luck" with pigs calls for attention, and that not occasional, but frequent and regular.

From the first week after farrowing, until weaning time, the sow will be little else than a milk machine, and, to be a high-power machine, in perfect operation, she must have proper care. Nothing else is so well calculated to make pigs grow as a bountiful supply of wholesome sow's milk, and the pigs that have plenty of other feed with the milk of a well-slopped sow for eight weeks, will ordinarily have much the start of those weaned at five or six weeks, no matter how much food and attention the earlier-weaned pigs may have had.

At eight or nine weeks old, most pigs are, or, rather, should be, fit to take away from the sow; some litters are individually older at seven weeks than others at ten, and better fitted for weaning. Sometimes it is necessary to wean when pigs are five or six weeks old, and in other cases it may be advisable to wait until the pigs are ten weeks, or even older. In the corn belt the period will generally average longer than in New England. Breeders who wean at early ages generally do so in order to more profitably raise two litters a year.

Provided with and taught to eat suitable feed some weeks beforehand, pigs are not noticeably checked in their growth by weaning, but those that have been dependent mainly upon the mother's milk, when abruptly taken away from it, frequently seem to have their growth partially suspended for weeks. Many breeders successfully let the sow wean her pigs, as she will in time, and the change is so gradual that no pause in growth indicates when the milk diet ceased. A modified application of this, in which the pigs are separated from the sow at an age suiting their feeding and the convenience of the breeder, will not infrequently be found advisable, but by no means should the pigs be allowed to remain with a sow until she is virtually devoured by them, as is sometimes done.

It is not a good plan to take all the pigs from the sow, unless one or two of them can be turned with her some hours after, to draw the milk she will have at that time, and again, say,

after a lapse of 24 hours. The preferred way is to leave about two of the smallest with her for several days, and after that leave only one for two or three days more, by which time the flow of milk will have been so gradually diminished that no injury to the sow will result by keeping them entirely away from her. This extra supply of milk helps, also, to push the smaller pigs along in growth, and put them more nearly on an equality in size with their thriffter mates.—[From Coburn's "Swine in America."

**Winter Pig-feeding Experiment.**

Editor "The Farmer's Advocate":

I hope that some of your readers may be interested, as I have been, in hog-feeding experiences, I am sending the result of mine, last winter. September 3rd a young sow had litter of five, but, owing to trouble with her milk, raised only three, and these, at weaning were only just good ordinary pigs, weaned at eight or nine weeks old, having run out with mother for about four weeks. The first week in December we carried them into a cement-floored box stall in the cattle stable. Unfortunately, I did not weigh them at this time, but estimated their weight at 65 to 70 pounds. February 4th we weighed the three, weights being 155, 165 and 180, an average of 167 pounds, a net gain in two months of 100 pounds per head. Eleven days later we weighed again, weights being 175, 180 and 201; average, 185 pounds; net gain, 18 pounds per head in 11 days. March 4th sold hogs, total weight being 640 pounds, average 213 pounds, at six months and one day old.

Feed consisted entirely of mixed-grain chop from time of weaning (as raised from a mixture of 1 of barley, 1 of oats, and 1/2 of peas), with a little extra pea meal added the last month. This was mixed with skim milk or buttermilk and kitchen slop for drink, and two mangels per head per day were fed by way of dessert. The balance sheet shows about as follows:

Nov. 4—Three hogs, at \$2 each.....	\$ 6.00
To Dec. 4—80 lbs. chop, \$1.00; 15 gallons milk, 30c.....	1.30
Dec. 4 to Feb. 4—450 lbs. chop, at \$1.25 per cwt.....	5.63
12 bushels mangels, at 6c. per bush.....	.72
1,800 lbs. milk or buttermilk, at 2c.....	3.60
Feb. 4 to March 4—320 lbs. chop, mixed.....	4.00
120 lbs. pea chop.....	1.50
850 lbs. milk and buttermilk.....	1.70
1 bush. mangels.....	.24
	\$24.69
March 4—Three hogs, 640 lbs., at \$6.75 per cwt.....	\$43.20
Net profit.....	\$18.51

I have purposely divided the feeding into periods, as it gives a fairly good idea of the relative cost of gains at different stages of growth. The cost of feeding the sow while she was suckling did not exceed \$1.00, which, with \$1.30, cost of first month's keep, makes the 200 pounds live weight made in the first three months worth \$2.65 per cwt. to produce. With an average-sized litter, even this amount would be materially reduced.

First three months, cost of feed, \$2.65 per cwt. of gain.

Fourth and fifth months, cost of feed, \$3.32 per cwt. of gain.

Sixth month, cost of feed, \$5.25 per cwt. of gain.

The average daily gain from the time they were three months old, was 1.67 pounds, and this was constant through the whole period.

Query—Was it necessary to increase the feed as much as I did during the last month, as there was no increase in rate of gain? Or, again, if the skim milk had been increased in same ratio as meal, would the gains have been greater? Probably the last month's feed bill would not have been so heavy. As a matter of fact, the amount of milk and buttermilk was fairly constant from the middle of December to end of feeding, being about one gallon of fresh skim milk from the separator morning and night, and the same amount of buttermilk at noon; if the supply played out, as it did sometimes, water or kitchen slop was substituted. The chop was stirred into the milk, and from the time the pigs could take so much, it was made up to a pailful. This was never exceeded. There was always more or less water used with the milk, either clear or dishwater, as was convenient. Mangels were fed whole, and two each was all they seemed to care for per day; during the last week they hardly ate any. I never gave any sulphur, salt, ashes, earth, or any condiment of any kind. They had no platform to sleep on, just plenty of litter on the cement.

I have fed a good many hogs during the past eight years, usually four litters per year, but I never before had any milk available, beyond, perhaps, a little about weaning time, and this has been a revelation to me, as to its value for pig feed. I have always figured the cost of feeding winter pigs at about 5 cents per pound, using mangels or turnips with the chop. With beet pulp available, I could do a little better; but this was with chop at \$1 per 100 pounds, and it would take eight months to make the weights these hogs made in six. Now, with chop at \$1.25, and milk at 20 cents per cwt., we have made pork at \$3.85 per cwt. in midwinter. Looked at in another way, taking the cost of gains on grain and roots, I figure that skim milk and buttermilk was worth 50 cents per cwt. as a substitute for grain. This adds considerably to the value of a good milk cow, and incidentally makes the raising of calves a good deal more expensive. Average ratio of milk to meal was as 3.33 to 1.

ALFRED HUTCHINSON.

Wellington Co., Ont.

**What Alberta Conditions Demonstrate.**

In the matter of wintering stock, Alberta is giving the rest of the Dominion some valuable demonstrations. Somehow, in the past, we became imbued with the notion that, in order to bring stock successfully through the winter, we had to house them in warm quarters and protect them from every breath of wind, which usually involved seclusion from sunshine and denial of exercise. As a result, we provided splendid incubating depots for tuberculosis, developed a pampered, oversensitive class of stock, and largely eliminated natural tendencies to grow thick coats of hair, and resist cold and disease. The dark, unventilated, "comfortable" basement stable is one of the grandest monuments to our ignorance in violating natural laws that we have on record. In Manitoba, says "The Farmer's Advocate," of Winnipeg, we know of a "model" stone stable, 60 x 80, in which one cow has her winter habitat, and in which the owner lost some \$1,000 annually trying to fatten cattle, while less than a mile away enough steers to fill his stable have been contentedly putting on flesh all winter.

With horses, the Sunny Province is giving us as emphatic demonstrations as with cattle. At the recent Calgary Show, the first and second-prize draft teams had wintered on the prairie, and came into the show with their ribs buried in good, firm flesh. From such illustrations we can draw our own conclusions. It is just possible that, had Alberta stock-raisers followed the beaten tracks of the industry, and adhered to the orthodox teaching of the stock-raising fraternity, their reputation as raisers of cattle and horses would be no better than that of the stock-raisers of other districts of the West; but necessity pointed a way, which they were not slow to follow, with the result that the best cattle and horses found on the Western markets come from the ranges. The ill effects of a dark, warm, ill-ventilated stable could counteract the benefits of even Alberta's sunshine, grass and fresh air.

**Truth that Refuses to Die.**

Replying to an editorial article in Hoard's Dairyman, charging Prof. Thos. Shaw with having held back the development of the dairy industry of Minnesota for years, by poisoning the minds of its farmers with dual-purpose ideas, Prof. Shaw thus states the essence of his teaching:

"I have taught that there are three classes of cattle in this country, and that there always will be a place for these. The first is the straight dairy cow, and the place for this cow is in the dairy, where the dairyman is seeking production only in the line of milk; the second is the straight beef cow, that suckles her calf, as kept under range or semi-range conditions; and the third is the dual-purpose cow, that will give a fair amount of milk, and that will at the same time produce calves that can be profitably grown into beef. The place for this cow is on the arable farm, where the farmer wants to grow some beef, and where it is too costly to grow it from the straight-beef cow. That is what I have always taught. That is what I am teaching now. Will the man who says I am a distributor of poison answer why? Is it not because what he calls poison is truth, which, like all truth, refuses to die."

I have received the knife, and find its quality and appearance just as good and beautiful as that of the first knife I got years ago.

BR0. SIGNORI.  
Institut Agricole, La Trappe, P. Q.

## THE FARM.

### Electricity in the Clouds.

Editor "The Farmer's Advocate":

Responding to your request for comment on the article entitled "Another Lightning Theory," by "A Reader," appearing in your issue of May 6th, I am glad to see that your correspondent has advanced the accepted theory of the accumulation of electricity in the clouds. There are, however, a few minor points which "A Reader" has not presented exactly, and some which he has not presented fully. It is no theory that, during evaporation, the rising vapor carries off a positive charge of electricity; it is a fact, proven by experiment. Besides this source of electricity, it is believed that the air, in friction against trees and earth, buildings and other objects, generates further quantities of electricity, for it has been demonstrated by experiment that any two unlike bodies being rubbed together become charged with electricity, one positive, and the other negative. In addition to these two courses, there is another: When the vapor has begun to condense, as described by "A Reader," and that portion of the air has become more highly charged than other portions, this accumulation induces an opposite accumulation in the earth directly below. The closer the cloud comes to the earth, the more strongly this induction acts.

The action of a charge of electricity on water-drops is peculiar in that a weak charge acts differently than does a strong charge. Any of your readers may prove this in the following manner: Prepare a small nozzle, with an opening about one-sixteenth of an inch; by a tube, connect this nozzle to a supply of water some few feet above the nozzle; let the nozzle point obliquely upward, and allow the water to flow. A fine jet will be spouted a few feet upward, and will fall in a graceful bow. It will be observed that this jet breaks into medium-sized drops as it approaches the highest point, and the falling water, instead of being in a jet, is like a small shower of drops. Now let the observer take an ordinary hard rubber comb in one hand, and a silk handkerchief in the other; after rubbing the comb on the handkerchief, let him bring the comb slowly toward the jet, about one foot above the nozzle. When the comb comes within a certain distance of the jet, the observer will notice a peculiar change: the jet, instead of breaking up into drops, as before, will flow in one continuous stream up past the apex of the bow and down toward the ground. If, however, he brings the comb close up to the jet, the latter will be seen to immediately break up into very fine drops, like a spray, which will be scattered in all directions. Now, why this phenomenon? Rubbing the comb on the handkerchief produced a charge of electricity on each. When the comb was brought slowly within about two feet or so of the jet, the charge on the comb induced an opposite charge on the jet, and since the comb was a considerable distance away, the induced charge was a weak one. Under these conditions, the jet, which had previously been breaking up into drops, gathered together, and flowed in a continuous stream; that is, a weak charge on drops of water will cause them to run together. But when the comb was brought close up to the jet, the induced charge was a strong one, and the jet was broken into a fine spray, which spread out in all directions; hence, when drops of water are strongly charged with electricity, they repel one another. Now, as explained by "A Reader," this finds a direct application in the thunder-cloud. As soon as the rising air and vapor have become cool enough to cause condensation on the dust particles, the little drops of water flow together because of the weak charge upon them, and, as they do so, the intensity of the charge increases, not because the volume is reduced, as stated by "A Reader"—for this is not the case—but because the area is reduced. For example, if eight drops of uniform size unite in one large drop, the latter has the same volume as the eight individual drops had, but it has only half as much surface. Now, as stated by "A Reader," the charge resides on the surface, and since this one drop formed from the eight has only half as much surface, the charge must now be twice as intense as before, and if eight of these larger drops were to unite again, this double intensity would again be doubled, making the new intensity four times what it was on the original drops; and so the intensity goes on increasing as the drops become larger, because the surface is diminishing, and this continues until the charge has become intense enough to keep the drops from uniting further. Then the cloud rolls on, probably nearing the earth as it does so, and the charge is further increased by induction, until at last it is strong enough to break through the air to the earth in a flash of lightning. Then, there being only a weak charge left on the drops, the process of uniting begins again, and continues until another flash, or until the drops fall to the ground.

It is hardly correct to say, as "A Reader"

does, that the negative is always stronger than the positive. They are equal, but opposite in action. It may be asked, then, why does the discharge take place from the positive to the negative? To answer this, we must remember that, while we speak of two kinds of electricity, positive and negative, it is believed that in reality there is only one, and that when that accumulates at one point it leaves an absence or deficiency of electricity at some neighboring point. The deficiency is what we call "negative." And so the discharge naturally takes place from the point of accumulation (the positive) to the point of deficiency (the negative). The return stroke is explained in a similar way. Owing to the surging of the energy towards the earth a point of accumulation is produced there, and a point of deficiency in the cloud, the difference being so great that the energy flashes back to the cloud again.

"A Reader" is to be commended for bringing to the attention of your readers what is generally accepted among scientists as the true explanation of lightning. I may add that, with suitable apparatus at hand, as we have at the College, we can demonstrate these things so that the whole process appears simple and clear, and, also, that lightning-rods, properly installed, must have some real influence in protecting buildings against damage by lightning. WM. H. DAY.

### Split-log Drag for Grading and Maintenance.

Editor "The Farmer's Advocate":

The split-log drag, or the more practical term, "the king of all road machinery," is one of the most up-to-date machines used in the art of road maintenance. This simple implement, when used at the proper time, does wonders towards road development, but its improper treatment in some places has detracted in a measure from the laurels it had previously won. I will admit that my first attempt with the drag was not very encouraging, as I was ignorant of its use, and, besides, had not the least idea of road construction. Fortunately, I had a small dip of Scotch blood in my veins, and hung to it until I overcame all these grimaces. To-day, scores of men will bear me out in saying that this mile of road cannot be surpassed in the township.

Regarding the photograph reproduced in connection with this article, it would be well to note the fact that this mile of road was solely done with the drag. The road was practically in



Graded and Maintained with the Split-log Drag.

Result of the third season's work with the drag, by H. W. Park, Township of Caistor, Lincoln Co., Ont.

Graded up from a flat condition with the split-log drag alone.

a flat condition, and in most places hollow in center. It now has a grade of an inch to the foot. I have no further desire to compliment my work and success, but would refer you to the clerk of our township, if any other comment or recommendation should be desired.

The editor presented me three points to answer, thus: Did you use the drag last year, and with what results? I did use the drag, and always intend to, until something better comes along. There are two stages in which the drag can be used to great advantage, namely, immediately after a rain, or, better still, during the rain, if so inclined; then, after the road is freed of its sticky nature, and before it becomes hard, plane on the sharp edges made by the trails in the interval. You now have a road of firm, almost insusceptible to either water or wheel track. The more frequently this treatment is followed, the better.

Question 2: "Were you allowed any compen-

sation for dragging? No compensation was allowed me, other than my ordinary dab of statute labor. I counted labor or reward no object in my endeavor to establish a good, respectable road, and that my results might be the means of spiriting the cause in every direction, and which I believe it has.

As far as I know, no system to insure systematic dragging has been introduced in our township, outside the few scattering ones who have caught the spirit of better roads. The interest taken in road development is fast increasing, while many, as yet, fail to see that labor spent in this manner is to their individual interest. The quickest and perhaps only way out of this problem of awakening interest in this important matter would be that township councils adopt the awarding of prizes, in each about six cash prizes, the amount donated as large as their conscience would allow. Thanking you for space, and wishing "the king of road machinery" every success, Lincoln Co., Ont. H. W. PARK.

### A Seed-corn Improvement Method.

In order to enlist the co-operation of many who might not care to undertake the more advanced "ear-in-the-row" method, laid down by the Canadian Seed-growers' Association, the recently-organized Ontario Corn-growers' Ass'n suggests the following plan of seed-corn improvement. It is simple, involves very little extra labor, and has given excellent results:

1. Choose with care a sufficient number of ears (at least 20) from those you have reserved for seed purposes. These ears should be as near alike as possible in the following particulars: Shape, length, circumference, covering of butts and tips, shape of kernels, number of rows of kernels on each ear, and percentage of corn to cob. The use of the score-card, as published in "The Farmer's Advocate" for March 4th, 1909, is suggested in selecting the corn, along with the illustrations of prizewinning ears in same issue.

2. Test six kernels from each ear of seed corn for vitality, and plant only the strongest ears.

3. Having selected the ears that conform most nearly to the type in size and conformation, and show by the germination test that they are of strong vitality, the ears should be shelled, after removing the butt and tip kernels, and planted early in rows in a plot on the best side of the cornfield, where there will be no danger of the corn becoming mixed with any other variety.

The object of this plot is to furnish seed for next year's crop.

In order to get good seed, all barren (earless) or imperfectly-eared stalks should be removed, so that their pollen cannot fall on the ears which are to mature, and the corn in the plot should receive careful cultivation during the summer.

Begin to select the seed as soon as the corn is matured. Select only ears which conform to the desired type, taken from strong, vigorous, early-maturing stalks. Husk these at once, and hang them up in the attic to dry out.

### Grow Corn on the Summer-fallow.

Grow corn on the summer-fallow. In other words, use corn as a cleaning crop. If well attended, as it may be with comparatively little expense, by using a two-horse riding corn cultivator the field will be as thoroughly rid of weeds and grass as though cultivated all summer without a crop, and the owner will have a thirty, forty or fifty-dollar corn harvest to show for his work. Fall-wheat growers may object that corn is not off the land in time to sow wheat, and yet secure a good top. In some cases this is true, but the purpose can be accomplished by sowing wheat after peas, and spring grain after corn, alternating with each course of the rotation the areas on which the corn and the peas are planted. Thus, if the rotation be a three-course one, each field may have peas, as well as corn, once in six years, or once in eight years, according as the land is left one or two years in sod. Corn, well cultivated, will clean the land, peas will add nitrogen and supply a most valuable feed in the form of both grain and straw; and if the produce of the farm be devoted mainly to the raising of stock, and the manure carefully saved and applied fresh, the farm will grow richer year by year, and it will be found progressively easier to grow large crops of wheat and secure good catches of clover, without wasting a year in bare fallow. Only in fields badly infested with bindweed, perennial sow thistle, or some equally noxious plant pest, is bare fallowing really called for, and even then the wisdom of it is open to debate.

In Canada last year, the area of occupied arable land was 78,426,000 acres, with an estimated value of \$2,800,000,000; the area of field crops was 27,500,000 acres, with a product value of \$4,234,000, and the value of live stock on farms and ranches was \$531,000,000. Within a period of thirty years, it is estimated, the present figures of the agriculture of Canada will be increased fourfold.

### Millet.

Although millet has been grown for feed as long as I can remember (and I'm no spring chicken), yet it has never become a staple crop, or grown in any appreciable quantity, seldom more than five acres on any farm. Although a safe and comparatively easy crop to grow, it has always been regarded as a sort of catch crop, of value only when the meadows fail; yet chemical analysis shows it to be superior to timothy in everything but fat, in which it lacks only four-tenths of one per cent. (practically nothing), and in crude fibre one and three-tenths per cent., which is advantageous, as crude fibre is the most indigestible portion of the plant, and considered to be practically worthless. It also contains five and one-half per cent. less water (cured under the same conditions), which is another advantage, especially if one is buying by the ton. In protein (the most valuable constituent), it is over one and one-half per cent. richer than timothy, as follows:

Timothy Hay—Water, 13.2; ash, 4.4; protein, 5.9; fibre, 29; carbohydrates, 45; fat, 2.5.

Hungarian Millet—Water, 7.7; ash, 6.0; protein, 7.5; fibre, 27.7; carbohydrates, 49; fat, 2.1.

This, of course, refers to millet cured for hay. I could not find any standard analysis for millet straw, but, having threshed some Siberian millet, I had a sample of the straw analyzed at the O. A. C., resulting as follows:

Water, 5.24 per cent.; ash, 6.27; protein, 6.05; fibre, 32.26; carbohydrates, 47.68; fat, 2.50.

As we should expect, the greatest difference is in the amount of fibre, due to the greater ripeness of the stem, but otherwise there is not as much difference as one might expect. In fact, it is better than oat straw, which runs as follows: Water, 9.2; ash, 5.1; protein, 4.0; fibre, 37.0; carbohydrates, 42.4; fat, 2.3. And much better than either wheat, rye or buckwheat, and probably also barley straw, though I have not the data; but it is risky feeding, because of the awns. When we come to consider its digestibility, as before, there is no data for the straw, but we find that the Hungarian millet hay again excels the timothy hay, as follows:

Timothy Hay—Organic matter, 57.9; protein, 46.9; fibre, 52.5; carbohydrates, 62.3; fat, 52.2.

Hungarian Hay—Organic matter, 66.3; protein, 60.0; fibre, 67.6; carbohydrates, 67.1; fat, 63.9.

This means that there is a higher percentage of the constituents of millet hay made use of by the animal than of timothy. Even the fibre is easier digested, besides having less of it than the timothy. These results were obtained from numerous experiments with living animals, and may be relied on as being correct for practical use.

From this, may we not infer that millet straw is at least the equal of oat straw in digestibility, and being richer in valuable food constituents, and lower in percentage of water, is it not worth more per ton for feeding? In fact, millet straw is superior in food constituents to timothy hay, though containing more fibre (3 per cent.), and as oat straw and timothy hay are about equal in digestibility, it would seem that millet straw, cured without rain, as mine was, might be very nearly equal to timothy hay for feeding. It may even, for practical purposes, come little short of millet hay, for, as commonly cured, it is fairly matured, containing much seed which, we think, makes it unsafe for feeding in large quantities; but, being allowed to ripen, and cut on the green side, so the seed will not shell too much, the straw, when threshed, is fresh and green, and some think it quite equal to ordinary timothy hay, though, as usual, there is difference of opinion.

Millet is a good crop for wet land, as it can be sown any time in June or July (June 15th is about the best time), after the water-table has lowered in the soil, which allows time for plowing sod, on which it does well. The preparation of the seed-bed should be thorough. It can hardly be too fine; roll and disk and drag, alternately. Firm it well, and sow with grass seeder on narrow surface (two or three pecks). If soil is moist, rolling in will do, but if very dry, harrow and roll; and if soil be heavy, omit rolling, as heavy rain afterwards may pack the soil and prevent the young shoots getting through. It is a slow crop to start, especially if weather is cool, but, after starting, will grow rapidly, and mature in about sixty days. It is a hot-weather plant, and will not start well before middle of June usually. If intended for hay, it should be cut while in bloom, and is not usually a difficult crop to cure, as weather is usually dry at that time. Cut and ted, and, when fairly dry, coil up in hot part of the day, and then it will turn heavy rain, but it is better housed immediately after sweating.

If intended for seed, do not leave to get very dry. It's better to sacrifice the small heads than lose the big seed of the big heads by shell rot. Opinion is divided as to whether it is better to handle it loose or tie it. Circumstances may decide. If weather seems favorable, and the

crop is long and heavy, I think I would tie, but we should remember that, whether using a self-feeder or not, the bands must be cut to make it feed evenly. If stems are short, it is difficult to cut with binder; probably a buncher or mower, or a self-rake reaper would be better.

Foxtail is the principal adulterant, and it is wise to make sure the seed is free from it, if intended for seed. If for hay, it matters less. Siberian is the best seed-yielder, and at Guelph has produced over 50 bushels to the acre, but the soil must be rich, and the cultivation nearly perfect to get such a yield. Cured as hay, some varieties made four tons. In this locality, it is quite common to have two tons on manured land. Clean seed sells these years at about \$2 per hundred, and retails at about \$1.50 per bushel weighing from 48 to 54 lbs. The seed is used for birds, chickens, chop, and in Siberia, India, Japan and China extensively for human food. Screenings sold this year for half price. It is a good crop to precede wheat or rye, but, being a surface-feeder and quick grower, the soil must be rich near the surface to produce a good crop. I have no seed for sale. J. H. BURNS, Perth Co., Ont.

### Hydraulic Ram.

Editor "The Farmer's Advocate":

I saw in your issue of March 25th an article in regard to a hydraulic ram. I have had one in for about ten years, and it is working fine yet. I see that the one answering the article gives an estimate of 100 feet of drive pipe,  $\frac{1}{2}$ -in., and a discharge pipe of  $\frac{3}{4}$ -in., and only 100 feet of discharge pipe, when it is 150 feet to the barn. I think the feed pipe and discharge pipe are too near the same size. Before I put in my ram, I looked up an authority on rams, and he said the most satisfactory way was to have 9 feet of feed pipe for every foot fall, and it only needs 1-foot fall to raise water 10 feet. S. W. H. only wants to raise it 8 or 9 feet, so that would only need 9 feet of feed pipe. Allow  $1\frac{1}{2}$ -foot fall, it would only take 14 feet of feed pipe. The ram I have has  $1\frac{1}{2}$ -inch feed pipe, and  $\frac{3}{4}$ -inch discharge pipe. I raise the water about 55 feet high, and only have 75 feet of feed pipe, and about 450 feet of discharge pipe. I do not think that 2 gallons per minute will go through a  $\frac{3}{4}$ -inch drive pipe while ram is working. This authority also says that 13-14 of the water goes through the plunger. That would only give a little over 1 pint per minute to go to the barn. If the inquirer has a stream large enough to fill a  $\frac{3}{4}$ -inch pipe, running free, I think he will have enough to run a ram with a  $1\frac{1}{2}$ -inch feed pipe and  $\frac{3}{4}$ -inch discharge pipe, which would give him far more water, and, I think, prove more satisfactory. At the rate that mine cost, it would cost about as follows: Ram, \$14; 15 feet of  $1\frac{1}{2}$ -inch galvanized feed pipe, \$2.25; 150 feet of  $\frac{3}{4}$ -inch galvanized discharge pipe, \$9.00; total, \$25.25.

Be sure and dig your ditch deep enough so that if the ram stops, it will not freeze.

Brant Co., Ont. G. B. P.

### COMMENT BY PROF. W. H. DAY.

I wish to thank you for forwarding me G. B. P.'s letter, for comment to appear concurrent with it. I do not know who is his authority on hydraulic rams, but if he will consult "Treatise on Hydraulics," by Merriman, than whom there is no better authority in America, he will find on page 520, second paragraph, the following words: "The least possible fall in the drive pipe of the hydraulic ram is about  $1\frac{1}{2}$  feet, and the least length of drive pipe about 15 feet." Also, the R. McDougall Co., who have been manufacturing and installing hydraulic rams for many years, write me as follows: "We think we are safe in saying that one foot would not be sufficient fall to operate any machine. It is possible, though, to operate a ram under a fall of 18 inches, but it would be considerably better if about twice this could be secured." Thus do scientists and practical men agree. G. B. P.'s rule of 1-foot fall to raise water 10 feet is not correctly stated; it is only half of a general rule, which runs as follows: "With a fall one-tenth the height to the barn, the hydraulic ram will lift to the barn about one-fourteenth of the water flowing through the feed pipe." However, by adjusting the size of feed and drive pipes properly, the ram can be made to lift water 15 or 20 or more times as high as the fall in the feed pipe, but under these circumstances it will not lift as great a proportion of the water flowing to it. When lifting water 20 times the head, it will deliver only about half as much as in lifting it 10 times the head, or one twenty-eighth, instead of one-fourteenth, using the same rule. On the same basis, if the height to the barn were five times the fall in the feed pipe, the ram would deliver one-seventh of the water at the barn. Thus we see that 1 to 10 is no rule at all, unless coupled with the fraction of one-fourteenth. And, by the way, while one-fourteenth is used by some

as the amount delivered at the barn on a fall of 1 foot to 10 in height, the water has to be raised, yet many companies use double this amount, or one-seventh, in estimating the water delivered under these circumstances. But even if 1 to 10 were a fixed rule in itself, there is another point G. B. P. has overlooked, namely, that somewhere there comes a limit, a fall so small that the water flowing through the pipe will not get up sufficient velocity pressure to raise the heavy brass valve—i. e., the lowest head on which the ram will work is determined by the weight of the valve—and the limit comes at about 18 inches, according to all the real authorities I can find on the subject. So I think we may safely conclude that there must be at least 18 inches of fall, and that more is better.

Your correspondent seems worried about the oversight in the length of the discharge pipe. I trust it did not prove so troublesome to the majority of your readers.

As to the length of the feed pipe, I think we may discard G. B. P.'s 14 feet on the same basis as we discard his 1 foot of fall, viz., that it is below the limit. The McDougall Co. say that the feed pipe should be 25 or 30 feet, though it may be twice that length. The ram should work on about 15 feet, according to Merriman, but no machine gives its best results, highest efficiency, when working just on the limit, and so the feed pipe should be longer. I think 100 feet is really longer than needed, but the chief point of S. W. H.'s inquiry was the matter of cost, not the details of installation, and so plenty of leeway was given to make the cost high enough. The same applies to the size of ram and the amount of water. There are rams on the market to-day advertised to work on two gallons of water per minute, with the sizes of pipe referred to in my answer to S. W. H. Whether that size of ram will give enough water for S. W. H.'s purpose, I am not able to say, as he gave no idea of the amount of stock to be watered. The ram No. 2 would probably deliver about three barrels a day, under conditions mentioned by S. W. H. If this isn't enough, a larger ram would be better, provided there is enough water to run it.

In conclusion, I may say that, when answering S. W. H. through the columns of "The Farmer's Advocate," I also wrote him direct, referring him to some reliable firms, and advising him to send full information—amount of water available, water needed, etc.—to them, and let them advise, for, after all, while we may discuss principles, limiting conditions, and so on, the manufacturer's guarantee is, in the end, the determining factor in deciding what to install, and the sooner the purchaser gets in communication with him, the better.

### Seed Above the Average.

The Seed Branch report in Census and Statistics Monthly says that the results of seed inspection indicate that, on the whole, the quality of the seed offered for sale this spring is well above the average. Dealers, both wholesale and retail, with some few exceptions, appear to be doing their best to comply with the regulations of the Seed Control Act. The greatest trouble is found where the retail dealers, who have no cleaning appliances, are handling farmers' stock. Owing to the difficulty of securing clean seed from farmers, most of the local dealers are now relying almost entirely upon the wholesalers for their stocks. During March, 37 official samples of seeds were taken by the seed inspectors which were suspected of being sold in violation of the Seed Control Act. Of these, 24 were red clover, 8 alsike, 1 timothy, 3 alfalfa, and 1 barley. Twelve were alleged violations of section 6, four of section 7, and twenty-one of section 8. With three exceptions, these suspected cases proved to be violations of the Act.

During the month, 672 samples were received at the seed laboratory for germination and purity test. Of these, 221 were red clover, 146 coming from seed merchants, and 75 from farmers. Of those analyzed for purity, 95 graded No. 1; 102 were salable, but not No. 1, and 18 were prohibited. Of the 152 samples of timothy, 113 came from seed merchants, and 39 from farmers. Of those analyzed for purity, 126 graded No. 1, 20 were salable, and none prohibited. One hundred and ten samples of alsike were received, 85 from seed merchants, and 25 from farmers. Of those analyzed for purity, 23 graded No. 1, 50 were salable, and 31 prohibited.

The first prosecution for violation of the Seed Control Act this season was conducted against a dealer, of Shelburne, Ont. The defendant had offered for sale a bag of alsike seed which the official analysis showed to contain catchfly and false flax at the rate of approximately nine per thousand of good seed. The prosecution was entered by the inspector who took the sample, and the defendant pleaded guilty, but escaped the payment of fine by disclosing the name of the firm from whom he got the seed.

### Results from Fertilizers.

The twenty-first annual report of the Dominion Experimental Farms contains valuable data from Dr. Saunders in regard to manures and commercial fertilizers. It is pointed out that the experimental plots at the Central Experimental Farm, at Ottawa, for the testing of different kinds of fertilizers, as applied to wheat, barley, oats, corn and roots, are conducted on lines similar to those which have been in existence for over 65 years at Rothamsted, England. They are reported upon for the 20th consecutive season, and much instructive information may be derived by Canadian farmers from a careful study of the tables. These show, for each of the wheat, barley and oat crops, the yields of grain and straw for the season of 1907, and the average yields for 19 and 20 years of wheat, and for 18 and 19 years of barley and oats, from applications of barnyard manure and of artificial fertilizers. The experiments were made on 19 plots of one-tenth of an acre each, as compared with two plots which have been unmanured from the beginning. The exceptionally unfavorable character of the season of 1907 is reflected in the yields, these being lower than the average on almost every plot. Thus, in the case of wheat, one unmanured plot gave only 5 bushels 40 pounds, as compared with a twenty-year average of 11 bushels 39½ pounds. It is interesting to note, too, that this average yield of wheat on the unmanured plot is nearly 1½ bushels less than that from the unmanured plot at Rothamsted, which is a little over 13 bushels for a period of 65 years. The best results are shown from the use of barnyard manure, the yield from which of wheat, upon the average of 20 years, is practically double that of the unmanured plot. Of the two barnyard-manure plots, the manure is on one plot applied fresh, and on the other in a well-rotted condition. The average yields from the two plots are about the same, the fresh-dung plot showing, however, a slight advantage of about 9 or 10 pounds per acre. But as the quantities applied are of the same weight, and as dung in the process of rotting loses weight to the extent of about 60 per cent., there is, evidently, in the long run, a decided economy in the application of dung in the fresh condition.

A feature of the barley experiments is the evidence adduced in favor of common salt. This, applied annually at the rate of 300 pounds per acre, gave, in 1907, a yield of 32 bushels 44 pounds, the average yield for 19 years being 28 bushels 33 pounds. In the oat plots, it is noticeable that, in 1907, the yield from the rotted-dung plot was 64 bushels 4 pounds, as compared with 51 bushels 6 pounds from the fresh-dung plot; but on the average of 19 years, the fresh-dung plot gave a yield larger than the rotted-dung plot by nearly three bushels. Evidently, the special character of the season of 1907 was more favorable than year to the influence of the rotted dung, as in previous years, the yield from the fresh-dung plot has been the greater.

### Homemade Lightning Rods.

In reply to a request from W. A. Bowyer, of Norfolk Co., Ont., we again give directions for the making and erection of twisted-wire lightning-rods. This class of rod has been approved by the Ontario provincial inspector of insurance, and eminent electricians both in Canada and England. For the construction and placing of the twisted-wire rod, the instructions are in substance as follows:

Use soft galvanized number nine wire, nine strands. A wagon wheel answers very well for twisting. Set the wagon in a convenient place, and raise the wheel as if for greasing. Measure out the needed length of wire for cable, as, for an ordinary barn, the full length may as well be made at once. Liberal allowance should be made for grounded ends, as a connection with damp earth at a sufficient number of places is of first importance. If a small well auger can be had, and a hole bored to the depth of seven feet, it will be all right. If not, then a hole four or five feet can be dug, and the end of the rod coiled in a flat spiral. Drive a stake, with a hole bored in it, through which the ends of wires can be passed and bent around. The other ends of wires can be hooked, each one around a spoke of the wheel close to the hub. In measuring the wires, care should be taken to have them of equal length, and an allowance made of one foot in 200, for shrink in twisting. Now, having the nine wires stretched out and fastened securely, before beginning to twist, brace well both wagon and stake, for there will be considerable tension. It is well, also, to throw across under the wires some old rails or boards to keep them out of the mud or grass. Turn the wheel until the cable is sufficiently twisted to hold together, and the job is done. The rod may be stapled closely to building, or a cork may be put under at each staple if desired. The old plea of the necessity of insulation has been abandoned, although Prof. Reynolds, of the Ontario Agricultural College, considers that it is advisable to place a glass or porcelain insulator between the wire and the building at any approaching bend—for example, at the

wire re-enters toward the building below the eaves, if it happens to be carried down that way. At other points, Prof. Reynolds agrees that insulation is not necessary.

Highest lines and projecting points should be specially guarded, and it is, therefore, well to have rods on all ridgeboards. For the plain barn, with one ridge and two gable ends, the rod may be run the whole length of the ridge, descending and entering the ground at both ends. In the case of a T-shaped barn, or a shed running out from the main building, in addition to the rod with two grounded ends already mentioned, another with end in the ground at the outer end of shed, should be run up the gable end to the ridge, and along the whole length of the ridge, and connected with rod on main building, making three earth terminals, and all ridges protected. Upright points can be added afterwards. They may be five feet high, and not more than twenty feet apart. To make these, lengths of six and a half feet can be cut off, and a sharp bend made a foot and a half from one end, this extra length to be opened out and wrapped around the rod where attached. This makes all solid, and forms good electric connection. At the upper ends of point the wires should be opened out a few inches, and spread apart in all directions. To hold the points upright, get the blacksmith to make for each an iron tripod. Have the rods run in as direct a course as possible; the fewer sharp turns there are, the better.

### Effect Noticeable the Second Year.

Editor "The Farmer's Advocate":

I think there should be a man employed in each beat to drag the roads, and the township pay him. My opinion is the drag is all right. I thought our road was better last summer, even from the dragging it got the summer before.

WM. BROWN.

The printing of the plates and the revision of the text for the second edition of "Farm Weeds" is progressing favorably. The new edition will be 7½ by 10½ inches, and will be bound in good strong cloth cover. When ready for distribution, which will probably be about July, it will be sold to farmers and other individuals in Canada through the Superintendent of Stationery, at approximately two-thirds of its actual cost. This publication, prepared by the Dominion Department of Agriculture, is one of the best treatises on weeds in America, if not in the world.

## THE DAIRY

### Alberta Creamery Convention.

The annual creamery convention in Alberta, held recently at Red Deer, showed an increasing interest in the dairy industry. The delegates from the Government creameries having studied conditions generally, were in position to discuss problems connected with Alberta buttermaking intelligently. For several years the creameries have been operated under Government supervision, the object being to help the dairymen to help themselves. A suggestion that some steps should be taken to relinquish at least a part of that aid was met by strenuous opposition. The proposed changes were postponed one year.

