

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE  
SUCCEED  
FOUNDED

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

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Vol. XLIV.

LONDON, ONTARIO, JUNE 17, 1909.

No. 873

**Bell PIPE TONE Organs**

THE MOST SATISFACTORY ORGANS FOR HOME USE

IN BUYING A

## Bell Organ

you secure one with the charming tone of a pipe organ, and at a price that will please you. Buy a Bell and get the best made. We are the only makers of the patent Pipe Tone Reed Cells. Send for free catalogue No. 40.

The BELL Piano & Organ Co. GUELPH, (Limited) ONTARIO. Largest makers of Pianos, Organs and Player-pianos in Canada.

## OSHAWA STEEL SHINGLES

ARE GOOD FOR A HUNDRED YEARS. They are Guaranteed. No Others Are. Make Buildings Wet-proof, Fire-proof, Lightning-proof.

Send for booklet, "Roofing Right," and samples.

**The PEDLAR PEOPLE** ESTABLISHED 1861  
Oshawa. Montreal. Ottawa. Toronto. London. Winnipeg.

Write To-day for the BT Catalogue.

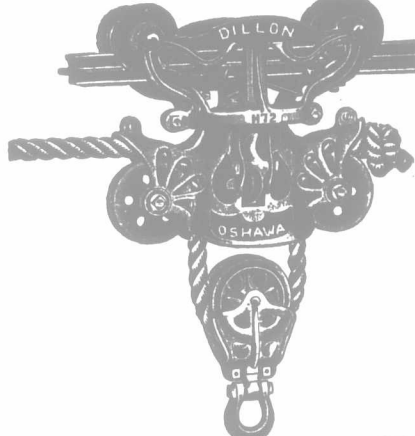
It gives full descriptions of the easiest working, strongest and most durable HAY TOOLS on the market, and they cost no more than the out-of-date kind.

**BT TRACK, PULLEYS, CARS, HOOKS,**

etc., are all designed to meet the farmer's demand for an outfit which will handle all his team can lift. Extra long tread on track, large hardened bearings, and big, roomy rope sheaves, are some of the special features of all BT HAY TOOLS.

Write: BEATTY BROS., FERGUS, ONTARIO.

Simple in construction. Strong in every point. Superior and up-to-date.



**R. Dillon & Son**  
OSHAWA HAY CARRIER WORKS,  
South Oshawa, Ont.

## 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 or Metal Town.

**THE METALLIC ROOFING CO. LIMITED, MANUFACTURERS,**  
Toronto. 1598 Winnipeg.

## TOP BUGGY INFORMATION.

Top Buggies, the equal of anything on the market, selling from \$75 to \$90, delivered, Freight Paid, at any railroad station in Ontario for \$63 to \$70. No such value ever before offered in Canada. Be your own dealer by dealing with us. Shipment within 10 days guaranteed. Send for descriptive, illustrated catalogue. Other special lines are

**HARNESS AND GROCERIES**

The Clement Brown Trading Co., TORONTO, ONT.

Build CONCRETE SILOS Any Size with the London Adjustable Silo Curbs. SEND FOR CATALOGUE.

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

**LONDON CONCRETE MACHINERY CO., LTD., 19 Marmora St., London, Ont.**  
Largest manufacturers of Concrete Machinery in Canada.

## Choice Western Farms.

Desirable Locations.

We are offering good values in specially-selected blocks of unimproved lands, also improved farms, with buildings and breaking done. PRICES and TERMS VERY REASONABLE. Call and see us, or write for literature.

**THE UNION TRUST COMPANY, LIMITED REAL ESTATE DEPARTMENT**  
174-176 Bay St., Toronto, Ont.

## CHURCH BELLS

'CHIMES AND PEALS MEMORIAL BELLS A SPECIALTY FULLY WARRANTED

**McSHANE BELL FOUNDRY CO.,**  
BALTIMORE, Md., U. S. A.  
Established 1866



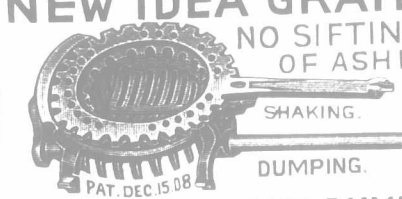
## Well DRILLING & PROSPECTING MACHINES

Fastest drillers known. Great money earners.

**LOGG'S MACHINE CO., TIFFIN, OHIO.**

## 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.



**Use This Loader and Hire No Men**

One man can build the load because the Loader pushes the hay well forward on the wagon. This feature saves one man's wages, over other types of Loaders, every day used. An adjustable apron at top keeps hay from spilling or blowing away.

Here's a Loader that takes hay clean from swath or windrow. The nine rakes are so shaped they can't wrap or tangle, they automatically self-adjust, each independent of the other and pick hay out of low places, don't tear up ground in high places. Wheels set underneath so you can gather hay close to fences or ditches.

You can couple it in a few seconds to any height wagon and uncouple it from top of load. No cog gears, or crossed chains, to cut out, no long crooked crank shaft to break, no ropes to rot, no rollers, cams, or what-nots to wear and make trouble.



**Great DAIN Loader**

is a model of simplicity, and efficiency. It is light draft, easy to operate and substantially built of best material to stand hardest service. We have specialized on Hay Tool for a quarter of a century. The name Dain on a Mower, Rake, Loader, Stacker or Press guarantees best work, lightest draft, most labor saved, a perfect machine.

Ask your dealer to show you the whole line.

**Handy Hay Book FREE**

Tell us your hay tool needs and we will send you our new book "All About Hay" containing facts on how to make hay-growing more profitable and other information valuable to hay makers. Send for it.

**DAIN MANUFACTURING CO.**  
Mention this paper. Preston, Ont.

**STEEL WHEELS STRONGER THAN WOODEN.**



Wooden wheels, with their easily-rotted spokes, cannot compare in durability with our Wide-tire Steel Wheels, with their rot-proof, staggered spokes. And our steel wheels are lighter and cheaper, as well as stronger, than wooden. Will carry as heavy a load as a team can draw. Guaranteed too. Please send for catalogue, which tells the whole story. **Dominion Wrought Iron Wheel Co., Ltd., Orillia, Ont. 4**

**CANADIAN PACIFIC**

**Very Low Rate for Summer Trip to Pacific Coast**

**\$74.10** Return from LONDON Good Going May 20 to Sept 30

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.**

**BINDER TWINE.**


Central Prison Binder Twine will be supplied to farmers as follows:

600 Feet per lb.	8 1-2c. per lb.
550 " "	7 3-4c. " "
500 " "	7 1-4c. " "

These prices are net cash. The twine is put up in fifty-pound jute sacks, and is manufactured from SELECT FIBER. Quality and length guaranteed. Please specify at once what quality and quantity is required. Purchaser pays freight, and cash must accompany shipping instructions.

Apply **J. T. GILMOUR, Warden,**  
Central Prison, Toronto.


**10 Feet of Disks**



**THIS** picture shows the 52 disks used inside one of the many "bucket bowl" cream separators that farmers and their wives are everywhere discarding for the simple, sanitary Sharples Dairy Tubular. We have slipped the 52 disks onto two 5 foot sticks so you can count them. The manufacturer and his agents call this disk bowl simple. Looks simple, doesn't it? They also say the 52 disks can be washed all together—as one piece—and hung up to dry. What do you think of such a statement? Ten feet of disks to wash clean and dry thoroughly, on both sides, twice daily. What a weary job after a hard day's work or a late milking.

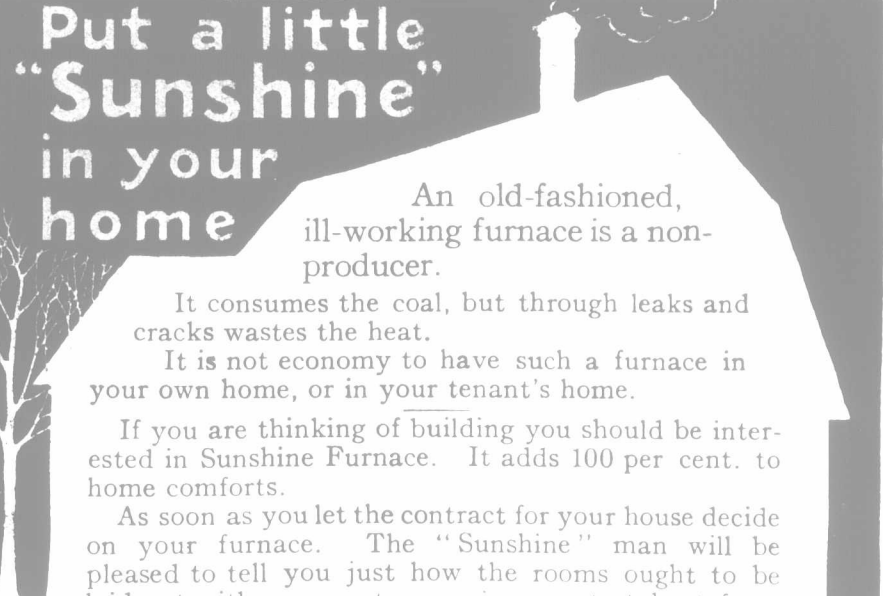
Why make the mistake of getting a "bucket bowl" machine? You'll very quickly wish you had a simple, sanitary, Sharples Dairy Tubular Cream separator instead. The dairy Tubular bowl contains just one instantly removable piece about like a napkin ring in size and shape. The entire Dairy Tubular bowl is easily washed clean in 3 minutes. The manufacture of Tubulars is one of Canada's leading industries. 1909 sales exceed most, if not all, "bucket bowls" combined.

Write for catalog No. 193.