At the convention, in 1908, a resolution was adopted, asking the Provincial Government to give assistance in bringing into the Province pure-bred bulls of dairy breeds. Private requests were also received by the Department. In response to these requests an order-in-council was passed, authorizing the expenditure of \$1,000 in this work. A circular letter was sent to the creamery associations, agricultural societies and farmers' associations, stating what the Government was prepared to do, and in the course of about ten days responses began to come in, and most of them were in the form of complaints. One complaint was, "Why were the dairy Shorthorns not admitted?" Others were that it would place the buyers at the mercy of sellers and breeders in the East, and still others that it would drive the dairy-stock breeders in Alberta out of business. The reason dairy Shorthorns were left out, according to W. F. Stevens, was on account of the expense. They cannot be procured, except in England, and at present, at least, it was not advisable to go to so much expense.

Among the resolutions unanimously adopted were: That the Government be requested to amend the order-in-council applying to the importation of pure-bred dairy stock, by adding thereto Shorthorn cattle of dairy strain, and that the sections of the Dominion now omitted from the order be added to the list of Provinces from which dairy cattle may be imported.

That this convention request the Minister of Agriculture to take up with the Executive Council and secure the passage of an Act to regulate all creameries and cheese factories, such Act to cover the issuing of proper statements, showing the relative proportions of butter and buttermilk each month, and the basis of payment to be

requirement of full weight, and the proper amount of moisture and other foreign matter in butter and cheese, and also that the Act be made so that the Government will have full power to inspect creameries and cheese factories, not only in the matter of manufacturing, but also in all matters of sanitation. Further, that the books of all creameries and factories shall be open to inspection of patrons at any time.

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

### Cost of Pasteurizing Whey.

Editor "The Farmer's Advocate":

I notice several inquiries about the cost of putting in the necessary apparatus in cheese factories for pasteurizing whey. Some replies seem to place the cost higher than is necessary. The whey tank should be as close to the factory as possible, and have a capacity large enough for the whey from most of the day's make. Then you require a steam pipe, connecting boiler and tank, about an inch and a quarter in diameter, carried down to the middle of the tank, and piping on the bottom of the tank running out four ways, with elbows on the end, and a reducer in the elbow. The elbows all should point in the same direction. When the steam is turned on, the steam coming out of the pipes, and all being turned the same direction, causes the whey to go whirling round in the tank, thus keeping it in motion.

The cost of putting in the piping should not exceed about ten dollars. The amount the cheesemaker should charge for the heating of whey can quite easily be settled by each factory for itself, by weighing the coal or measuring the wood, making an actual test for one day or two days. A test of two days, made in the Elma cheese factory last fall, showed the cost to be about 65 cents per ton of cheese. Of course, some factories might buy their fuel cheaper than others.

My opinion about pasteurizing of whey is that it is the best improvement that has been introduced into Western Ontario cheese factories for some time. In fact, I do not know any suggestion that would do as much good, if carried out, as that every factory in Ontario should adopt and at once put in the necessary apparatus to pasteurize their whey.

THOS. DICKSON,  
Perth Co., Ont.

[Note.—In many factories, three-quarter-inch piping to the whey tank is considered sufficient. Also, a row of holes pointing towards the side of the tank, are drilled in one side of each of the four arms, so that the steam is more evenly distributed throughout the whey. According to Frank Hens, Chief Dairy Instructor in Western Ontario, the Atwood factory, with which Mr. Dickson is connected, has been most successful in pasteurizing whey.—Editor.]

### Most Delicate Food the Most Carelessly Handled.

I ask you, said W. K. McNaught, M. P. P., in moving the appointment of a royal commission to inquire into the conditions of the milk supply, would we, nay, would the milk producer himself, or any other person, tolerate for a moment that any other food should be placed on the table prepared in the same filthy way as our milk supply is often produced and handled? Imagine a man who has been cleaning horses in the stable, and doing dirty work, coming in and mixing up our pastry and bread without washing his hands! No person would tolerate that for a moment, and yet bread is baked in a highly-heated oven, and the danger is not as one to one thousand as compared with milk which is usually consumed in a raw state.

For eight years, experiments have been in progress, in different countries, to find the best natural dressing for meadow lands. A summary of the work so far conducted, writes our English correspondent, gives the following mixtures as giving the heaviest yields and greatest profits: 1 cwt. nitrate of soda, 2 cwt. superphosphate, 2 cwt. kainit per acre. Ten tons of farmyard manure per acre, costing 4s. per ton, gave a good yield, but in these experiments appear to have cost about a loss.

**Elaborate Dairy Herd Pointers.**

A beginner in the dairy business, who has been a diligent student of "The Farmer's Advocate," and who has been interested in the success of Ontario's dairy-cattle king, writes Geo. Rice for particulars regarding herd management, with a view to maximum milk flow. Among the pertinent questions asked are the following:

1. How do you prefer watering, and how often?
2. How do you prefer salting, and how often?
3. Do you believe in scalding meal for warm mashes, and what do you prefer for a mash? Do you like to induce the cows to eat salt, and drink, by feeding salt in the mash twice daily? Do you think it pays to feed meal on the grass?
4. How do you feed your heifers, for at least a month before calving?
5. Do you believe in letting cows out during winter or cold weather?
6. How often do you believe in feeding in winter, or while the cows are in the stable?
7. How would one part of goose wheat, and one part barley and three parts oats, with a little oil cake, be for a meal ration in stable feeding?
8. Do you believe in growing green feed of any sort to feed in early summer?
9. What do you think of pumpkins, and what are your favorite roots?
10. How do you believe in feeding your heifer calves?
11. At what age do you believe in breeding them to make the best cow?
12. What do you do for lice on cows?
13. What sort of a bull do you prefer to breed to one of an extreme milk type, and what color do you prefer for a Holstein bull? Do you like more white than black?
14. Do you believe in burning the horns off heifer calves?

Mr. Rice's reply is as follows: When it is considered that this is only one of many such letters received by me, it will readily be understood that it is no small task to answer the same individually; and, where the importance of the matter seems to require it, I try to kill several birds with one stone by using the columns of the correspondents' favorite paper.

These questions, in fact, cover the whole subject and practice of dairy management, and, to answer them fully, I would need to write a book, and even then there would be much not told, because there is much that cannot be told, but must be learned from experience. Give two men the same feed, and they may get vastly different results from it. Stock must be fed regularly every day, 7 days a week, and 365 days a year, and every four years one day more. The feed given at one time of the year influences the production at other times. Good care, like bread cast upon the water, will return after many days. The good dairy cow is necessarily a great worker. Heavy production must be a great tax upon her, and even a dairy cow cannot produce something out of nothing, although sometimes she does come very near performing miracles.

The idea, then, of giving a cow or heifer the best of care, is to build up a strong and healthy animal. Bred with the milk-giving instinct, she must have the power and constitution, also. "Full many a flower is born to blush unseen, and waste its sweetness on the desert air," etc. And the reason we have so many poor cows is that they get too much straw stack, too much cold air, too much impure air. Just think of it! Could the usual management of the heifers and cows be worse? Now for the questions:

1. Cows giving milk, 60 to 80 pounds a day, are known to drink 150 to 200 pounds water daily. Dry stock do not require near as much. Cows giving milk should have water before them nearly if not all the time. It is natural for them to drink after feeding. Dry cows and heifers could do very well watered twice a day.
2. Cows should be given salt once or twice a day. I usually put the salt on the feed, but it needs to be fed with judgment. Then, a cow should not be forced to eat more salt than her system requires. An inexperienced feeder had better feed the salt separate, or feed a little on the feed, and have it where the animal can help itself. Salt in large quantities is a poison, and too much is harmful. No animal will take too much when it can get it regularly.
3. Wheat bran is about the only thing that is more appetizing when scalded with very hot water, and a good mash is good "medicine" for any animal, especially when the stomach is weak at times of parturition or sickness. If it is desired to move the bowels more freely, then put a small handful of salt in the mash; otherwise, two tablespoonfuls is enough. Try your porridge without any salt, and see how "flat" it tastes. Salt must be added to anything scalded or cooked to give it a flavor. When no roots or silage are fed, then bran mashes will be found very beneficial fed twice a day; but when roots, silage or grass is available, mashes are not of so

much benefit. The same given dry will be quite as good. The succulence of a ration for a neat animal is as important as its nutritive constituents. A cow requires a more succulent ration than a horse.

4. Heifers require to be fed enough good feed three or four months before calving, and, indeed, from birth, to keep them growing, and in what is described as a thrifty condition. I want heifers, a month before calving, fat enough to make what is commonly called "butcher's beef." And the heifer—or, for that matter, cow—should be fed the same feed, but in smaller quantities, as it is intended to feed her when she is milking, in order that she may acquire a liking for those feeds, as well as getting her in good condition. To put an animal on feed that she has never tasted before in any large quantity, is very injudicious, and she will likely soon tire of it.

5. Cows milking heavily require so much water, and the pores of the skin are then so open, they cannot stand much cold. It is quite different with dry cows, and they can be let out often. Many of my cows are not out for three or four months. When cows are within two or three weeks of calving, I let them out every fine day, and if they do not move around themselves, I make them move. They generally move "like a steer in a cornfield," they feel so good. They should be put in again before they get cold from standing.

6. Cows are usually fed the main feed, silage, with the meal on it, at 6 a. m., after milking; roots whole at 7 a. m., and mangers filled with straw or hay. Hay is given at 1 p. m., and the same feed as in the morning at 5 p. m., milking at night after feeding, in order to bring the milk hours more nearly equal. When cows are milked three times a day, they are fed three times—after each milking.

7. I don't think much of goose wheat as a cow feed. It is too hard and flinty, and hard to digest. One part barley, two parts oats (chopped fine), two parts wheat bran, and a little oil cake (up to two pounds a day for a cow), is a good ration. This should be fed on silage or cut feed, else it passes on to the back stomach, and is not remasticated, and not as well digested as it should be.

8. There is nothing better than good pasture, but, as it is so hard to keep pasture good all summer, it is wise to have some green feed to cut.

9. We fed a lot of pumpkins last fall, with satisfactory results. They are easy to grow, and very easy to harvest and feed in the fall and early winter. I like mangels, Long Red or Yellow Tankard, for early winter, and sugar mangels at all times during the winter. The sugar mangels are harder, and keep better in the spring, but, because they are so hard, I like the softer mangels to start the cows on in the fall. I do not pulp roots; it adds nothing to their value, and means much labor, and dairymen can find enough to do without doing useless labor.

10. Heifer calves (and bulls, also) are fed about 10 pounds new milk a day for two or three weeks. As we have been selling our milk to the condenser, we had to feed whole milk all last winter. In that case, as the calf gets older, a little water is added, and a little ground oil cake is put in the calf bucket when the calf has taken

all the drink but about a cupful. At first, only a tablespoonful is given, and the quantity is increased gradually to a handful. This keeps the calves busy for a while, and they do not learn to suck one another. They are also taught to eat some wheat bran, and, later, oat chop with it, and hay is kept in a rack.

11. Any time after two years is a good time to have a Holstein heifer drop her first calf. It depends on how fast they are growing. If they are not fed well, they should not be bred so early. Ayrshires should not drop their first calf, with few exceptions, before 28 or 30 months old, as they do not attain size before then.

12. Well-fed animals are not bothered with lice much, but if they are present, the animal should be washed with some of the lice killers, as directed on these preparations. To be effective, three or four applications must be given, a week or two apart, to kill the new hatch.

13. For a dairy bull, I want to know the records of his ancestors. Of course, we want a bull that is thrifty and decent-looking, but I have known many bulls that have been far from what is known as show animals, that have proven to be getters of great dairy cows. Color cuts very little figure, but if it is intended to breed a Holstein bull to grade cows more red than white, then a white-colored bull will get calves, as a rule, with more white on them. If the cows are more white than red, then the color of the bull makes no difference.

14. I have never burnt the horns off calves, as I have always bred pure-breds, and some like the horns on. For a working herd, they are better with the horns off, and the best thing I have read of is to take a little Gillett's lye. Wet what will lie on a 5-cent piece, and make a paste of it; rub on the horn at two to three weeks old. Keep the calf so it cannot rub others.

**Figure the Profit.**

The cow-testing associations are not increasing in favor. Why, we cannot understand, as there is no system equal to this for knowing the value of the individual cow or the herd. In a progressive district, such as ours is recognized to be, we should have a co-operative cow-testing association at every creamery and cheesery. We note that the Department of Agriculture are aiming to calculate the amount of feed consumed, as well as amount of milk and fat produced. We believe this is a step in the right direction, as it is not the amount of milk and fat produced which gives a dairy cow her value, but how much milk and fat relative to food consumed.

Huntingdon Co., Que. W. F. S.

Failing pastures, and the best of them will fail during the month of August, must be supplemented by some sort of soiling crops, such as oats and peas sown together, oats and vetches, or, what suits me best, oats, vetches and buckwheat, sown on rich ground, and cut green, and fed in the barn, night and morning, followed by fodder corn, pumpkins, roots and silage. In fact, we must have some sort of succulent feed before our cows all the time, from early fall, until green grass comes again.—F. W. Foster, in the Nova Scotia Annual Agricultural Report, 1908.



Ayrshire Milkmaids.

### Legislation to Govern Cream Separator Business.

Editor "The Farmer's Advocate":

In considering the subject of how the introduction of cream separators has affected the price of creamery butter, one is confronted with so many factors that separately or collectively influence butter prices, that only the closest intimacy with the trade can permit of intelligent discrimination between these influencing factors in accurate proportions.

Unlike Denmark, whose butter industry exists upon a national basis, and whose standards and prices are entirely dependent upon foreign markets, the Canadian butter trade is becoming more and more a matter of home requirements first, with export demand only for the surplus.

Thus it will be seen that statistics may be misleading, and especially export statistics, which at one time represented the bulk of our butter production, but which of late years have decreased to but a small percentage of our entire output. Naturally, statistics of the export trade can be compiled with a far greater degree of accuracy than those of our home markets, of which merely approximate (or otherwise) estimates can be obtained.

According to the Dairy Commissioner's report, the exports of butter in the fiscal years 1890 to 1908, inclusive, averaged, per pound, as follows: 1890, 17½ cents; 1891, 16 cents; 1892, 18 2-5 cents; 1893, 18 2-5 cents; 1894, 19 4-5 cents; 1895, 19 1-10 cents; 1896, 17 4-5 cents; 1897, 18 1-5 cents; 1898, 18 1-5 cents; 1899, 18 2-5 cents; 1900, 20 3-10 cents; 1901, 20 1-10 cents; 1902, 20 3-10 cents; 1903, 20 2-5 cents; 1904, 19 1-5 cents; 1905, 18 7-10 cents; 1906, 20 4-5 cents; 1907 (nine months, ending March 31st), 22 1-5 cents; 1908, 23 3-10 cents. From these figures there is nothing to imply that the advent of the hand separators and their widespread introduction since 1896 have had the effect of keeping down the price of creamery butter.

Thus far, this article has dealt solely with the export side of the question, and if the quality of hand-separator creamery butter is generally inferior to that made from whole milk separated at the creamery—and no butter buyer or maker is likely to dispute the fact—then, the gradually rising prices paid for export butter must be due to British market conditions, over which we have little or no control, as well as, to a large extent, the speculative nature of the buying in the absence of any definitely-established national system of grading. While such conditions are anomalous, the producer will ever look for the best prices possible under any circumstances, and while a system of grading might regulate export prices, and put inferior qualities where they belong, yet the transition period through which the butter industry seems to be passing must influence prices in a seesaw manner, just as the home consumption increases or decreases, according to the state of the money market, the conditions of production and the number of mouths to be fed.

These influences, which affect the price of butter, are not difficult to discern, but I cannot trace any lowering of price in markets, or any individual cut in my own experience, attributable to the introduction of hand separators.

In the Province of Quebec, where the business has necessarily been upon an export basis from its infancy up, I have recognized no lowering of prices on account of hand separators, and, apart from the creamery which I operated for the Provincial Government, where prices were maintained, in spite of lower-grade butter being produced through whole milk giving way to gathered cream, apart from my personal experiences, I have seen, week after week, gathered-cream butter selling on the Boards as high as whole-milk creamery butter. This may not be as it should be, but these are facts.

Since coming to Western Ontario, I have met with different conditions, where the home market is the chief consideration for the greater part of the year, and the production of a good storage article the rest of the time. Under these conditions, I have not noted that farm separators have caused any noticeable drop in the price of creamery butter. Just as was my experience in the East, so has it been here, and, except in exceptional cases, butter made in whole-milk creameries commands no more than that made in gathered-cream plants. Of course, the speculative element which enters into buying butter for export purposes in the East, is accentuated to a far greater extent in buying butter for storage purposes in these parts; and how well is this exemplified in the conditions which prevailed in the butter market the latter part of this winter, when it transpired that so much butter was held in Montreal to compete with Toronto, Hamilton, St. Thomas and Ingersoll stored goods. Here, again, then, abnormal conditions are met with in disregarding quality in the competition to secure storage butter.

From the above it can be gathered that, while my experience cannot trace any depreciation in butter values to the introduction of hand separators, yet there is sufficient difference in the qual-

ity to warrant some discrimination in favor of the average whole-milk product. To my mind, both for storage and for export, the question is not so much whether the butter be made from whole milk or hand-separator cream, as whether it be the product of pasteurized or unpasteurized cream.

Apart from the effects which the farm separator has had on the creamery business, there is no doubt that dairy butter has very materially improved through its use, and that a great saving has been effected over the milk-setting system. This has been recognized in the leading markets by the establishing of special quotations for "separator dairy," which range within a couple of cents of creamery butter.

While the cream-gathering system is forced upon many creameries, especially those in outlying districts, and where competition is excessive and the cost of drawing milk too high, at the same time, the farm separator has wormed its way into territory that does not come under either of these heads, and it will continue to do so as long as creamery management does not provide for the equitable return of the skim milk in a sweet and wholesome condition. It is not to our credit as creamerymen that the cheesemen should have had to show us the lead in this important matter, by pasteurizing the whey.

It is questionable if farm separators would ever have become so popular if pasteurization of the skim milk had become a universal practice in creameries.

Now farm separators are here, we must make the best of it, and, with organized effort, there should be little difficulty in teaching the farmers that it is a much easier thing to cool and take proper care of 25 or 30 pounds of cream than it is of 200 pounds of milk. This sort of thing falls to the maker, as a rule, and rightly so; but at the same time, it would be a big lift all round if the instructors put in every other visit on the cream wagon, among the cream producers.

The names of the different makes of separators are legion, and they are sold under all sorts of conditions, and by all sorts of agents. I have thought that there should be some sort of legislation governing the sale of farm separators. For instance, no separator should be sold without an automatic speed indicator, or without a card of directions, stating, amongst other things, that the bowl must be washed and scalded every time it is used, and that the cream should be cooled to 50 degrees immediately after separating, such card to be tacked up in a prominent place near the separator by the agent at the time of setting up the machine. At present, separator agents can sow seeds of dairy heresy which may require a generation of honest effort to eradicate.

This should not be done under the nose of a paternal and ever-watchful Department of Agriculture. Separator agents should be compelled to uphold the interests of the dairy industry in plying their vocation, or quit.

As already remarked, the names of farm separators are legion, and so is their quality. There are a few good ones, and a lot of poor ones, but, to my knowledge, no dairy school in the land has as yet shown courage enough to warn our dairy farmers from investing in certain makes of machines, which their experience and facilities for testing must have placed them in a safe position to do so. It is ridiculous to say that any separator will do good work if properly operated, because there are machines now on the market that will not do so. There are very few separators that will skim a 40-per-cent. cream, and neither block up nor have excessive loss in the skim milk. These facts can be ascertained at our dairy schools, and I think the time is past when the feelings or pockets of the separator companies should be spared, at the expense of our dairy farmers. I don't believe that is what our dairy schools are equipped for.

The average farmer does not produce as high a quality of cream as he should. One reason for this is that separator agents invariably leave their machines with the cream screw set to take only about 20 per cent. cream. The reason is obvious. They are expected to make a trial of the machine with milk before leaving, and so, to avoid delay and a hitch of any sort, the cream screw is set for a thin cream; but, of course, the agent is careful to say that this can be adjusted later to suit special requirements. Agents would not be quite as thick on the ground if every farmer buying a separator demanded that it actually skim a 35 to 40 per-cent. cream, with normal loss of fat in the skim milk. One of my patrons in the East demanded this, and it took him 11 weeks to be supplied with a separator, and only after the fifth machine was installed, and the others had been tested three to five times each. There are farmers who think that the more cream they get, the more butter, but this class is not difficult to educate by the buttermaker himself, if he goes at it in the right way.

This question of richer cream is a very important one, there being no doubt whatever that rich cream is easier kept sweet than thin. There is less bulk to cool and handle, and it can be churned more exhaustively.

If the Dairy Commissioner were to undertake some experiments this summer along the line of cooling cream, and taking rich cream from separators, and present the results to the public in the form of illustrated lectures, such as Geo. H. Barr gave us last winter, I think that a great deal of benefit would accrue; and, at any rate, it would offset the wrong ideas so often suggested by the separator agents. Then, if the instructors give half their visits to the cream producers, there should be some improvement noticeable in the general run of farm-separator cream before very long.

H. WESTON PARRY,  
Oxford Co., Ont.

### Must Take Care of Cream.

Editor "The Farmer's Advocate":

The only influence I know of that farm separators have had on the price of gathered-cream butter is that, unfortunately, for a number of years, patrons did not know how to properly handle separator cream, and the quality of the butter was affected. This condition has been to quite an extent overcome during the last four or five years, by general dairy education and the good work of the creamery instructors in teaching patrons how to take care of their separators and cream properly, and the cream-gathering creameries are making better butter to-day than they ever did before the introduction of the hand separator.

In some cases there is no difference in price between whole-milk creamery butter and cream-gathered creamery butter, but often it is from ½ to 1½ cents per pound. There is more difference in price for export butter than there is for the local market.

My opinion is that manufacturing butter on the farm has more influence in lowering the price of creamery butter than sending the cream to the creamery. Generally speaking, people will not eat as much dairy butter as they will creamery. Any condition that lessens consumption reduces prices.

I do not believe there is any use trying to fight the cream-gathering system of buttermaking. Cream producers see so much difference between the creamery skim milk and that from the hand separators, that they are decidedly in favor of the latter. With manufacturers adopting the best methods of gathering the cream, and the patrons taking proper care of it at the farm, as good butter can be made from it as is made in a whole-milk creamery.

The chief cause of a depreciation in price of butter from the hand separator is that many of the separators are not properly cleaned, and the cream is not cooled immediately after skimming, and kept cool until delivered at the creamery. The producer of the cream is therefore responsible for the lower price, and he is the only one who suffers from it, so it is up to him to remedy the trouble. Many skim too thin a cream, 20 to 25 per cent.; it should not be less than 30 per cent. Lack of cooling is the greatest defect in handling the cream at the farm.

Dominion Dairy Branch. GEO. H. BARR.

### Don't Make Butter at Home.

Editor "The Farmer's Advocate":

The hand separator is just now engaging the attention of farmers, dairymen and patrons of co-operative cheese and butter factories in Prince Edward Island. Some have spoken without knowledge, and have condemned the use of hand cream separators entirely. This matter has been taken up by our Institutes during the past winter, and has been well discussed. Notwithstanding all the abuse the hand separator received, there are still many good points in favor of its use. Go to the man who has used a hand separator for one year, or for five years, and ask him what he thinks of it, and in 99 cases out of 100 he will say, "The warm skim milk for my calves, pigs and colts is excellent, and this alone is worth considerable." Do not ask the separator agent, for he, of course, will tell you all he knows, and just a little more, especially if he thinks he can make a sale. Do not ask the man who has never used a separator in his life, and perhaps would scarcely know one if he saw it, but who is constantly crying down the introduction of the hand cream separator, and saying, "Those machines are going to ruin our dairy business." He imagines a whole lot of trouble that is not likely every to bother him. But, instead, ask the man who is in a position to know and speak on this question.

In reply to some questions, Mr. McDougall, the Dairy Superintendent at Sussex, N. B., said: "The hand separator is all right. All things being equal, cream will keep better than whole milk." He also said that the buttermaker at Sussex creamery made his St. John prize-butter from cream separated by patrons at home and sent to the factory, as it had a better flavor than the cream taken from the whole milk which was sent to the factory. Those are arguments which should carry some weight, and not only prove to the dairy farmers of P. E. I. and all the lower

Provinces that first-class butter can be made from hand-separator cream, but that, also, a saving of at least 6 to 8 cents per hundred pounds, which would go direct into the farmers' pockets.

If those who are so busy in devoting so much time and energy in condemning the hand cream separator were to instruct the people how to manage a separator, and care for the cream after it is separated, they would be doing some good. But do not think of manufacturing the butter at home; send it to your creamery, where the butter from 100 or 200 patrons can be manufactured and placed on the market a uniform article. Here is just where the hand cream separator has done the mischief, and, after all, the separator is not to blame. Many farmers have tried to take the mean advantage of the high-priced co-operative creamery butter, and, instead of sending their cream to the creamery, they have been manufacturing it at home, and this butter has been placed on the market in a hundred different shades, and of various qualities, some, no doubt, quite inferior. And this, no doubt, has helped to lower the price of our butter to-day in the home market.

C. C. CRAIG.

Prince Co., P. E. I.

The Lambton Creamery Co., of Petrolia, Ont., have made arrangements to operate and finance the Glencoe Creamery for the coming season, retaining Levi Smith as buttermaker.

## POULTRY.

### The Spread of Poultry Diseases.

Editor "The Farmer's Advocate":

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

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

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

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

Bowel diseases are spread among fowls by eating food which has fallen upon the droppings of diseased fowls. Other diseases are spread by the drinking water. It is astonishing how many farmers keep fowls for the winter in a building where the droppings accumulate till spring, the fowls' food being thrown down upon the droppings. A disinfectant should be put into the drinking water, especially where there are any signs of roup. I have tried several. The best method I have found is to put a little permanganate of potash in the water, as it is a good disinfectant, and nearly odorless and tasteless.

Alberta.

W. J. THOMAS.

### Housing, Feeding, and Breeding.

"Housing, Breeding and Feeding of Poultry" is the title of the transcript of the evidence of A. G. Gilbert, Manager Poultry Division, Central Experimental Farm, before the "Select Standing Committee" of Parliament on Agriculture and Colonization, 1907-08, an advanced copy of which has just reached us, bearing date 1909. Why this should not be available until over a year after the evidence was given, is one of those things that must be laid at the door of the slow-coach Government printers. However, the address given by Mr. Gilbert, with replies to questions asked, supplies much information, and may be obtained in pamphlet form on application to Mr. Gilbert, Central Experimental Farm, Ottawa. We would not, however, advise any who entertain reverential regard for Parliamentary representations to read this evidence for the puerile questions asked Mr. Gilbert by certain members of the Agricultural Committee make the didactic portion of the address read like an elementary lesson to one of the lower forms of the public school. It is really a good thing that the Agricultural Committee has some specialists to enlighten it on the subject of agriculture, but "The Farmer's Advocate" begs leave to suggest that if some of the members were to regularly read the agricultural press, they might be in a position to question the speakers with some semblance of intelligence.

### Trap-nesting Hens.

Two years ago, the North Dakota Experiment Station began establishing laying records of hens by means of trap nests. For some years the Station has kept a good laying strain of Barred Plymouth Rocks. The results obtained the first year were very striking in the great variation in egg yields among the birds. In a flock of forty pullets of the same breeding, the poorest layer had 71 eggs to her credit, while the champion hen registered a total of 212 eggs. The poorest-laying bird received exactly the same care and feed as the best layer, and laid only one-third as many eggs. The hens holding the highest records were not the largest, nor yet the smallest, in the flock, but were of medium build, and carried no superfluous flesh. They were vigorous and alert in appearance, with every evidence of a strong constitution.

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

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

### White Leghorn Record for Five Months.

Editor "The Farmer's Advocate":

On December 1st, 1908, I started with thirty-six June-hatched pullets, and fourteen hens, and for December they laid 287 eggs; January, 479; February, 663; March, 892, and April, 892. These sold for 30 cents per dozen until March 15th, and down to 20 cents on last of April, making \$73.77. They ate \$33.00 worth of feed, leaving \$40.77 profit. On March 15th I sold four hens, and on April 24th, 12 hens; and two have hatched chickens. GEO. EASTON, Jr., Nipissing District, Ont.

## GARDEN & ORCHARD.

### To Repel Cucumber Beetle.

The following, from Country Life in America, may be worth trial: "Some years ago I read that the planting of a few beans in each hill of cucumbers, or other vines that are subject to the ravages of the striped beetle, would keep the pests away, owing to the peculiar odor of a young bean plant being disagreeable to them. It was with considerable scepticism that I discarded screens and insecticides from a part of my vines, but, after five or six years' trial, I am satisfied there is considerable merit in the plan. For some years my vines have been practically free from this pest, and in no year since I adopted this method have I been troubled so much as previously, or as my neighbors now frequently are."

In avoiding damage by cutworms, some gardeners advise surrounding the stems of cabbage, cauliflower, tomato and other plants with manila or butchers' paper, to prevent cutworms from eating the tender stems. It takes only a few minutes, costs little, and in some cases saves the labor of replanting and the cost of new plants.

### Hints on Tomato Culture.

Editor "The Farmer's Advocate":

When dealing with the growing of tomatoes, we are discussing an industry that has practically developed in modern times, one that has developed rapidly, until it has reached a proportion little dreamed of by many. The rapidity and extent to which the canning-factory industry has grown has been a great stimulus to the production of tomatoes. Farmers, in sections where the tomato was little known a few years ago, are now producing it by the acre as a regular crop on their farms.

When selecting a spot for a tomato patch, avoid poor land. Soils that are not in good condition will produce small, badly-shaped and wrinkled tomatoes. Sandy or light-clay loams, if well drained, properly fertilized and cultivated, give the best results. Have the soil prepared as soon as possible in the spring. It will then warm up much earlier, and cause a great many of the weed seeds to germinate, and these are easily destroyed by a stroke of the harrows just before planting. Where stable manure is the chief fertilizer used for enriching the soil, it is well to manure heavily, for the crop preceding the tomatoes. Avoid using a large quantity of fresh manure for tomatoes, as it fosters a rank, soft growth of plant at the expense of the fruit, the latter often suffering considerably from rot.

The foundation of success in tomato-growing, as in other crops, rests in good seed. Where seed is purchased from seedsmen, the grower has no control, and must accept what is placed on the market; but if home-grown, a system of careful selection will result in marked improvement in the yield and quality of the crop. Selection should commence with the plant. Pick out the plants showing vigor, productiveness, and a noticeable degree of quality in the product. From these, pick the best specimens, after they have become thoroughly ripe, and remove the seed.

The Earliana holds a foremost place among varieties grown for early-market purposes. This is closely followed by Chalk's Early Jewel. This variety is growing in favor as an early canning-factory tomato. Matchless, Success and Stone are among the desirable varieties for a general crop. The latter is a splendid tomato, but requires a long season in which to mature the bulk of the crop.

Hotbeds are almost entirely used for starting the plants in this section. Varieties intended for the early market are sown from the first to the middle of March. For general crop and canning-factory purposes, from the middle of March to the latter part of March. The plants should be kept growing steadily all the time; avoid too much forcing, followed by a severe check, in order to hold the plants until the conditions are favorable to set out in the open. Allow sufficient room to grow a moderately short, sturdy plant, as one that has become elongated through overcrowding in the bed will prove very unsatisfactory when transferred to the field, such a plant being liable to sun-scald or break off with the winds.

If the weather appears favorable, transplanting to the field usually begins from the 20th to the 24th of May. A short time before commencing to transplant, it is well to soak the beds to the lower extremities of the roots. One will then be able to take up the plants with a considerable amount of earth adhering to each. This will assist the plant in obtaining a foothold in its new position. Set the plant a little deeper than it was in the bed, especially so if it is inclined to be lengthy. A plant with a long stem above ground is often tossed about by the wind until it becomes broken off. A tomato plant, when set out in the field, requires from 15 to 20 square feet of space for proper development. Some growers set out the plants 4 x 4 ft., others 5 x 3 ft. or 5 x 4 ft., according to the variety. The system whereby we have the 5-foot space, I consider to be the more advantageous. This wider space enables one to keep up the cultivation a little longer, and will be found very acceptable when picking time comes. The danger of tramping down vines and tomatoes is much lessened. Tomatoes require considerable moisture at ripening time. It is well to provide for this by frequent cultivation, at the same time keeping weed growth in check. When hoeing tomatoes, keep the soil well tilled about the plant, and see that its branches distribute themselves on all sides. Do not allow them to clump together in a tangled mass in one direction.

Among the enemies most injurious to the tomato are the potato beetles and large tomato worms or caterpillars. If these are found to be doing serious injury, spraying and hand picking may have to be resorted to. Keeping the vines well distributed on all sides of the stem, and spraying with Bordeaux mixture, will help to prevent the ravages of rot. It is advisable to provide for a surplus of plants over what is required for setting out the patch, to be used for filling in, as the cutworm and borers often destroy a considerable number of plants, and, if these are not replaced, a decrease in the yield per acre will result.

W. E. A. PEER.

Halton Co., Ont.

### Fruit-growers' Problem in B. C.

The fruit-growers of British Columbia are grappling with the problem of selling their produce to the best advantage. This is more particularly so with regard to small fruits, for the reason that the season is short, and if they are not marketed at just the right time, there is considerable loss. The need for an up-to-date and effective selling organization has been felt very keenly in the Kootenay. For the past two years, the operations of the Kootenay Fruit-growers' Association have been practically a failure. A year ago it was felt that a new era had dawned, when the Association signed a contract with a selling expert from Hood River, at a large salary, but the organization was found to be too expensive, considering the limited output, or, in other words, the expense of selling \$25,000 worth of small fruits was found to be about \$5,000.

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

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

The Provincial Government has appointed Albert F. Griffiths, chartered accountant, of Victoria, a commissioner, under the Public Enquiries Act, with power to take evidence under oath, for the purpose of inquiring into the affairs of the defunct exchange.

A regrettable feature of the difficulty is that growers have lost faith in co-operative effort in some districts. The manager of the exchange claims that most of the losses can be credited to careless packing and bad shipping methods.

### Treatment for Brown Rot.

Dealing with brown rot in peaches, the Ontario Agricultural College report says that the first step is the removal and burning of diseased fruit on or under the trees as soon as possible after the picking season. Plum trees should be looked after as carefully as peach trees. Having seen to the destruction of the diseased fruit, care must be taken to see that the trees are properly sprayed. The first spraying, which should be just before the buds burst, may be either with the ordinary lime-sulphur, boiled for one hour, or with Bordeaux mixture. As Bordeaux later than this is dangerous to the peach foliage, some other spray mixture should be used. Experiments at Washington have shown that self-boiled lime-sulphur, of the strength of 5 pounds sulphur, 10 pounds lime, and 40 gallons of water, will not injure the foliage, and will very largely control both the brown rot and the peach scab. As high as 10 pounds sulphur and 15 pounds lime to 40 gallons of water were used, without injury. To make this mixture, put the 10 pounds of fresh stone lime in a barrel, and add about two gallons of boiling water, at once put in the 5 pounds of sulphur, and add a little more boiling water. Stir occasionally to prevent burning, and when not stirring keep the barrel covered with an old rug or sack to keep in the heat. A minimum amount of water will hasten the cooking process. When the boiling has ceased, add enough cold water to make 40 gallons of the mixture. Strain carefully and apply at once, keeping the liquid well agitated all the time, to prevent settling. Arsenate of lead or Paris green may be added, if desired, for the plum curculio.

The first application of this mixture should be just after the blossoms fall, and two more applications should be given after this, at intervals of two weeks between them.

### Procuring Trees for Planting.

In our issue of April 22nd, a correspondent, in discussing the question of tree-planting, said a supply of trees for reforesting, for stock-protection or wind-break, or for planting on waste land or hillsides, could be obtained from the Forestry Department of the Ontario Agricultural College, the only cost being express to the nearest railway station. Those interested should take note of the fact that an excess of demand over supply caused the Department to withdraw the offer for wind-break planting. It has been found impossible to furnish trees for wind-break purposes.

The prime object of the forestry campaign is to encourage the growth of forest crops on land not adapted to cereal or other farm-crop production. The Government tree nurseries have been transferred to Norfolk County, where it is expected that planting material will be produced in sufficient supply to develop the work along larger lines than heretofore. For ornamentation or protection of farm buildings, however, the Government cannot be expected to supply planting material.

### Spray When Blossoms Fall.

In the apple orchard, the application of spraying material immediately following the falling of the blossoms is the most important of all sprayings. None, however, can safely be dispensed with in an effort to produce fruit of maximum quality, free from blemish. Bluestone solution and poisoned Bordeaux mixture are advisable, the former just before the leaf buds open, and the latter just preceding the opening of the blossoms to keep down spores of scab and other fungus, and to kill leaf-eating insects. After the blossoms drop, however, there is a stage at which spraying mixtures must be applied in order to be of greatest service in providing clean fruit. Bordeaux mixture is needed to combat the dread scab spores, and arsenical poisons (Paris green



Right Stage to Spray.

The apple blossoms have fallen and the calyx stands open, so that the new fruit can be most benefited by the application of spraying materials.

or arsenate of lead) can be incorporated to destroy the young of the codling moth before they have done serious damage. The experienced orchardist has learned to be very watchful in applying the spray at the proper time—immediately after the blossoms fall, or even while they are falling, while the little fruit is standing erect, with the blossom end up.

Why is this spraying so important? Because both insects and fungi revel in attacking young and tender tissue. The larvae of the codling moth, as they develop from the egg, usually begin operations by boring into the apple in the blossom end—in the calyx, or perhaps where two apples touch. Scab spores, too, most readily attach themselves in or around the calyx of the apple. It can therefore be understood why special precautions should be taken to give a thorough spraying immediately after the blossoms fall.

The accompanying illustration shows the miniature apples with the petals gone and the calyx open. Fungicides applied at this stage do much to keep down the apple scab, and other maladies of similar nature, while the application of poisons not only does away with insects that eat the leaves, but also lodges in the calyx of the

young fruit, to provide a deadly dose for the destructive codling moth.

The standard treatment is Bordeaux mixture and Paris green. It is easily made and readily applied with modern spraying outfits. The proportions are 4 pounds copper sulphate (bluestone), 4 pounds unslaked lime, and 40 gallons of water, with 4 to 8 ounces of Paris green added. Under average conditions, 4 ounces of pure Paris green is sufficient, but the presence of lime guards against damage to the leaves when larger quantities are used. Care must be taken in the preparation. To make the Bordeaux mixture, dissolve the copper sulphate, by suspending it in an earthen or wooden vessel, containing 1 or 5 or more gallons of water. Slake the lime in another vessel. If the lime, when slaked, is lumpy or granular, it should be strained through coarse sacking or a fine sieve. Pour the copper sulphate solution into a barrel, or it may be dissolved in this in the first place; half fill the barrel with water; dilute the slaked lime to half a barrel of water, and pour into the diluted copper-sulphate solution, then stir thoroughly. It is then ready for use. Never mix concentrated milk of lime and copper solution, and do not dissolve the copper sulphate in a tin or zinc pail.

A stock solution of copper sulphate and milk of lime may be prepared, and kept in separate covered barrels throughout the spraying season, but Bordeaux mixture deteriorates with age, and should be used as soon as made. The quantities of copper sulphate, lime and water should be carefully noted.

[Note.—To test Bordeaux mixture, let a drop of ferrocyanide of potassium solution fall into the mixture when ready. If the mixture turns reddish-brown, add more milk of lime until no change takes place.]

The required quantity of Paris green should be made into a thin paste with water, and added to the 40 gallons of Bordeaux.

### Green Color in Lime-Sulphur.

Discussing the development of green color in lime-sulphur during boiling, the Professor of Chemistry, in the Ontario Agricultural College report for 1908, says: "It is thought by some who make and use the lime-sulphur wash that the development of a green color is a good indication as to when boiling is complete. We found this color formation to be due largely to the presence of iron in the lime, or to that derived from the vessel in which the boiling was carried on. The fact remains, at least, that, in the absence of iron or some other similar metal, such as copper, lead, nickel, etc., this color does not develop, even after prolonged periods of boiling. Hence, the color change cannot be used as an indicator. The length of time it takes for the color to develop depends upon the amount of iron, etc., which is present. With some limes with which we have worked, the color appeared about the time that the maximum amount of sulphur is in combination, viz., one hour, and, therefore, in such cases serves as an indicator; but, with other limes it did not develop until long after that period, while with others it developed within 20 minutes.



A Spraying Outfit.

Applying commercial lime-sulphur mixture, recommended for oyster-shell scale, fungus and bud-moth, in orchard near Lambeth, Middlesex Co., Ont., leased by the Williams World Co., for demonstration and experimental purposes. First spraying commenced April 23rd, 1909.

at which time only about three-quarters of the sulphur is in combination. Plainly, then, the color change is an indication of completeness of boiling only in the case of those lines which contain a certain quantity of iron or other like metal."

### Sprouting Seed Potatoes.

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

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

On twelve farms, in 1907, the average gain was 2 tons per acre; and on 11 farms, in 1908, the gain averaged 2 tons 14 cwt. In addition, there were fewer small potatoes, and less disease.

## THE FARM BULLETIN.

### Lambton Co. Notes.

This is one of the most backward springs that have been experienced here for a good many years. After such a dry fall and a nice winter, farmers were in hopes for an early spring, as many had a great deal of plowing to do. The fact of there being but little snow or frost, the ground would soon have been ready for spring operations, but the weather continued wet and cold, until it reached a climax, on April 29th, when a heavy fall of snow, followed by a downpour of rain, caused one of the largest floods in years. The majority of farmers, therefore, have done very little on the ground yet (writing May 1st).

Feed has not been what could be called plentiful, but the most of cattle will go on the grass in fair shape.

Increased interest is being taken in dairying in this county, where beef cattle have held undisputed sway for so many years. Prices for cows ruled high all last fall and winter, from \$40 to \$70. Quite a few farmers are preparing for soiling crops to help keep up the milk flow.

Fall wheat is almost a failure this year, caused by the drouth last fall. It is selling on the local market for about \$1.05 per bushel, which has caused the farmers to take out all their old wheat.

Hogs are a good price now, about 7 cents, but seem to be rather scarce. Horses, also, are commanding good prices, especially heavy-drafts.

We had a terrible wind storm here on April 7th, which did an enormous amount of damage, especially to windmills, both power and pumping. Power mills are rapidly going out of favor here; many farmers are having them taken down.

O. C. R.

### Root of the Difficulty.

Editor "The Farmer's Advocate":

I am a recent arrival amongst the farmers of this district. I have attended one or two meetings in dairying. The lecturer tells us to get in line to meet the competition of Denmark, New Zealand, etc., by having more modern machines, up-to-date barns, with more windows, etc., but they do not explain how we can get over the fact that all those things cost the farmer here double what our competitors have to pay, and not only that, but their Governments lend them funds to do it with, at 3 or 4 per cent., whilst the farmers here have to pay the banks 8 per cent. The root should be put in order, then the branches can respond.

W. M. BURTON.

New Westminster, B. C.

### Lightning Damage.

The number of buildings reported to Prof. W. H. Day, at Ontario Agricultural College, in 1908, as being struck by lightning, was 24, while 31 additional reports were noticed in newspapers. None of the buildings were provided with lightning rods. Nothing definite was ascertained as to whether or not more buildings without windmills than with them were struck. Most of the barns damaged, however, were without windmills. There was nothing to indicate that proximity to railways is a source of danger. The number of persons reported as being struck was 27, and 14 of these were killed.

The next annual meeting of the American Association of Farmers' Institute Workers will be held at Portland, Oregon, August 16th and 17th, 1909. At the same place, and beginning August 18th, will be held the annual meeting of the Association of American Agricultural Colleges and Experiment Stations. The Alaska-Yukon-Pacific Exposition will be in progress at Seattle at that time, and no doubt excursion rates, with stop-over privileges, will be granted by the transportation companies.

### Meeting of Record Board.

The annual meeting of the National Record Board, held in Toronto last week, was largely attended by representatives of the breed associations whose animals are registered in the National Live-stock Records, at Ottawa. The elaborate report presented by the Record Committee was approved, and the members of that committee complimented on information and details contained. Copies are to be sent to every man in Canada who has pure-bred stock. Particulars regarding registration make it worthy of a place in the stockman's library.

As usual, the question of duty on pure-bred stock coming into Canada came up for discussion. The matter was introduced by the presentation of a letter sent by a farmer of Yarmouth, N. S., to Dr. J. G. Rutherford, in regard to bringing pure-bred Devon cattle from the U. S. The claim was made that, when there are no records in Canada, United States records should be accepted. Similar communications had been received respecting Dutch Belted cattle, Angora goats, etc.

The chairman of the Board, Robt. Miller, said that this matter had been dealt with by the Record Committee, and it was considered that if five men in Canada showed sufficient interest in any breed of stock to take proper steps in approaching the Record Board, the matter of record incorporation should be taken up and assisted. This stand was endorsed.

Major Wm. Hendrie, of Hamilton, sought light on the meaning of the word "domiciled" in regard to registration. The explanation given was that a man was domiciled at the place to which he returned after a temporary absence. Dr. Rutherford pointed out that he had heard of horses being sold to Canadians, and notes in payment being made payable to men in the United States. Other cases mentioned were where big breeders who had farms in Ontario, but whose homes were across the line, had brought in ani-



Iosco De Kol C. Mercedes 7507.

Holstein heifer recently tested officially, at 2 years and 10 months, 434 lbs. milk and over 20 lbs. butter in seven days, claimed to be the champion record for butter for a heifer of her age or under in Canada. Owned by David Caughell, Yarmouth Centre, Ont.

mals duty-free. J. W. Brant, accountant, stated that in the latter case it was necessary to secure a special ruling by the customs commissioner. The regulations state that no animal imported for the improvement of stock shall be admitted duty-free unless the importer is domiciled in Canada, or is a British subject, and furnishes a certificate of the record and pedigree in a list of registers designated from time to time by the Minister of Customs, showing that the animal is pure-bred, and has been admitted to full registry in a book of record established for that breed.

On motion of Peter White, of Pembroke, seconded by Jas. Bowman, of Guelph, the following resolution was carried: In order to obtain free-customs entry of animals of a recognized breed, recorded in books of record other than those of the country of origin of the breed, as laid down by resolution at the annual meeting of this Board, that the Live-stock Commissioner be requested to take the necessary steps to encourage the formation of Canadian records for breeds in question.

Chairman Miller stated that the regulations were satisfactory, and that breeders were being protected. The practice of bringing in animals that were ineligible for registration, without paying duty, had been done away with. He thanked Dr. Rutherford for valuable assistance in helping the Record Committee to arrange details. Those in touch with live stock, he said, admitted that Canada's National Records were ahead of those of any other country.

The following were elected to the Record Committee: Robert Miller, Stouffville, Ont. (Chairman); Wm. Smith, Columbus, Ont., representing heavy horses; John Bright, Myrtle, Ont., light horses; A. W. Smith, Maple Lodge, Ont., beef cattle; Robert Ness, Howick, Que., dairy cattle; J. E. Brethour, Barford, Ont., swine; J. M.

Gardhouse, Weston, Ont., sheep. John W. Brant, Accountant, Live-stock Records, Ottawa, was re-appointed Secretary.

### British and Canadian Foot-and-mouth Quarantine Revised.

By an order issued from the Department of Agriculture, Ottawa, dated May 3rd, 1909, the importation of hay, straw and other fodder from the States of New York, Pennsylvania, New Jersey, Michigan, Maryland and Delaware, except as packing material for breakable goods, was prohibited; and all hay, straw or other fodder imported from the above-named States, as above provided, shall be burned by the consignee immediately on arrival at destination. All previous orders and regulations governing the inspection of live stock for export to Europe, which were in force prior to the passing of the order of November 28th, 1908, are revived and restored. The Chicago Live-stock Report announces that the United States Department of Agriculture has received official notification that the British Government has removed its quarantine (imposed some time since, on account of foot-and-mouth disease) against the importation of live animals from Pennsylvania, but the landing of hay and straw from Pennsylvania, New Jersey, New York, Maryland and Delaware is still prohibited. This now removes all bars against the exporting of cattle to Great Britain from the United States, and is expected to result in a broader outlet through export channels.

### Plans for Winter Fair Building.

Plans in course of preparation for additions to the Winter Fair Building, at Guelph, show an increased area of 260 feet by 113 feet. The present buildings are 310 feet from end to end, and 118 feet wide, with an additional wing on the south-west corner. In the new part will be a showing 170 feet by 57 feet, with seating capacity at two ends and one side for 1,000 people, and wide promenade encircling the ring. Stabling accommodation will be provided for 160 horses.

Other improvements include more direct access to the lecture hall, and a transfer of the dairy stable to the west end of the new structure, where a model stable, with cement floors and iron fittings, will be equipped. Space for poultry will extend over the second floor of the new part, the area formerly devoted to dressed poultry and geese being added to the sheep department. The area given to judging ring, of course, is not covered by second story.

With the proposed additions and changes, Guelph will be well equipped for winter exhibitions of live stock of all classes, including horses.

### Arrival of Farm Help.

That this year's immigrants from Great Britain are of a more desirable class than heretofore, is the assertion of Donald Sutherland, Ontario's Director of Colonization. The number of arrivals is not as high as it has been for a few years, but Mr. Sutherland says that at least 50 per cent. are well acquainted with farm work. A party of about 180, due to arrive in Toronto shortly after the middle of this month, comprise very desirable members, over half of whom have considerable cash, and wish to settle on Ontario farms.

Special efforts are being made by four agents in Great Britain to induce experienced farmers to come to Ontario. City-bred mechanics are not sought. So far, Mr. Sutherland has experienced no difficulty in placing all arrivals, and many more could be located. The tendency on the part of farmers to go to Toronto to see their man, before engaging him, is increasing.

### Season in Essex Co., Ont.

What with late frosts, flurries of snow, gales, and a succession of heavy rains during the latter part of April and opening of May, seeding was delayed in some sections, but a good deal of the early-sown grain is growing well. The preparation of corn land has proceeded rather slowly because of wet, though the big municipal and other drains have worked well in swiftly removing the great quantities of water that frequently fell. One tomato-grower in South Essex is reported to have lost by frost several thousand early plants that had been set out. Hogs have been in keen demand through the county, at prices ranging from \$7 to \$7.25.

Please accept my thanks for the knife you sent me as a premium for one new subscriber to "The Farmer's Advocate." It is a splendid one. I am more pleased with and value "The Farmer's Advocate" more highly every year. I certainly think it should be in every farm home in Canada.

ANDREW ROTHWELL.

Ardenburg Co. Ont.

### Rabies—Hydrophobia.

The development of rabies in the State of New York seems to have a somewhat disquieting degree of prevalence. A despatch from Albany, last week, represented Commissioner Pearson, of the State Department of Agriculture, as saying that there were then 36 quarantines in effect, covering 56 towns, 4 villages, and the cities of Albany, Hudson, Elmira, Troy, Schenectady, Watertown, Rensselaer, Auburn, Geneva and Binghamton. Under the agricultural law, it is the rule of the State Department to require dogs to be muzzled when the presence of rabies is demonstrated, and the muzzling requirement is continued 60 days. In Great Britain, it appears, rabies was prevalent a few years ago, but, after an extended period of muzzling, it was completely eradicated. A number of deaths of human beings have occurred in New York State as a result of the disease.

In recent years, in Ontario, a number of outbreaks of rabies have occurred in the Counties of Lincoln, Welland, Wentworth, Haldimand, Brant, Norfolk, Oxford and York. The disease has also occurred in Manitoba, Saskatchewan and Alberta. Every possible precaution is taken by the officers of the Dominion Veterinary Branch as soon as the existence, or even the suspected existence, of the disease is brought to their attention, and so far, the loss in Canada has fortunately not been great. A number of persons have been bitten, but, having been promptly subjected to the Pasteur treatment, generally in New York, none, so far as we are informed, have become affected with the disease.

With a land boundary of three thousand miles between us and the United States, a country in which the disease prevails all the time to a greater or less extent in many districts, it is practically impossible to maintain an effective quarantine against dogs and other animals capable of conveying contagion. An outbreak a couple of years ago was traced to a dog which came across the Suspension Bridge, at Queenston, and, after biting several animals in Canada, returned to his home in the United States.

We have many dogs in this country which are neither useful nor ornamental, and, in view of the danger of rabies now added to the injury inflicted on the sheep industry in many districts, there is need of an energetic campaign being conducted, with a view to the diminution of the number of curs in the country, a need which Dr. Rutherford fully appreciates. He has in press at the present time a bulletin on rabies, describing the nature of the disease, and giving the symptoms, as shown by animals of the different species. Its appearance is awaited with interest.

### U. S. Crops.

The Crop Reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates, from the reports of correspondents and agents of the Bureau, as follows:

On May 1st, the area of winter wheat to be harvested was about 27,871,000 acres, or 2,178,000 acres (8.1 per cent.) less than the area harvested in 1908, and 2,163,000 acres (7.2 per cent.) less than the area sown last fall, 30,031,000 acres, which includes 150,000 acres of winter wheat sown in Montana, not included in December estimate.

The average condition of winter wheat on May 1st was 83.5, compared with 82.2 on April 1st, 89.0 on May 1st, 1908, and 86.0, the average for the past ten years on May 1st.

The average condition of rye on May 1st was 88.1, compared with 87.2 on April 1st; 90.3 on May 1st, 1908, and 89.1, the average for the past ten years on May 1st.

The average condition of meadow (hay) lands on May 1st was 84.5, compared with 93.5 on May 1st, 1908, and a ten-year average on May 1st of 89.5.

The average condition of pastures on May 1st was 80.1, compared with 92.6 on May 1st, 1908, and a ten-year average on May 1st of 88.0.

61.1 per cent. of spring plowing was completed up to May 1st, compared with 66.6 per cent. on May 1st, 1908, and a ten-year average on May 1st of 65.1 per cent.

51.9 per cent. of spring planting was completed up to May 1st, compared with 51.7 per cent. and 47.0 per cent. on May 1st, 1908 and 1907, respectively.

Prince County, P. E. I., Farmers' Institutes purpose holding a monster convention at Summer side in July.

### Middlesex Apiaries and Apiarists.

On Saturday, May 1st, the beekeepers of Middlesex Co., Ont., held a very largely-attended meeting in the morning and afternoon. At the morning session, the chief features were the reports of winter losses, and the present condition of the bees.

As to winter losses, the percentage of loss has been the lightest within the recollection of a beekeeper who has attended many conventions of the association. This gratifying result is probably due to the mild winter, and the care which was taken in preparing the bees for winter last fall. Almost everyone present had fed the bees sugar-syrup stores for winter.

John McEwen reported 207 colonies living out of 210. The season was backward, and the bees not brooding up well. There was an average of about three frames of brood in each hive, with very little uncapped brood, but the queens were again depositing eggs. Mr. McEwen wintered his bees outside, and they were packed on their summer stands. He had found six inches of packing no better than two, providing the colony had lots of good stores with which to go into winter quarters. He also objected to the system of having sealed covers for winter. There were lots of covers called sealed, but which were not really moisture-tight. This could be proven by turning the hive upside down and pouring water into the hive. For winter, he had an entrance four inches wide, and for spring he contracted the entrance to about 1½ inches in width.

D. Anguish reported that he had not seen the bees in the out apiary since Easter, but from the record in the home yard, he would say he had 235 colonies alive out of 240. He had examined some colonies two days previous, and found about four combs of brood. He felt sure the condition of the bees was not equal to that of a year ago. He also opposed the system of wintering with the covers of the hives sealed. It would be better for the moisture to pass up than to have it condense on the sides of the hives and on the combs. If the moisture condensed on the combs, the honey would become thin, and not be first-class stores. Mr. Anguish pointed out that sealed covers might answer during an exceptional winter, such as the last, but it was not wise to so winter during an ordinary Ontario winter. He also contracted the entrances of the hive during the spring; it was better, to give an entrance too small, rather than too large. He did not think, as some did, that it made any difference in what direction the bees faced; that is, north, south, east or west.

W. A. Chrysler had examined his out-apiary April 2nd. He found the bees had been brooding heavily during the winter; the hives were full of bees, and, on an average, three combs of brood then. In consequence of the activity of the bees, he found the bees very short of stores, and he had to supply stores to one-half of the bees. He found the bees at that time in excellent condition; in fact, almost ready for a harvest. Since that time the conditions were less favorable. He considered that in the warmer sections of the Province bees should be well looked after as to stores, or many bees would starve. Mr. Chrysler wintered his bees outside.

F. J. Miller had not opened the hives lately; he had given the bees a slight examination early, and at that time found them in good condition. Mr. Miller wintered outside, and he preferred having the entrances east and west, rather than north and south. Often, during the first flight, bees were inclined to drift, and, if facing north and south, the bees were inclined to drift to the sunny side; these colonies reaped a benefit, at the expense of the other colonies. During the summer, he did not care which direction the colonies faced.

R. F. Holtermann stated that, out of about 385, he had something in the neighborhood of 360 left. He had found that the bees had consumed an unusually large quantity of stores. He wintered in the cellar, but was free to admit that colonies wintered outside, and packed, during the present backward season, had the advantage over colonies wintered in the cellar, and now standing in single walled hives.

A. Dowsell, Vice-President of the Association, who is connected with the Mount Elgin Industrial Institute, had put 56 colonies away; he had 51 left. He had wintered in a building, and the bees could fly through the walls when they desired to do so. He had, however, decided that he would prefer wintering in outside cases on the summer stands.

Morley Pettit, Provincial Apiarist, thought the past spring one of the worst for years. He had wintered with a smaller than usual percentage of winter loss. He attributed this to feeding sugar syrup in the fall. The bees he had put out first, and taken to a well sheltered place, were doing better than those taken out later, and in a more exposed place.

At this stage the discussion drifted in the direction of the best time to take out of winter quarters. Those taking part were practically unanimous as to the advisability of choosing a day when there was no wind, and the sun was warm enough to prevent bees from chilling.

Martin Emigh, Treasurer of the Ontario Beekeepers' Association, stated that he did not believe in setting a large number of colonies out at one time. He had had as many as 240 colonies, but, owing to other business, only had some 33 colonies now. These he set out near noon on a favorable day.

John Newton remarked that some had been very emphatic as to the kind of day required, but no one had told the convention how he could obtain such a day. The weather might be all right, and change before the bees had finished a cleansing fly. He had set out about 100 colonies, with a loss of about 4.

Other Reports.—Moses Pierce, 87, practically all alive; Mr. Wadsworth, 17, no loss; Mr. Campbell, 100, seven lost; E. Charlton, 70, no loss; President Geo. Kimball, 100, ten starved; Mr. Wright, 130, five queenless; W. J. Craig, 48, six lost; Mr. Martin, 190, twenty-four lost; Secretary E. T. Barnard, 65, one lost.

From the above, it will be seen that the wintering has been exceptionally good. The question of artificial pollen, and the supply of water by the beekeeper, was taken up by F. A. Gemmill, and recommended in the spring of the year by him.

During the proceedings, the President, Geo. Kimball, Reeve of London Township, occupied the chair.

Mr. Moore, of the Western Fair, attended the convention, and promised the beekeepers an increased prize list, if a proper and competitive exhibit of honey were made. H.

### Berkshire Executive Meet.

At a meeting of the Ontario Berkshire Society, held in Toronto, recently, officers were elected as follows: President, W. H. Durham, of Toronto; Vice-President, E. E. Martin, of Canning. Executive—Thos. Teasdale, of Concord; H. M. Vanderlip, of Cainsville, and the President. Secretary, A. P. Westervelt, Parliament Buildings, Toronto. The Executive was instructed to look into the advisability of holding an auction sale of Berkshires at the time of the annual meeting, next winter. Details were completed for incorporation under the Ontario Act respecting agricultural associations. Grants to fairs were donated as follows: Canadian National, Toronto, \$50; Central Canada, Ottawa, \$25; Western, London, \$25; Provincial Winter Fair, Guelph, \$25; Eastern Ontario Live-stock and Poultry Show, Ottawa, \$25.

### Shorthorn Executive Meet.

The Executive Committee of the Dominion Shorthorn Breeders' Association met in Toronto last week, and apportioned Ontario's share of the grant as follows: Canadian National, Toronto, \$1,000; Western, London, \$250; Provincial Winter Fair, Guelph, \$225; Eastern, Ontario Live-stock and Poultry Show, Ottawa, \$125. Judges, also, were suggested for the shows.

Several communications were read and discussed. Complaints came from the Canadian Northwest regarding ranchers allowing bulls to run at large with other stock. It was decided to demand a declaration from the complainant, so that the matter can be investigated, and properly dealt with.

### Dundas Representative.

The appointment of H. Sirett, B. S. A., as District Representative of the Ontario Department of Agriculture at Morrisburg, Dundas County, has been announced. Mr. Sirett succeeds W. A. Munro, B. S. A., who, as was announced in these columns some time ago, goes to Rosthern, Sask., as Superintendent of a Dominion Experimental Farm, recently established at that point.

Arrangements have been made by G. A. Putnam, Superintendent of Farmers' Institutes for Ontario, to have members of the staff of Ontario Agricultural College, Guelph, attend about thirty-five of the annual meetings of the local Institutes throughout the Province.

The popularity of field-crop competitions in Ontario is shown by the fact that, up to the middle of last week, eighty-four societies had written to J. Lockie Wilson, Superintendent of Fairs and Exhibitions, signifying their intention of competing. The number of entries from each society averages fifteen or twenty.

J. M. Gardhouse, of Weston, has sold the champion Shire stallion, Newham Duke, to F. H. Apperly, of Cookstown.

## Your Savings Account May Be Small at First

But the noticeable feature of our Savings Accounts is that **THEY GROW**. We are constantly opening accounts for small sums, but these rapidly increase to amounts that are pleasant for the depositor to contemplate.

The first deposit acts as a magnet for the other odd amounts so apt to be wasted.

Capital - - \$4,000,000  
Reserve - - 4,500,000

Head Office: TORONTO, CAN.

# Bank of Toronto.

## MARKETS.

### Toronto.

#### LIVE STOCK.

At West Toronto, Ont., on Monday, May 10th, the receipts were 67 cars, comprising 1,481 cattle, 25 hogs, 24 sheep, and 36 calves. The quality of cattle was good. Prices were firmer, especially for export steers, which were \$5.60 to \$6.40. Export bulls were \$4.30 to \$5; prime butchers', \$5.40 to \$5.60; loads of good, \$5.10 to \$5.40; medium, \$4.70 to \$5.10; common, \$4.50 to \$4.80; cows, \$3.75 to \$4.60; milk cows, \$3.50 to \$3.65; calves, \$3 to \$6 per cwt. Sheep, \$4.50 to \$5.50; rams, \$3.50 to \$4.50; yearlings, \$6 to \$7.70; spring lambs, \$3.50 to \$6.50 each. Hogs, fed and watered, \$7.50 to \$7.60, and \$7.25 to \$7.30, f. o. b. cars at country points.

#### REVIEW OF LAST WEEK'S MARKET.

The railways reported a total of 297 carloads of live stock at the City and Union Stock-yards last week, consisting of 1,608 cattle, 4,747 hogs, 231 sheep and lambs, 757 calves, 123 horses.

The quality of fat cattle was generally good, with a few extra-well finished exporters as well as butchers.

Trade was brisk for all classes of fat cattle during the week at higher quotations, especially for exporters, which sold from 10c. to 15c., and in some few instances 25c. per cwt., higher.

Exporters.—Export steers sold from \$5.60 to \$6.10, with two or three loads at the latter end of the week at \$6.25 to \$6.30. Bulls sold at \$4.25 to \$5 per cwt.

Butchers'.—Prime picked lots of butchers' sold at \$5.40 to \$5.75; loads of good, \$5.25 to \$5.50; medium, \$5 to \$5.20; common, \$4.40 to \$4.90; inferior to common, \$3.75 to \$4.25; cows, \$3.50 to \$4.75, and even \$5 was paid; bulls, \$3.50 to \$4.25.

Stockers and Feeders.—There was a light trade in stockers and feeders, as all steers being in a fleshy condition were bought up for killing purposes at prices higher than farmers were willing to pay. Feeders, 1,000 to 1,100 lbs. each, at \$4.75 to \$5; feeders, 850 to 950 lbs., \$4 to \$4.50; stockers, 400 to 700 lbs. each, \$3.25 to \$3.75. A few short-keep feeders, 1,200 to 1,250 lbs., sold at \$5.10 to \$5.35 per cwt.

Milkers and Springers.—Demand was strong for milkers and springers, and a moderate supply that was here each market day, sold readily, at firm rates. Buyers wanted more cows than were offered, and bought them freely, some staying up all night to be first when any arrived on the market. Prices ranged from \$30 to \$65, and two or three sold at \$70 to \$75, the bulk going for \$45 to \$55 each.

Veal Calves.—Receipts were liberal, but the general quality was not good. Prices ranged from \$3 to \$5.50 per cwt., with a few lots of fairly-good quality at \$6 to \$6.50 per cwt.

Sheep and Lambs.—Receipts were light all week. Export ewes, \$4.50 to \$5.50; rams, \$3.50 to \$4.50; yearling lambs of good quality, \$7 to \$8 per cwt.; common yearlings, \$5 to \$6.50 per cwt.; spring lambs, \$4 to \$8 each.

Hogs.—Packers tried to get prices down at the commencement of last week, but \$7.25, f. o. b. cars at country points, and \$7.50 to \$7.60, for selects, fed and watered at the market, were the prevailing prices during the week. The prevailing opinion was that hog prices would go higher before they went lower.

Horses.—The horse trade has been fairly good all last week at the Union Horse Exchange, West Toronto. The demand at the regular Monday and Wednesday sales was greater than the supply, that is for the right kind of horses. Dealers who go to the country, report that it is difficult to buy horses at a price that will allow them a margin for expenses and time. Prime quality drafters are much in demand. Two buyers from the West, and many more from different points in Ontario, were on hand to buy on both sale days. Top-notch drafters sold up to \$220, but the general price was \$180 to \$200; expressers, \$140 to \$200; drivers, \$125 to \$200; serviceably sound, \$35 to \$80 each.

#### BREADSTUFFS.

Wheat.—Ontario, red, white or mixed No. 2, \$1.21 to \$1.23, 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, 95c. to 96c. Oats—No. 2 white, 45c. to 46c.; No. 2 mixed, 45c. to 45½c., at outside points. Barley—No. 2, 61c. to 62c. bid; No. 3X, 58c. to 59c., sellers; No. 3, for feed, 57c. Corn—American No. 2 yellow, 80c. to 81c.; No. 3, 78½c. to 79c., Toronto freights. Buckwheat—No. 2, 63c. to 64c. Flour—Ontario, 90 per cent. patent, \$5 to \$5.30; Manitoba patent, special brands, \$6.30; second patents, \$5.80 to \$6; strong bakers', \$5.50 to \$5.70.

#### HAY AND MILLFEED.

Bran.—Car lots, on track, Toronto, \$25 to \$26. Shorts—Car lots, on track, Toronto, \$27. Hay—Market firmer, No. 1 timothy, baled, in car lots, on track, Toronto, \$12 to \$13. Straw—Market firmer, baled, car lots, on track, Toronto, \$7 to \$7.50. Manitoba meal, sold by C. Caldwell & Co., \$29 per ton. Flax-seed meal, \$3 to \$3.25 per cwt.

#### COUNTRY PRODUCE.

Butter.—Market easier, for choice, fresh dairy or creamery of good quality. Creamery pound rolls, 25c. to 26c.; creamery solids, 21c. to 22c.; separator dairy, 21c. 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, 11c.; No. 2 inspected steers, 60 lbs. up, 10c.; No. 1 inspected cows, 10½c.; No. 2 inspected cows, 9½c.; 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.

Northern Spy apples are very scarce, selling at \$5.50, \$6, and even \$7 per box. Greenings, \$3 to \$4.50; Russets, \$3 to \$3.50. Onions, \$1.25 to \$1.40 per bag; turnips, 35c. per bag; parsnips, 50c. to 60c. per bag; carrots, 40c. per bag; beets, 40c. to 50c. per bag; potatoes, 85c. to 90c. per bag, f. o. b. cars, Toronto.

### Buffalo.

Cattle.—Prime steers, \$6.40 to \$6.75. Veals—\$6 to \$8.50. Hogs—Mixed, \$7.50 to \$7.70; Yorkers, \$6.90 to \$7.40; pigs, \$6.65 to \$6.75; dairies, \$7 to \$7.40.

### Montreal.

Live Stock.—A message from St. John, N. B., reports an increase of 2,513 cattle shipped during the winter season, while horses increased 12 (63 being shipped), and sheep increased 151 (4,168 being shipped).

Offerings of cattle on the local market last week were light; quality fairly good. Owing to this, as well as to the fact that supplies for the first ships sailing from port were in demand, 6c. was paid for choice stall-fed animals, for export. Fine stock sold at 5½c., and good at 5c. to 5½c., medium being 4½c. to 4¾c., and common ranging from 3c. to 4c. Choice bulls sold from 4½c. to 5½c. per lb. Supplies of sheep and lambs continued light, and prices were firm. Yearling lambs sold at 6½c. to 7c. per lb., old sheep at 5c. to 5½c., and spring lambs sold rapidly at \$3 to \$6 each.

The supply of calves was quite liberal, but the quality not very desirable, as is frequently the situation at this time of year. Sales of inferior stock were made at \$1.50 to \$3 each, and of good stock at \$5 to \$8 each. During last week there was an advance of 10c. per 100 lbs. in price of live hogs. This, however, brought out increased offerings, so that the market settled back again to around 8½c. per lb., for selects, weighed off cars.

Horses.—Altogether, a surprisingly good trade has been experienced all season for horses, and dealers are well satisfied. Demand mostly for local account—cartage and express horses—but there is also a fair demand from out-of-town, for animals weighing 1,200 to 1,300 lbs. Heavy draft, 1,500 to 1,700 lbs. each, \$225 to \$300 each; light draft, 1,400 to 1,500, \$185 to \$240 each; small, inferior animals, 1,000 to 1,100 lbs., \$100 to \$150 each; broken-down horses, around \$75, and fine carriage and saddle animals, \$300 to \$500 each.

Dressed Hogs.—After some fluctuating, the price of fresh-killed, abattoir-dressed hogs held at about the same level as last reported, being 11½c. to 11¾c. per lb. Demand very good and supplies fairly liberal. Bacon steady and demand active.

Potatoes.—Little change. Export demand has lightened up somewhat, with the result that receivers here were able to get stock at more reasonable figures from shippers in the East. Dealers state they have made sales at \$1.10 per 90 lbs. cars on track, and they can make purchases at \$1. for finest white stock, red potatoes 5c. less.

Eggs.—Although prices are still high, dealers are packing stock away already. Many fear that this will make eggs too dear for consumption next fall and winter, but they are compelled to pay the prices or drop out altogether. Sales are being made here at about 20c. per dozen for straight-gathered stock, 22c. for selects, and 19c. for No. 1 stock. Not many selects are being offered, and sales are mostly of No. 1.

Butter.—Buyers last week took pasteurized creamery at 24½c. to a fraction more, in the country, and ordinary makes of finest at 24c. to a fraction less. The market for choicest ranged from 24½c. to 25c. here. There is still some held creamery here, and prices for it ranged from 19c. to 20c., while some Manitoba dairy was being held at 14c. to 16c., without much demand. Fresh dairies sold at 20c. to 22c., and fresh rolls at 20c. to 21c. per lb. No export demand as yet, price being still considerably too high. On Monday, the price for creamery broke to 21c. to 21½c., at country points, and 22c. to 23c. here. Dairies and rolls dropped 1c.

Cheese.—Market was dull. One dealer reported cable orders in at 11½c., but it seemed to be very difficult to get any at that figure, the ideas of local holders ranging from 11½c. to 11¾c. and 12c. per lb. As yet the market is not very active, but the boards are opening up weekly, and before long the season will be in full swing.

Grain.—Market for oats advanced somewhat, No. 2 Canadian Western being quoted at 52c. to 52½c. per bushel, cars, in store. No. 1 extra feed, a cent less; No. 1 feed, yet ¼c. less; No. 2 barley, 66c. to 67c.; feed barley, 59½c. to 60c., and No. 2 peas, \$1.05 to \$1.06.

Flour.—Prices are steady, at \$6.10 for Manitoba first patents, \$5.60 for seconds, and \$5.40 for strong bakers', Ontario

## IMPERIAL BANK OF CANADA

CHARTERED 1875.

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

winter wheat patents being \$5.75, and straight rollers \$5.50 to \$5.60.

Millfeed.—Demand good and prices steady, at \$22 to \$23 for Manitoba bran, in bags, per ton, and \$1 more for Ontarios, shorts of either kind being \$24 to \$25. Cottonseed and oil cake quoted, nominally, at \$32.50 to \$35.

Hay.—The market held about steady, demand being fair, at \$12.50 to \$13 per ton for No. 1 hay; \$1 less for extra No. 2, and No. 2 being \$10 to \$10.50; clover mixed \$8.50 to \$9, and clover \$7.50 to \$8 per ton.

Seeds.—Seed was in very active demand, although the most of the stocks have already been purchased. Prices were steady, at \$13 to \$14 per 100 lbs. for red clover, \$16 to \$18 for alsike, and \$5.25 to \$6.50 for timothy, bag lots.

Hides.—Market fairly active and strong. Country hides dearer than city by 1c. per lb., city being 7c., 8c and 9c. per lb., for Nos. 3, 2 and 1, respectively, calf skins being 13c. for No. 2, and 15c. for No. 1, with ¼c. more to tanners; sheep skins are \$1 each, lambs 10c. each, and horses \$1.50 for No. 2, and \$2 for No. 1. Rough tallow, 2½c. to 3c. per lb., and rendered 5½c. to 6c.

### Cheese Board Prices.

Campbellford, Ont., 11 9-16 cents; Woodstock, Ont., 11½c. bid; Belleville, Ont., 11 13-16 to 12 3-16 cents; Brockville, Ont., 12c.; Kingston, Ont., 11½c. to 11 13-16 cents; Napanea, Ont., 12c. to 12 5-16 cents; Picton, Ont., 12½c.; London, Ont., 11½c. to 11¾c. bid; Iroquois, Ont., 12½c. to 12¾c.; Cornwall, Ont., 12 1-16c. to 12½c.; St. Hyacinthe, Que., 12½c.; Chicago, U. S., butter, creamery, 22c. to 26c.; dairy, 19½c. to 24½c.; cheese, dairies, 15c. to 15½c.; twins, 14½c. to 15c.; young Americans, 14½c. to 15½c.; longhorns, 14½c. to 14¾c. New York, butter, creamery, specials, 27½c. to 28c.; official, 27½c.; extras, 27c.; thirds to firsts, 23c. to 26c.; state dairy, common to fine, 22c. to 26c. Liverpool, Eng., Canadian white, 63s.; colored, 66s. 6d.

### Chicago.

Cattle.—Beeves, \$5 to \$7.25; Texas steers, \$4.60 to \$5.80; Western steers, \$4.70 to \$5.75; stockers and feeders, \$3.60 to \$5.60; cows and heifers, \$2.40 to \$6.25; calves, \$5 to \$7.

Hogs—Light, \$6.80 to \$7.20; mixed, \$6.90 to \$7.30; heavy, \$6.95 to \$7.35; rough, \$6.95 to \$7.10; good to choice, heavy, \$7.10 to \$7.35; pigs, \$5.70 to \$6.65; bulk of sales, \$7.10 to \$7.25.

Sheep.—Native, \$3.90 to \$6.50; Western, \$4 to \$6.50; yearlings, \$6.25 to \$7.50; lambs, native, \$6.25 to \$9; Western, \$6.60 to \$9.35.

### British Cattle Markets.

London cables for cattle quoted 13c. to 13½c. per lb. for Canadian steers, dressed weight; refrigerator beef, 9½c. to 10½c. per lb.

A theological student was sent one Sunday to supply a vacant pulpit in a Connecticut valley town. A few days after he received a copy of the weekly paper of that place, with the following item marked:—

"Rev. ———, of the senior class at Yale Seminary, supplied the pulpit at the Congregational Church last Sunday, and the church will now be closed three weeks for repairs."



### A Laudable Work.

AWAY WITH THE UGLY: IN WITH THE BEAUTIFUL.

Among the men who are working for a more beautiful Canada, no one, perhaps, is more indefatigable than Prof. H. H. Hutt, Horticultural Instructor at the O. A. C., Guelph. A peep through the Professor's hundreds of photos and negatives alone, would reveal that fact. Pictures of homes and lawns, flowers and vines and trees; of children at play in spots suited to childhood's fair years—speak more eloquently than words could speak of the constantly ready eye that seizes on the fit and beautiful wherever it can be found, and of the unflinching public spirit that desires to set the good example, and pass the good thing on to as many people as possible.

Professor Hutt is also the author of many instructive bulletins, and is a frequent contributor to the press. Last year he devoted his attention more especially to the question of improving school grounds, and issued a bulletin on the subject, which was reviewed in our issue of Feb. 25th. In the notes accompanying the illustrations of the present issue, taken from photos snapped and developed by the Professor, he again brings up the question, recognizing, without doubt, that it usually takes a good deal of momentum to set such a ball rolling.