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

**Put a little "Sunshine" in your home**



An old-fashioned, ill-working furnace is a non-producer. It consumes the coal, but through leaks and cracks wastes the heat. It is not economy to have such a furnace in your own home, or in your tenant's home.

If you are thinking of building you should be interested in Sunshine Furnace. It adds 100 per cent. to home comforts.

As soon as you let the contract for your house decide on your furnace. The "Sunshine" man will be pleased to tell you just how the rooms ought to be laid out with an eye to securing greatest heat from the smallest consumption of coal.

If you want to experiment with the question don't specify "Sunshine."

If you want to settle the question specify "Sunshine."

**McClary's**

**The Tie That Binds**




Examine our lock—"The Tie That Binds." Notice how it locks smooth on both sides of the line wire. Being an oval loop, it permits a long bend in the line wire. This does away with short kinks, which cause so many breaks in the fence.

This lock can't slip and adds strength and wear to the whole fence. The "Standard" may cost a little more than small, soft wire fences—but it's worth more to every farmer and stockman who wants the best. Write direct to the factory for catalogue and sample lock.

**The Standard Wire Fence Co. of Woodstock, Ont., Woodstock, Ont.**

**Standard Woven Wire**


**This Knot**



is small, but it costs farmers money. Delays and breakdowns are expensive in harvest time. Cheap binder twine has many knots, which cause delays. Use

**Plymouth Binder Twine**

It is better made, smoother, free from knots. It looks better in the ball—it is better in use. Guaranteed full length and extra strength. One man says: "There is not a dealer or farmer in this county who does not regard Plymouth Twine and Rope the best he ever saw." Get Plymouth Twine at the local dealer's.



**PLYMOUTH CORDAGE COMPANY,**  
Largest Rope Makers in the world. Oldest in America.  
PLYMOUTH, MASS.

**EUREKA Glass Tank Sprayer**



Solution tank is a quart Crown glass jar. If broken, it can be easily replaced for a few cents. Solution tubes are brass. None of the liquid used can be drawn back into the pump chamber, thus the chamber and valves are uninjured. This is the easiest operated and the most effective small sprayer on the market. Inquire of your hardware dealer.

Write for our complete catalogue of Sprayers and Garden Tools.

**THE EUREKA PLANTER CO. LIMITED**  
Woodstock Ont. 6

**Becharan's Self-Compressing Long Sling**



—the result of 33 years experience in making Pitching Machines. Consists of three slings and sectional pulley for drawing ends together. Easy to operate, quick to work, and exceptionally strong. We make all kinds of Pitching Machines—Swivel Carriers and Tracks, Slings, Harpoon Forks, etc. Write for catalogue.

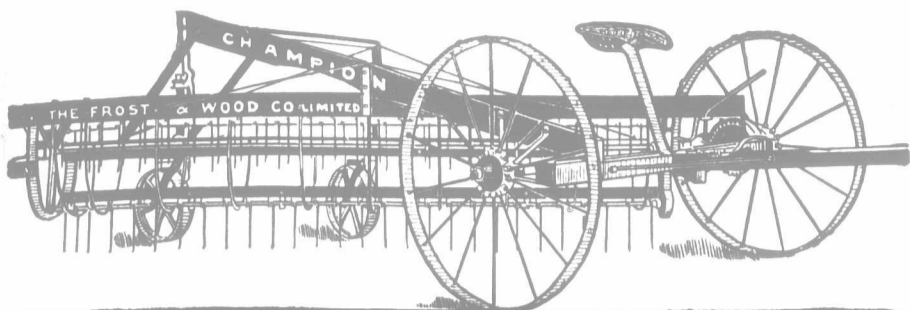
**M. T. BUCHANAN & CO., INGLEWOOD, Ont. 2**

**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**  
17-19 Richmond St. West,  
TORONTO, CANADA.

Regional agents for the Canadian Pacific Irrigation Colonization Company, Ltd. Agents wanted.



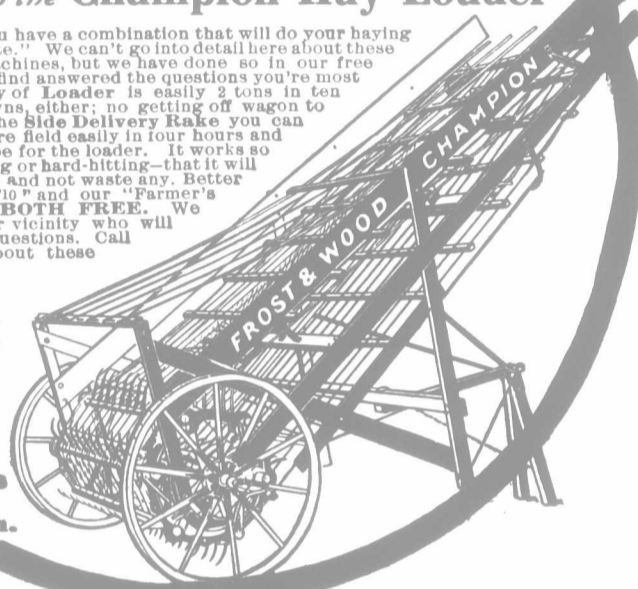
## BETTER HAY PRICES

"Well-cured, half-sold." is a true hay-proverb. Sweet, clean, well-dried, even-colored hay brings a high price in every market. You can shake newly cut hay and rake it all in one operation, and save the price of a sulky-rake and a tedder—if you own a

### Champion Side Delivery Rake Used in connection with the Champion Hay Loader

below illustrated, you have a combination that will do your haying up "to the King's taste." We can't go into detail here about these high-grade haying machines, but we have done so in our free catalog. In it you'll find answered the questions you're most liable to ask. Capacity of Loader is easily 2 tons in ten minutes; no break-downs, either; no getting off wagon to detach loader. With the Side Delivery Rake you can shake and rake a 20-acre field easily in four hours and leave it in good shape for the loader. It works so smoothly—no thrashing or hard-hitting—that it will rake clean a bean-field and not waste any. Better send for that catalog "F" and our "Farmer's Ready Reckoner." BOTH FREE. We have an agent in your vicinity who will gladly answer your questions. Call on him and ask about these two machines.

**Frost & Wood Co., Ltd.**  
Smith's Falls, Can.



## Galt "Classik" Ceilings

THIS IS THE SHEET METAL AGE.

Unlike wooden ceilings, Galt "Classik" Metal Ceilings never warp or burn through, neither do they crack or fall down as do the plaster kind.

And, unlike ordinary metal ceilings, Galt "Classik" Ceilings are constructed so that the ceilings, walls and trimmings completely harmonize—form together one harmoniously artistic whole.

The designs selected for Galt "Classik" Ceilings are from the Louis XIV. period—more elegant, beautiful and elaborate than anything hitherto attempted in metal ceilings.

Quickly and easily applied, too. All joints fit perfectly and are invisible. When up, they're up to stay. Never drop off, crack or rust. Not affected by settling of building. No wear out to them. Superior in every way to every other kind of ceiling.

Designs suitable for any size or style of room—and you'll be surprised how little Galt "Classik" Ceilings cost.

Handsomely illustrated catalogue free on request.

**THE GALT ART METAL CO., Ltd., GALT, ONTARIO.**

## The 1909 Kemp Manure Spreader

Equipped with the Reversible, Self-sharpening, Graded Flat-tooth Cylinder. The latest improvements of J. S. Kemp, the inventor of the first Manure Spreader. The result of 34 years in the use and manufacturing of Manure Spreaders. Send for our catalogues, fully describing this machine, and also our Imperial Horse-lift Drill. The only drill equipped with a horse-lift.

**W. I. KEMP CO., LTD., STRATFORD, ONTARIO.**

Western Agents: PARLIN & ORENDORFF, Canadian Plow Co., Winnipeg, Regina, Calgary. Agent for Quebec: D. BRYSON, Westmount, Que.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### A BREEDING-PLACE.

Is it lawful for horsemen to breed mares in a shed near a public highway, providing they use a curtain to screen it from the public, the said shed being about 50 feet from the highway?

Ontario.

Ans.—We do not see that it is unlawful, unless, probably, there is a local municipal by-law on the subject imposing regulations contrary to the practice in question.

#### PENALTY FEES.

I saw in your columns that the penalty fee for registering Clydesdales did not come into effect until July 1, 1909. I sent for a pedigree for a colt about eight months old, and they put a penalty fee on of \$2. I do not think this is right. We look to your paper as reliable information on these things. Now, \$2 penalty means a lot to the farmers. I would buy a lot of subscriptions to your valuable paper. I think that the mistake should be corrected. I will send the letter; kindly return. I think that the Society should have called attention to the mistake. They evidently knew of it. Is there nothing to be done but for all of us to pay \$2 penalty? What can we do?

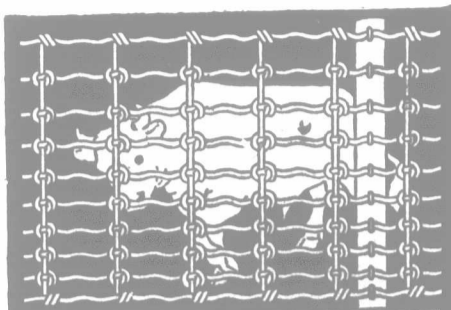
OLD SUBSCRIBER.

Ans.—The mistake in question is one more instance of the habitual inaccuracy and presumption of the Secretary of the Clydesdale Horse Association of Canada. A correction and explanation by the Accountant National Live-stock Records was published in "The Farmer's Advocate" of May 20th, page 863, from which it appears that the penalty fee came into force on April 2nd, 1909.

#### MAKING A MUSHROOM BED.

Kindly give me your recipe how to make a mushroom bed. R. H. C.