"As we live better," he says, "we look not merely for what is essential, but for what is attractive and beautiful in food, clothing, furniture, dwelling, and surroundings." This is very true. It is not merely for ostentation, or for the sake of vulgarly trying to keep up with or surpass one's neighbors, that the majority of people are striving to win these things, but from an innate craving for a beautiful environment, the sense that leads all but the most callous to experience a real pleasure in looking at beautiful scenery, beautiful pictures, beautiful women and children. Fewer, perhaps, are animated, in addition, by a practical realization of the fact that, as Professor Hutt says, "what the eyes look upon day by day affects disposition, character and life."

This being true, is not the great necessity of providing fit surroundings for the children, during their most impressionable years, strongly evident? Is it not clear that children who grow up practically in an atmosphere of carelessness and neglect—the broken fences, bare, ugly school-yards, dirty walls and uninteresting buildings of the ordinary school premises afford an example—must absorb some elements of untidiness, and shiftlessness, and coarseness? In a beautiful schoolhouse, surrounded by beautiful and suitable grounds, the child is, as it were, put on his "company manners," and by and by these become habitual to him; he cannot, unless the teacher be grossly what she should not be, miss the whole of the beneficent influence.

Prof. Hutt desires to make an especial appeal to trustees to expend money to this end. Even from a mercenary standpoint, he points out, the money so spent is well invested, "for it will return dividends in years to come in the increase in land values of the district through the beautifying of homes and their surroundings throughout the section. Make school surroundings homelike and beautiful, and we have intro-

duced one of the most potent factors in uplifting and beautifying the homes of the district." The trustees, he considers, are the people who are chiefly responsible for the work. It should not be left to the teachers, although the co-operation of the teachers should be secured.

The greatest difficulty he finds seems to be a lack of definite information as to how to go at the work in order to produce the most satisfactory results, the "grotesque creations" sometimes seen when the attempt is made, being the result of such ignorance. "Natural simplicity," he repeats, "should be a first consideration," such a harmonious blending of all the features as shall "make the whole a restful and

adapted to the soil and locality should protect the buildings and grounds from the sweep of prevailing winds. The necessary outbuildings should be hidden with shrubbery and vines, and the bareness of the walls of the school itself may be relieved by the use of suitable vines and climbers. The walks should be conveniently located, and the fences enclosing the grounds made plain and neat. A well-stocked border of mixed perennial flowers would add color to the scheme, and may be made a source of interesting specimens for botanical study at all seasons of the year. In short, the school and its environments should be made an object-lesson for the community, from whence the young

pupil makes his own application direct to the Department, the lot in each case being limited to two packages each, one of flower, the other of vegetable seeds, at a cost of one cent per package. Where school gardens exist (there are about 20 in the Province), seeds are furnished free.

The leaven has been placed; it must work; but boards of trustees can assist very materially in that work, if they will but take the matter up with a right good-will. No doubt, the spring work on the farms is pressing, but the children should not be neglected. They do not form the least important of the crops from the farm, although they are often treated as though they did.

In addition to the bulletin on the improvement of school grounds, Professor Hutt has now in course of preparation a bulletin on the "Improvement of Home Grounds," which will be awaited with interest by those who have already formed the very good habit of providing themselves with the bulletins prepared by the various departments.

### A Question and Reply.

Editor "The Farmer's Advocate":

Do you intend turning your paper into a prohibition periodical? I ask this, having seen in your issue of the following dates, viz., March 25th, April 1st and 29th, all of them lengthy communications in favor of so-called temperance; also several others on the same subject, the dates of which I can look up, if you so desire. You will therefore accord to those opposed to such the opportunity to state their views. I, therefore, have no hesitancy in saying that such is entirely in opposition to the laws of God and man, and will donate twenty-five dollars to the Protestant Orphans' Home, Toronto, if any of your self-styled temperance writers will show me the chapter and verse in the volume of the Sacred Law, in which the USE of intoxicants is forbidden, excepting the High Priest, in his sacerdotal capacity, and The Vow of the Nazarite.

I do hope that some one, or more, of your contributors on this subject, particularly those who quote Scripture, will answer the above question, for by so doing they will greatly oblige many others beside the writer. If they fail to be able to do so, may they have manliness in them to own that they cannot do so.

A MODERATE MAN.

Wellington Co., Ont.

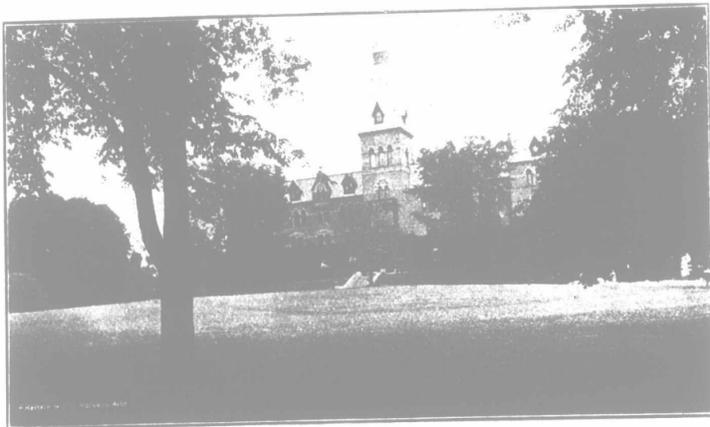
In reply to the above, we may state that we have no intention of turning our paper into a prohibition periodical; indeed, we believe that the space allotted to the letters occupied by this subject has taken up a comparatively small proportion of it. We have simply given space for this discussion—for the letters for and against local option—as we have for other discussions on various topics concerning the farm or the home. If people were not interested in this subject, they would not write about it, nor, may we add, read the letters written about it.

Upon one point, however, we wish to say a word. On the way to the office, when passing a hotel, we saw an intoxicated man stagger out and clamber into his buggy, which was standing opposite the door. His tongue was thick, his whole countenance besotted, almost imbecile, for the time, at least, and he was ab-



The Ordinary Article.

Too close to the road. Sheep make very good lawn-mowers—when there is nothing better.



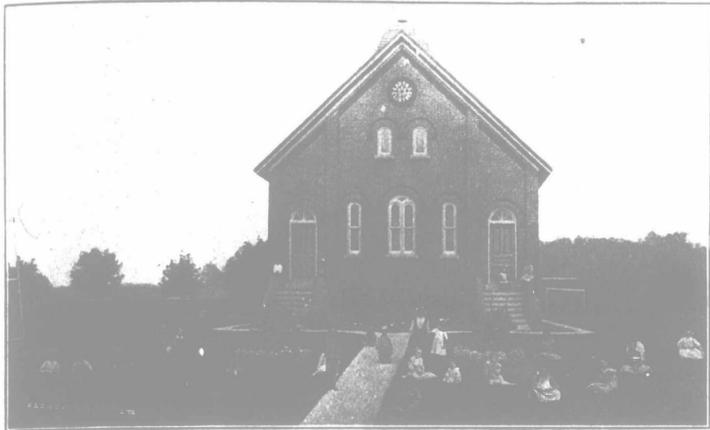
Ideal School Surroundings.

Open lawn in front; trees and shrubs used as a frame for the building. The same plan is excellent for home grounds.

delightful picture, with the building as the central feature. . . The size of the grounds should be large enough to permit of separate play-grounds for boys and girls; school gardens, too, will soon have to be provided for in every well-equipped rural school. The grounds should be properly drained and graded, and all not in garden plots seeded down with suitable lawn grasses; provision should also be made for keeping the grass cut. A collection of the native deciduous trees should be planted to afford shade and form a background for groups of ornamental flowering shrubs, wide evergreens

people going out to make homes for themselves should carry a love for all that goes to make home conditions better."

In conclusion, it may be said that, in the hope of developing a love for the beautiful and interesting in plant-life, the Ontario Experimental Union has this spring sent seeds of vegetables and flowers for home planting to 120 public schools in the Province. The Department got in touch with the pupils by writing to inspectors for lists of teachers who would be likely to take the work up, and the teachers were then written to. It has been arranged that each



Vinlands School.

Newly-planted trees will in time form a good background. More individuality of outline in the design of the schoolhouse might be advisable.



An Historic Building.

These old beech trees must have been an endless pleasure to the children in the summer and autumn. Nature-study was not difficult under such conditions.

being nonsense. On coming into the office a moment later, we read the above letter from the pen of "A Moderate Man." Could it be wondered, whatever one's stand on local option might be, that there seemed something strangely incongruous in reading a missive which dragged in the Holy Scripture to justify the use of an intoxicant which made such a condition as that of the man whom we had just seen, even temporarily possible? One could only imagine the infinite pity of the Christ, the infinite sadness of His countenance, were it possible to see Him with the naked eye, if He came up the street and met such a spectacle of human weakness. One could only imagine, too, the feelings of the intoxicated man, were it possible for him to see with his bodily eyes that Holy One, and to realize his own condition before Him.

We do not favor dragging the Scripture into every portion of our paper, nor a reference to it in any but the most reverent and considerate way. To give license in that, would be to give license to a twisting of it to meet various ends, as is too often done. However, since the Scriptures have been challenged in the present instance, we may say that the Bible itself speaks discouraging words to those who give themselves up to any kind of indulgence that may bring harm in its train. "Wine is a mocker," Prov. 20:1; "Look not on wine when it is red," Prov. 23:31; "Be not drunk with wine," Eph. 5:18; "And not given to wine," 1st Tim. 3:3. Again, what more unpleasant picture is given in the Bible than that of Noah, when he became drunken with wine—Gen. 9:21-23? If this were not enough, there is the great generality, 1st Cor., 8:9-13: "But take heed lest by any means this liberty of yours become a stumbling-block to them that are weak. . . . Wherefore if meat make my brother to offend,

I will eat no flesh while the world standeth, lest I make my brother to offend."

True, the Scripture speaks of the "wine which cheereth," Judg. 9:13; of the "wine that maketh a glad heart," Psalms 104:15; it also says, "use a little wine for thy stomach's sake," 1st Tim. 5:23; and it tells of the wine which was miraculously transformed at the wed-

ding in Cana of Galilee; but we must remember that many figurative words were made use of by the various writers, and that the mere juice, unfermented, was also known as wine. We must not deliberately interpret things to suit ourselves at all times, but of this we may be very sure, that the spirit of the Scripture countenances nothing that can be harmful to man.



Give the Girls a Chance.

Half of every play-ground should be theirs. Macdonald School play-ground at Guelph.

who, free from it, may be of use to himself and the world. If the habitual, or even occasional, use of intoxicants by strong, healthy people had anything to commend it, the case might possibly bear a different face; but there is nothing to commend. It neither gives strength nor nourishment; it wastes money that ought to be spent to better purpose; and it certainly does not appeal to the aesthetic sensibilities. In

time, it even attacks, deleteriously, the lining of the stomach. It has never been known to lengthen life, and multitudes have lived long and useful lives without it. In extreme cases of illness, brandy, etc., is sometimes ordered by a physician as a temporary stimulant, and in such a case its use may possibly be justifiable, just as the use of strychnine is justifiable under certain circumstances and in certain medicines; but some of the most noted physicians have stated that there is no case in which something else may not be found to answer as well.

Upon the whole, we believe that the man who most loves the good and right, and his fellow man, is the least likely to uphold the liquor traffic; and that the really noble-hearted man, who may happen to drink "moderately," will invariably, when fully aroused to the possible consequences of his example, make the strongest effort to give up the habit. The main thing is that he be aroused to see, with a clear and unprejudiced vision, that he cannot live wholly "unto himself."

**People, Books and Doings.**

Mr. H. K. Caskey, of Toronto, has been offered the General Secretaryship of the Laymen's Missionary Movement in Canada.

The British War Office is negotiating with the Wright Brothers for the purchase of an aeroplane.

A descendant of Alexander Selkirk, the character immortalized by Defoe as "Robinson Crusoe," died recently at Largo, a little fishing village in Fifeshire, Scotland.

The Canadian Association for the Prevention of Tuberculosis will hold its next annual convention at Hamilton, Ont., on May 19th and 20th.

Persons afflicted with consumption may no longer marry in New Jersey.



Outhouses Properly Screened.

An unsightly corner hidden by trees and shrubs.



Vinlands School Garden.

Every school should have a garden worked and attended to by the pupils—a plot for each.

Neither may persons having any transmissible disease. A law forbidding such marriages, which modern health authorities have been urging for years, was passed in the closing hours of the Legislature's session, and was signed by Governor Fort. There was bitter opposition to the law on the ground of the constitutionality, but it finally passed by a comfortable majority.

Dick Whittington is so often thought to be the hero of a fairy tale, that it is a relief to find that a bill has been introduced into Parliament to regulate a charity which he endowed, and of which the present gross yearly income is over one hundred thousand dollars, derived from property in the old City of London. Richard Whittington was a mercer (shall we call him a dry-goods man) in the city; became a sheriff in 1392, was Lord Mayor in 1397, 1398, 1406 and 1419, and was elected a member of the House of Commons for London in 1416. He died in 1425, and among his many benefactions was this very charity, now managed by the Mercer's Company, under trusts confirmed by King Henry VI., on petition to Parliament, in 1431.—(Churchman.)

The use of kites in weather forecasting is increasing, as they afford easy means of carrying the instruments of observation into the upper currents. A station for this purpose is now maintained by the German Government on Lake Constance, and the results obtained are telegraphed each day to the principal forecasting centers in Germany. Says Science Abstracts: "A vessel of 350 horse-power, capable of a speed of nineteen knots, provides facilities for obtaining daily ascents of kites or balloons under practically all conceivable wind conditions. If the wind is too light, the boat is run against it, and thus sufficient relative motion is obtained to enable the kite to be raised. On the other hand, on days of gale, the effective wind is reduced to working velocities by running before the wind."

The Irish brogue, says Walter D'Alton, is really a survival of the best English diction of Elizabethan days, which became fixed in Ireland when the great land-owners established themselves on their plantations. Examination of Chaucer, Spenser, and other early English writers, he argues, brings out abundant precedent for the brogue.

We live in deeds, not years; in thoughts, not breaths; In feelings, not in figures on a dial. We should count time by heart-throbs. He most lives Who thinks most, feels the noblest, acts the best.

Ninety-nine people out of an hundred, who may be questioned as to the authorship of the above oft-quoted stanza, are likely to hazard the guess that it occurs "somewhere in Shakespeare." As a matter of fact, it was written by an almost-forgotten poet, Philip James Bailey, or "Single Poem Bailey," whose poem, "Festus," which was based on the legend of "Faustus," or "Faust," immortalized by Marlowe and Goethe, was expanded in successive editions to a length of upwards of 40,000 lines. Other well-known quotations taken from the same poem are, "How goes the enemy?" and "I am no party man; I care for measures more than man."

A history somewhat more romantic than that connected with the Cullinan diamond, now made into "a big bauble and a necklace," is connected with the famous Pitt diamond. The latter was bought in India by the grandfather of the grand father of the great Earl of Chatham, who paid £20,000 for it. He then sold it to the Regent Orleans for £125,000, but how to get it safely to France, was the question. High-heeled shoes happened to be in fashion at the time, and wily Thomas Pitt finally decided to hide the big gem in a cavity made in one of his heels. Thus was it conveyed to Europe.

Sir Hubert von Herkomer, R. A., professor of painting in the Royal Academy, London, Eng., in a lecture on painting, recently, said he took the position of the rank and file of artists to be most alarming because of the modern gambling in old masters. He could not too strongly emphasize the fact that antiquarian value was not art value. There could be nothing more illogical than the variation in prices paid at different times for the same picture. Millet's "Angelus," which the artist sold originally for £10, had at successive sales realized £72, £480, £1,522, £6,400, £22,120, and finally £32,000. Some years before the boom in Millet's work, a friend of his refused that very picture at the price of £500, yet it had precisely the same artistic value as when it was sold for £32,000. The artistic value of a picture was fixed when it left the painter's easel. It was monstrous that art should be utilized for speculation. This gambling had become a disease. If there must be gambling in art, he suggested that the heirs of the dead master should be benefited by this form of "sport." If there were no heirs, then he suggested that the State, by law, should claim the extravagant price, and apply a percentage to the purchase of works by living artists. Nothing could be more harmful to art than this disproportion in appreciation of the dead as against the living art. It was one of the causes of the present bad time that art was experiencing. Another was the failing interest for art in the people. In this connection, he alluded to the question of photography in its relation to the fine arts, and said that, with the "snapshotter" at work filling the pages of the illustrated papers, the public were accepting a very inferior article for the artist's handiwork. It was to England's everlasting shame that it had allowed the beautiful art of wood-engraving to die. He did not despair of a reaction. Students must, however, set their teeth and sit tight. They had the blessed gift of youth, hope, and ambition. Already the auction-room barometer had been showing signs of returning to modern art, but as yet the glass only stood at "change."

The eccentricities of Napoleon's pen were such that his letters to Josephine from Germany were at first reading taken for rough maps of the seat of war. Captain Marryat wrote such a minute hand that his MS. had to be copied into a script adapted for ordinary eyesight before it could be handed over to the printer. The famous American newspaper editor, Horace Greeley, was the hero of numberless adventures as the result of his originalities of penmanship. One of his leaders on William H. Steward came forth headed, "Richard the Third." When he referred to certain electors as "freemen in buckram," the printer turned them into "three men in a back room."

An employee of Greeley's became editor of a Western paper on the strength of his testimonial, which was really a letter of discharge; but as no one could decipher anything but the signature, it was accepted as answering to the dismissed man's description of it. A countryman of Greeley's, a railway manager, almost equalled him as a writing expert. He wrote to a man, threatening to prosecute him unless he removed a barn he had run up on the company's property. The recipient did not read the epistle, because such a feat was impossible. Still, he made out the signature, and used the letter as a free pass for years.

The Duke of Wellington once perpetrated a ludicrous blunder through the puzzling letter of a correspondent. This was C. J. London, a botanical author, who had a great desire to see the beeches of Strathfieldsaye, and whose letter contained a request for permission to see the trees. The Duke misread the signature for that of the Bishop of London, C. J. Bloomfield. So he wrote this reply: "My Lord, I shall al-

ways be glad to see you at Strathfieldsaye, and my servant shall show you as many pairs of my breeches as you may choose to inspect; but what you want to see them for is quite beyond me."—T. P.'s Weekly.

### Something About the Married Manner.

"It's nice to be married," said the middle-aged matron to her intimate friend. "It's such a privilege to be the only woman to whom your husband doesn't bother to be polite. When John stepped on my skirt yesterday, and tore a hole in the back breadth, all he said was, 'Why the dickens do you wear your skirts so long?' If I'd been any other woman, he'd have rated himself for his awkwardness and apologized most humbly."

"Well, if John spoiled your skirt, he'll get you a better one to make up for it," observed her friend. "I've known you and John pretty familiarly ever since I was your bridesmaid, and he certainly is nice in that way." "John's a good husband," said the other, emphatically. "But don't you think—I feel horrid to be criticising my own man behind his back, but, as you say, you know us pretty familiarly—don't you think that even solid goodness and loyalty fail to make one a perfectly happy woman when the deference of the courtship days begin to fade away?"

"I know," agreed the intimate friend. "I shall never forget what a blow it was to me the first time 'Jim' came home without the bunch of flowers he'd never failed to bring me since we were married. Why, he wouldn't have thought of interposing a newspaper between my face and his during a meal in our engaged days, but all I see of 'Jim' now at breakfast is a printed sheet. And that difference in the way of speaking—when does it begin to creep into a man's conversation with his wife?"

"I can recall the very time John first spoke to me differently," said John's wife. "It was about some trifle we had discussed once, as it happened, before we married. I didn't look at it as John did. He set me right. He had set me right the first time we discussed it—but, mercy! so gently I didn't know what was happening. I knew the second time. And yet he wasn't rude, you understand. It was just the married manner. John and 'Jim' aren't the only ones." "The married manner!" said Jim's wife, thoughtfully. "Well, I suppose a man wants to have a wife with whom he can take the shoes off his manner, so to speak, and sit down in slippers at his own fireside."

"But slippers needn't be ugly," said John's wife. "Some slippers are nice-looking."

Whilst in this opinion we cordially agree, we must acknowledge that neither of these two friends were without their compensations, which they had the wit and the wisdom to acknowledge, but the "married manner" is one of many varieties, and the policy of being "a little blind" does not answer in every case.

Here is another illustration of the married manner, one for which the husband evidently considered apology wholly unnecessary.

"Fanny has given notice!" "Why?" "She says you spoke in a brutal manner to her on the telephone yesterday." "Yesterday? Oh, I remember! I thought I was speaking to you!"

The following are the views of a man upon this subject, and as such should have the respectful attention, especially of the younger women who have so lately set sail, with "fair winds blowing," upon the matrimonial sea.

"A man likes a woman to have sense—but not too much sense. It would be pathetic never to be able to give your wife any advice; and a woman who knows everything would know too much about her husband to get along with him or to give

him that tender devotion and glowing admiration which are necessary to masculine egotism."

I have read, under the heading of "The Roundabout Club," with very mixed emotions, the reply from Calcutta, of "Maya Sanghamitta" to S. Sinha's claim that in a Hindu marriage there are

"Two souls with but a single thought,  
Two hearts that beat as one."

with its arithmetical puzzle as to how many women's souls, in combination (when a man has from two to four hundred wives), are required to become the equivalent of the soul of the husband who owns them. Were the contents of Maya Sanghamitta's letter mere fiction, instead of actual fact, one might pay a tribute to her witty treatment of a social question in the elsewhere of the world, but there is too tragic a ring in it to permit of even a smile. She tells us that, "From the highest to the lowest, the Hindus seek European women for their wives," notwithstanding their relationship to the many Asiatic wives already in subjection to them. Can it be possible that, under such conditions, any woman not utterly degraded and lost, could be found willing to enter into a partnership so intolerable that even the Hindu wives seek escape from it by suicide. If such there are, they surely deserve the fate which awaits them. H. A. B.

## Hope's Quiet Hour.

### We Would See Jesus— The Waiting Time.

Certain Greeks . . . came therefore unto Philip . . . and desired him, saying: Sir, we would see Jesus.—S. John xii., 20, 21.

And it was now dark, and Jesus was not yet come to them.—S. John vi., 17.

"Oh, the waiting time, my brothers, is the hardest time of all! But at last we learn the lesson That God knoweth what is best; And with wisdom cometh patience, And with patience cometh rest. Yea, a golden thread is shining Through the tangled woof of fate, And our hearts shall thank Him meekly That He taught us how to wait."

The cry of a soul in the dark, longing to "see Jesus," has evidently gone to many hearts among our readers. One correspondent, "Shut-in," says that when passing through a similar experience she was greatly helped by a book called "The Threepenny Secret of the Holy Spirit," by James H. McConkey. She says that on the front page of this book is printed: "This book will be sent free to any friend you think it would help." The address given is Fred. Kelker, Box 216, Harrisburg, C. A., U. S.

I don't know anything about this free offer myself, but only pass on to you what my correspondent states.

To return to the appealing cry of a longing seeker, which I have already tried to answer in part. She is not entirely in the dark, for she says:

"I know that God loves me and will help me, and oh! if I did not know it, what would I do? I trust Him, and yet sometimes I seem to have very little faith. Yet, in the very bottom of my heart I believe I am trusting Him all the time. But the trouble is, although I trust Him, and in any great trouble I know He is near me, yet I cannot feel that I am a Christian—a child of God. I cannot feel that if I were to die tonight I would go to Heaven. Not that it is His fault, but mine. I do so many things I should not, and I seem to be such an awful sinner I could not think of helping anyone else. I know I trust Him, but that I am so very sinful . . . I do not feel I am a Christian, but an awful sinner."

If you really think as you say, my dear fellow-disciple, then you believe in a Saviour Who has only power to save the righteous, and Who did not come to earth

to save sinners. You seem to think that if you were very saintly He could help you, but that He is powerless to give you His strength until you have won the victory for yourself. Such want of confidence is more illogical than the practice of the small boy, who said his prayers at night because he wanted God to take care of him while he was helpless in sleep, but did not say any morning prayers because he felt quite capable of taking care of himself in the daytime. You seem to think that God will take care of the people who are strong and wide-awake, but is powerless to do anything for those who are weak, or asleep, or fighting in the dark. Please don't think me unfeeling. Indeed I long to help you, as S. Philip must have longed to help the Greeks who pleaded for an introduction to his Master. But don't you see that instead of looking up into His Face, you are concentrating your gaze on your own soul? Like the disciples who were in the boat fighting desperately for life in the midst of stormy darkness, you forget that He can see you "toiling in rowing"—though you cannot see Him—and you are afraid of sinking, as S. Peter was, because you are thinking of yourself and your own condition and circumstances, instead of grasping the offered Hand, and walking forward in His power, which is as able to uphold the weak as the strong, and is as necessary to save a saint as a sinner. He saved S. Peter as soon as he cried, "Lord, save me!" and then rebuked his lack of confidence by saying: "O, thou of little faith, wherefore didst thou doubt?"

Bishop Ingram says that he has come to the conclusion that "spiritual despair is often largely caused by what doctors call a neurotic temperament—that is to say, the soul of the person is out of hand; he is letting his nerves rule him . . . the mind does have an influence over the body, and can control, more than some people have any idea of, nerves and feelings, and even feelings of spiritual despair. Self-control is what you want; you want to pull yourself together. That is part of the work that the Holy Spirit will enable you to do. You do not find a self-controlled man or woman in a state of hysterics about his spiritual state, or anything else. We are sorry for those who are in this state, but we want more self-control in our religion." (From "A Mission of the Spirit.")

Such words sound hard and unfeeling to a soul in distress, and yet we should do well to take heed to them. Joy and peace must be ours, if we are to glorify our Master and help our comrades. He offers free forgiveness for the past, strength for the present fight, and the hope of victory for the future. With eyes fixed on Him, we cannot spare time or waste nervous force by fretting over our own imperfections. The waiting-time is splendid practice in patience, and we cannot expect to grow suddenly "unto a perfect man, unto the measure of the stature of the fulness of Christ." A mother does not get discouraged in her hope that her son will some day be a noble and helpful man, just because he is weak and childish for years.

I have been playing at gardening lately, and have learnt several things. I don't find that plants thrive very well when their roots are exposed to view, and soil-growth goes on more healthily when morbid introspection is not permitted. Then there are the seeds which we sow. They look so small and dead, and we can do so little to help the plants to grow. What faith is needed, as we put them into the earth! We drop them in, and cover them up out of sight—and God works the great miracle. I put some seeds hopefully into the ground last week, and to-day (April 29) they are lying under a foot of snow. Do you think I am disheartened? Not a bit of it! They may come up and prosper, in spite of discouraging conditions; but, even if they don't, I can easily put in some more seeds. Some are sure to take root. So it is with a soul that is diligently cultivating the fruit of the Spirit—"love, joy, peace, long-suffering, gentleness, meekness, faith, meekness, temperance." Don't worry because the plants are not yet full-grown. Put in your seeds in faith, give them the sunshine of hope, then leave the "increase" in God's keeping. Don't show by constantly examining them, that you have no faith in His power to make them grow. The best seeds can

make little headway unless they are let alone. The best advice to one who is unhappy about his own spiritual condition is: "Look up and not down, look out and not in, look forward and not backward a hand."

Be sure that you are real in your desire to see Christ and to follow in His steps—a sham religion has no life in it, and, of course, will never grow great and strong. As Bishop Brooks points out, our Lord was always patient with imperfection in publicans and sinners, or weak disciples, but very intolerant of unreality—cutting "with a word like a sword through the solemn triding of the Pharisees." If your patience is a real sorrow for sin, and a desire for holiness, resulting in a real, daily battle, then He can make it grow—you have all eternity to grow in. "So with your love to your Saviour, do not throw it away because it is not that large-winged devotion which soars up into the very sunshine of His closest Company. Keep it. Feed it on all you know of Him. Never trifle with it, or surround it with any unreality of profession, merely to try to make it seem larger than it is. Reverence it, not because it is great enough to be worthy of Him, but because for such a Being as you are to love such a Being as He is at all, is a sublime act—the glorification of your nature and the promise of indefinite growth."

"Let me then be always growing," says Miss Havergal, "never, never standing still!"

"Let me grow by sun and shower,  
Every moment water me;  
Make me really hour by hour  
More and more conformed to Thee,  
That Thy loving eye may trace,  
Day by day, my growth in grace."

DORA FARNCOMB

Editor "Quiet Hour":

In reply to "Enquirer's" question regarding "Saints," let me say that most of our so-called "Saints" were not so regarded till many years after their death, the latest-created Saint being Joan of Arc. To be a Saint at the present time, however, to my mind, depends upon how we act and live. He who trusts God, unconditionally, knowing that all things, both good and seeming bad, leads towards good—that God is at the helm and all is well—I would consider him a true Saint.

A. E. W.

## The Beaver Circle.

### The Boy with the Hoe.

Say, how do you hoe your row, young chap?  
Say, how do you hoe your row?  
Do you hoe it fair,  
Do you hoe it square,  
Do you hoe it the best you know?  
Do you cut the weeds, as you ought to do,  
And leave what's worth while there?  
The harvest you'll garner depends on you;  
Are you working it on the square?  
Are you killing the noxious weeds, young chap?  
Are you making it straight and clean?  
Are you going straight,  
At a hustling gait?  
Are you scattering all that's mean?  
Do you laugh and sing and whistle shrill,  
And dance a step or two,  
As the row you hoe leads up the hill?  
The harvest is up to you.

—New York Sun.

### Wild-flower Competition.

Dear Beavers,—Not long ago Dolly Gathorp asked that we have a competition on drawing wild flowers. Now, I think that was a capital idea, so here goes for our next competition. We will give three prizes for the best drawings of a wild flower, accompanied by a description of the flower, telling where you found it, the kind of soil in which it grew, the appearance of the root, stem, leaves and flower. It does not matter whether you can tell the botanical names of the different parts or not, provided you use your eyes and see everything about the plant, then write about it, and about the trip to the woods or field or pond

or stream where you found it, in an interesting manner. Your letter must be interesting, and it must be as accurate as possible. The drawing, also, must be very carefully done, so that it may be worth "putting in the paper."

Put both composition and drawing in the same envelope, and send so they may reach this office not later than June 1st. Next time the results of the last competition will appear.

### Our Letter Box.

Dear Puck,—As I read the letters from the girls and boys in the Beaver Circle, I thought I would write one, too.

I think it would be lovely to have a garden for one's own, if you had a nice place for it, but I could not, as I live in a village, and we are situated about one yard from the sidewalk.

My grandfather and grandmother live with my mother and sister and myself, and we keep the Public Library, so I get lots of good books to read. We take a lot of papers, such as The Globe, Saturday Night, The Canadian Resources, The Circle, Ladies' Home Journal, Boys' Own Paper, The Courier, "The Farmer's Advocate," Youth's Companion, and twelve different magazines; and The Standard, Empire, The Post, The Watchman-Warder, The Mail and Empire, The Plaidealer, The Pictorial, The Canadian Mineral Journal, etc., etc.

As for pets, I have one black cat; I call him Blackie; and I have dolls, but I hardly ever bring them down stairs.

To Luella Killough: I enjoyed your story very much.

Thanking "Puck" for giving the game I asked for the first time, I remain,  
VIOLA RICHARDSON (age 13).  
Oakwood, Ont.

Why not have some window-boxes fastened to the outside of the sill, Viola, if you can't have a garden? If you look in "The Farmer's Advocate" of March 11, you will find out how to make them. . . . You must enjoy having so many books and papers to read.

Dear Puck,—In one of your February numbers you asked me to describe my pony, so I will try to do so. She is eleven hands high, and is a light bay, with one white foot. We drive her and her mate in a carriage and they go nicely together. She has a tan saddle and bridle, and enjoys a gallop about as well as I do. I have a camera, and take quite a number of pictures. Some time I will send you her picture.

We are making maple syrup now, and we have made about eighteen quarts. There are one hundred and twelve trees tapped. Well, I guess I will close, for I fear I have written too long a letter. Wishing you success.

The Maples. JAMES HUNTER.  
What trade would you recommend for a short person? Ans.—Grocer (grow sir). We shall be delighted to have the picture, James.

Dear Puck,—I have not written to the circle before, but I am much interested in the letters that have been put in it.

There is a woods at the south of our house. They are nearly all maples, and there are some pretty flowers in it. In the summer, I go and get some lady's slippers, Dutchman's breeches, and hepaticas.

I have got a pair of skates and can skate.  
EVERETT CRADLERMAN (age 11).  
Solina, Ont.

Dear Puck,—Have been reading the letters from the boys and girls and thought I would join you in writing. I live on a farm. We have the South-western Traction Co.'s electric cars running right by our door, from London to Port Stanley. There is a station at our gate. They go by every half hour. The school is a few steps on one side, and the church and post office a few steps on the other side of us.

I live three miles from the city of St. Thomas, and by taking a car we can get there in fifteen minutes. Any person can go from London to Port Stanley between the hours 7 a. m. to 12 p. m., so you can see what an advantage it is to live near the cars.

I am preparing to try the Entrance this summer. I will close with a riddle.

It won't go up the stovepipe up, nor down the stovepipe up, but it will go up the stovepipe down and down the stovepipe down. Ans.—An umbrella.

FRANCIS FUCHER (age 11).  
Talbotville, Ont.

Dear Puck,—This is my first attempt to write to the Beaver Circle, although my father says "The Farmer's Advocate" has come to our home ever since it was first printed, and has several volumes of it bound. Father says he wouldn't like to do without "The Farmer's Advocate."

I live in the town of Brampton. I have four brothers and one sister. We have a pair of lovely Scotch collie dogs that haul us in the sleigh. Their names are Chivit and Tweed. We have a peacock, a pair of guinea fowl, a pen of white Pekin ducks, and a number of White Wyandottes.

My own pets are a pair of bantams, a cat, and Chivit is my dog; and I have a pair of canaries, and the little mother is setting on four dear little eggs.

MARGARET GLEN (age 11).  
Brampton, Ont.

### The Junior Beavers.

#### Just Come Here and Scratch.

A mother hen and her five chickens  
Set out for a walk in the early morning:  
Said the first little chick,  
With a queer little squirm,  
"I wish I could find a fat little worm."  
And the next little chicken,  
With an odd little shrug,  
"I wish I could find a fat little bug."  
Said the third little chicken  
With a sharp little squeal,  
"I wish I could find some nice yellow meal."  
Said the fourth little chicken,  
With a small sigh of grief,  
"I wish I could find a green little leaf."  
And the fifth little chicken  
With a faint little moan,  
"I wish I had a wee gravel stone."  
"Now, see here," said the mother,  
From the green garden patch,  
"If you want any breakfast,  
Just come here and scratch."

Dear Puck,—Papa has taken "The Farmer's Advocate" for three years. I enjoy the Beaver Circle very much. I wait every week for it. I am in the Senior Second book, and am nine years old. For pets I have a Scotch collie, and a cat, "Tom." I like our school-teacher very much. I have about a mile and a quarter to go to school. My brother is older than myself. He went to Toronto for his Easter holidays; I expect to go to Orangeville for a few days. I hope this will escape the w-p-b. If my letter is not too long, please print these few riddles:

Little red netta coat, with a white petta coat, the longer she lives the shorter she grows. A candle.

I have a little sister, her name is peep, she wades through the water ever so deep, and climbs over the mountain ever so high, the poor little thing has only one eye. A star.

NETTA ELLIS.

Orangeville, Ont.

Dear Puck,—My father has taken "The Farmer's Advocate" for several years, and he does not think he could get along without it. I am very much interested in the letters of other little girls and boys, so I will try to write a letter, too. We have a team of black colts, but we do not drive them together yet. We drive them with other horses. Yesterday they were plowing on the other farm, which is right across the road. They have to cross a bridge coming and going, and yesterday Fred Dicker was driving them, and when they were crossing the bridge the black colt shied, and pushed the other horse into the water. Of course, they were hitched together, and the colt fell over on top of the other horse. Then I guess there was a mix-up all right. I was not there to tell you how they got out, but anyway they did not get hurt badly, only scratched. I live about three miles from Port Stanley. There are lots of pretty little birds and black squirrels around our place, and my father is trying to protect them. I

have an everyday pet that comes to see me every day. He is a little black squirrel. I think it is a very cruel idea to shoot dear little birds and squirrels. I am trying to learn all about the little dumb animals of the woods. I wonder what we should do if it weren't for the dear little birds and squirrels. It must be very dull living in places where you never see them. The flowers are not out, but I think there will be some out in about a week. This is my first letter to the Beaver Circle, and hope it will escape the waste-basket.

JEAN FERGUSON (age 9).  
Port Stanley, Ont.

You write a very good letter for such a little girl, Jean. I think you have the right kind of father, don't you?

Dear Puck,—This is my first letter. My father takes "The Farmer's Advocate." My sister and I have a dog called Bruce; he is a collie. My uncle gave me a little lamb, and I raised it on a bottle.

EDNA MUIR (age 9).  
Cote St. Paul.

### "The Farmer's Advocate" Fashions.



6326 Blouse with Dutch Collar, 32 to 42 bust.



6315 Fancy Dutch Collars, One Size.

6315: The Dutch collar is an established favorite. It will be extensively worn throughout the season, and it is shown with straight edges, with pointed and with scalloped, and it is worn with jabots of various sorts. Here are four models, each of which is excellent in its way, which can be varied almost indefinitely. As illustrated, however, No. 1 is made of linen lawn, with trimming of Valenciennes lace. No. 2 is made of the same material with Cluny lace, and No. 3 combines embroidery with lace, while No. 4 is also made of linen, finished with lace banding and edging. The jabots of both Nos. 3 and 4 are made of sheer handkerchief linen, but for them could be utilized any one of the thinner materials. Also the collars can be utilized for material to match the blouse or the gown, and the vogue of the matching collar is quite as extensive as that of white.

The pattern consists of the collars and the jabots. No. 1 is perforated for trimming, Nos. 3 and 4 have shaped edges and the jabots are plaited on indicated lines.

The quantity of material required for either No. 1, 2 or 3 is 2 yard 27 or 36 in. wide; for No. 4, 2 yard 27, 2 yard 36, with 2 yards of insertion, 1 1/2 yards edging and 8 medallions for No. 1; 1 yard of insertion, 1 1/2 yards of edging for No. 2; 1 1/2 yards of insertion and 3 yards of edging for No. 3; 1 1/2 yards of insertion and 4 yards of edging for No. 4. The jabots are included in the quantities for Nos. 3 and 4.

Above patterns cost only 10 cents per number. Address: "The Farmer's Advocate Fashion Dept.," London, Ont.

## 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 Subject for Mothers.

Dear Dame Durden,—For a long time I have been reading the Ingle Nook chats with great interest and have often thought of writing, but never seemed able to get at it. I live the usual busy life of a farmer's wife, and, as you and the chatterers know, they have little time to spare; but now that the question of the rearing and training of children is up for discussion, I would like to say a word on the subject of frankness with children about the origin and mystery of life. "The birth of life is holy and natural. It ought to seem so to us all." Yet, in regard to our children, is not the birth of life too often treated as something unclean and shameful.