Ans.—Decaying vegetable matter, a uniform and rather low temperature, and a uniform supply of moisture, are the general requisites for mushroom culture. Because these conditions can be better controlled, mushrooms are usually grown under cover; cellars, pits, caves, and greenhouses, are favorable places. Prepare the beds on a cellar floor, or under the benches of a greenhouse, by making rough box-like enclosures of plank about 15 inches in depth, and held in place by scantlings. The beds should be three or four feet in width, and the floor and the wall at the side may be used to save planks. If success is assured, several tiers of beds may be built one above another, the floor of each tier being at least one inch in thickness. The cellar should have some ventilation, but there should be no air currents crossing the beds. The best material for the beds has been found to be horse manure, without much coarse straw. The manure should be piled in some sheltered place in a pile from three to four feet deep, and should be allowed to heat but not to burn, a condition which will be shown by its turning white inside. If this whiteness should show signs of appearing, the pile should be turned. In any case, after it is well heated, it should be turned once in two or three days; if the heating proceeds very rapidly, every day. If it should get too dry, water should be sprinkled on it to make it moist. In 15 or 18 days it should be ready for the beds, but should not be put into them till the temperature is down to 100 degrees. The manure may now be put into the beds, the more strawy material in the bottom. As each layer is put in, it should be thoroughly tramped down; finally a layer of about 1½ inches of soil—rotted sod is best—is placed over the top. The spawn must not be planted at once, as the temperature is likely to rise. It should not be placed in the bed until the temperature has fallen to 70 or 75 degrees. Spawn comes in the form of bricks, each of which is broken into ten or twelve pieces, which are planted from eight to ten inches apart in the bed, and about one or two inches below the surface, the manure removed in making a hole for the piece being placed over the top and packed down hard. The beds may now be covered loosely with straw to prevent too rapid evaporation. The mushrooms should begin to appear in about six or seven weeks. The cost of the spawn is inconsiderable, something like 60 cents per bushel.



## Fence Friends

Every buyer of Peerless Fence becomes a friend of ours because Peerless fence saves him trouble, money and time. PEERLESS Woven Wire Fence is made of all No. 9 Steel Wire well galvanized. PEERLESS FENCE requires very few posts, and you save money on the net cost of your fence.

## PEERLESS

The Fence That Saves Expense

One of the reasons why PEERLESS Woven Wire Fence is better than other fences is because of the PEERLESS lock. It holds securely and without damaging the wire, yet there is just enough elasticity to prevent snapping from sudden shocks, changes in temperature or from any other cause. Stock cannot get through it—under it or over it. There are so many advantages in buying PEERLESS Fence in preference to other fences we have not room in this advertisement to tell you of them.

Your name on a postal brings you our new printed matter, containing much useful information in regard to fencing. Write for it today.

The Banwell Hoxie Wire Fence Co. Ltd., Dept. B, Hamilton, Ont. Windsor, Man.



### Revolution in the Price of RIDING BREECHES 10/6

SEND FOR PATTERNS And Easy Self-Measuring Form. S. R. D., Farmer's Advocate, London, Ont.

YOU CAN SAVE 50%.

READ WHAT A CUSTOMER SAYS: "Dear Sir, Breeches to hand. At all that can be desired; they certainly are better than a pair I paid \$11 for a few months ago. Please keep measure.—C.H."

This gentleman measured himself according to our easy measure instructions MADE TO YOUR MEASURES. Testimonials from all parts of the World.

**BEDFORD RIDING BREECHES CO.**  
61, KINGLY STREET, REGENT STREET, LONDON, ENGLAND.

Also in better qualities at 13s. 11d. & 15s. 11d.

Lady's or Man's WATCH GIVEN FREE

For selling our Picture Post Cards, handsome Canadian and English Views, and Men's Collar Buttons. Watches are guaranteed silver nickel, man's given for selling \$3.00 worth, and lady's for selling \$3.50. Send us your name and address and we will mail you Post Cards to sell 4 for 10c, or Collar Buttons to sell at 10c. for set of 4. You may sell whichever you wish. Both are very easy sellers. Write to-day. A Post Card will do. The Reliable Premium Co., Dept. X, Waterloo, Ont.

## FIT'S Trial Free

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.

PLEASE MENTION THIS PAPER.



## FAIRBANKS-MORSE

Improved Skidded and Portable  
Evaporator Tank

### GASOLINE ENGINES



These engines are built along the same lines as our Fairbanks-Morse Standard Horizontal Engines, with the exception that our improved Cast Iron Evaporator Tank is cast on top of cylinder, as shown in illustration. No cooling tank is required, thus overcoming the difficulty of carrying the usual great volume of water. The lubrication difficulties of Air Cooled Engines are overcome in the above. There is very little water in the tank to take off by drain in the cold weather, thus saving time and trouble, and there is no water pump to freeze up. We provide a shield to prevent water slashing out of the Hopper Jacket. There is very little water in the tank to take off by drain in the cold weather, thus saving time and trouble, and there is no water pump to freeze up. We provide a shield to prevent water slashing out of the Hopper Jacket. There is very little water in the tank to take off by drain in the cold weather, thus saving time and trouble, and there is no water pump to freeze up. We provide a shield to prevent water slashing out of the Hopper Jacket.