Especially on the farm do the little ones see things which excite their curiosity and cause them to ask questions, and when you are asked, as I was only the other day by my little three-year-old boy, "Mamma, where did we get the little lambs?" why, tell them the simple truth, something after this manner? "They grew from tiny seed baby lambs, in a little room God has prepared for them in their mother's body, where they could be always nice and warm, until they got big enough to go about alone, when they come out and run about with their mothers." Children will accept the truth naturally and reverently, as it is given to them, and if we mothers do not satisfy our children's natural curiosity, they will find out from others, very likely in a way that would make us blush with shame if we knew! Even should that not be the case, they will have lost confidence in us, and we will have missed one of the greatest opportunities we have of gaining our children's confidence. Now, I would like to quote some of the words of Mrs. E. F. A. Drake, M.D., on this subject:

"Begin with their earliest instinctive questionings to answer truthfully, and glorify the thoughts that nature has implanted in every human heart, and that unless properly understood will become a snare and temptation to them."

"Never does such a mother turn her child away with the rebuke or fretful rejoinder, that she has no time for such questions. For what is a mother's time given but to guide the feet of her babies into true paths, to be the answer book for all their puzzling problems? A true woman never compels her children to go elsewhere for the answers which she herself should give. In answering, be so truthful that they may never, even in thought, question your word."

WILL'S WIFE.

### Tomato Mustard.

Dear Dame Durden,—In a recent Ingle Nook, we noticed a request from Evelyn E. for tomato mustard. We have used this several times, and find it very good.

Tomato Mustard or Chutney.—Twelve ripe tomatoes, 10 large sour apples, stew well together and put through a colander; 9 large onions, chopped fine, 1 lb. white sugar, 1 tablespoon salt, 1/4 lb. mustard, 1/4 lb. ginger, 1/4 teaspoon cayenne pepper, 1/2 oz. of tumeric, 3 pints of vinegar. Put together and boil till thick.

Hoping Evelyn E. will like this recipe. Lambton Co., Ont. E. M. E.

### ANOTHER.

For 1 bushel of tomatoes, take 3 ozs. mace, 3 ozs. ground cloves, 3 ozs. ginger, 3 ozs. white pepper, 1 oz. cayenne, 1 lb. salt, 1 dozen large onions, 1 dozen garlic, 1 lb. best mustard, 2 quarts vinegar. Wash tomatoes, cut once in two, and boil one hour. Let them cool, then rub them through a colander, add the spices and all ingredients except mustard, cayenne and vinegar. Boil two hours slowly, then add mustard, cayenne, and vinegar only mustard and cayenne with some of cold vinegar, then boil slowly one hour

more, stirring often, as the mustard makes it quite thick. Let cool and bottle.

I will send another recipe for tomatoes which someone may like.

Raw Tomato Catsup.—One peck ripe tomatoes peeled and sliced. Sprinkle on them, in alternate layers, one cup of salt. Let stand overnight, then drain them, chop fine, and add a tablespoon each of cloves, pepper, allspice, a little cayenne pepper, 1 lb. brown sugar, and 1 quart good vinegar. Bottle. L. H. Norfolk Co., Ont.

Many thanks for the above recipe.

### An Answer to "Farmer's Wife."

I have great pleasure in answering "A Farmer's Wife's" question.

Lime-water Recipe.—Half pint unslaked lime, 1/2 lb. salt, 3 gals. water. Let stand all night, and then pour gently off the sediment into a stone butter-crook, and always keep tightly covered.

I have felt quite disappointed at not hearing how "Jack's Wife" succeeded with my omelette recipe. I wonder if you all agree with me, that it is encouraging to let each other know when we help each other. I have started packing my own eggs already, and hope to put 50 dozen down—and will probably sell my fresh eggs all summer and autumn. I find my meat bills the heaviest, so lately I have been experimenting with the cheap cuts, and make some exceedingly tasty dishes. If Dame Durden thinks they will be acceptable, I will send some along. I will now make my adieu. EXIT. Wellington Co., Ont.

We shall be delighted to have the meat recipes. The cheap cuts are quite as nutritious as the dearer ones, and only require skillful cooking to be quite as palatable.

### A Combination Door.

Housewives all know what a time they have getting "the men" to take off the storm doors and replace with screen doors when winter is over; and then the hinges are always breaking, or pulling out. In the fall, the trouble is reversed. Why not make the screen-door frame answer the double purpose, and never take it off? We've tried that at our house and it works well. How? Just get a piece of oilcloth, such as used for hall floors, and fasten on the outside of the screen frame, using brass-headed tacks about every three inches. Put the under side out, and if you do not like the brown color, it can be painted drab, or to suit the door frame. Lap the oilcloth just about two inches on the wooden frame, as that will be sufficient. This makes the "storm door" and shuts out "wind and weather" just as effectually as a heavier board door. In spring remove the tacks and put away the oilcloth till fall, when it can be readily replaced on the door for winter. Little contrivances like the foregoing help to simplify and improve home conditions in the direction towards which our old friend "Sandy Fraser" is again driving his quill in "The Farmer's Advocate," and just how to do it with effective good humor, no contributor knows better. MATER.

### Spring Renovation Hints.

Gilt frames may be cleaned by "washing" with the white of an egg and common soda. Remove specks with white of egg, applied with a small brush. Scraped places may be covered with Diamond Gold Paint.

Furniture Polish that Cleans.—Crude linseed oil, 2 parts; spirits of turpentine, 1 part. Add 1/4 tablespoonful of fine salt to each quart of the mixture. Shake to an "emulsion" and apply with a soft flannel cloth. Leave on for an hour, then rub off and polish with chamois skin. The smell leaves in a few hours.

Cleaning Windows.—Take a dish of tepid water in which only a little soap has been dissolved. Apply to windows with a fair-sized chamois skin, wring as dry as possible. Wipe windows over carefully, being sure to turn to a clean part of the chamois often, and to wash it out in the suds when no clean side remains. This is a very easy way to clean windows. One chamois used in this way will last for years.

To clean wall paper, fill small close-cloth bags with corn meal and rub well brushing downward. Sometimes grease

spots will not yield to this, then place blotting-paper over the spot, and a hot iron over that. Finally rub with Isador's earth.

Re-covering Umbrellas.—Umbrellas may be re-covered at home, if care is exercised. Remove the old cover and the metal cap that held its top edge. Use one of the sections of the old cover for a pattern, and lay it with the outer edge on the selvage of the goods (sarsen or gloria). Sew sections together with French seams, that is, first sew a tiny seam on the right side, then turn and sew again. Put on cover and replace the metal caps.

Renovating an Old Black Hat.—Apply liquid shoe-polish of a good quality.

To Fill Cracks in Floors.—Soak newspapers in a paste made by boiling 1 lb. flour in 3 qts. water, and adding a teaspoonful alum. Make as thick as putty, force into cracks with a knife. When perfectly dry and hard, paint the floor.

When reading the letter suggesting co-operation for laundries, etc., in rural districts, I thought again of the vacuum cleaner, and of the possibilities of co-operation for the purchase of one in a neighborhood. These cleaners are now regularly used for cleaning stores and residences in the larger cities. The machine, not such a big one either, simply sits out of doors, and someone goes around inside directing the tube that leads from it. That is all there is to it, and curtains, carpets and upholstery are perfectly cleaned, so far as the removal of dust is concerned, without the annual upheaval which marks house-cleaning time in general. Smaller cleaners, requiring two to operate (one may be a child), may be got for about \$30, and are said to be quite effectual, although slower in action than the larger ones. Many women in the cities are now discarding the carpet-sweeper in favor of these little cleaners, which, as has been noted, clean curtains, walls, upholstered furniture, cushions, etc., as well as rugs and carpets. D. D.

### Cleaning White Curtains.

A writer in Harper's Bazar gives the following method of cleaning white curtains: Mix together 1 package baking soda and 1 can cheap baking powder. Sprinkle the mixture over the curtains, roll them up, wrap in sheets, and let lie 24 hours, then shake well. This quantity will clean two pairs of curtains.

Twentieth Century Home gives the following method: "Soak for some hours (or over night) in cold, soapless, soft water, then wash in the ordinary way in soapy water. There is no necessity of stretching them. Wash and hang on the line some sunny morning; change the position and pull out in place, especially along the edges, very frequently." Many people do not starch curtains now at all, as starch prevents them from falling into graceful folds. Others give them a dip in strong borax water, to give a little stiffness. Do not rub curtains on a washboard, nor wring with the hands. Use a wringer, or simply press out between the hands without twisting. If pure white, dip in blue-water; if cream, color in coffee.

### Some Rhubarb Recipes.

Rhubarb Meringue Pie.—Take 1/2 pint stewed rhubarb and stir into it while boiling a heaping teaspoon cornstarch, mixed with the yolks of 2 eggs, 1 cup sugar, and 1 tablespoon butter. Have ready a pie tin lined with a nice crust already baked. Fill this with the mixture and cover with a meringue made of the whites of the eggs beaten stiff with 2 tablespoonfuls sugar. Set in oven until nicely browned, and serve cold.

Baked Rhubarb.—Wash and wipe dry. Cut in inch bits without peeling. Put layer in bottom of earthen jar, cover with sugar, repeat until jar is full. Cover tightly, bake an hour, and serve cold. Do not put in any water.

Rhubarb Sauce.—Do not strip off pink skin. Cook slowly with a very little water, adding sugar to taste, and just before removing from the stove add three or four thin slices of lemon and a teaspoonful of butter.

Rhubarb Charlotte.—Butter a baking dish, and cover the bottom an inch deep with the bread-crumbs, then with a layer

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of rhubarb sliced thin. Scatter thickly with sugar, cover with crumbs, put bits of butter over each layer of crumbs. Continue to fill the dish thus to the top. The top layer should be crumbs. Bake in a slow oven for an hour.

**Rhubarb Custard.**—Make a custard as for custard pies, using the yolks of 2 eggs, pint of sweet milk and sugar to taste. Line a deep pudding dish with a light crust and place in it a layer of chopped rhubarb covered with sugar. Pour over this the custard and bake. Beat the whites, add sugar and a little lemon juice, spread over the pie when done, and brown in oven.

**Rhubarb Jelly.**—Wash and cut up the rhubarb, and boil briskly with a little water. Take off and strain through a flannel bag, measure, and put back to boil. Let boil low, then add three-fourths as much sugar as juice. Boil hard for a few minutes, then turn into glasses and put in the sun. Nice to serve with ham or cold tongue.

**Rhubarb Wine.**—Cut in bits and crush 5 lbs. rhubarb. Add the thin yellow rind of a lemon and 1 gallon water and let stand covered 2 days. Strain off and add 4 lbs. sugar. Put this into a small cask with the bung hole covered with muslin, and let it work for 2 or 3 days, then put in the bung and let stand 4 months, when it is ready to draw off and bottle.

Another: 3½ lbs. rhubarb cut in bits to 1 gallon boiling water. Let stand 10 days, stirring each day, then strain and to each gallon liquid allow 3 lbs. sugar. Let stand 3 days, add a cake yeast, and let stand 7 days longer, skimming as the scum rises. When fermented sufficiently (when you cannot hear it), add 5 cents' worth isinglass, strain and bottle.

### Many Inventions Help the Housekeeper.

Unquestionably, the most distasteful part of housecleaning is the taking up of carpets with their multitudinous tacks, beating and relaying them. Nevertheless, sanitation requires it to be done. Nowadays, the tendency is for painted or varnished floors, covered with rugs and mats, and their use is continually growing. It is a simple matter to take up rugs from the floor and clean them. Not only are "finished" floors more sanitary, but decidedly better looking, for even the most ordinary wood floor can be transformed at a small expense into one having the appearance of costly hardwood by the application of one or two coats of varnish stain which are now made in imitation cherry, oak, mahogany, walnut, and so on, and are so durable that they will successfully withstand a great deal of wear and tear occasioned by the constant walking and the movement of furniture over them.

Wall-papering is being largely supplanted by wall paints and finishes in beautiful colors and shades that will stand scrubbing with soap and water, and come out of the operation bright and fresh as the day they were put on. This avoids "messy" papering operations. Woodwork such as wainscoting and cupboards, given one coat of paint, specially prepared for the surface, which will dry overnight, enables the housewife to keep kitchen and pantries fairly shining with cleanliness. "Last year's" fly screens, after receiving a coat of enamel, are as good as new again. Furniture, too, both in the kitchen and in the other rooms of the house, need not remain shabby long. The process of cleaning it with polish, or refinishing it with paint or varnish, is so simple, and the furniture so improved in appearance thereby, that most housewives include a course of refinishing operations. This applies, not only to the rough dining room chairs, but to the rough kitchen and laundry chairs, and to those wicker and cane ones that spend a good deal of their time on the veranda or lawn, and not only to the tables, bookcases and lounges of more or less expensive woods, but to the home-made things of rough lumber, and so on throughout the entire house. Whereas cleaning about the house was once a considerable undertaking, now it is a matter of very little expense, and a small inconvenience. As one thrifty dame was heard to remark, "The use of paints and varnishes at housecleaning time has become

almost a mania with me, actually I look forward to housecleaning just because it gives me an excuse to fuss with paint." She who has charge of the "home" has a high mission, and inventions that go to make her work less laborious and productive of greater results, are as momentous as discoveries in any other branch of modern life. It can no longer truthfully be said that invention in things that pertain to domestic life is lagging behind in the march of progress.

### With the Flowers.

#### Clematis.

Mrs. L. U. Bruce Co., asks how to train a clematis. The two species most commonly grown in Canada are *C. paniculata* and *C. Jackmanii*. The former requires but little training, as it will run anywhere, along verandas, etc., where there is any support at all, although where there is no support a trellis had better be supplied. *C. Jackmanii* should always be given a stout wooden trellis. The clematis requires a rich loamy soil. Enrich by annual applications of manure, and put a little half-rotted manure about it in fall. Give plenty of water, right down to the roots, in hot, dry weather, and prune out weak or overcrowded branches in February or March. *Jackmanii* may be cut back somewhat sharply in November to encourage the growth of new shoots upon which the flowers appear.

#### Notes.

When making your garden, plant for succession; that is, to have one set of flowers come out when the first has stopped blooming. For example, the crocus comes first; after it, in order, early narcissi, then tulips, then narcissus poeticus, then columbines, then the annuals, phlox drummondii, alyssum, asters, etc.; then the fall flowers, dahlias, etc., ending with garden hydrangea and late anemone. This succession may, of course, be infinitely varied.

Where "carpet" planting is desired try pansies, sweet alyssum or verbenas. Verbenas are very satisfactory flowers, as their flowers remain bright and their leaves attractive often after every other plant has disappeared from the garden. It is not uncommon, indeed, to gather bouquets of them after a snowfall.

Try some gladioli this year, planting them in rows, 4 inches deep, and in full exposure to the sun. They are fine for cutting in the fall, and open out even better in water than when left growing in the garden. They should be cut when the first flower-bud opens.

Encourage the birds. By eating insects they help flower garden and vegetable garden, field crop and orchard. What if the robins do eat a few of your cherries. They do infinitely more good on the whole than harm.

Do not plant flower-seeds out of doors until danger of cold nights has passed. Nothing is gained by having them in the ground too soon. Asters, etc., may be started in the house, and so a few weeks may be gained.

Procure good fresh seed from a reliable seedsmen, and half of your trouble with annuals will be a thing of the past.

Cover unsightly fences, etc., with morning glory, tall nasturtiums, cobaea scandens, clematis paniculata, etc., and so transform an ugly object into a beautiful one.

Don't neglect the back yard. Make it a thing of beauty. You see it too often to leave it in ugliness.

#### China Tea Set.

Kindly take note. To everyone who sends us FOUR new subscribers to "The Farmer's Advocate" at \$1.50 per year each, we will send one 40-piece Austrian China Tea Set, in handsomely dainty design, as a premium. Send us your order NOW.

## The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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### CHAPTER XVII.—Continued.

Bigot would have been quite content with enriching himself and his friends, and turning out of doors the crowd of courtly sycophants who clamored for the plunder of the Colony. He had sense to see that the course of policy in which he was embarked might eventually ruin New France—nay, having its origin in the Court, might undermine the whole fabric of the monarchy. He consoled himself, however, with the reflection that it could not be helped. He formed but one link in the great chain of corruption, and one link could not stand alone: It could only move by following those which went before and dragging after it those that came behind. Without debating a useless point of morals, Bigot quietly resigned himself to the service of his masters, or rather mistresses, after he had first served himself.

If the enormous plunder made out of the administration of the war by the great monopoly he had established were suddenly to cease, Bigot felt that his genius would be put to a severe test. But he had no misgivings, because he had no scruples. He was not the man to go under in any storm. He would light upon his feet, as he expressed it, if the world turned upside down.

Bigot suddenly stopped in his walk. His mind had been dwelling upon the great affairs of his Intendency and the mad policy of the Court of Versailles. A new thought struck him. He turned and looked fixedly at his Secretary.

"De Pean!" said he. "We have not a sure hold of the Chevalier de Repentigny! That young fellow plays fast and loose with us. One who dines with me at the palace and sups with the Philiberts at the Chien d'Or cannot be a safe partner in the Grand Company!"

"I have small confidence in him, either," replied De Pean. "Le Gardeur has too many loose ends of respectability hanging about him to make him a sure hold for our game."

"Just so! Cadet, Varin, and the rest of you, have only half haltered the young colt. His training so far is no credit to you! The way that cool bully, Colonel Philibert, walked off with him out of Beaumanoir, was a sublime specimen of impudence. Ha! Ha! The recollection of it has salted my meat ever since! It was admirably performed! Although, egad, I should have liked to run my sword through Philibert's ribs! and not one of you all was man enough to do it for me!"

"But your Excellency gave no hint; you seemed full of politeness towards Philibert," replied De Pean, with a tone that implied he would have done it had Bigot given the hint.

"Zounds! as if I do not know it! But it was provoking to be flouted, so politely, too, by that whelp of the Golden Dog! The influence of that Philibert is immense over young De Repentigny. They say he once pulled him out of the water, and is, moreover, a suitor of the sister, a charming girl, De Pean! with no end of money, lands, and family power. She ought to be secured, as well as her brother, in the interests of the Grand Company. A good marriage with one of our party would secure her, and none of you dare propose, by God!"

"It is useless to think of proposing to her," replied De Pean. "I know the proud mix. She is one of the angelic ones who regard marriage as a thing of Heaven's arrangement. She believes God never makes but one man for one woman,

and it is her duty to marry him or nobody. It is whispered among the knowing girls who went to school with her at the Convent—and the Convent girls do know everything, and something more that she always cherished a secret affection for this Philibert, and that she will marry him some day."

"Marry Satan! Such a girl as that to marry a cursed Philibert!" Bigot was really irritated at the information. "I think," said he, "women are ever ready to sail in the ships of Tarshish, so long as the cargo is gold, silver, ivory, apes and peacocks! It speaks ill for the boasted gallantry of the Grand Company if not one of them can win this girl. If we could gain her over, we should have no difficulty with her brother, and the point is to secure him."

"There is but one way I can see, your Excellency." De Pean did not appear to make his suggestion very cheerfully, but he was anxious to please the Intendant.

"How is that?" the Intendant asked sharply. He had not the deepest sense of De Pean's wisdom.

"We must call in woman to fight woman in the interests of the Company," replied the Secretary.

"A good scheme, if one could be got to fight and win! But do you know any woman who can lay her fingers on Le Gardeur Repentigny and pull him out from among the Honnetes Gens?"

"I do, your Excellency. I know the very one can do it," replied De Pean, confidently.

"You do! Why do you hesitate, then? Have you any arrière pensee that keeps you from telling her name at once?" asked the Intendant impatiently.

"It is Mademoiselle des Meloises. She can do it, and no other woman in New France need try!" replied De Pean.

"Why, she is a clipper, certainly! Bright eyes like hers rule the world of fools—and of wise men, too," added Bigot in a parenthesis. "However, all the world is caught by that bird-lime. I confess I never made a fool of myself but a woman was at the bottom of it. But for one who has tripped me up, I have taken sweet revenge on a thousand. If Le Gardeur be entangled in Nerea's hair, he is safe in our toils. Do you think Angelique is at home, De Pean?"

The Intendant looked up at the clock. It was the usual hour for morning calls in Quebec.

"Doubtless she is at home at this hour, your Excellency," replied De Pean. "But she likes her bed, as other pretty women do, and is practicing for the petite levee, like a duchess. I don't suppose she's up!"

"I don't know that," replied Bigot. "A greater runagate in petticoats there is not in the whole city! I never pass through the streets but I see her."

"Ay, that is because she intends to meet your Excellency!" Bigot looked sharply at De Pean. A new thought flashed in his eyes.

"What! think you she makes a point of it, De Pean?"

"I think she would not go out of the way of your Excellency." De Pean shuffled among his papers, but his slight agitation was noticed by the Intendant.

"Hum! is that your thought, De Pean? Looks she in this quarter?" Bigot meditated with his hand on his chin for a moment or two. "You think she is doubtless at home this morning?" added he.

"It was late when De Repentigny left her last night, and she would have long and pleasant dreams after that visit, I warrant," replied the Secretary.

"How do you know? By St. Picot! You watch her closely, De Pean!"

"I do, your Excellency; I have reason," was the reply.

De Pean did not say what his reason for watching Angelique was; neither did Bigot ask. The Intendant cared not to pry into the personal matters of his friends. He had himself too much to conceal not



W  
ID YOU EVER FIGURE THE COST of a single day's baking — the material, fuel, time and labor—and consider that it is all wasted if the baking is a failure?

Is it economy, then, to use a flour of uncertain quality when a few cents more will buy

## Royal Household Flour

—a flour that you can depend upon to produce light, crisp and wholesome bread or pastry?



It is made from selected hard wheat, milled by a most modern process which guarantees absolute purity.

Royal Household Flour does not vary in quality — does not disappoint. 17

Ogilvie Flour Mills Co., Limited, Montreal.

## This Washer Must Pay for Itself

A MAN tried to sell me a horse once. He said it was a fine horse, and had nothing the matter with it. I wanted a fine horse. But, I didn't know anything about horses much. And, I didn't know the man very well, either. So I told him I wanted to try the horse for a month. He said, "All right, but pay me first, and I'll give back your money if the horse isn't all right."

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

You see, I make Washing Machines—the "1900 Gravity" Washer. And, as I said to myself, lots of people may think about my Washing Machines as I thought about the horse, and about the man who owned it. But I'd never know, because they wouldn't write and tell me. You see, I sell all my Washing Machines by mail. (I've sold 200,000 that way already.)

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

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

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

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

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

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

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

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

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

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

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

to respect the secrets of his associates.

"Well, De Pean! I will wait on Mademoiselle des Meloises this morning. I will act on your suggestion, and trust I shall not find her unreasonable."

"I hope your Excellency will not find her unreasonable, but I know you will, for if ever the devil of contradiction was in a woman, he is in Angelique des Meloises!" replied De Pean savagely, as if he spoke from some experience of his own.

"Well, I will try to cast out that devil by the power of a still stronger one. Ring for my horse, De Pean!"

The Secretary obeyed, and ordered the horse. "Mind, De Pean!" continued the Intendant. "The Board of the Grand Company meet at three for business! actual business! not a drop of wine upon the table, and all sober! not even Cadet shall come in if he shows one streak of the grape on his broad face. There is a storm of peace coming over us, and it is necessary to shorten sail, take soundings, and see where we are, or we may strike on a rock."

The Intendant left the palace attended by a couple of equerries. He rode through the palace gate and into the city. Habitans and citizens bowed to him out of habitual respect for their superiors. Bigot returned their salutations with official brevity, but his dark face broke into sunshine as he passed ladies and citizens whom he knew as partners of the Grand Company, or partizans of his own faction.

As he rode rapidly through the streets, many an ill wish followed him, until he dismounted before the mansion of the Des Meloises.

"As I live, it is the Royal Intendant himself," screamed Lizette, as she ran, out of breath, to inform her mistress, who was sitting alone in the summer-house in the garden behind the mansion, a pretty spot, tastefully laid out with flower-beds

and statuary. A thick hedge of privet, cut into fantastic shapes by some disciple of the school of Lenotre, screened it from the slopes that ran up towards the green glaciers of Cape Diamond.

Angelique looked beautiful as Hebe the golden-haired, as she sat in the arbor this morning. Her light morning dress of softest texture fell in graceful folds about her exquisite form. She held a Book of Hours in her hand, but she had not once opened it since she sat down. Her dark eyes looked not soft, nor kindly, but bright, defiant, wanton, and even wicked in their expression, like the eyes of an Arab steed, whipped, spurred, and brought to a desperate leap—it may clear the wall before it, or may dash itself dead against the stones. Such was the temper of Angelique this morning.

Hard thoughts and many respecting the Lady of Beaumanoir, fond almost savage regret at her meditated rejection of De Repentigny, glittering images of the Royal Intendant and of the splendors of Versailles, passed in rapid succession through her brain, forming a phantasmagoria in which she colored everything according to her own fancy. The words of her maid roused her in an instant.

"Admit the Intendant and show him into the garden, Lizette. Now!" said she, "I shall end my doubts about that lady! I will test the Intendant's sincerity—cold, calculating woman-slayer that he is! It shames me to contrast his half-heartedness with the perfect adoration of my handsome Le Gardeur de Repentigny!"

The Intendant entered the garden. Angelique, with that complete self-control which distinguishes a woman of half a heart or no heart at all, changed her whole demeanor in a moment from gravity to gaiety. Her eyes flashed out pleasure, and her dimples went and came, as she welcomed the Intendant to her arbor.

"A friend is never so welcome as when he comes of his own accord!" said she, presenting her hand to the Intendant, who took it with embarrassment. She made room for him on the seat beside her, dashing her skirts aside somewhat ostentatiously.

Bigot looked at her admiringly. He thought he had never seen, in painting, statuary, or living form, a more beautiful and fascinating woman.

Angelique accepted his admiration as her due, feeling no thanks, but looking many.

"The Chevalier Bigot does not lose his politeness, however long he absents himself!" said she, with a glance like a Parthian arrow well aimed to strike home.

"I have been hunting at Beaumanoir," replied he extenuatingly; "that must explain, not excuse, my apparent neglect." Bigot felt that he had really been a loser by his absence.

"Hunting! indeed!" Angelique affected a touch of surprise, as if she had not known every tittle of gossip about the gay party and all their doings at the Chateau. "They say game is growing scarce near the city, Chevalier," continued she, nonchalantly, "and that a hunting party at Beaumanoir is but a pretty metonymy for a party of pleasure; is that true?"

"Quite true, mademoiselle," replied he, laughing. "The two things are perfectly compatible—like a brace of lovers, all the better for being made one."

"Very gallantly said!" retorted she, with a ripple of dangerous laughter. "I will carry the comparison no further. Still, I wager, Chevalier, that the game is not worth the hunt."

"The play is always worth the candle, in my fancy," said he, with a glance of meaning; "but there is really good game yet in Beaumanoir, as you will confess, Mademoiselle, if you will honor our party some day with your presence."

"Come now, Chevalier," replied she, fixing him mischievously with her eyes. "tell me, what game do you find in the forest of Beaumanoir?"



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

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Two Irishmen occupied the same bed. In the morning one of them inquired of the other: "Mike, did you hear thunder last night?" "No, Pat, did it thunder?" "Yes, it thundered as if hivin' and airth would come together." "Why then, didn't ye wake me, I can't slape wjhn it thunders."

**WHEN THE TANK WENT DRY.** "Well, that's another horse on me," said the automobilist as his machine stopped dead in the road nine miles from anywhere.

Thereupon he began to look around for a farmer.

## Quaker Oats Griddle Cakes

Try them today!

The family that hasn't eaten Quaker Oats griddle cakes has a delightful surprise coming to it. Besides the delicious flavor, there is the pleasure of knowing you can eat all you want, and the more you eat the better for you. The best of all foods for anyone wanting more strength and vigor.

Hundreds of thousands of packages of Quaker Oats are consumed in Germany annually and almost all of it is eaten in the form of Quaker Oats griddle cakes. In the cereal restaurant of the Quaker Oats Company, located in one of the large cities, these griddle cakes are very popular.

Here's the best recipe for making them:

2 cups Quaker Oats (uncooked); 1½ cup flour; 1 teaspoonful salt; 1 teaspoonful soda—dissolve in two tablespoonfuls hot water; 1 teaspoonful baking powder (mix in flour); 2½ cups sour milk or buttermilk; 2 eggs beaten lightly; 1 tablespoonful sugar; 1 or 2 tablespoonfuls melted butter (according to richness of milk).

**Process:** Soak Quaker Oats over night in milk. In the morning mix and sift flour, soda, sugar and salt—add this to Quaker Oats mixture and quantity of melted butter; add eggs beaten lightly—beat thoroughly and cook as griddle cakes—they make your mouth water for more.

"Oh! rabbits, hares, and deer, with now and then a rough bear to try the mettle of our chasseurs."

"What! no foxes to cheat foolish crows? no wolves to devour pretty Red Riding Hoods straying in the forest? Come, Chevalier, there is better game than all that," said she.

"Oh, yes!"—he half surmised she was rallying him now—"plenty, but we don't wind horns after them."

"They say," continued she, "there is much fairer game than bird or beast in the forest of Beaumanoir, Chevalier." She went on recklessly, "Stray lambs are picked up by Intendants sometimes, and carried tenderly to the Chateau! The Intendant comprehends a gentleman's devoirs of our sex, I am sure."

Bigot understood her now, and gave an angry start. Angelique did not shrink from the temper she had evoked.

"Heavens! how you look, Chevalier!" said she, in a tone of half banter. "One would think I had accused you of murder, instead of saving a fair lady's life in the forest! although woman-killing is no murder, I believe, by the laws of galantry, as read by gentlemen—of fashion."

Bigot rose up with a hasty gesture of impatience and sat down again. After all, he thought, what could this girl know about Caroline de St. Gaslin? He answered her with an appearance of frankness, deeming that to be the best policy.

"Yes, Mademoiselle, I one day found a poor suffering woman in the forest. I took her to the Chateau, where she now is. Many ladies beside her have been to Beaumanoir. Many more will yet come and go, until I end my bachelorhood and place one there in perpetuity as 'mistress of my heart and home,' as the song says."

Angelique could coquette in half-meantings with any lady of honor at Court. "Well, Chevalier, it will be your fault not to find one fit to place there. They walk every street of the city. But they say this lost and found lady is a stranger?"

"To me she is—not to you, perhaps, Mademoiselle!"

The fine ear of Angelique detected the strain of hypocrisy in his speech. It touched a sensitive nerve. She spoke boldly now.

"Some say she is your wife, Chevalier Bigot!" Angelique gave vent to a feeling long pent-up. She who trifled with men's hearts every day was indignant at the least symptom of repayment in kind. "They say she is your wife, or, if not your wife, she ought to be, Chevalier—and will be, perhaps, one of these fine days, when you have wearied of the distressed damsels of the city."

It had been better for Bigot, better for Angelique, that these two could have frankly understood each other. Bigot, in his sudden admiration of the beauty of this girl, forgot that his object in coming to see her had really been to promote a marriage, in the interests of the Grand Company, between her and Le Gardeur. Her wiferies had been too potent for the man of pleasure. He was himself caught in the net he spread for another. The adroit bird-catching of Angelique was too much for him in the beginning: Bigot's tact and consummate heartlessness with women, might be too much for her in the end. At the present moment he was fairly dazzled with her beauty, spirit and seductiveness.

(To be continued.)

## To the Literary Society.

In line 5, Stanza XXVIII, of Rabbi Ben Ezra, as it appeared in our issue of May 6, appears a misprint. "Vent" should read "bent." Kindly note this when answering.

Mistress—Bridget, it always seems to me that the crankiest mistresses get the best cooks. Cook—Ah, go on wid yer blarney!—Town Topics.

## The Hired Man on Contentment.

Tired o' trudgin' the furrer,  
Tired o' pitchin' hay,  
Tired o' routin' at four o'clock,  
F'r a fourteen-hour day;  
Tired o' chores an' the groc'ry stores,  
An' a round in a ten-quart pan,  
Tired o' livin' a whole life through as  
a Kansas hired man.

So I kind o' thought I'd shift my style  
O' life to the boundless sea awhile—  
F'r I'd read 'twas grand, an' so, one day,  
I shipped on the liner, "Tishy May."

Learnt to pull the halliards,  
Learnt to h'ist the sail;  
Liked the life o' the sailor-man  
Ontil there came a gale,  
Bread to eat like baked concrete, lol-  
loped in Porty Reek—  
I felt like a stun-bo't lo'ded with rocks—  
an' the gale it blowed a week!  
An' then the sloshin' wet the lime,  
An' we was in f'r a hot-foot time,  
F'r, when we crossed the deck, 'twas  
—who!—  
Hippity-hop, like a kangaroo.

All o' the lime a slackin',  
Innards a streamin' wreck;  
Baked our dough-boys every day  
By settin' 'em on the deck;  
Took the bo't an' went afo't, an' a line f'r  
Liverpool  
Picked us up an' set us to work down in  
her stokers' school.  
Oh, the stowhole's hot when you're  
pitchin' hay,  
An' the fields are hot on a July day;  
But to bake your heart and frizzle your  
soul,  
You've got to git down in the stokin'  
hole!

Feedin' her chunks an' dustin's,  
Feeding her coal all day;  
Hardly time f'r a breath of air,  
Never a time f'r play!  
Stiddy chaw in her guffin maw, growl  
for more in her stack,  
An' that was the kind o' life I led to  
Liverpool dock an' back.  
Tie-up o' cattle is fur from fun  
Till fodder's down an' the chores is  
done.  
But a reel stout job ye'll never know  
Till ye feed in the stokehole down be-  
low.

Back to the farms o' Kansas,  
Back to the soil f'r me!  
Gimme some land on every hand,  
An' never a sniff o' sea!  
The most o' men, now an' again, will  
hanker f'r suthin' new,  
Wishing the work o' some other chap,  
tired o' what they dew;  
But I tell ye, friends, the trouble to-  
day,  
Is 'cause so many is took that way,  
If ye're built for land, then hark to  
me—  
Don't git foolish an' go to sea.  
—Holman F. Day, in Success.

## Love's Follies.

When lulled in passion's dream my senses  
slept,  
How did I act?—e'en as a wayward  
child;  
I smiled with pleasure when I should  
have wept,  
And wept with sorrow when I should  
have smiled.

When Gracia, beautiful but faithless fair,  
Who long in passion's bonds my heart  
had kept,  
First with false blushes pitied my de-  
spair,  
I smiled with pleasure—should I not  
have wept?

And when, to gratify some wealthier  
wight,  
She left to grief the heart she had be-  
guiled,  
The heart grew sick, and saddening at  
the sight,  
I wept with sorrow—should I not have  
smiled?  
—W. T. Moncrieff.

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**MAMMOTH SOUTHERN SWEET.** If you are not particular about the cobs, but like plenty of fodder, this is the variety for you. The stocks are very large and foliage heavy. Bush, \$1.25; 5 bush, lots, \$1.10.

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—ANNIE L. KINNEY, Calgary, Alta.



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Gratefully, (MRS.) EMMA L. JOHNSON, Boston, Mass.

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**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.

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## The Misfortune of Wrong Thinking.

Wrong thinking is indicative of weakness; it is, indeed, a species of insanity, for a wrong thinker is continually tearing down and wrecking his own mental and physical structure. The right thinker is the only sane thinker, and he is the happiest as well as the most successful man. He knows better than to keep constantly tripping himself up, with adverse thought which produces destructive conditions.

We all know the disastrous effects of wrong thinking. We know by experience how it cripples us mentally and physically. Physicians are well aware that anger poisons the blood, and that fear, anxiety, fretting, and all other inharmonious thoughts seriously interfere with the normal action of all the bodily functions. They are also alive to the fact that anxiety or apprehension of impending disaster, if of long duration, is liable to bring on paralysis. It is an established fact that a mother is not only seriously affected by her own thought, but that it affects her infant to such an extent that the same symptoms and conditions from which the mother suffers are reproduced in the body of the infant. Selfishness, jealousy, and envy long indulged in tend to produce serious liver troubles and certain forms of dyspepsia. Lack of self-control and habitual indulgence in violent passions shatter the nervous system, lessen the will power, and induce grave disorders. Worry is one of the greatest enemies of the human race; it carves its deep furrows wherever it goes; it carries gloom and unhappiness with it; it delays or prevents the processes of digestion and assimilation until the starved brain and nerve cells utter their protest in various kinds of disease, sometimes even in insanity.

Wrong thinking, whatever its nature, leaves indelible scars on mind and body alike. It affects character and material prospects equally. Every time you grumble or find fault, every time you lose your temper, every time you do a mean, contemptible thing, you suffer a loss which cannot be repaired. You lose a certain amount of power, of self-respect, and of an uplifting and upbuilding character force. You are conscious of your loss, too, which tends to weaken you still further.

A business man will find that, every time he gets out of sorts, flies into a rage, or "goes all to pieces" when things go wrong, he is not only seriously injuring his health, but is also crippling his business. He is making himself repellent, he is driving away success conditions.

A man who wants to do his best must keep himself in good mental trim. If he would achieve the highest success he must be a correct thinker. He cannot think discord and bring harmonious conditions into his business. His wrong thought will honeycomb and undermine his prospects in life—Orison Swett Marden, in Success.

## Westbury's Wit.

A writer in "Blackwood" recalls some good stories of the dry, and often bitter, wit of Lord Westbury, when, as Sir Richard Bethell, when, as Lord Westbury, he sat on the woolsack.

A timid juror once congratulated him on a speech, and said, "I think you have made a strong impression on the Court." "I think so, too," was the answer, "do nothing to disturb it."

A fellow silk, who had a loud voice, finished his argument and sat down. Bethell arose, "Now that the noise in Court has subsided, I will tell your honor in two sentences the gist of the case."

The judges were not spared. Lord Justice Knight Bruce, for example, was apt to be paraded. "Your lordship," said Bethell, "will have my client's case first, and if your lordship thinks it right your lordship can express surprise afterwards."

Some returned to the judge in Court: "Take a note of that, my lordship says he will turn it over to me that he is pleased to call his hand."

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WHAT A CUSTOMER SAYS:  
Dear Sir,  
Breeches to hand, fit all that can be desired; they certainly are better than a pair I paid 21/- for a few months ago. Please keep measures.—C.H.  
This gentleman measured himself almost according to our easy measure instructions MADE TO YOUR MEASURES. Testimonials from all parts of the World.

**BEDFORD RIDING BREECHES CO.**  
51, KINGLY STREET, REGENT STREET, LONDON, ENGLAND.  
Also in better qualities at 13s. 11d. & 15s. 11d.

We guarantee Perfect Fit, CORRECT STYLE, Absolute Satisfaction.

## Burd Ailie.

Burd Ailie sat down by the wimplin' burn,  
Wi' the red, red rose in her hair;  
An' bricht was the glance o' her bonnie black e'e.  
As her heart throbb'd fast an' sair,  
An' aye as she look'd on ilk clear wee wave,  
She murmur'd her true luvie's name,  
An' sigh'd when she thocht on the distant sea,  
An' the ship sae far frae hame!

The robin flew hie ower the gowden broom,  
An' he warld' fu' cheerlie,  
"Oh, tell me—oh, tell me, thou bonnie wee bird,  
Will I ever my true luvie see?"  
Then saftly an' sweetly the robin sang—  
"Fair Ailie! I'm laith to tell:  
For the ship's i' the howe o' a roarin' wave,  
An' thy luvie 's i' the merlin's cell!"

"Oh, tell me—Oh, tell me, thou bonnie wee bird,  
Did he mind on the nicht langsyne,  
When we plichted our troth by the trustin' tree?  
Was his heart aye true to mine?"  
"Oh, fond an' true," the sweet robin sang,  
"But the merlin noo maun wed;  
For the sea-weed's twind' in his yellow hair,  
An' the coral's his bridal bed!"

Burd Ailie laid low by the wimplin' burn,  
Wi' the red, red rose in her hair;  
But game was the glance o' her bonnie black e'e.  
An' the robin sang nae mair,  
For an angel cam' down, at the fa' o' the nicht,  
As she murmur'd her true luvie's name,  
An' took her awa' frae a broken heart,  
An' the ship that wad ne'er come hame!"  
—Jas. Smith.

The patient architect had just succeeded in getting Mrs. Drippingold to decide between the charms of Renaissance, Classic and Queen Anne for the plans of her magnificent new country house.

"The only details I ain't goin' to leave to your discretion," said the wealthy lady, "is the matter of towers. I want plenty of towers that folks can see for a long way off when they're ridin' by."

"But what kind of towers do you want?" inquired the unfortunate architect. "Norman, Gothic—"

Mrs. Drippingold closed the English novel of high life on which her soul had been feeding.

"Why, ancestral towers, of course."

A Scotchman visiting London for the first time was horrified at the number of gratuities he was expected to give. At the hotel he found he was called upon to tip the waiter and the boots and the chambermaid and the commissionaire and the office clerk and the lift boy. This was bad enough, but when he went to wash his hands and he read the instruction: "Tip the basin," he took the night express home.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.  
 2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.  
 3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.  
 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

COW HAS LUMPS ON KNEES.

I have a cow that has a lump on each of her knees. These lumps are hard and sore, and seem to be growing larger. I have seen cows with very large lumps on their knees. Are these liable to grow very large? What is the cause of these lumps? Will they injure the cow in any way? What is the cure for them, if any?  
 E. M.

Ans.—These are generally caused by hard floors. If they do not cause lameness it is as well to leave them alone. The treatment most likely to reduce the enlargement is bathing long and often with hot water, and applying camphorated liniment, which may be had at any drug store. When the soreness is allayed, rub well once a day with the following liniment: Four drams each of resublimed iodine crystals and iodide of potassium, and 1 dram each of glycerine and alcohol.

ALDERNEY CATTLE—WEIGHT OF JERSEYS.

1. What is the address of Andrew Carnegie?  
 2. Is there such a breed of cattle as Alderney and Sark?  
 3. What is the average weight for Jersey cattle?  
 S. M.

Ans.—1. Skibo Castle, Sutherland, North Britain, is his standard address.  
 2. The Alderney Section of the Channel Islands cattle is now absorbed by the Guernsey breed, and the Alderneys have ceased to be recognized as a distinct breed. When first brought to America Jerseys and Guerneys were commonly called Alderneys. We find no record of a breed called Sark.  
 3. About 900 pounds for matured animals.

WORMS IN TURKEY.

I have a young turkey cock about one year old who passes large quantities of worms in droppings. They are about 4 inch long, are the color of fishworms, and are flat at one end. The bird's head is a good color, and he seems to be in fair health.  
 J. A. McH.

Ans.—Various kinds of worms infest the intestines of poultry, and the symptoms of the several kinds do not seem to be very definitely differentiated in the references at hand. We quote the following species from Robinson's "Common-sense Poultry Doctor." The doses given are intended to apply to chickens. A turkey cock would require probably three times the dose. It is well to be on the safe side, though, and to repeat the administration in a week. Robinson cites authorities as follows:  
 "Hill says: 'In my opinion santonine, in one-grain dose, combined with seven grains of arica nut, is the most useful and effectual poultry vermifuge.'  
 "Other remedies prescribed by the same authority are:  
 "Ten grains freshly-ground arica nut, given fasting, in a teaspoonful of warm milk.  
 "Three minims (a minim may be roughly measured as a drop) of male fern in a teaspoonful of salad oil."  
 "Food should be withheld for three hours after the administration of worm medicine, and then a warm soft meal should be allowed, and this diet continued for a couple of days before returning to ordinary food. It is most essential that all parasites expelled be thoroughly destroyed.—Hill.

"Give from ten to fifteen drops of oil of santonine in a teaspoonful of sweetened milk and morning for three days."  
 "General treatment may be given a number of fowls by mixing garlic or powder of pomegranate root bark with the feed. The proportion of garlic may be as large as the birds will eat. Of

pomegranate root bark a teaspoonful is mixed with the food for fifty fowls. Whenever practicable a stock which has been badly infested with worms should be moved after treatment to new ground. If kept on the same ground the premises should be disinfected as thoroughly as possible, and whenever practicable the floors of houses and yards should be renewed. Stock that has been greatly debilitated by worms does not make the best of breeding stock, and when stock seems peculiarly susceptible to worms, the owner will find it good policy to clean it out and make a fresh start. Indeed, that is a good plan to pursue with stock showing special tendency to any disease, and with stock which has been through any serious epidemic. Close selection for vigor in the breeding stock should be sought after such experience with more than usual care, and even when it does not seem necessary to dispose at once of all the stock, it may be wise to gradually replace it with stock free from its weakness."

Dot Olt Vooden Shuffel.

You pets me I vish fer der scenes of my childhood.

Ven colt, chilly vinter was greeted mit joy;

Der liddle white snow-flakes dot now make me vild vould

Pe hailt mit great bleasure ven I was a poy.

Put now in der vinter I haf to vork double;

Der snow dot I luffed prings me nodding put dread;

Venefer I see it I look oud fer drouble

Und gets der olt shuffel dot stands in der shed.

Dot pig vooden shuffel, der iron-pound shuffel,

Dot long-handled shuffel dot stands in der shed.

Ven home in der eef'ning I comes in a hurry,

Und sits py der fireside all cozy and varm.

You pets me ride dere dot we gets a snow-flurry,

Und oud mit der shuffel I goes in der storm;

Berhaps in der nighttime der snow gatters thickly,

Und makes me feel madt ven I get oud of ped.

Den oud in der dampness I haf to go quickly

To get der pig shuffel dot stands in der shed.

Dot olt vooden shuffel, dot iron-pound shuffel,

Dot long-handled shuffel dot stands in der shed.

Von time in der vinter, ven I vas too pizzy

To shuffel der snow from der sidevalk away.

Dose greedy bolice gafe a leder to Lizzie,

Und den I comes up to der court house next day.

I miss me dot money, so dot vas a varning

Dot I vill remember aund keep in my head,

Und dot's why I haf to get up in der morning

To get der pig shuffel dot stands in der shed.

Dot olt vooden shuffel, dot iron-pound shuffel,

Dot long-handled shuffel dot stands in der shed.  
 —J. V. O'Neill

Gentlemen, shouted the drummer in the hotel lobby, "There are more men pushing the products of my factory than any other house in the world." "And what are they selling?" ventured the timid listener. "Automobiles, sir, automobiles."

A Scotch farmer determined, in spite of the bad times, to pay his rent, if it were his last shilling; and saying to the landlord who received it, "It is my last shilling," he threw down a roll of notes. The landlord counted them, and said: "There is fifty pounds too much." "Odds, man," said the farmer, "I put my hand in the wrong pouch."



Harry Lauder  
 Makes Records for

The EDISON PHONOGRAPH

No vaudeville entertainer has made a bigger hit in this country in recent years than this clever Scotch comedian. On his last tour he received five thousand dollars a week and delighted crowded houses night after night.

Harry Lauder has made twelve of his best selections into Records for the Edison Phonograph.

You can hear them at your dealer's any time, and you can hear them in your own home if you wish. The best songs of the best entertainers everywhere, as well as the world's best music, played or sung by trained musicians, are all at the command of one who owns an Edison Phonograph and Edison Records.



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 now well represented. Dealers having established stores should write at once to

National Phonograph Company, 112 Lakeside Avenue, Orange, N. J., U.S.A.

NEW IMPORTATION OF Clydesdale Mares

BY AUCTION.

Messrs. Dalgety Bros. will sell at the FRASER HOUSE, LONDON, ONT., about the THIRD WEEK IN MAY, a number of newly imported Clydesdale mares and fillies. Several fit for show purposes.

EXACT DATE WILL BE ANNOUNCED LATER.

DALGETY BROS., GLENCOE, ONT.

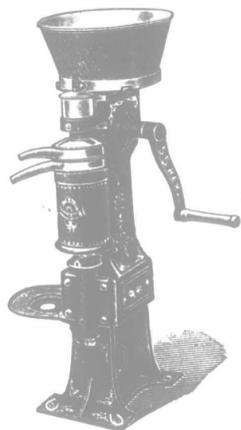
Handy Stanchions!

THE ONLY WAY WE CAN DO BUSINESS WITH YOU, easy in Groceries or Harness

Best, neatest and cheapest cow-fasteners in existence. Secures or releases full row, or part of row, instantly; one or more separately; or retains any when releasing. Device simple and perfect. Easily operated. Easily constructed. Cows always clean and comfortable. Necessary hardware fifty cents. Write for particulars.  
 ROYAL GRAFTON, MT. CHARLES, ONTARIO.

is to show by a trial how you can buy through us, not only subject to your full approval of the goods, but at prices to save you a surprising amount of profit on what they now cost you. No co-operative or premium scheme about this. For particulars write The Clement Brown Trading Co., Toronto.

HAVE YOU EVER REALIZED THE RESULTS OF "ADVOCATE" ADS.?



## DO YOU KNOW THAT THE MAGNET Cream Separator

with its one-piece skimmer, has made separation of butter-fat from milk a complete success. Centrifugal power was first applied to the separating of fat from milk in a hollow bowl. Practical men discovered that the hollow bowl required something more to make the separation and operation satisfactory to the owner of the dairy. Then makers rushed to the other extreme by jumbling together a number of pieces which they called skimmers. These parts were difficult to fit together, and almost impossible to keep clean.

The MAGNET has overcome all the objectionable features of the hollow bowl and complicated skimmers in the following way:

1st. By making the steel bowl much longer than other separator bowls, less in diameter, and with a support at top and bottom (MAGNET patent).

2nd. They applied the spur or square gear drive to the bowl, because that gear is heavy and strong, thus giving the steadiness of motion required to skim clean and produce smooth cream.

3rd. With the long bowl and square gear drive set in a solid frame, it was found possible to construct a skimmer in one piece, which would separate all the butter-fat from the milk, but it did more, it separated disease germs and foreign matter from both, thus giving an absolutely pure product.

4th. Eleven years' every-day use has shown that the MAGNET does not wear out, and that it separates as perfectly to-day as when the machines were first sold.

5th. The one-piece skimmer is easy to clean, requiring one-quarter of the time that is taken to clean other cream separators.

6th. The MAGNET BRAKE circles the bowl, and stops it in eight seconds without injury to any part of the machine. (MAGNET patent.)

Moosomin, Sask., H. A. Shaw, Dairy Instructor, says: "I have tested the MAGNET severely, and must say it is the best cream separator with which I have come in contact."

The MAGNET skims perfectly sitting on the ground or any floor.

**The Petrie Mfg. Co.,** Head Office and Factory, **Hamilton, Ont., Can.**  
BRANCHES: Winnipeg, Man.; St. John, N.B.; Regina, Sask.; Vancouver, B.C.; Calgary, Alta.

## 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, 75¢; forty, \$2. Geo. Easton, Jr., Whitney.

**B** BARRED Rock eggs, safely packed in Morgan baskets. One dollar per fifteen. C. H. Chalmers, Smith's Falls, Ont.

**B** BLACK MINORCA—Pure-bred eggs for hatching from heavy-laying strain, one dollar per fifteen. Edward Hacker, Beachville, Ont.

**B** BUFF ORPINGTON EGGS—\$1 per 15; 9 chicks guaranteed. Splendid selected stock for eggs and market purposes. Free illustrated catalogue. Hugh A. Scott, Caledonia, Ont.

**B** BARRED ROCKS—One grand pen. Well mated. Heavy laying strain. Eggs for hatching, \$2 for fifteen. Burton E. Post, Colpo's Bay, North Bruce.

**B** 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.

**B** UY 95% FERTILE EGGS—That will produce winter layers. Ancona eggs, \$1.50 per fifteen; Single-comb White Leghorn eggs, \$1 per fifteen; \$4.50 for one hundred. Free circulars for stamp. Edward C. Apps, Box 224, Bramford, Ont.

**B** 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.

**C** LARK'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 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, Cainville, Ont.

**E** GGS FOR HATCHING Barred, Buff and White Rocks, Rhode Island Reds and Black Minorcas, \$1 per 15. Joseph Foster, Brampton, Ont.

**E** GGS—Buff Wyandottes, from good winter layers, \$1.50 per setting; \$5 per hundred. Chas. Hardy, Mandamin, Ontario.

**E** GGS 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.

**F** OR SALE—Pure-bred S.-C. White Leghorn eggs. Settings, \$1 and \$1.25. R. Hughes, Collingwood, Ont.

**F** OR SALE—Four hens and cock, \$8. of the following breeds: Barred and White Rocks, White and Silver-laced Wyandottes, Brown and White Leghorns, Black Javas, Silver-grey Dorkings, Single- and Rose-combed R. I. Reds, Silver and Black Hamburgs, Buff and Black Orpingtons. F. W. Krouse, Guelph, Ont.

**F** ROM PRIZEWINNERS—Mammoth Bronze turkey eggs for hatching, from females weighing 18 to 22 lbs., mated to a 36-lb. tom, the best I ever owned. Eggs, \$5 per 15. Also Barred Rocks and S. C. Black Minorcas, that are prizewinners. Eggs, \$2 per 15. Chas. Gould, Box 242, Glencoe, Ontario.

**I** NDIAN RUNNER DUCKS—The sensational laying and paying kind. Eggs, \$1.25 for 12. Easy to raise. H. E. Moffat, Woodstock, Ontario.

**K** LAGER'S Rhode Island Reds—both combs. 8 breeding pens. Enclose 5c. for catalogue. Klager's Poultry Yards, Hespeler, Ont.

**P** EAHENS for sale, \$1.75 each. Write R. C. Kearns, Bolton, Ontario.

**R** HODE 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** OSE-COMB Brown and Single White Leghorns, bred from some of the best laying strains in America. Eggs, \$1.50 per 15, or \$2.10 per 30; also Rouen ducks at \$1 per 6 or \$2 per 13. J. N. Rutherford, Caledonia, East, Ontario.

**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, Colonsville, Ontario.

**R** OSE Comb Rhode Island Reds, the great utility fowl. Eggs, \$1 & \$1.50 per 15. C. Cuthbert, Alton, Ontario.

**S** -C. White Leghorns, Silver Spangled Hamburgs; best pen Hamburgs, headed by second Toronto cock, first Hamilton, third Brantford. S. C. White Leghorns, headed by cock that has won 10 prizes, including 7 firsts. \$2 per 15; \$3.50 per 30. Furneaux Bros., 65 Albert Street, St. Catharines, Ontario.

**S** -INGLE-COMB BROWN LEGHORNS—Prize winners. Eggs reduced, 75c. per fifteen. H. W. Parry, Princeton, Ont.

**S** -INGLE-COMB Brown Leghorns, free range, prompt shipment; twenty eggs, one dollar; fifty eggs, two dollars; one hundred eggs, three dollars. Isaac Reed, Ardrea, Ontario.

**T** HOROUGHBRED Black Minorcas, Brown Leghorns and Barred Plymouth Rocks. Birds heading our pens have won 1st and special prizes at Essex County Fair and other large fairs. Send for circular and prices on eggs. A good hatch guaranteed, or eggs replaced. Apply to W. C. Day, Highgate, Ontario.

**W** HITE Wyandotte eggs from choice matings, \$1.50 per 30, in Morgan crates. W. A. Bryant, Cairnholm, Ont.

**W** HITE Wyandottes (Martin & Wright strain); eggs \$1 per 15. John Morgan, Wales, Ont.

### 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.

**BEST RESULTS OBTAINED FROM  
"ADVOCATE" ADVERTISEMENTS.**

### GOSSIP.

Yearling lambs, unshorn, sold at Chicago Stock-yards last week as high as \$9.35 per cwt.; shorn at \$8.30, and spring lambs at \$12.50. What's the matter with the sheep industry now?

### SALE DATES CLAIMED.

May 25th.—G. H. Manhard and G. A. Gilroy, at Brockville, Ont., Holsteins.  
May 27th.—A. C. Hallman, Breslau, Ont., Holsteins and Tamworths.  
June 2nd.—S. J. Pearson, Son & Co., Meadowvale, Ont.; Shorthorns.  
July 1st.—John Davidson, Ashburn, Ont.; Shorthorns.

### ADMISSION OF CANADIAN SHEEP.

Secretary of Agriculture Wilson has ordered that from May 20th to October 10th, 1909, Canadian sheep may be imported into the United States for exhibition purposes at the Alaska-Yukon-Pacific Exposition, to be held at Seattle, Wash., from June 1 to October 15, without being subject to the thirty days quarantine, providing they pass a satisfactory inspection at the port of entry and are accompanied by an affidavit of the owner, or bear a certificate issued by the Canadian official veterinarian, and provided, further, that sheep which are not sold shall be returned immediately to Canada at the close of the Exposition. All Canadian sheep intended for the Exposition must be shipped direct to the Exposition grounds, and must not be unloaded at any public stock-yards.

### HALLMAN'S HOLSTEIN SALE.

On May 27th, as advertised, A. C. Hallman, of Breslau, Ont., a station on the G.T.R., 17 miles west of Guelph, will sell at auction 36 head of high-class registered Holstein cattle and 35 choice Tamworth swine of the best British blood. The Holsteins, as indicated in the advertisement, are descendants of official-record breeding, and a number are tested cows, close in blood to the most noted producing cows of the breed. Young bulls, bred in the line of high producers, are also included in the sale. It is rarely that dairy stock of such an excellent class are offered at public sale. The Spring Brook herd has a first-class reputation for prizewinning at principal shows, as well as for high testing, and this sale is a rare chance for dairymen to secure good foundation stock at their own price. The Tamworth herd is also of high-class quality in breeding and type, and the present prospect for high prices for hogs should make this sale a drawing card. Parties interested should write for the catalogue, which gives full particulars. The sale will be conducted by the noted salesman, Col. R. V. Kelly, of Syracuse, N.Y.

### SIR MARCUS SOLD.

The noted imported Clydesdale stallion, Sir Marcus, champion of the Canadian National Exhibition, Toronto, and the International at Chicago, was last week purchased by J. H. & E. Patrick, of Ilderton, Ont., from the Cairnbrogie Stud of Graham Bros., Claremont, Ont., and was delivered in fine form at Ilderton by E. Gleason, of the Cairnbrogie establishment. Sir Marcus, as indicated in the advertisement in this issue, will stand for service of a limited number of approved mares at Fairfield Stock Farm, Ilderton, on the London and Bruce Branch of the G.T.R. This grand horse was purchased by Messrs. Patrick to breed to a choice selection of imported mares sold to a Utah firm. Mr. T. W. Charlton, acknowledged to be one of the best judges in Canada, who assisted in the selection of the horse, we are assured, declares him to be the most perfect horse of the breed he has seen in type, conformation and quality, an opinion confirmed by the horse's prizewinning record, while his breeding is in the purple, being a son of Sir Simon, by Sir Everard, the sire of the renowned Baron's Pride. Sir Marcus is a beautiful bay, six years old this spring. Messrs. Patrick are to be commended for their enterprise in the purchase of so grand a horse, and the farmers of Western Ontario are to be congratulated on having the service of such a horse brought within their reach.

### THE BROCKVILLE HOLSTEIN SALE.

In connection with the auction sale to take place at Brockville, Ont., on May 25th, of 50 head of high-class Holstein cattle, from the noted herds of Messrs. G. A. Gilroy, Glen Buell, and Gordon H. Manhard, Manhard, Ont., the latter writes:

A few words in relation to the richly-bred butter bull, Brightest Canary No. 5786. In going back a few generations, I find the grand old cow, Canary (imp.), which gave 90 lbs. milk in one day, 22,012 lbs. in one year, and made a 24-lb. private record. She is the dam of three A. R. O. cows. Her best daughter, Canary Mercedes, made 25,161 lbs. in 7 days, and 102.5 lbs. in 30 days; average fat, 4.92. She is dam of five A. R. O. cows, that average over 4%; three with records over 20 lbs. Besides the five daughters, there are 13 granddaughters, 5 sisters and 3 daughters of a sister, 27 in all, that average 4.05% fat. There are also 14 granddaughters added to the above number, making 41 in all, and the average fat test for the 41 is 3.88%. The best daughter of Canary Mercedes is Canary Mercedes Brightest. She created a sensation when she made the remarkable record of 21 lbs. 3 ozs. at 2 years old in 7 days; average fat, 4.35, world's record. Later she made a record of 26.30 in 7 days, and 100.9 in 30 days. This cow is dam of Brightest Canary, the subject of this sketch. Thus he is a son of the best daughter of Canary Mercedes, and she is best daughter of the imported cow Canary.

Brightest Canary was sired by Paul De Kol Jr., sire of 21 A. R. O. daughters. He is the grandsire of Grace Fayne 2nd's Homestead, the world's record cow; 7 days' butter record, 35.55 lbs. His dam was Sadie Vale Concordia; milk in one day, 104.5 lbs.; butter in 7 days, 30.62 lbs.; butter in 30 days, 123.107 lbs., and gave 2,752.6 lbs. milk. She is dam of three A. R. O. cows. Grandsons of Brightest Canary is Paul De Kol, sire of 38 A. R. O. cows and 20 A. R. O. sons. He was a son of Pauline Paul, that famous old cow that gave 18,699 lbs. milk in one year, and in 7 days made 31 lbs. 1 1/2 ozs., thoroughly worked and salted (1 oz. to lb.) before working. He is also a grandson of De Kol 2nd (butter, 26.58 lbs.), the greatest cow the world has ever known through her sons and daughters. She is dam of 7 sons, which have sired 195 A. R. O. daughters and 121 A. R. O. sons. This sale offers an opportunity to secure cows and heifers in calf to this great bull. See advertisement, send for catalogue and attend the sale. Single-fare railway rates will be available, going on the 24th.

There were several passengers in the car. One believed himself to possess a fund of humor which he intended to expend on a priest who got in at one of the intermediate stations. Bestowing a patronizing look on the clergyman, he said: "Have you heard the news, Monsieur le cure?" "No, my friend, I have not," was the reply; "I have been out all day and have not had time to glance at the papers." Then said the traveller, "It is something dreadful; the devil is dead." "Indeed," replied the ecclesiastic without the smallest surprise or displeasure. Then seeming deeply touched, he added: "Monsieur, I have always taken the greatest interest in orphans. Will you accept these two sous?" The wit, we are told, retired as gracefully and as quickly as he was able.

A young woman bought at a nearby grocery a dozen eggs. On one among them there was scratched the name, with address, of a young farmer. He had also written on the egg a request that the person buying it write to him.

The young woman wrote a letter to the tiller of the soil and received an answer in which the farmer declared himself pleased at having heard from her, etc. He wound his letter up with: "I hope you did not eat the egg, as I wrote that on it a year ago."

A lady of experience observes that a good way to pick out a husband is to see how patiently he waits for dinner when it is behind time. Her husband remarks that a good way to pick out a wife is to see whether the woman has dinner ready in time.



### All Farm Buildings

should be roofed with REX—the all-round roof. It keeps the house warm in winter and cool in summer; it protects poultry from damp and extremes of temperatures; it guards stock and produce from wet; it defends buildings against the communication of fire by falling sparks and firebrands.

## REX ROOFING

is made of long-fibre wool felt treated by our special process. It contains no tar or paper. Heat will not soften it, nor cold crack it. It is laid as easily as a carpet. Everything but the hammer is in the roll.

#### SEND FOR FREE SAMPLES

We will send upon request samples to test, and our valuable roofing booklet. "Look for the boy" on every roll. See trade mark in upper corner.

**J. A. & W. BIRD & CO., 20 India St., Boston, Mass.**

Canadian Office: 29 Common Street, Montreal.



### QUESTIONS AND ANSWERS. Miscellaneous.

#### BREEDS OF GEESE.

To settle a dispute, will you please give a description of the three breeds of geese, Toulouse, Embden and African. Is there such a breed as gray Embden, or white African? SUBSCRIBER.

Ans.—Poultry Craft, in describing the breeds of geese, says: Toulouse geese attain the greatest size. In color they are gray, upper surfaces dark gray, shading to lighter gray on the breast, body and thighs, with white on the belly; bill and legs are reddish-orange. Embden geese are white, with bill and legs orange-yellow. African geese are gray in color, upper surfaces dark gray, under surfaces lighter; neck, light gray, with longitudinal dark stripe on back; bill black, with large knot at the base of the upper mandible; prominent dewlap under the throat on exhibition birds, inconspicuous or absent in many specimens; legs dark orange. Standard of Perfection says that feathers other than pure white disqualify Embden geese. We have not heard of gray Embdens, or white Africans. They are not recognized among the pure breeds.

#### CROP FOR MUCK LAND.

I have 10 acres of black muck, burned over three years ago, the fire burning about 10 inches off all over it; there is about two inches of black muck yet, with clay at the bottom. I cleaned it off last summer. It is very loose, with quite a lot of rotten wood mixed with the muck. It is fairly-well drained. I intend sowing oats and flax, with rape for after feed. Would you advise this mixture? If so, what proportions; or, if this is not a suitable crop, what would you recommend? Would millet do well on black muck? R. S.

Huron Co., Ont.  
Ans.—Reply to this question must necessarily partake of the nature of speculation. Probably the three most suitable crops would be rape for fall pasture, millet and corn. The proposed mixture of oats and flax, with rape sown in among the grain for fall pasture, might do all right, but we should anticipate trouble from the oats lodging, and this, together with a quite probable deficiency of phosphorus in the soil, may result in the heads not filling properly. If the flax and oats are sown, sow seven or eight pecks of an early-ripening variety of oats, together with four quarts of flaxseed per acre, and about two pounds of rape sown after the flax and oats have obtained a start. It is likely that barley and flax would give better results than oats and flax.

#### GOSSIP.

A meeting of the directors of the Canadian Hackney Horse Society was held at the Rossin House, Toronto, last week. In the absence of the President, W. C. Renfrew, on account of illness, Robt. Miller took the chair. J. W. Allison, of Morrisburg, who is also a director of the American Horse Society, gave a very glowing account of Hackney interests in the United States. Senator Reith, too, had an optimistic view of the future for this breed, and the general consensus of opinion was, that there was no reason why this country should not secure a portion of the trade from foreign countries. John W. Brant, Accountant National Live-stock Records, Ottawa, rendered very valuable assistance in getting the amended constitution finally passed. A vote of thanks to the American Hackney Horse Society, for their generosity in giving medals to shows and fairs in this country, was adopted. H. M. Robinson, Secretary.

Sandy and his lass had been sitting together about half an hour in silence. "Maggie," he said, at length, "wasn't I here on the Sawbath night?" "Aye, Sandy, I daur say you were." "An' wasn't I here on Monday night?" "Aye, so ye were." "An' I was here on Tuesday night, an' Wednesday night, an' Thursday night, an' Friday night?" "Aye, I'm thinkin' that's so." "An' this is Saturday night, an' I'm here again?" "Weel, what for, no? I'm sure ye're very welcome." Sandy (desperately)—"Maggie, woman! De'e no begin to smell a rat!"

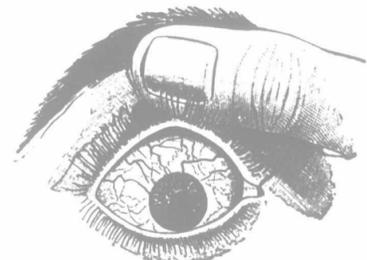
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TERMS OF SALE.—Cash; 10 months' credit if desired on approved security, with interest at 6 per cent. per annum.

Farm one mile north-east of Breslau station, G. T. R., main line between Sarma and Toronto; nine miles west of Guelph. Arrangements made for all trains to stop day of sale. Come and buy as cheap as you can.

Catalogue ready May 15th.

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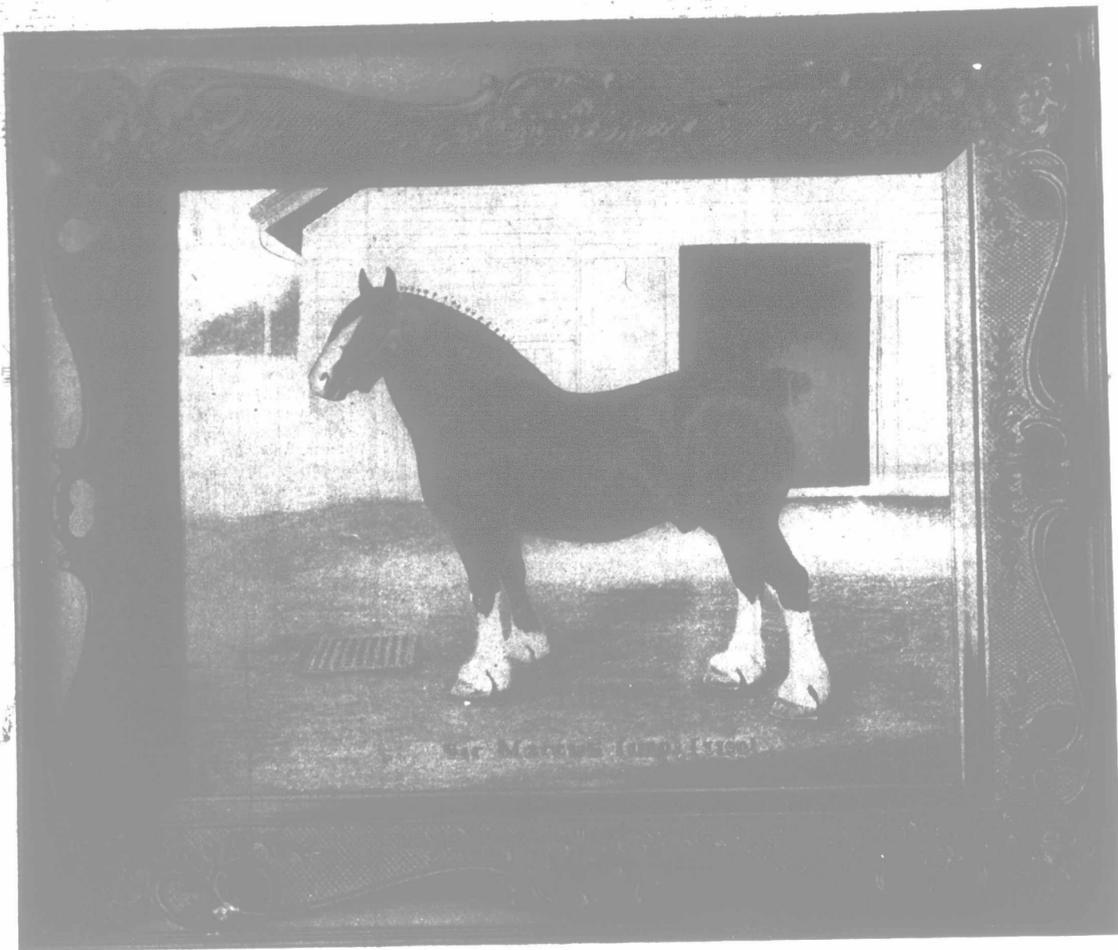
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**J. H. & E. W. PATRICK, PROPRIETORS, ILBERTON P. O. AND STATION.**

QUESTIONS AND ANSWERS.  
Veterinary.

WEAK KNEES.

Four-year-old horse, kept loose in box stall, and driven a little once or twice weekly, has weak knees. One is worse than the other. G. A. McC.

Ans.—Your horse, no doubt, is congenitally weak in his knees. He would no doubt do better if he had regular exercise. All that you can do is to keep him in the box stall, and give him his food on the floor. Remove mangers and feed boxes. Have a moveable box to feed grain and feed both grain and hay off the floor. Whistling, etc., does no good. V.

Miscellaneous.

CAPACITY OF SILO.

1. How many tons would a silo eight feet in diameter and eighteen feet high hold?

2. How many cows would it feed from 1st November to 1st May?

3. How many acres would it take to fill it? Corn here averages 100 bushels per acre.

1. Would  $\frac{1}{2}$ -inch round iron be sufficient for hoops, first hoop six inches from bottom, next two three feet apart, and remainder four feet apart? J. E. L., Welland Co., Ont.

Ans.—1. Such a silo would hold only about 16 tons, and owing to the large amount of walls and surface in proportion to volume contained, the chances are that the silage would not keep extra well, and that there would be quite a considerable percentage spoiled, or at least deteriorated. Moreover, it is so shallow that in order to feed cattle from it from November 1st to May 1st, such a thin layer would be taken off daily that the layer

beneath would almost spoil from day to day. We would recommend making it not less than 24 feet deep; better 26.

2. A round silo, 8 x 18 feet, should provide a fair daily allowance of silage for four cows for six months, if it could be made to keep with such slow feeding. Would advise feeding six or eight cows from it, not commencing till after Christmas.

3. An acre of good corn should fill it.

4. We think so, but would suggest spacing hoops somewhat as follows: First hoop, 16 inches from bottom; second, two feet above the first; third, three feet above second, increasing the distance gradually from that upwards.

LIGHTNING-RODS ERECTION.

1. I want to put up lightning-rods on my barn, and have already asked questions, and seen quite a lot in "The Farmer's Advocate" about rods. I have the wire to make it the way you said to, but, as I have a large cupola or ventilator at each end of my barn, would you advise one to circle the rod out around it and back to the peak, and lay the rod on a cork and staple it right to the peak of the roof and put each end of rod down about six feet in ground at ends of barn?

2. Would cork and staples do to fasten the rod down the ends of the barn?

3. Will the insurance companies allow me to put them up? J. W. F.

Ans.—1. Yes. Your question suggests the proper way to do it. Lightning-rods should not go up over a cupola and down again, but be passed around on the level. Avoid very sharp turns.

2. Certainly.

3. No insurance companies, so far as heard from, have any objection to lightning-rods, but on the other hand, favor their erection. Some companies, indeed, have discussed the question of giving specially favorable rates where buildings are properly rodded. T.

UNTHRIFTY SHEEP AND PIG.

I have wintered a number of sheep, but they have got very poor since lambing. I fed them beaver hay and bran, with turnips, the first part of winter; the latter part clover hay, ground oats and bran, and turnips. I have a ram which has been very poor all winter; he is a very small eater. I have tried every plan to fatten him, but have failed. What would you advise doing? I also have a boar pig which is a very small eater; in fact, I have to change his food every day to try and get him to eat. He also has what I think is rheumatism in the hind legs, when getting up seems very stiff, afterwards seems all right. His food consists of bran, shorts, peas, corn, and refuse from kitchen. What would you advise doing with him? J. L.

Ans.—The feeding stated for the latter period, if fairly liberal in quantity, should have given better results. Beaver hay, we should judge, is unsuitable for sheep feed, and they may have run down in condition while living on that fodder, to such an extent that the drain on the system of lambing and nursing has reduced them further. It may be that they have been afflicted with worms, but, if so, the droppings should show their presence. If they have many ticks on them, these would account in part for the failing condition of the flock. The fresh, young grass will probably help to restore them to better condition. They should, however, have some clover hay and oats and bran once or twice a day for a couple of weeks, after having access to grass. The hog should be allowed liberty to go out daily for exercise in a dry and sunny place and eat grass. The peas and corn, if fed liberally, would account for the stiffness of limbs. Substitute ground oats for these. A purgative of half a pint of raw linseed oil, given in feed, or as a drench, would probably be helpful.

Fire Chief Wallace, walking down street the other morning, met an old friend who lives on a farm a short distance out in the country.

"They got to talking about fires. 'George,' spoke up the man from the country, 'supposin' one o' them fire plugs was to get froze up one of these cold nights and you couldn't get any water. What'd you do then?'"

"Oh," says Wallace, "there's no danger of that. Every water plug in town is tested two days before a big fire, and if it's found frozen we put a man to work thawing it out."

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YOU WILL NEVER REGRET A YEAR'S SUBSCRIPTION TO THIS PAPER.

**GOSSIP.**

Too late for this issue, W. G. Pettit & Sons, Freeman, Ont., order a change in their advertisement of Shorthorns, in which they are offering five good young bulls at very reasonable prices, to make room for young calves. Also two very choice junior yearlings, in show condition, and some extra-well bred cows and heifers, bred, or with calves at foot, at prices that should interest intending purchasers. Their farms are quite near Burlington Junction, G. T. R., and they have long-distance telephone.

Volume 11, of the Holstein-Friesian Herdbook of Canada, has been received at this office, thanks to the courtesy of the secretary and editor, G. W. Clemons, St. George, Ont. This is a bulky volume of 692 pages, containing the pedigrees of 901 bulls, numbering from 5048 to 5949, and 1,332 cows, numbering from 7472 to 8804, a total of 2,233. Volume 7, of the Record of Merit, is also included, containing entries of bulls from 20 to 25, and of cows from 318 to 363. The rules for registration and for the Record of Merit are also included, together with a list of members of the Association.

Official records of 160 Holstein-Friesian cows were accepted by the American Holstein Association from April 15th to April 26th, 1909. These 160 animals, of which one-half were heifers with first and second calves, produced in seven consecutive days, 63,804.6 lbs. of milk, containing 2,227.282 lbs. of butter-fat; thus showing an average of 3.49 per cent. fat. The average production for each animal was 398.8 lbs. of milk, containing 13.921 lbs. of butter-fat; equivalent to 57 lbs. or over 27 quarts of milk per day, and 16½ lbs. of the best commercial butter per week. Second in the full-aged class in this list is the eight-year-old cow Calamity Jane 3rd 53056, age 8 years 6 months 21 days, days from calving 31; Milk, 674.7 lbs.; per cent. fat, 3.32; fat 22.369 lbs. Thirty-day record, days from calving 30; Milk, 2,735.6 lbs.; per cent. fat, 3.30; fat, 90.537 lbs. Sixty-day record, days from calving 18; Milk, 5,307.0 lbs.; per cent. fat, 3.30; fat, 175.524 lbs. Breeder, George Rice, Tillsonburg, Ont. Owner, W. A. Matteson, Utica, N. Y.