The skidded engine is a very desirable outfit where it is necessary to the engine can be drawn about on its iron-shod runners, or can be placed on a farm truck or a bob sled. The engine itself is Fairbanks-Morse in every respect, and ensures to the customers the best there is in Gasoline Engine construction.

Send for our FREE CATALOGUE G E 102, showing our full line of Fairbanks-Morse Vertical and Horizontal Gasoline Engines and Machinery for farm work. It means money saved for you. Write to-day.

### The Canadian Fairbanks Company

(LIMITED).

Montreal, St. John, N. B., Toronto, Winnipeg, Calgary, Vancouver.

FACTORY: TORONTO, ONT.

### Make this 60-Day Test of Brantford Roofing—then Test Any Other Make

Write us, or your dealer, for sample of *Brantford Asphalt Roofing*. Place it in water for sixty days. When you remove it, rip open with heavy knife, and you'll find insides—the vital part—perfectly dry, life-like, solid—as before test. Just think of severeness of this test! The result is evidence you cannot overlook. Then make this test with any other Roofing. You'll find the wood pulp—jute or cotton-cloth insides soaked—softened—lifeless. It cannot withstand severe weather, which is, at its worst, not one-twentieth so severe as *Brantford's Test*. Wood pulp is like paper. It acts like paper, when soaked—wilts away. How could you expect such a foundation to fight off Roofing Enemies! For resistance, it must depend upon animal fat, grease, or other refuse coating, themselves veritable mines of danger. They evaporate—wear off—expose shameful foundation to awaiting enemies. This coating cannot prevent penetration—protect defenceless insides from harm. But *Brantford Asphalt Roofing* Foundation is one sheet of evenly-condensed, long-fibred pure Wool, with life and body of its own. A secret mixture of *Asphalt* is forced into it, soaking every fibre. After mixture dries, foundation possesses resisting-power so amount of soaking or bending can effect.



## Brantford Roofing

after special Water-proof Coating, into which Silica Sand is rolled under pressure, is applied, becomes a solid mass of resistance. It is weather, acid, alkali, frost, water-proof. Cannot freeze, crack or melt. Wonderfully pliable. Brantford has but one cost—first. Write for free Book and Samples.

Brantford Asphalt Roofing, No. 1, 2, 3.  
Brantford Rubber Roofing, No. 1, 2, 3.  
Brantford Crystal Roofing, one grade only, (heavy).  
Mohawk Roofing, one grade only.  
BRANTFORD ROOFING CO., Ltd., BRANTFORD, CAN.

## WINDMILLS

THE HAYWARD WINDMILL CO., LTD.,  
LONDON, CANADA.

Manufacturers of the Hayward

### Less Friction Windmill

A new improved design of windmill. Mechanically correct. A marvel of simplicity and strength. If interested at all in windmills, send name and address for free catalogue.

Factory: 663 Bathurst St., London, Ont.

## PAINT WITHOUT OIL

AGENTS WANTED.

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-five Per Cent.

A prominent manufacturer has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry Powder. All that is required is Cold Water to make a Paint, Weather-proof, Fire-proof, and as durable as any oil paint. It adheres to any surface—wood, stone or brick. Spreads and looks like oil paint, and costs about one-fourth as much.

A farmer can paint his House, Barns and Fences at very little outlay. One coat is equal to two coats of oil paint. Write the

**POWDRPAINT COMPANY,**  
TORONTO,

for full information and catalogue, with color card and price list.

### \$1,500 MADE ON CIDER

Write for Free Catalogue, Describes and illustrates our line of the

#### ORIGINAL MT. GILEAD HYDRAULIC CIDER PRESSES

Built in sizes 10 to 400 barrels per day. Hand or power. Presses for all purposes. Also Steam Evaporators, Apple-Butter Cookers, Vinegar Generators and everything for the Cider and Vinegar maker. We can show you how \$1,500 clear profit can be made.

Largest Made of Cider Presses in the World

HYDRAULIC PRESS MFG. CO., 110 Lincoln Ave., Mt. Gilead, Ohio

### A Foolish Question

SHALL IT BE A

## De Laval Cream Separator

Or an Imitation?