W. G. Pettit & Sons, Freeman, Ont., report the following recent sales of Shorthorns: To J. W. Thompson, Pelham Centre, Ont., the nine-months-old bull calf, Favorite, by Prime Favorite (imp.), and out of Cinderella 4th (imp.); to C. E. Robertson, Marshville, Ont., the bull calf Scotch Charm, by Scottish Pride (imp.), dam Rialto Primrose; to E. W. Garner, Walkerton, Ont., the yearling bull, Broadhooks Fame, by Broadhooks Golden Fame, and from a Morlina dam; to Wm. O. Allan, Kinnear's Mills, Que., the bull calf, Scotch Seal, by Scottish Pride (imp.), dam Fortuna 5th (imp.); to A. L. Ballard, Morefield, Ont., the yearling bull, Lord Ramsden, by Prime Favorite (imp.), and from a Miss Ramsden dam. A few days after getting him home he re-sold to a neighbor and made a second selection, securing the red-and-white yearling bull, Scottish Peer, by Scottish Pride (imp.), and from a Cruickshank Village Girl cow; to N. A. Lind, Rolfe, Iowa, the red yearling bull, Clipper Czar (imp.). We have two junior yearling bulls of our own breeding, which have been reserved for show purposes. They have both done extra well, and we might part with one of them. One is red, sired by the champion, Prime Favorite (imp.), dam that noted cow, Gloster Girl, which, after winning high honors in the leading U. S. shows, has developed into a grand breeder, being the dam of James Leask's best bull, Gloster's Choice, sire of numerous high-class steers, winning many first prizes, the grand championship in Chicago in 1907, and reserve for same honor in 1908. The other is a beautiful roan, by Scottish Pride (imp.), and from an imported cow that has always bred very fine type, but in this bull has excelled himself, he being a low-down, thick, sappy specimen. We have five bulls of serviceable type that will be priced right to clear them, one two years old, two eighteen months, and two just turned a year.

**QUESTIONS AND ANSWERS.**  
Veterinary.

**PREGNANT MARE SICK.**

Mare, in foal, has been sick for three weeks. She had strangles and, apparently, recovered. Shortly afterwards she became uneasy. My veterinarian treated her for indigestion, but she did not recover. She has occasional periods of uneasiness, stretches, groans, etc., and is failing in flesh. She eats little hay, and about three pints of oats, three or four times daily. My veterinarian says he thinks the foal is turned wrong.

J. R. R.

Ans.—It is not possible to say just what causes the uneasiness. It may be indigestion, it may be the formation of abscesses on some internal organ, as we occasionally meet with in what is known as irregular strangles, and it is possibly due to her pregnancy. If the latter be the case, she will no doubt have shown symptoms of parturition before this. Keep your veterinarian posted, and, if necessary, send for him. Treat as he suggests. All that can be done is to treat the attacks as they appear and await developments. No doubt your veterinarian has supplied you with medicine to give during the painful periods.

**WEAK FOAL.**

1. Five-year-old mare gave birth to a foal which seemed dull and drowsy, and made no attempt to rise. It was fed out of a bottle for 27 hours, then seemed to lose the use of its limbs, and died in six hours. The colt seemed right in every way, with the exception of a small swelling in front of stifle joint.

2. Did it suffer from joint-ill?

3. Is it possible for a colt to have joint-ill before birth?

4. Did the colt get joint-ill from the sire?

J. H. J.

Ans.—1. The foal was very weak, and lacked vitality when born. It is seldom a foal that will not nurse when held up can be raised. You did all that could have been done. In some cases it is not possible to say why a mare produces a weak foal. Mares that spend the winter months in idleness, are much more apt to produce such than those that are worked steadily, or given regular exercise. Your foal had no disease, was simply weak.

2. No.

3. No.

4. No. Joint-ill is caused by a germ that gains the circulation through the naval opening, hence it must be contracted after it is expelled from the womb. The sire can have no influence whatever in the matter.

**INDIGESTION.**

Brood mare, yearling, and three-months old colt, all suffer from bloating after each meal. They are uneasy until the gas passes off and are then all right until after the next meal. They get clover hay (three times daily); the yearling gets half bran and half rolled oats three times daily, and an occasional feed of boiled oats. The mare gets bran and rolled oats twice daily, and scalded bran, with a little salt in it, every night. The foal eats with its dam.

W. P.

Ans.—These animals all suffer from indigestion. It is probable the young ones inherit a weakness of the digestive organs from the dam, but there must be something wrong with the food to cause such regular distress. Your manner of feeding is all right, if the food be of first-class quality. If the hay be poorly saved, musty or dusty, or was too ripe when cut, it no doubt is the cause of the trouble. Purge all the mare with 8 drams aloes and 2 drams ginger; the yearling with about 12 ounces raw linseed oil, and the sucker with 4 ounces raw linseed oil. Even if the mare be again pregnant, it will be safe to purge her, as it is during the early stages of gestation. Add to the drinking water one-fifth of its bulk of lime water. Take equal parts sulphate of iron, gentian, nux vomica, and bicarbonate of soda, mix, give the mare a tablespoonful, the yearling a teaspoonful, and the sucker one-third of a teaspoonful three times daily, change the hay into first-class timothy hay in small quantities, and see that all get regular exercise.



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PAQUET Guaranteed CLOTHES represent the latest advance in Clothes Making. They are not "Ready Made," nor yet "Custom Made." They have the advantage of the old-fashioned Ready-made Clothes because they can be made to fit BEFORE they are made up. All Ready-made Clothes are made up and finished to fit AVERAGE types, not REAL men. When you buy the old-fashioned Ready-made Clothes you may be quite sure that they will not fit you, because no two men are exactly alike, and once a suit or garment is finished, it can't be altered properly without being all ripped apart and recut.

PAQUET Guaranteed CLOTHES are NOT Ready Made. That's why we can guarantee them to fit you PERFECTLY.

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**TUESDAY, MAY 25, '09,**

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**50 HEAD REGISTERED 50**  
**Holsteins**

No reserve or by-bidding allowed. All must go. Greatest bunch of A. R. O. breed cattle ever offered by public sale in Canada.

Six cows with records over 20 pounds butter each. A daughter and g. daughter of Paul Beets De Kol (world's greatest sire), as well as a sister to Francys 3rd, winner of test, Ottawa, 1908-1909. A son of King Segis. Also many heifers and cows bred to the richly-bred sires: Oakland Sir Maida and Brightest Canary.

Catalogues now ready.

Sale will be held under cover.

TERMS OF SALE.—Cash, or five months' time bankable paper, with interest at 6 per cent.

Don't miss it. Your best chance to secure good blood.

Colonel B. V. Kelley,  
Syracuse, N. Y.,  
Auctioneer.

CONSIGNORS:

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Clerk of Sale.

Gordon H. Manhard, Manhard, Ont.

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Metal Shingle & Siding Co. Ltd., Preston, Ontario.

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Paint is insurance. It protects and prolongs the life of buildings, fences, wagons, implements and farm machinery.

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- S-W P. (SHERWIN-WILLIAMS PAINT, PREPARED) for preserving good buildings.
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Address all inquiries to 529 Centre St., Montreal



Please Mention The Farmer's Advocate

### GOSSIP.

Wm. Grainger & Son, Londesboro, Ont., make a change in their advertisement in which they call attention to their offer of four young bulls and a number of heifers from their noted herd of milking Shorthorns.

O. Sorby, Guelph, writes: "I have just sold the four-year-old imported Hackney stallion, Hamlet of Shelbourne, to John D. Roberts, of Holstein, Ont. Hamlet of Shelbourne stands 15½ hands high, and for exquisite quality and true Hackney character, Hamlet is hard to beat; his action is of the highest and best, while, as to breeding, he traces to the best sires of the breed, such as Denmark, Lord Derby, Cadet, Sir Charles, and Confidence. Intending breeders should see this horse before going elsewhere, as he cannot fail to prove a fine stock-getter."

John Dryden & Son, Brooklyn, Ont., ordering a change in their advertisement this week, write: "We have made some very good sales in Shorthorn bulls lately and at present have only two that are old enough for service. They were both one year old in January last, and are now quite fit for considerable service this spring. Both are of the famous Cruickshank Lavender tribe and are a credit to the family. It is our aim to sell these two bulls shortly in order to clean out and give our calves a little better care. If readers needing a bull and finding it difficult to leave home at this busy season will look up our advertisement and write us, we will explain terms on which we will ship a bull to their nearest station, and if he is not as we say he is, or if they are not suited with him, they can give him feed and water and ship him back."

### MEAT WARRANTY PROBLEM.

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

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

A scheme has been proposed to overcome the difficulties besetting the warranty question. It is suggested that "fat" cattle sold at auction shall be sold as fit for human food, but this guarantee shall only hold for six days. If the cattle should again change hands, the condition would be void. A compensation fund is proposed by making a charge of sixpence per head on all fat cattle sold, half to be paid by the seller, and half by the buyer. If cattle are condemned, compensation is to be paid to the extent of 90 per cent. of the purchase money. For cattle selling at less than £5, the scheme shall not apply. In the event of cattle being condemned, the hide is to be left on the animal for the purpose of identification.

### QUESTIONS AND ANSWERS. Miscellaneous.

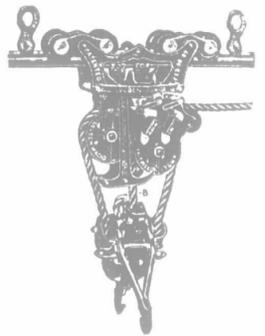
#### KNUCKLING.

I have a road colt, rising three years old, that knuckles on hind fetlock when standing in stable. What would you advise me to do, or do you think he would go lame when started to drive?  
J. H. W.

Ans.—Rest and repeated blistering is the treatment for knuckling. Blister with 14 drams each bromide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off all around the joint, rub well with the blister daily for two applications; on the third day wash off and apply sweet oil. Repeat the blistering once in four weeks until cured. It is just possible that your colt may not need such treatment, as his knuckling in stable may be merely a habit. Better take time to see how he acts, and do not overload him if you find a strain.

## Reasons Why

A Louden 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:

**LOUDEN MACHINERY CO'Y**  
Manufacturers of everything needed in the way of Hay Tools and Stable Fixtures. Also makers of Pumps and Hardware Specialties.

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Return limit Oct. 31. Liberal stopovers. Wide choice of routes. Go by the direct Canadian line—see your own country—the West, the Rocky Mountains. Visit the Seattle Exposition and other special attractions.

Talk it over with nearest C. P. R. Agent, or write:

R. L. Thompson, D. P. A., Toronto.

## Ho! For Sunny Alberta.

Have you investigated the wonderful opportunities which abound in this wonderful Western Province? Have you heard of the greatest achievement of modern irrigation engineering? Do you know that you can purchase a part of this wonderful never-failing, mixed-farming, irrigated land for a price, and on terms which will astound you. Investigate! Write us at once for information.

**NATIONAL REALTY COMPANY**  
47-49 Richmond St. West, TORONTO, CANADA.

General agents for the Canadian Pacific Irrigation Colonization Company, Ltd. Agents wanted.

## FOR SALE BY AUCTION

On May 18th, our entire stock of Registered Holsteins, Hackneys, Leicesters and Berkshires, Rigs, Implements, other horses and pigs, in fact, everything we have on this well-equipped farm of 150 acres, as we have sold the farm and are moving to the city. Send for catalogue.

G. H. CAUGHELL & SON, Middlemarch, Five miles west of St. Thomas, Ont.

**FIT'S** Trial Free  
CURED  
Falling Sickness, Epilepsy, St. Vitus' Dance, Nervous Troubles, etc., positively cured by LIEBIG'S FIT CURE. Free trial bottle sent on application. Write Liebig Co., Phoebe St., Toronto.

Subscribe for "Farmer's Advocate"

QUESTIONS AND ANSWERS.  
Miscellaneous.

AN OIL LEASE.

Have leased our farm to an oil company. The lease expired the 26th of April, and the agent claims that he can hold it for another year without paying the rental. The lease reads as follows: "This lease to be null and void, and no longer binding on either party, if operations for drilling are not commenced on the premises within one year from this date, unless the lessee shall thereafter pay yearly to lessor twenty-five cents per acre for delay."

They have not started drilling yet, nor have they paid the rental. We did not notify them that the lease had expired. What should we do?

Ontario. SUBSCRIBER.

Ans.—The lessee so retaining the oil privileges for the further year becomes liable to the stipulated rate, but apparently not to payment thereof until the expiration of such second year.

LIFE TENANT AND TIMBER.

The following is a clause taken from a will: "I devise the west half of lot number 39, in the 5th concession of the township of A, to my son H, for his sole use and benefit during his life, and after his death to be sold, and the proceeds of sale to be divided amongst his children, or as many of them as are living at the time of his death, but subject to the condition that the bush is not to be cut down by my son H, nor any other person or persons on his behalf during his life."

The son cut down some timber, knowing that according to the will he was not to do so, and has been notified not to do so.

1. Who is the proper person to stop him cutting the bush, the executors or his children? Two of them are over 21 years of age.

2. Would the executors be personally responsible for the worth of the timber taken?

3. In case executors are responsible, how would be right way to proceed against said son?

4. Or could it be settled by arbitration?

EXECUTOR.

Ontario.

Ans.—1. Either of the children who are of age, or the official guardian, on behalf of those who have not yet attained their majority.

2. We think not.

3. See answer to question 2.

4. Probably not effectively.

RAISING A FOAL BY HAND.

Have draft colt, born April 28, and mare refuses to own it. Am feeding it cow's milk, and water, equal parts, sweetened with brown sugar.

Is this the proper food?

How often should the colt be fed during the day, and how often during the night?

Would "black-strap" molasses be better than the sugar? If so, what would be proper quantity to feed at one time?

A. G. E.

Ans.—The instructions in the latest treatise on horse-breeding and management, regarding raising a foal by hand, state that the milk of a mare has more sugar and less fat than that of a cow, but the difference is not so great that there is danger of killing the foal by feeding it cow's milk intelligently. Get the milk of as fresh a cow as possible, and the poorer in butter-fat the better. Do not use Jersey milk for this purpose. Take a dessert-spoonful of the best granulated white sugar and add enough warm water to dissolve it. Then add three tablespoonfuls of lime water, and enough new milk to make a pint. Warm the milk to blood heat and let him have half a tablespoonful every hour at first. If scours occur, give two ounces of castor oil, and discontinue the milk for a couple of days, giving the sugar and lime water as before, or feed nothing at all. As the foal grows older, day by day, the quantity of milk may be increased, and the number of feeds decreased, until, according to his thrift, he may be fed six times a day, and then four times. Treat him of too laxative a nature for so young a foal, unless used very carefully, in very small quantity. A foal should begin to nibble at grain when a month old. His first food should be oatmeal, in such

trifling quantity as he will eat. When six weeks old a little bran should be added. At two months, some sweet skin milk may be substituted for part of the new milk, and so on, until at three months old, he may have all the sweet skin milk he wants.

AN EASEMENT.

A and his family cross B's farm for twenty-five years and over, to and from another farm, and did so long before B owned the place. Now B notifies him not to cross, or he will come at him for trespass. Can he do so, if A crosses?

Ontario. SUBSCRIBER.

Ans.—We do not see that he is in a position to do so effectively.

LENDING IN MANITOBA.

1. When a private party, living in Ontario, wishes to loan money on Manitoba real estate, secured by first mortgage, what is the proper course to pursue?

2. Should mortgage papers be drawn up there or here?

3. Should party loaning the money receive the mortgage before advancing any funds?

Ontario.

Ans.—1. He should instruct a solicitor of his own locality to attend to the matter for him.

2. Here.

3. Yes; the mortgage should be executed and registered, and the title examined and usual searches made, before the money, or any portion of it, is paid over to the borrower.

LUXATION OF PATELLA.

I have a colt, five weeks old. The past ten days the stifles slip out of place. It does not seem to be painful, either when it walks or when rubbed. It runs in box stall, with clay floor, and lots of good clean straw. Will the colt grow out of the trouble, or had I better treat it? If so, would be pleased to know remedy.

NOVICE.

Ans.—The colt may, and probably will, grow out of the trouble. The litter used for bedding should be short, such as chaff or cut straw, or sawdust. The treatment for this ailment is blistering the joint at the point and inside surface, to be repeated monthly till cured, but we do not advise blistering a colt at so young an age. Give nature a chance to correct itself. Keep the colt quiet until stronger.

A CHOICE OF NAMES.

Will you kindly solve the following question and oblige:

Why, when, and by whom, was the name of that best of fodder plants to be changed from lucern and alfalfa substituted? Lucern is the old and proper name. I remember the name lucern in Britain fifty years ago, and never heard of anyone wishing to change it until reading it in your paper. The best seedsmen in Ontario still retain the old name, lucern. I love to call a spade a spade.

D. M.

Ans.—Lucern has fairly well established the use of the name alfalfa throughout America, and bids fair in a few years more to supplant the name lucern almost entirely. "Alfalfa" is probably of Arabic origin, and has followed the crop into Spain and South America, thence into the United States, and finally into Canada. Either is correct, and anyone may use whichever he chooses. For the sake of simplicity, "The Farmer's Advocate" employs only one term, and has selected the one that is coming into more common use.

Donald had returned from a visit to the country and was full of reminiscences of persons and things that had interested him. "I met a boy, mamma," he said, "that had the queerest name I ever heard. He said his folks found it in the Old Testament. It was—it was—let me see—Y S, it was Father William, or William Father; I've forgotten just now which but it was one or the other."

"But, Donald," said his mother, "there is no such name as Father William or William Father in the Old Testament."

"Are you sure, mamma?"

"I certainly am, dear. I have read it through several times. William is a comparatively modern name. It isn't anywhere in the Bible."

"Well, but—oh, I remember now!" exclaimed Donald. "It was Bildad!"



### The Lock That Cannot Slip

The "Maritime" fence lock absolutely holds fast in position and cannot slip.

Not bent in any short twists, the fibre of the wire is not destroyed, and there is no danger of the "Maritime" fence lock snapping off when the weather is at a very low temperature.

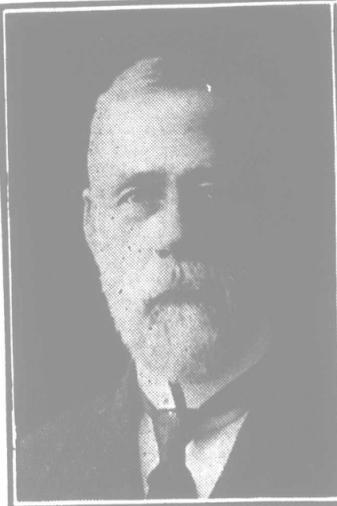
The "Maritime" fence lock holds every strand tight and in position, and "Maritime" fences never sag.

Write for catalogue and price list.

**NEW BRUNSWICK WIRE FENCE CO. Limited.**  
MONCTON, N.B.

**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.

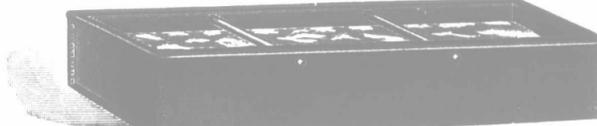
To those wishing to know my experience in the use of a Manure Spreader, I will be very glad to give same upon application.

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.

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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 you heavy tanks at the same price other people charge for light ones. It enables us to make them fast. 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.

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REGISTERED TRADE MARK



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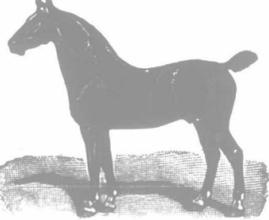
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**Has Imitators But No Competitors.**  
A Safe, Speedy and Positive Cure for  
Curb, Splint, Sweeney, Cappee Hook,  
Strained Tendons, Founder, Wind  
Puffs, and all lameness from Spavin,  
Ringbone and other bony tumors.  
Cures all skin diseases or Parasites,  
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Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism,  
Sprains, Sore Throat, etc., it is invaluable.  
Every bottle of Caustic Balsam sold is  
Warranted to give satisfaction. Price \$1.50  
per bottle. Sold by druggists, or sent by ex-  
press, charges paid, with full directions for  
its use. For descriptive circulars,  
testimonials, etc. Address  
The Lawrence-Williams Co., Toronto, Ont.

### "SAVE-THE-HORSE" SPAVIN CURE.



#### WATCHES RESULTS FOR OVER A YEAR.

Middleton, N. S., April 12, 1909.  
Troy Chemical Co., Binghamton, N. Y.:  
Gentlemen,—Enclose I 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 I  
was ever my pleasure to own. During the winter  
of 1907 and 1908 he threw out as large a thorough-  
pin as I ever saw on a horse. You can imagine my  
disappointment in having such a fine animal dis-  
figured 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  
it to everyone whose animals have been simi-  
larly afflicted, as I regard it as invaluable.  
Yours very truly,  
W. P. 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  
Bil, 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.,  
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and Binghamton, N. Y.

**FITS CURED** For proof that fits can  
be cured, write to  
Mr. Wm. Stinson,  
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For pamphlet giving full particulars of simple home  
treatment, 20 years' success. Over 1,000 testi-  
monials in one year. Sole proprietors:  
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#### SUCCESSFUL AD.

Several weeks ago a Kansas editor ad-  
vertised the fact that he had lost his  
umbrella and requested the finder to keep  
it. He now reports: "The finder has  
done so. It pays to advertise."—Kansas  
City Journal

Don't Throw it Away. Does Your Granite Dish  
or Hot Water Bag Leak?

USE **MENDETS**  
A PATENT PATCH

They mend all leaks in all utensils—tin, brass,  
copper, granite, hot water bags, etc.  
No solder, cement or rivet. Anyone can use  
them; fit any surface, two million in use. Send  
for sample page, etc. COMPLETE PACKAGE AS-  
SORTED SIZES, 25c. POSTPAID. Agents wanted.  
Collette Mfg Co., Dept. K., Gallowaywood, Ont.

### QUESTIONS AND ANSWERS. Veterinary.

#### FATALITY IN CALVES.

Young calves seem to have some dis-  
ease. I have lost three. They seem  
weak, and will not take anything to eat.  
They die in from 12 to 48 hours. They  
appear to die a natural death; they do  
not bloat or appear distressed. J. T.

Ans.—I do not think there is any dis-  
ease. The calves are weak and lack  
vitality when born. It may be caused  
by lack of exercise of the cows during  
pregnancy. If any more refuse to nurse,  
give them a little, say about  $\frac{1}{2}$  pint of  
the dam's milk, with  $\frac{1}{2}$  ounce whiskey,  
every hour, for the first day, and gradu-  
ally increase the dose and lengthen the  
periods until they gain strength. Of  
course, you will have to drench them  
very carefully. If their bowels do not  
act, give injections of warm soapy  
water.

#### NAVICULAR DISEASE.

Mare was lame all last summer; some-  
times worse than at others. She rests  
the foot (the near fore) a great deal  
when standing. She goes better when  
shod often. G. H. B.

Ans.—Your mare has navicular disease,  
and, while the symptoms may be relieved  
to some extent, it is not possible a cure  
can be effected. Get a blister made of  
2 drams each of biniodide of mercury and  
cantharides, mixed with 2 ounces vasa-  
line. Clip the hair off for two inches  
high all round the hoof. Tie so that  
she cannot bite the parts. Rub well  
with the blister once daily for two days.  
On the third day apply sweet oil. Turn  
in loose box now, and oil every day.  
As soon as the scale comes off, tie up  
and blister again, and after this blister  
every four weeks as long as you can give  
her rest. When you have to use her, she  
should wear bar shoes until the snow  
falls, and keep her feet soft by poulticing  
or standing in a tub of water. V.

#### Miscellaneous.

#### MISCELLANEOUS.

1. Heifer, due to calve in January,  
slipped and fell on ice. Her udder was  
quite large, but has almost disappeared.  
She has not calved, and is getting very  
thin. How had I better feed her?
2. If the calf is dead, will it prevent  
her from breeding again?
3. At what age should a calf be  
castrated?
4. Is sugar-beet meal equal to bran  
for milk cows?
5. What is the difference between pure-  
bred and thoroughbred? L. G. M.

Ans.—1. No doubt the calf is dead, and  
either mummified or sloughing. Get your  
veterinarian to examine her, and, if possi-  
ble, remove the fetus. Feed her on  
good clover hay, pulped roots, bran and  
chopped oats, and give her 40 drops car-  
bolic acid in a pint of cold water, as a  
drench, three times daily.

2. Not if she recovers.

3. At from two to four weeks.

4. No.

5. A pure-bred animal is an animal of  
any class that is registered, or eligible  
to registration, in the stud or herdbook  
of its class. A Thoroughbred is a horse  
that is registered, or eligible to registra-  
tion, in the Thoroughbred Studbook in  
the country in which it is born, hence  
must trace on both sides to ancestors  
registered in the English Thoroughbred  
Studbook. The Thoroughbred is a dis-  
tinct breed of horses. While the term is  
often used in respect to cattle, hogs,  
dogs, swine, etc., it is all wrong. The  
pure-bred descendent of the English race-  
horse is the only animal in the world en-  
titled to the term "Thoroughbred."

#### GOSSIP

The annual show and sale of registered  
Romney-March rams is advertised to take  
place at Ashford, Kent, England, on Sep-  
tember 23rd and 24th. Full particulars  
and catalogues may be had on applica-  
tion to the secretary, as indicated in the  
advertisement.

# EUREKA

## SANITARY CHURN



There's no comparison between the ordinary  
wooden churn and the "EUREKA". Barrel  
is stoneware—top is clear glass.  
Besides being absolutely sanitary, the glass  
top enables you to see how the churning is  
coming along without opening the churn.  
The "EUREKA" is the easiest churn on the  
market to operate. By tilting back the frame  
until the weight rests on the wheels, the churn  
can be quickly and easily moved—while  
the barrel remains upright.

If your dealer does not handle the "EUREKA,"  
do not take a substitute but write us for catalogue.

EUREKA PLANTER CO. LIMITED, WOODSTOCK, ONT.

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Why not DEAL DIRECT WITH THE MAKER  
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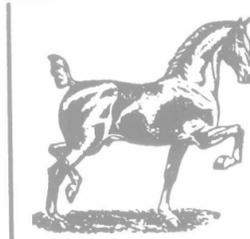


No. 10 Piano Box Buggy.  
Price, \$57.00.

By our system you can purchase a buggy, phaeton, or  
other high-grade carriage or harness, at one-third less than  
from your local dealer.

If not thoroughly satisfied you can return the goods,  
and we will pay freight both ways. Our complete illustrated  
catalogue, showing many styles of vehicles and harness, with  
description and price of each, mailed free. Write today.

INTERNATIONAL CARRIAGE COMPANY, BRIGHTON, ONTARIO.



### UNION Horse Exchange

STOCK YARDS 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).

### NEW CLYDESDALE IMPORTATION.

My new importation of 24 Clydesdale stallions is now in my stables. I invite inspec-  
tion and comparison. I think I have the best lot for size, style, character, quality and  
action ever imported. 22 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 Bucklyvie, 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 4 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  
**HODGKINSON & TISDALE, BEAVERTON, ONTARIO.**  
G. T. R. and C. N. R. Long-distance phone.

**IMPORTED SHIRES** At their St. Thomas stables,  
the John Chambers & Sons  
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.**

**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. Metro-  
politan Street Ry. from Toronto crosses the farm.

**I HAVE STILL CLYDESDALE STALLIONS  
LEFT THREE**  
two of them 3 years old, the other a 4-year-old; big flashy fellows, full of quality and  
character, and right royally bred. I will sell them cheap and on terms to suit, as I want  
the room for a new importation.  
T. D. ELLIOTT, BOLTON, ONT.

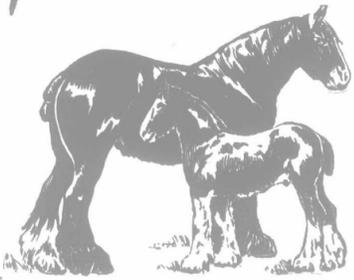
**Clydesdales and Hackneys**  
My motto is: Quality, not quantity.  
**THOS. L. MERCER, MARKDALE, ONT., P. O. AND STA.**

**IMPORTED CLYDESDALES**  
My new importation 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.**

**IMPORTED CLYDESDALES** My new importation  
of Clydesdale stallions and fillies, land-  
ed a short time ago, are an exceptionally choice lot, full of flashy quality, style and char-  
acter, and right royally bred. I will sell them at very close prices, and on terms to suit.  
**C. W. BARBER, Gatineau Point, Quebec.** "Close to Ottawa."

For a prize-winning  
**Clydesdale, Hackney or French Coach Stallion**  
write me. I have generally something choice on hand.  
**HENRY M. DOUGLAS, STAYNER, ONTARIO, LATE OF MEAFORD.**

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**YOUR  
IN FOAL MARES**

Why risk the loss of a valuable Mare or Foal or both of them when a payment of a few dollars would indemnify you for such loss should it happen.

The General issues policies for 30 days, 6 months or 12 months covering the mare with or without the foal.

**Farm Horses, Stallions,  
Castration, Cattle  
Insurance**

Prospectuses sent Free on demand.

**THE GENERAL  
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R. Ness, Pres. J. d'Halewyn, Sec.  
New York Life Building, Dept. C.  
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Cures Strained Pufty Ankles, Lymphangitis, Poll Evil, Fistula, Sores, Wire Cuts, Bruises and Swellings, Lameness, and Allays Pain Quickly without blistering, removing the hair, or laying the horse up. Pleasant to use. \$2.00 per bottle at dealers or delivered. **Horse Book 5 D free.**  
ADSORBINE, JR., (Manufactured \$1.00 bottle.) For Strains, Gout, Varicose Veins, Varicocoele, Hydrocoele, Prostatitis, kills pain.  
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LYMAN'S Ltd., Montreal, Canadian Agents.

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GALL  
CURE**

The standard reliable remedy for Galls, Scratches, Cracks, Wire Cuts and all similar sores on animals. Sold by dealers everywhere. Money refunded if it fails. Sample and Bickmore's new WINGATE CHEMICAL CO., LTD., Canadian Distributors, 545 NOTRE DAME ST., W. MONTREAL, CANADA

**Horse Book FREE**

100 pages, illustrated. Tells about symptoms and treatment of all common ailments. Also explains how and why  
**Tuttle's Elixir** cures Spavin Lameness, Curb, Splint, Sprains, etc. Also Colic and Founder. Years of use by many thousands have proved its worth, and it is a most valuable book. Dealers sell Tuttle's Remedies.  
**TUTTLE'S ELIXIR CO.**  
68 Beverly St., Boston, Mass.  
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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.



**ARTIFICIAL  
MARE IMPREGNATORS**  
For getting from 1 to 6 mares in foal from one service of a stallion, \$3.50 to \$8.00. Safety Impregnating Outfit for barren and irregular breeders, \$7.50. Service Books, etc. 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: 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.**

**QUESTIONS AND ANSWERS.  
Miscellaneous.**

**COST OF BUILDING CONCRETE WALL.**

Allowing wages at \$1.25 a day, at what price can a man build a cubic foot of cement wall for a barn, everything being furnished him?  
S. T. K.

Ans.—It is customary to figure 50 feet of wall for each man, which is a fair estimate, considering farm convenience for doing work of this kind. This figures 2½ cents per foot. The regular contract price is 4 cents per foot, contractor furnishing all tools.  
H. P.

**YOUNG PIGS DYING.**

Have had trouble and loss with sows farrowing. Pigs came strong and smart; milk plentiful at first, but for some reason sows went almost dry, and for want of nourishment the young pigs die off. What would be the cause of the trouble, and what the remedy? Sows were fed pulped turnips, with a little chop. We gave a drink about 15 hours after farrowing.  
J. P.

Ans.—Unfortunately, however, your inquirer gives practically no information upon which to form any judgment. He does not say at what age the pigs die off, what condition the sows were in at the time the pigs were born, how they were treated before that time, or the exact ration that he was feeding when the trouble occurred. The term "a little chop" is so indefinite that he might mean that the sows were under-fed, or it might mean (in the vocabulary of some farmers) that they were over-fed. His chop may have been too strong, and caused some digestive troubles. Possibly the sows had become constipated, and in that case the milk would be poisonous to the pigs. There are almost endless possibilities and speculation which might be indulged in regarding this matter, but it is impossible to form any intelligent idea from the information submitted.  
G. E. DAY.

**SOWING ALFALFA—MANURING AND PLOWING FOR CORN.**

1. When are the best results attained in sowing lucerne seed? With a light crop of oats or barley, or sowing the lucerne seed alone?
2. Have a clover-sod field which I intend plowing for corn this spring. Which is the best, to top-dress the field before plowing, or manure it after plowing?
3. Is spring plowing as good for corn as ground plowed in the fall? Land is clay loam.  
H. W. B.

Wentworth Co., Ont.  
Ans.—1. The surest way to obtain a catch is to sow the alfalfa (lucerne) seed alone, but the chances are almost as good with three or four pecks of barley per acre. As a nurse crop, oats are decidedly inferior to barley.

2. In the case of spring plowing, apply the manure before, more especially if you intend to cultivate the corn well, for in this case, not only is the manure a nuisance to the cultivator if at all coarse, but the repeated cultivation tends to dissipate over rapidly the humus furnished by the manure, and as the roots of the corn plant are largely precluded from feeding in the disturbed or cultivated surface stratum, the full value of the manure is not obtained; on the other hand, where buried under the furrow, the manure, together with the sward, sets up a fermentation which helps to set free inert plant food in the soil, and the roots of the corn, soon getting down into this, mass of decaying vegetable matter, draw on it heavily and make for rapid growth of the plant. When plowing, roll and harrow each day's turnover immediately.

3. It is debatable, and in a dry season, on heavy clay loam, will probably produce the greater yield. It has the further advantage of reducing the pressure of spring work. On the other hand, spring plowing of winter-manured sod prevents a considerable measure of loss by leaching, for the early growth of grass takes up the dissolved nitrates of early spring. On light soils, where work permits, spring plowing of sod for corn is to be generally recommended.

**We Supply These  
Made of Steel**

**SILOS**

**Easy to Erect, Durable,  
Cheap**

**Waterous Engine Works Co., Limited,  
Brantford, Ont.**

**Ramsay's  
Paints**

Will you paint your house this spring? Don't waste time and paint trying to mix colors. Buy the Canadian standard ready mixed paints—RAMSAY'S PAINTS—made right, sold right, at just the proper price for the best and purest that goes in the way of paint making. Let your dealer show you our handsome colors. Ask his price. Write us for folder showing some beautifully colored homes.  
**A. RAMSAY & SON CO. Montreal.**  
Paint Makers since 1842.

**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, FREEMAN, ONTARIO.**

**SHORTHORNS**

**Belmar Parc.**

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.  
John Douglas, Manager. **PETER WHITE, Pembroke, Ont.**

**SALEM SHORTHORNS**

A few young bulls and choice, at tempting prices.

**J. A. WATT, SALEM, ONT. FLORA STATION, G. T. R. AND C. P. R.**

Bell telephone.

# Ring-Bone

There is no case so old or bad that we will not guarantee

## Fleming's Spavin and Ringbone Paste

to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

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Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists, 76 Church St., Toronto, Ontario

## 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.

## Aberdeen-Angus

For sale: The right sort, some of them by Klondyke, imp. Drumbo station.

WALTER HALL, Washington, Ontario.

## 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. P. M. Ry. M. C. Ry.

## 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. Post Office and Station.

## 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.

## 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.

## CLOVER DELL SHORTHORNS

My herd are profitable milking Shorthorns. For sale are a few females and two good red bulls, of good milking dams, for spring service. L. A. Waskely, Bolton, Ont., P.O. and Station. Farm within 1/2 mile of station.

PLEASE MENTION THIS PAPER.

## QUESTIONS AND ANSWERS. Miscellaneous.

### BUCKWHEAT TO KILL QUACK GRASS - BREEDING TWO-YEAR-OLD FILLIES - CORN FOR FALL SEEDING.

1. Have a field that is quite full of quack; will buckwheat, sown on it this summer, kill the quack so that it will be fit for alfalfa next spring? What quantity of buckwheat should be sown per acre, and at what time?

2. Is it advisable to breed fillies coming two this spring? Is there not quite a risk breeding so young?

3. Which is the best variety of sweet corn to plant for milch cows in the fall?

Lennox and Addington, Ont.

Ans.—1. It will not be fit for alfalfa unless every bit of the quack is exterminated, and we have grave doubts as to the buckwheat making such a thorough job as this, though it is a pretty effective method of coping with this troublesome weed. Plow shallow this spring, and by frequent use of the cultivator, keep the ground stirred often enough to prevent new growth until late June or July, then sow 4 or 5 pecks of buckwheat per acre, which may possibly succeed in smothering out the somewhat weakened plants. Sow the buckwheat on a moist, fine seed-bed, so that it may make a quick growth.

2. Some consider it inadvisable; others practice it regularly, and claim satisfactory results. The opinion of many expert horsemen is that it is safe to breed well-grown two-year-old fillies, if well fed and given a good chance to develop while carrying their foals, and afterwards. It might be well to breed them for fall foals.

3. Stowell's Evergreen is a very good variety of sweet corn for early feeding, but considering the difference in yield, we think it more profitable to grow one of the Dent or Flint corns. Southern Sweet and Early Learning are good varieties for late harvest and September use. For earlier feeding, Compton's Early and Butler's Dent are satisfactory.

### HENS TOO FAT—WHEN INCUBATION COMMENCES.

1. Is it possible to get hens too fat to do their best at laying? My hens are not laying up to what I think they should. They are very fat. Am feeding corn and buckwheat in the morning, and oats and barley at night.

2. What would be a suitable ration for sixty fowls?

3. Would plenty of gravel take the place of crushed oyster shells, the gravel being right at home?

4. How long do hens set on eggs before the eggs start to germinate?

Ans.—1, 2 and 3. Yes, it is possible to have hens too fat to lay. Doubtless yours are, and the corn must be charged with a good share of the responsibility for this condition. The corn should have been discontinued some time ago, and a certain amount of vegetable and meat food given all winter long. Discontinue the corn now, and cut down the grain feed severely, so as to cause the fowl to forage for insects and green stuff. Give them a light feed of oats or buckwheat in the morning, say about three quarts, and enough barley in the evening to insure that they go to roost with reasonably full crops, for it does not do to starve hens if one wants eggs; also feed beef scrap or fresh meat of some kind, and bone meal or green bone, smashed up flat and fine with the back of an axe on a block of wood. Also give oyster shell, or some other form of lime, plenty of clean water and grit. Gravel will not take the place of oyster shell, for the latter is given not so much to provide grit, as to furnish lime. Both oyster shell and gravel should be fed.