1,000,000 De Laval Separators Sold



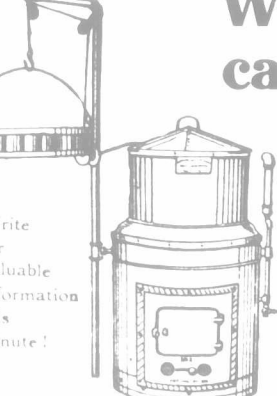
**THE DE LAVAL SEPARATOR CO.**  
173-177 William Street, :: :: MONTREAL  
VANCOUVER                      WINNIPEG

### What was loss last year can be profit this year

Remember all the old-time loss of fruit and vegetables through windfalls, early ripenings and overcrowded markets? Well, all this loss of money can be avoided—turned into real profit. And the marvellous Modern Canner does it! It uses the same fine work of those great Canning Factories—but on a smaller scale. You have a regular Canning Factory in your own Home, on your own Farm or in your Grocery Store. Just think! The Modern Canner Cans 1,000, 2,000 and 4,000 tins in 10 hours—easily, simply, without waste its work is profit. Three sizes: \$30, \$50 and \$75—but it honestly pays for itself the first season.

### The Modern Canner Co.

Canadian Branch: 86 King St., St. James, Ont.



Write for valuable information this minute!



*Two records at a single price!*

## COLUMBIA

Double-Disc Records  
Fit Any Machine  
85c

If you ever spent 75 cents for a disc record, it won't take you long to see the double value of a Columbia Double-Disc Record at 85 cents—a different selection on each side. Hear one! Get a catalog!

**Toronto Phonograph Co.**  
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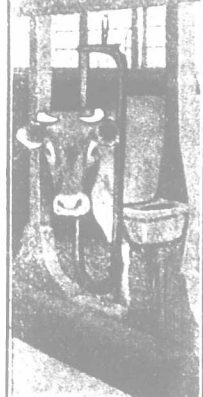


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# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established 1866.

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Vol. XLIV.

LONDON, ONTARIO, JUNE 17, 1909

No. 873

### EDITORIAL

#### Quest of the Bacon-hog Commission.

The letters appearing from time to time in "The Farmer's Advocate," setting forth the cost and the profits of hog-raising by Canadian feeders, suggest a line of inquiry of which, no doubt, advantage will be taken by the Royal Commission being despatched by Hon. Sydney Fisher, Dominion Minister of Agriculture. In the press references to this subject, stress has been laid chiefly upon the search to be made in Denmark, Ireland, and in English consuming centers, for the secrets of the supremacy of Danish and Irish bacon. The commissioners will, assuredly, come upon much evidence in regard to quality, proximity to market, and uniformity, to which our attention has been called by others who have before traversed these fields. Their object will be to bring home to the Canadian producer the conditions under which an increased share of the British market for hog products is to be profitably held. It will probably be found in the case of Denmark, for example, that the bacon-hog producer there belongs to a shrewd, patient type of husbandman, all of whose operations are permeated with the essentials of thrift. His simplicity in living may make even modest returns, individually, for bacon hogs and butter, go further than in the case of those whose lives and surroundings are differently ordered. It is probable that he may be found more amenable to co-operative control and governmental regulation than the democratic Canadian farmer who is disposed to be a law unto himself in the matter of breeds and methods, or whether he shall raise hogs at all or not, if the packing-house prices take too disheartening a curve downward when feeders are speeding the other way, causing him to disregard the good old English maxim, "It's dogged that does it." Distant hills look green—none more so than those of Ireland—and the achievements of the Danes have been so long dinned into our ears in a general way that it may be comforting, perhaps, to have before us the undeniable and official truth; but to go no further away, let it be remembered that the intelligent farmers of Ontario have been raising bacon hogs for many years, out of which packers have grown rich, and at the Guelph Agricultural College and the Ottawa Experimental Farm feed lots, investigators have been working out the problems of quality and cost of production.

In the south-western peninsula of Ontario we have a body of farmers who have made a speciality of hog production on natural grass, clover and corn, through the media of such types as the Chester White, the Jersey Red and the Berkshire. In some cases late fall litters are carried cheaply through the winter, growing slowly, but do not reach the market till some ten months or a year old, while other bunches, arriving on the scene at the March farrowing, soon go out on the pasture lot or clover field, and later on the finishing is hastened with a run on field peas and all the corn in the ear they want, reaching the packer's weights at six or seven months old. The latter is regarded as the more profitable system, but many hold to the virtue of giving hogs time to "grow." Further east, in such counties as Middlesex, Oxford, Perth or Simcoe, the procedure may be quite different, both as regards feeds and methods, while in Eastern Ontario, Quebec and the Maritime Provinces, men can be found who are experts in economical hog-rearing. Here and there men have quit the business in disgust, and should be asked why. The packers and provisioners can furnish

useful information as to the great increase and nature of Canadian consumption and its effect upon exporters of bacon. Now, along with what may be learned abroad, why not assemble and classify this most valuable body of Canadian experience under different conditions, a capable digest of which will disclose for the benefit of feeders generally the details of the most profitable practice?