4. In Bulletin No. 7, entitled Profitable Poultry Farming, by F. C. Elford, we find this statement: "Incubation is commenced by a hen sitting on an egg overnight, and if such an egg is removed from the nest the next day, the germ dies and the egg becomes putrid."

Yorkshire I. B. calves, bred from heavy milking and best testing stock, are advertised for sale by Collier Bros., Beachville, Ont.

## 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 roofing 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.

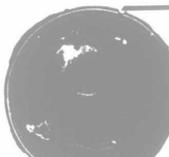
## 7 Imported Scotch Shorthorn Bulls 7

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 Broadhooks. 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.

## Shorthorns and Shropshires Scotch Shorthorns!

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 Butlar ram.

H. L. STEAD, Wilton Grove, Ont. London, G. T. R., 6 miles; Westminster, P. M. R., 1 mile. Long-distance phone.



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, Manager. H. Cargill & Son, Cargill, Ont.

## 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.

During the Busy Season If you need a Shorthorn bull we will ship one on approval, and if you are not suited you may ship him back. Write us for terms and conditions. Just two ready for service. Both Cruickshank Lavenders. MAPLE SHADE FARM. STATIONS: MYRTLE, C. P. R. BROOKLIN, G. T. R. 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.

WHY NOT BUY A HIGH-CLASS SCOTCH SHORTHORN COW, Or a Helper, 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.

## SPRING VALLEY SHORTHORNS Greengill 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. R. Mitchell & Sons, Nelson P. O., Ont. Burlington Jct. Sta.

VALLEY HOME SHORTHORNS AND BERKSHIRES For sale: 6 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 fine boar 12 months old. S. J. PEARSON, SON & CO., MEADOWVALE P. O. AND STATION, C. P. R.

Scotch Shorthorns Canada's greatest living sire, Milled'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. Waldemar Sta., C. P. R.

SHORTHORN BULLS Herd-heading quality and breeding. Also good ones at farm adjoins town. H. SMITH, EXETER, ONTARIO.

Registered SHORTHORN Yearling Bull This is a bull of superior quality. Dark red. Sired by Bapton Chancellor imp. that sired one of prize stock. Will be sold worth the money. James R. Wood, Preston, Ontario.

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. Wyevalle Stn.

## HAD BACHACHE. Was Unable To Do House- work For Two Years

Many Women Suffer Untold Agony  
From Kidney Trouble.

Very often they think it is from so-called "female disease." There is less "female trouble" than they think.

Women suffer from backache, sleeplessness, nervousness, irritability and a dragging down feeling in the loins. So do men, and they do not have "female trouble."

Why, then, blame all your trouble to "female disease"?

Most of the so-called "female disorders" are no more or less than "kidney disorders," and can be easily and quickly cured by Doan's Kidney Pills.

Mrs. C. Dupuis, Belleview Village, N.B., writes: "I was unable to do my housework for two years on account of backache. I could not get up the stairs. Doan's Kidney Pills cured me permanently after doctors failed to even relieve the pain. I can highly recommend them to all sufferers from kidney trouble."

Price 50 cts. per box or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The Doan Kidney Pill Co., Toronto, Ont.



### HAWTHORN HERD OF DEEP-MILKING

## Shorthorns

For Sale: 2 young bulls and 10 heifers, sired by Aberdeen Hero (imp.) = 28840. Some bred to the Lavender bull, Lavender Lorne = 68706. WM. GRAINGER & SON, Londesboro, Ontario.

### 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.

### Stoneleigh Shorthorns and Berkshires

For sale: Two choice yearling bulls—dairy-bred, and a few one and two year old heifers. Berkshires of both sexes. And eggs of Buff Orpingtons, Pekin ducks and Broeze turkeys. E. Jeffs & Son, Bond Head P. O., Ont.

Where Courage Failed.—"With one wave of my wand," says the fairy, "I can make you grow young again."

"Excuse me," replied the woman, "if I decline your kind offer. If you can bring youth to me at my present age, all right; but I positively refuse to travel back through pyrography, the first stages of bridge, the habit back, the straight front, balloon sleeves, and all the rest of the fads I can remember."—Life.

## INDEED THEY ARE WONDERFUL

What Thos. McDonald says of  
Dodd's Kidney Pills.

### He Had Lame Back, Kidney Disease and Heart Flutterings, and One Box Cured Him.

Shubenacadie, Hants Co., N. S., May 10. (Special).—"I suffered from lame back, kidney disease, and heart flutterings, caused by cold and a strain, for three years. I was looking over some papers and saw Dodd's Kidney Pills advertised, and I bought one box, which completely cured me. Dodd's Kidney Pills are wonderful."

That is the simple, straightforward statement of Mr. Thomas McDonald, a well-known resident of this place. It shows how quickly Dodd's Kidney Pills cure kidney disease when taken in its earliest stages. Lame back is one of the first symptoms of sick kidneys; heart fluttering is another symptom. It is caused by blood, from which the sick kidneys have failed to strain the impurities, increasing the work of the heart. Dodd's Kidney Pills make the sick kidneys as well, the lame back disappears, the blood is purified, the heart is relieved of the flutterings stop.

In the case of long standing, it may be longer to cure it, but Dodd's Kidney Pills never fail to do it.

### GOSSIP.

#### HOLSTEIN - FRIESIAN OFFICIAL TESTS FOR MARCH, 1909.

Beldina Schuiling (3103), at 8 years 11 months 27 days of age: 16.17 lbs. butter-fat, equivalent to 18.84 lbs. butter; milk, 473.4 lbs. Owned by F. J. Griffin, Burgessville, Ont.

Janettie (3827), at 8 years 11 months 11 days of age: 15.29 lbs. butter-fat, equivalent to 17.87 lbs. butter; milk, 392.9 lbs. Owned by George Rice, Tillsonburg, Ont.

Zenobia B. (3576), at 7 years 11 months 14 days of age: 15.27 lbs. butter-fat, equivalent to 17.82 lbs. butter; milk, 418.0 lbs. Owned by Gordon H. Manhard, Manhard, Ont.

Josephine De Kol Colantha 2nd (6045), at 4 years 4 months 9 days of age: 15.21 lbs. butter-fat, equivalent to 17.75 lbs. butter; milk, 440.9 lbs. Thirty-day test at 4 years 4 months 9 days of age: 62.15 lbs. butter-fat, equivalent to 72.53 lbs. butter; milk, 1873.0 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Mildred (6566), at 3 years 7 months 2 days of age: 15.16 lbs. butter-fat, equivalent to 17.81 lbs. butter; milk, 442.3 lbs. Owned by Gordon H. Manhard, Manhard, Ont.

De Kol Cecilia (6947), at 6 years 9 months 8 days of age: 14.27 lbs. butter-fat, equivalent to 16.66 lbs. butter; milk, 429.5 lbs. Owned by F. J. Griffin, Burgessville, Ont.

Toitilla - Sarcastic Rue (7211), at 3 years 8 days of age: 14.08 lbs. butter-fat, equivalent to 16.43 lbs. butter; milk, 352.3 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Cassy Netherland (4194), at 8 years 6 months 22 days of age: 13.37 lbs. butter-fat, equivalent to 15.40 lbs. butter; milk, 405.6 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Arialissa 2nd (7247), at 3 years 2 months 21 days of age: 12.81 lbs. butter-fat, equivalent to 14.94 lbs. butter; milk, 339.8 lbs. Owned by M. H. Haley, Springford, Ont.

Eunice Jane Posch (7032), at 3 years 24 days of age: 12.71 lbs. butter-fat, equivalent to 14.81 lbs. butter; milk, 363.5 lbs. Owned by M. H. Haley, Springford, Ont.

Adelaide Brook De Kol 2nd (5577), at 4 years 1 month 6 days of age: 11.98 lbs. butter-fat, equivalent to 13.98 lbs. butter; milk, 327.1 lbs. Owned by George Rice, Tillsonburg, Ont.

Queen Inka De Kol (8987), at 1 year 11 months 13 days of age: 11.61 lbs. butter-fat, equivalent to 13.54 lbs. butter; milk, 354.7 lbs. Owned by Gordon H. Manhard, Manhard, Ont.

Hulda Wayne Johanna Lass (7279), at 2 years 10 months of age: 11.15 lbs. butter-fat, equivalent to 13.01 lbs. butter; milk, 315.7 lbs. Thirty-day test at 2 years 10 months of age: 44.64 lbs. butter-fat, equivalent to 52.08 lbs. butter; milk, 1268.6 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Paladin De Kol Beets (10259), at 1 year 11 months 14 days of age: 10.86 lbs. butter-fat, equivalent to 12.68 lbs. butter; milk, 310.1 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Angie Pauline Mechthilde (7343), at 3 years 2 months 10 days of age: 10.81 lbs. butter-fat, equivalent to 12.60 lbs. butter; milk, 300.5 lbs. Owned by W. H. Simmons, New Durham, Ont.

Sarcastic Lass of Riverside (7281), at 2 years 6 months 5 days of age: 10.55 lbs. butter-fat, equivalent to 12.31 lbs. butter; milk, 328.6 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Winnie R. Calamity Posch (7221), at 3 years 1 month 24 days of age: 10.15 lbs. butter-fat, equivalent to 11.84 lbs. butter; milk, 288.2 lbs. Owned by George Rice, Tillsonburg, Ont.

Princess Mercena De Kol (8627), at 1 year 11 months 15 days of age: 9.81 lbs. butter-fat, equivalent to 11.45 lbs. butter; milk, 292.4 lbs. Owned by F. J. Griffin, Burgessville, Ont.

Lady Trenton (7859), at 2 years 11 months 3 days of age: 9.80 lbs. butter-fat, equivalent to 11.44 lbs. butter; milk, 256.2 lbs. Owned by B. Mallory, Belle-ville, Ont.

Maggie Verbeke (7860), at 2 years 10 months 29 days of age: 9.67 lbs. butter-fat, equivalent to 11.29 lbs. butter; milk, 328.5 lbs. Owned by B. Mallory, Belle-ville, Ont.

Celestia Scott 2nd (7767), at 2 years 11 months 10 days of age: 9.65 lbs. butter-fat, equivalent to 11.28 lbs. butter; milk, 328.5 lbs. Owned by B. Mallory, Belle-ville, Ont.

(Continued on next page.)

# PEERLESS

## The Fence that saves Expense

**Because** it needs no repairs. Made of all No. 9 Hard Steel Wire, tough and springy. It is a fence that will stand the greatest abuse. You want a fence that will not sag in warm weather nor snap in cold weather. You want a fence that you can depend on to keep your stock where you want them kept. You want a fence that will end your fence troubles. That's why PEERLESS is the fence for you to buy. It is known all over as

**The Fence You Can Depend On**

PEERLESS Fence can be perfectly stretched over any surface no matter how irregular. It forms a most perfect barrier against all kinds of stock. Our free booklet and other printed matter will give you some valuable information about wire fencing and fence construction. Write today—it's free for your name and address on a postal.

**The Banwell Hexie Wire Fence Co. Ltd.,**  
Dept. B  
Hamilton, Ont.  
Winnipeg, Man.

# STRONGER

## Than Stock-Weather and Wear

### 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 MOLSONS BANK, MONTREAL.

### Centre and Hillview Holsteins

For sale: 5 choice bulls fit for service now, from dams of extra good backing. Their sires are Brookbank, Butter Baron and Bonheur Statesman. Their dams and sires' dams and grandams average over 24 lbs. butter test; over 4 per cent. in 7 days.

**P. D. EDE, Oxford Centre P. O., Woodstock Sta. Ont.** Long-distance phone, Burgessville.

### 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 Lanthe, 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.**

### 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 life-time to buy good cattle at bargain prices. The best way; 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 Pontiac 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.**

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 heifer 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%; the other 2 equally as well bred. We have also for sale a few pure-bred females and a number of heavy-milking Holstein grades. **LAKEVIEW FARM, BRONTE, ONTARIO.** Long-distance phone

Write us for particulars. **W. D. Brecken, Manager.**

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 heifer calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. **W. Higginson, Inkerman, Ont.**

### HOMWOOD 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.**

### 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.

### 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.**

### 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.**

# Now

## E. & F. MALLORY, Frankford, Ont.

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.

## 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. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,  
75 Church St., Toronto, Ontario

## ZENOLEUM

ANIMAL DIP.

DISINFECTANT.

SHEEP DIP AND LICE KILLER.

Used and endorsed by 45 Agricultural Colleges. Write to me for information and Free Booklet.

HARRY C. STORK, BRAMPTON, ONT.  
Canadian distributor for the Zenoleum Veterinary Preparations.

## FAIRVIEW HERD

The greatest A. R. O. herd of in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose seven-day records average 29 1/4 pounds each, and over 4.3% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple, 34.63 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.

## IMPERIAL HOLSTEINS!

For sale: 13 bulls of serviceable age, sired by Tidy Abbekirk 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.

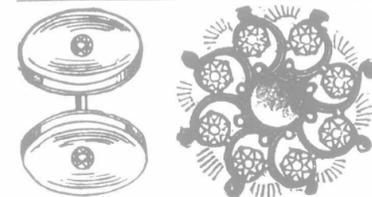
**Glenwood Stock Farm—Holsteins and Yorkshires**  
Holsteins all sired out. Have a few young Yorkshires sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock.  
Thos. B. Carlaw & Son, Warkworth P.O., Ont. Campbellford Station.

**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.

## Maple Hill Holstein-Friesians

Special Offering: One cow (bred), freshened in December. Two bull calves, calved in December; very choice.

G. W. CLEMONS, ST. GEORGE, ONT.



## Boys and Girls! FREE

Any one of the above illustrated articles of Jewelry—Lady's Gold Brooch set with 8 flashy brilliants, with pearl and colored stone centres. Man's gold-plated lever cut links with pretty cut stone setting, or Lady's Gold-plated King, brilliantly set with small diamonds and large cut stone centre—given free for selling only \$1.50 worth of our Picture Post Cards of Canadian and English Views, or Collar Buttons. Post Cards set 6 for 10c. Collar Buttons are Gold-plated and set of 4 sells for 10c. Are easy sellers. Send your name and address and we will mail you the Post Cards or Collar Buttons, whichever you wish to sell. Write at once. A postal will do. THE RELIABLE PREMIUM CO., Dept. X, Waterloo, Ont.

## CALFSKINS WOOL

WRITE FOR PRICES

Ship to E. T. Carter & Co., 84 Front St. E., TORONTO.

ter-fat, equivalent to 11.26 lbs. butter; milk, 295.2 lbs. Owned by W. H. Simmons, New Durham, Ont.

Queen Annie Posch (7790), at 2 years 16 days of age: 8.83 lbs. butter-fat, equivalent to 10.80 lbs. butter; milk, 272.9 lbs. Owned by F. E. Pettit, Burgessville, Ont.

Mechthilde De Kol Daisy (9478), at 2 years 10 months 18 days of age: 8.81 lbs. butter-fat, equivalent to 10.28 lbs. butter; milk, 260.6 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Corinne Calamity Posch (10373), at 2 years 1 month 19 days of age: 8.72 lbs. butter-fat, equivalent to 10.17 lbs. butter; milk, 264.6 lbs. Owned by George Rice, Tillsonburg, Ont.

Lady Aaggie De Kol 2nd (8096), at 1 year 11 months 5 days of age: 8.64 lbs. butter-fat, equivalent to 10.08 lbs. butter; milk, 263.7 lbs. Owned by M. L. Haley, Springfield, Ont.

Meadowlane Lassie (10565), at 2 years 9 months 23 days of age: 8.49 lbs. butter-fat, equivalent to 9.90 lbs. butter; milk, 263 lbs. Owned by B. Mallory, Belleville, Ont.

Inka Mercedes De Kol 5th (8632), at 1 year 10 months 17 days of age: 8.43 lbs. butter-fat, equivalent to 9.84 lbs. butter; milk, 227.8 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Daisy Mechthilde Posch (8631), at 1 year 11 months 27 days of age: 8.16 lbs. butter-fat, equivalent to 9.52 lbs. butter; milk, 251.2 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Fairy Favorit Mercena (8097), at 1 year 10 months 14 days of age: 8.10 lbs. butter-fat, equivalent to 9.45 lbs. butter; milk, 246.5 lbs. Owned by M. L. Haley, Springfield, Ont.

Thirty-day Record—Aaggie's Emily (3568), at 7 years 1 month 26 days of age: 58.99 lbs. butter-fat, equivalent to 68.86 lbs. butter; milk, 1883.2 lbs. Owned by J. W. Richardson, Caledonia, Ont.

Thirty-day Record—Nancy Wayne of Riverside 3rd (5424), at 4 years 11 months 6 days of age: 51.28 lbs. butter-fat, equivalent to 59.87 lbs. butter; milk, 1660.9 lbs. Owned by J. W. Richardson, Caledonia, Ont.

G. W. CLEMONS, Secretary.

## GOSSIP.

The post-office address of Mr. Thompson Porter, the well-known breeder of richly-bred, heavy-milking and high-testing Jerseys, has been changed to 360 St. Clair avenue, Dovercourt, Toronto, Ont.

The sale of Lord Rothschild's famous herd of Red Polls, brought an enormous crowd to Tring Park. No outstanding prices were realized, but the average was good, bulls making £26 18s., and cows and heifers £24 18s. 4d. The herd realized 1,883 1/2 guineas. For the champion cow of the breed, Clarissa, Mr. George Taylor paid 70 guineas.

At a three days' combination sale of Holstein cattle, held at Syracuse, N. Y., April 20th to 22nd, the bull Pietje Ormsby Burke, contributed by Woodcrest Farm, Rifton, N. Y., was started at \$650, and sold for \$1,000, to Dudley P. Rogers, Boston, Mass. Seventeen head sold on the second day at prices ranging from \$300 to \$775, and 93 head on that day made an average of \$220. The whole number sold in the three days was 245. Among the purchasers were Logan Bros., Amherst, Nova Scotia, who secured 20 head.

## TRADE TOPIC.

Nothing is more satisfactory than to be able to secure honest goods at fair prices, and to deal with a merchant whose guarantee on some particular line of goods is an absolute protection, because the manufacturer of the goods stands back of the merchant. This is the case in dealing with those merchants who handle Rex Flintkote Roofing. This roofing has been on the market for many years. Merchants who handle it, and whose endorsements have appeared in these columns, may tell you there are cheaper roofings; but they will not say there are better or more durable ones. Write for "Rex Flintkote" booklets to J. A. & W. Bird & Co., India street, Boston, Mass.

## SPRING WEARINESS

Are you feeling languid and all run down—is it hard for you to pull yourself together, and does everything seem too much trouble for you? Are you feeling irritable and bad tempered? No wonder if you are. The months of winter have tried you sorely and robbed you of more vitality than your system has been able to replenish. You are in need of a good tonic which will revive you and bring back that old-time vim and energy. PSYCHINE will do this.

Mr. James Stoliker, of Ridgetown, says:—"THERE IS LIFE IN EVERY DOSE. I cannot speak too highly of PSYCHINE, for it is the greatest medicine I ever used. I was just about 'All in' when I began the treatment, and in 3 months I was as well as ever. It is a great tonic for weak and run-down people. There seems to be new life in every dose." You cannot do without PSYCHINE at this time of the year. It is a necessity and will banish that run-down feeling, languor, etc., and give you new life. Send to DR. T. A. SLOCUM, Limited, Spadina Ave., Toronto, for a sample to-day, or purchase a bottle from your local Druggists or Dealer.

PSYCHINE is sold everywhere at 50c and \$1.00 per bottle.

**PSYCHINE**  
PRONOUNCED SI-KEEN  
THE GREATEST OF TONICS FOR HEALTH AND ENERGY



## Stoneycroft 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.

Stoneycroft Stock Farm, Ste. Anne de Bellevue, Que.

## Prizewinning Ayrshires AYRSHIRE BULLS

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.

FOR SALE.

Two bull calves, sired by Star of Glencairn, out of heavy milking dams with large teats. Star of Glencairn's dam, Sarah 2nd, won 1st in the Guelph dairy test in 1903 and 1906, and was 1st and sweepstakes winner in 1904. His sister, Jean Armour, was 1st at Guelph, 1907, and 1st at Ottawa dairy test, 1909. She has given 70 lbs. milk in one day.

COLLIER BROS., BEACHVILLE, ONTARIO.

## BURNSIDE 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, Kirkcudbright, 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,

HOWICK, QUE.



**MILK-FEVER OUTFITS.** Dehorning, Teat Syphons, Slitters, Dilators, etc. Received only award World's Fairs, Chicago, St. Louis. Write for illustrated catalogue. Haussmann & Dunn Co., 392 So. Clark St., Chicago.

**AYRSHIRES** Bull and heifer calves from producing dams. Right good ones. Hickory Hill Stock Farm. N. DYMENT, Clappison, Ont. Dundas Station and telegraph.

**SPRINGBROOK** are large producers of milk, testing high in butter-fat. Young stock for sale. Orders booked for calves of 1909, male and female. Prices 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 WM. STEWART & SON, Campbellford Stn. Menie P.O., Ont.

## 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.

## IMPORTED HORNED DORSETS

I have for sale a few of both sexes, the best 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.

## 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, BONDHEAD P. O., ONTARIO. Simcoe County.

## SOUTH DOWNS AND COLLIES.

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 shearlings, the choice of last year's lamb crop, also for sale.

Long-distance Telephone. ROBT. McEWEN, Byron, Ont. Ry. Stn., London, Ont.

## 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 again, as in past seasons. Kindly accept of our heartiest thanks.

J. & D. J. Campbell, Fairview Farm, Woodville, Ont.

**CLAYFIELD** Buy now of the Champion Cots Stock Flock of America, 1906. Flock headers, ranch rams, ewes of different prices reasonable. Write, or call on J. C. ROSS Box 61, Jarvis, Ont.

**Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.**—Present offering: Lambs of either sex. For prices, etc., write to John Cousins & Sons, Buena Vista Farm, Harriston, Ont.

## Ashford Ram Show AND SALE, 1909.

The annual show and sale of REGISTERED KENT OR ROMNEY MARSH RAMS will take place at Ashford, Kent, England, on Thursday, September 23rd, and Friday, September 24th, 1909.

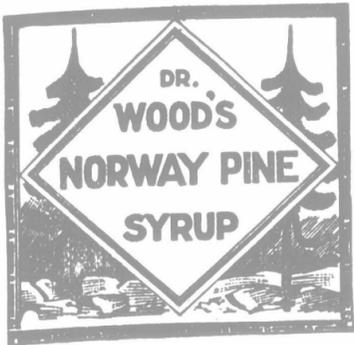
The entry includes the first section from the principal flocks of the breed, and will number 500 head of thoroughly typical and choicely-bred rams. Valuable challenge cups and prizes offered.

Full particulars and catalogues, when ready, from

W. W. CHAPMAN, 4 Mowbray House, Norfolk St., Strand, London, W. C., England,

who will supply any information required. Cables and Telegrams: Sheepcote, London, England.

HAVE YOU EVER REALIZED THE RESULTS OF "ADVOCATE" ADS.?



Combines the potent healing virtues of the Norway pine tree with other absorbent, expectorant and soothing medicines of recognized worth, and is absolutely harmless, prompt and safe for the cure of

**COUGHS, COLDS, BRONCHITIS, HOARSENESS, CROUP, SORE THROAT, PAIN or TIGHTNESS in the CHEST,**

and all throat and lung troubles. It is put up in a yellow wrapper, 3 pine trees the trade mark and the price 25 cents.

**A HARD DRY COUGHL.**

Mr. J. L. Purdy, Millvale, N.S., writes:—"I have been troubled with a hard, dry cough for a long time, especially at night, but after having used Dr. Wood's Norway Pine Syrup, for a few weeks, I find my cough has left me. To any person, suffering as I did, I can say that this remedy is well worth a trial. I would not be without it in the house."

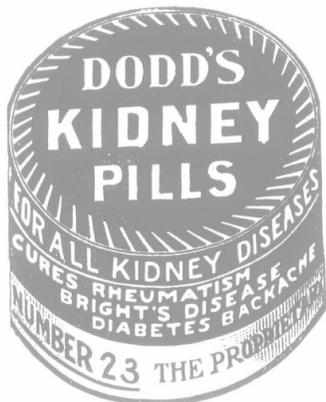
**MAPLE GROVE YORKSHIRES!**  
A very choice bunch of sows, mostly imported. Boars ready for service. Pigs of all ages. M. G. Champion—20102—, champion, Toronto, 1907, is stock boar. A square deal or none is our motto.  
H. S. McDiarmid, Fingal, Ont., Shedden Sta.

**CHESTER WHITE SWINE**  
A choice lot of young stock. Write for prices.  
W. E. WRIGHT, SUNNYSIDE FARM, GLANWORTH, ONTARIO

He was a fine type of the old Southern colonel, the fiery scion of a race of cavaliers. Also, he was exceedingly wrathful. He had just received a letter from a man, "a low soot of pusion, sur, I assure you," which displeased him immensely, and he was debating, inwardly, how best to convey to this vulgar correspondent an adequate expression of his (the colonel's) opinion of him.

But his stenographer was a lady. The colonel snorted, made two or three false starts, and finally dictated: "Sir, my stenographer, being a lady, cannot transcribe what I think of you. I, being a gentleman, cannot think it. But you, being neither, will readily understand what I mean."

Aim at a star and you may hit the top of a telegraph pole, aim only at a telegraph pole and you may hit a hole in the ground.



**QUESTIONS AND ANSWERS.**  
Miscellaneous.

**A BREEDING CRATE.**

Kindly let me know how to make a breeding crate. I am keeping a good boar, and there are many small sows coming to him that are not strong enough to hold him.

Ans.—A breeding crate is made much the same as a shipping crate, closed in front and open behind and at top, with a bar to slip behind the sow, above the hocks, to prevent her backing out. In order to accommodate both large and small sows, it is well to have a false, or second front, to slip down between cleats, to shorten the box when used for small sows. A good size is 5 feet long, 2 feet wide and 2 feet 9 inches high. The foot-rests for the boar may be a 2 x 4-inch strip attached to the forward end of crate on each side, about where the sow's head comes, and extending to the rear and bottom, where it is fastened. When necessary, when breeding a large sow to a small boar, it is well to have a movable platform about six inches high, to place behind the crate; this should have cross cleats to prevent slipping.

**KILLING PEA WEEVIL.**

What is the formula for treating seed peas to kill bugs, or pea weevil?

Ans.—Fumigate with carbon bisulphide. This should have been attended to as soon as they were threshed, but may be done at any time when the temperature is above freezing. The whole crop should be thus treated, or else enclosed in tight sacks, and ground as soon as fit. However, at this date, the best you can do is to treat your seed. A convenient way to fumigate a small quantity is as follows: Take an ordinary coal-oil barrel holding about five bushels, fill it with peas, and pour over it right on to the peas, about three ounces of bisulphide of carbon. Close the top tightly. This may be done with fine sacks, dampened and laid smoothly on the top with weighted boards on top. The bisulphide should be of the best quality, which will vaporize readily, and the exposure should be for 48 hours. As the vapor is very inflammable, the work should be done at a distance from the buildings, and no lantern or other light brought near. Where larger lots are to be treated, the peas may be put in a tight bin of about 20 bushels capacity, and a pound of bisulphide set in a dish on top of the peas, the whole being then covered. When very large quantities are treated in specially-prepared houses, a pound will suffice for 100 bushels, there being less waste of the vapor during the necessary exposure of 48 hours.

**FOUNDATION FOR BARN WALL.**

Which is the best way to drain the foundation of a basement barn so as to avoid the frost heaving the walls, and also to keep the foundation of the stable dry? I am building on the side of a hill; the bank will be about four feet high on one side. Will it be better to dig a ditch under the walls three feet deep and fill with small stones, or to drain it with tile outside the wall, from which a drain will be cut for an outlet, as I have about 30 feet of fall by which I can drain the foundation?

ENQUIRER.  
Glengarry Co., Ont.

Ans.—So long as the wall foundation is below the frost line it will not be necessary to dig the trench to be filled with small stones more than a foot or eighteen inches deep. In fact, unless our inquirer has a quantity of small field stones that he wishes to be rid of, we doubt the advantage of using field stone at all. While we cannot advise with the same confidence for conditions with the climate of Glengarry County, if we were answering this question for Middlesex, we would recommend our querist to dig out the excavation six inches or a foot farther back than where the outside face of the wall will come, and along the outside of this excavation lay a row of tile, sunk so that the top of the tile will be not higher than the bottom of the first course of stone. Then point up the outside of the wall as it is laid to lessen the chances of water seeping through, and fill in between the wall and face of excavation with a little gravel at the bottom and earth or anything handy above that.

**MONKLAND YORKSHIRES**  
are the easily-fed, quick-maturing kind. The sort the farmers want.  
All ages for sale. 100 sows bred now.  
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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.

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Highest standard of type and quality. For sale: Sows of all ages, and 4 yearling boars. A grand, good lot. Also younger ones. Pairs not akin. JOHN McLEOD, C.P.R. & G.T.R. MILTON P.O., Ont.

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**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.

**Pine Grove Yorkshires**  
classes. Our Yorkshires are noted for superior excellence. Both sexes and all ages for sale.  
J. Featherstone & Son, Streetsville, Ont.

At the late Guelph Winter Show we won decidedly the best of it in the bacon classes. Both sexes and all ages for sale.

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Sows bred and ready to breed. Nice things, three and four months old.

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A. A. COLWILL, NEWCASTLE, ONT.

W. W. BROWNIDGE, Milton, C. P. R. Ashgrove, Ont. Georgetown, G. T. R.

**MAPLE LEAF BERKSHIRES**  
For sale: Young sows bred to farrow in May and June; boars fit for service; also young pigs farrowed in March and April. Imp. sires and dams. Pairs not akin. C. P. R. and G. T. R. Joshua Lawrence, Oxford Centre, Ontario.

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Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes, pairs not akin.  
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You will never know what a grand power electricity is until you feel its genial, glowing warmth penetrating every vital part of your body from my Electric Belt.

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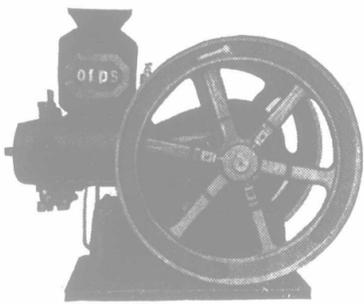
**I agree to replace, free of charge, any part of an Olds Engine that breaks or becomes worn, from any cause whatsoever, within one year from date of shipment, provided the replacement is one you think should be borne by the manufacturer. You are to be the only judge. There is to be no argument, no delay in returning old parts and getting new ones; you decide and I abide by your decision.**

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**Olds Patent Seager Mixer.**—The only one that makes a perfect mixer of gas and air, giving the greatest power. No pump to leak or get out of order. No moving parts.

**Removable Valve Mechanism. Removable Water Jacket. Jump Spark Ignition.** Piston and cylinder ground to a perfect fit, giving better compression and more power.

**Simplicity, three separate inspections, durability, economy and certainty of operation.**

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The Olds Gas Power Co. is the Largest and Oldest Concern in the United States who are Exclusive Makers of Gas and Gasoline Engines.

Our hopper jacket engine on skids or wheels, 3 to 12 H. P., is ready to run when you get it. Fill it with gasoline, throw on the switch, turn the wheel, that's all. No piping to connect, nothing to set up, always ready, can be moved anywhere.

We also make regular engines 8 to 50 H. P. for heavier work.

Every Olds Engine is fitted with the Seager mixer, which is recognized as being the most effective mixer that has ever been invented. No pump to leak, no moving parts to get out of order. They also have a removable water jacket, so if through carelessness the water should freeze, but very little damage is done.

It is to your decided advantage to send for our catalogue.

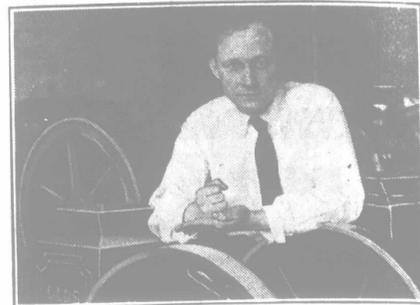
Do it now before you forget it. A postal card will do, but, better still, write me a letter, telling me what you want the engine to do, and you will get a personal letter from me that will give you the facts you want.

Write me or my nearest representative.

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Write me about your own particular case. Let me advise with you. What I can tell you will fit your case exactly. Then you can decide what engine to buy.

J. B. SEAGER, Gen'l Manager.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### FOUR-YEAR ROTATION—PERMANENT PASTURE—SUPPLEMENTARY FEEDING.

I have been very much interested in the discussion in "The Farmer's Advocate" on rotation of crops. For the last eight years we have been practicing a six-year rotation, consisting of hay (clover and timothy), two years' pasture, grain, corn, and seeding down with grain. This has been giving very good satisfaction, and I would not like to change it, unless I was sure it would be better. If I changed to a three-year rotation, permanent pasture would have to be used. Would you answer a few questions on this subject:

1. Do I get the full benefit of the clover in my present system?
2. Would as good results be obtained from permanent pasture as pasture in rotation?
3. Would it be any benefit to have some timothy in the hay, or should it be all clover?
4. In seeding down to permanent pasture, should a regular permanent-pasture mixture be used?
5. How would alfalfa hay and corn silage do for summer feeding?

#### ROTATION.

Ans.—1. You do not derive full benefit from the clover, because you do not have enough of it. Instead of being sown once in six years, it would be better sown, say, once in four. We would strongly recommend trial of a four-year rotation, arranged as follows: First year corn, roots and potatoes, on sod with a piece of peas, if necessary, to fill out the quarter; second year, grain seeded to clover and timothy; third year, hay (chiefly clover, as a rule); fourth year, pasture or hay and pasture as required. This will obviate the necessity of a permanent pasture, except perhaps a small

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field near the buildings for turning the cows in at night, or a rough area not suited to rotation cropping, or some out-of-the-way field in which steers may be pastured, or even cows, if there be children to fetch them, or a lane up which they may come of their own accord to the barn.

2. A well-established permanent pasture, rightly handled, and manured occasionally, will produce a liberal amount of very nutritious grazing, almost, if not quite, as much as the usual meadow occurring in rotation, but except in the circumstances above indicated, we do not consider it wise to thus abstract a field from the rotated area.

3. While a ton of timothy is not so valuable for feeding stock other than horses, as is a ton of clover, still a little with the clover adds acceptable variety, probably conduces to a greater yield and in some seasons insures a crop when, if clover alone had been sown, there might be little or no hay.

4. Yes, decidedly.

5. Fairly well, if the hay were of good quality and well preserved, especially if it were new hay. It would furthermore have the advantage of being very convenient to feed. Undoubtedly, silage, with alfalfa, fed green, would produce a better milk flow.

Up-to-date—"When we take charge of the Government," says the wise old suffragette, "we will make some changes in the naval bureau." "I should hope so," agrees the enthusiastic young suffragette. "Why, bureaus are hopelessly out of style." We will have a combination wardrobe and chiffonier."

Mardougal (to his new fourth wife)—"The minister doesn't approve o' my marryin' again, an' sae young a wife, too." But, as I tell't him, I canna be aye busyin'."

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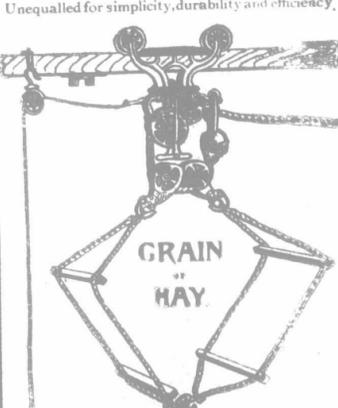
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For copy of Homeseekers' Pamphlet, rates and full information, apply to nearest C. P. R. Agent, or R. L. Thompson, D. P. A., Toronto.

**Our Low Wide-tire Steel Wheels Halve Loading-labor**

You can load a low-wheel wagon in half the time required to load a high-wheel affair. And there is no reaching-up or high-throwing to do with a wagon equipped with our Low Wide-tire Steel Wheels.

You can turn any wagon into a low one. Our wheels are made in any size, any width of tire, to fit any axle. Reliable in all kinds of weather, wet or dry, hot or cold. Can be readily taken apart and put together again. Sold under a guarantee that completely protects you. Send for catalogue.

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An immensely popular wagon is our "Queen City" Low Handy Wagon. Strongly constructed, excellently finished, splendid appearance. Can be changed into platform wagon in three or four minutes. One man can do more work with "Queen City" than two men with high wagon. Complete particulars in free catalogue.



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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.

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1/2 of the woollen cloths worn in the world are made from wool obtained from Cooper's Dip sheep.

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At the Royal Show, England, in 1908, in the breeds of sheep, every prize-winner used Cooper's Dip.

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Tell us how many sheep you have, mentioning this paper and we will send copy of our book "Sheep Scab and How To Cure It," free of charge.

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Just as no Cockshutt customer pays a cent of the cost of this advt., he doesn't pay for the surplus strength built into a Cockshutt tool. **Where the value of it comes in** Advertising is an investment that repays us in increased business—and plus-strength is an investment that repays us in increased reputation. You get breakdown insurance for the price you'd pay for ordinary impliments. We get your faith and your good word—and they count a whole lot in this business.

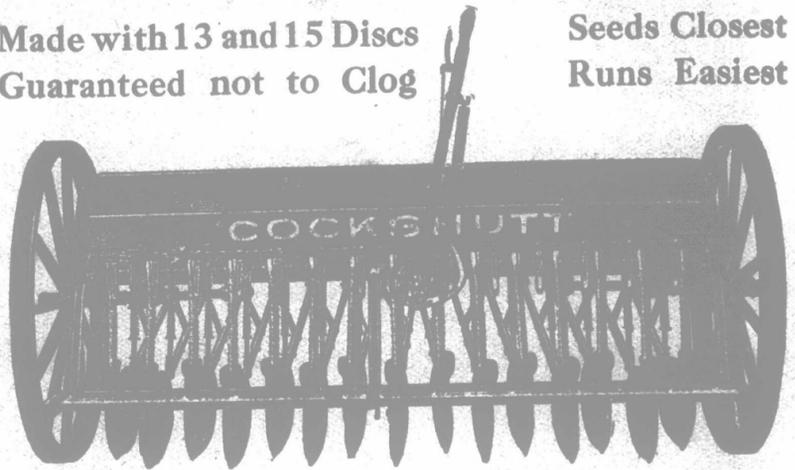
This plus-strength does NOT mean extra weight, nor clumsiness. It wouldn't be worth having if it did mean either of those things.

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Seeds Closest  
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This shows the one perfect disc-bearing—GUARANTEED dust-proof and self-oiling. It accounts for this Disc Drill's wondrously light draft.

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