The suggestion has been made that since American hog products have been crowding into Canada at a disquieting rate over a fairish protective tariff, and presumably at a profit, the commission might do worse than make some enquiries into the ways of the American hog-raiser; but in Essex and Kent, which produce far more hogs than any other counties in Ontario, we have an approximation to his methods, though in some respects under very much better conditions, and "The Farmer's Advocate" would respectfully suggest that a first-hand official account of what has been learned there, and in the other centers of swine lore already indicated, should beyond any question be embodied in the findings of the commission. The farmers of a Province, the live stock of which includes nearly 2,000,000 hogs per year, valued at from \$12,000,000 to \$14,000,000, to say nothing of our experiment stations, must have accumulated a fund of knowledge pertinent to this investigation, and a portion of the \$10,000 which Parliament has voted for the purpose should most certainly be devoted to an adequate collection of the facts, along with an illuminating statement of the lessons which they teach.

#### For the Broad View.

Public opinion in the banner Province of the Dominion divides between the two immense national canal projects looming up before Canadian statesmen, somewhat according to local interests. The Ottawa River districts are in favor of the immediate construction of the Georgian Bay canal, because, apart from its advantages as a national waterway, they realize that it would place them upon the highway of export and inter-Provincial water-borne traffic, besides affording opportunity for the development of immense water-powers for industrial and utilitarian purposes. This is all well and good, but must not be allowed to bias the national perspective out of alignment with the principle of the greatest good to the greatest number.

The inhabitants of Southern Ontario view with misgivings a proposed expenditure, of which they will bear their share, contributed through the national exchequer, but which would necessarily draw traffic from the southern route, by way of the new artificial short-cut to tidewater. This attitude is also quite natural, but should not be entertained by any patriotic citizen to the prejudice of the policy of greatest national benefit. The whole is greater than its part, and the interest of the Dominion far transcends the interest of any one Province, or part of a Province. It is just such narrow self-seeking which is responsible for the chaos of American tariff policy, and which in our own country led to a compromise between two cities, by providing a terminus for a transcontinental railway at a neutral inland city, namely, Moncton, New Brunswick.

If Canada is ever to achieve the destiny for which nature designed her, neighborhood, county, provincial and class interests must be submerged completely in a vast national desire for national good. The Canadian people are worthy and capable of broad views. Let us show it in the consideration of each great question as it comes to the front.

#### Silos Rapidly Increasing.

Every once in a while we meet someone, quite often a city man, who seems to have imbibed the idea that silos are going out of vogue. One would think the large number of these modern feed storages to be seen in almost any up-to-date dairying or stock-raising district of Ontario and Quebec would disabuse the minds of pessimists, but there is no accounting for the prolificacy of wrong ideas. They breed like rabbits, and have more lives than the proverbial cat. One croaker, who, thanks to some omission or error on his own part, has had unfavorable experience with a silo, will sometimes inoculate more people with the virus of his disfavor than a dozen successful silage-feeders can soon cure.

Nevertheless, silos are multiplying in the land. Dominion and Provincial authorities have noted the fact. Experts and observant travellers bear witness to it. Silo-builders report more orders than they can well handle, and firms supplying silo-building apparatus furnish convincing figures of increased business. Where one silo goes up, numerous others generally soon follow. For example, a farmer in Wellington County, Ont., who had a cement silo built in 1907, tells us that the builder put up one other that year, and this year has thirty-five orders booked, with prospects for several more. Similar tales come from other widely-separated districts. Thousands of farmers are demonstrating their faith in the utility of this method of feed-preservation, by displacing temporary wooden structures with those of solid concrete or cement blocks, either of which, however it may be in the colder regions where lumber is plentiful, is preferable to any form of wooden silo, for a farmer in Western or Southern Ontario who has his buildings permanently arranged.

Fairly bewildering is the variety of silos, and the claims set forth severally on their behalf. The old-fashioned, carpentered, built-in silo and underground pit have long since been superseded. In place of the former, we have two general forms of wooden silo, the stave and the hoop. The stave silo consists essentially of narrow plank stood upright in a circle, and held together by iron rods in half, third or quarter sections, and bent into the form of hoops. The hoop silo consists of two thicknesses of inch lumber applied horizontally to upright scantling stood in circular form, one layer of durable material on the inside, with a thickness of rougher stuff outside. This kind of silo is very common in Eastern Ontario and Quebec. Probably it stands with less attention than a stave silo, and may keep the silage with less trouble from freezing, on account of the air-space.

Of masonry silos, we have stone, brick, solid concrete, and cement blocks, nearly all of which are now built round. The latter two are most to be recommended for localities where gravel, sand and small stone are available. The silo of hollow cement blocks is a modern improvement on the monolithic style. It may be so built and reinforced as to be quite sufficiently strong, and while as yet somewhat more expensive, keeps the silage with rather less freezing around the edges, which is an advantage of greater or less importance, according to locality, exposure, size of silo, rate of feeding, and temperature of stable.

The latest idea of all is the steel silo, which has been advertised this year in "The Farmer's Advocate." Protected from rust by an outside coat of paint, and an inside coating with a special preparation which, being liquefied and applied, hardens into a sort of enamel coating, it is believed such a silo will prove durable, and

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

PUBLISHED WEEKLY BY  
THE WILLIAM WELD COMPANY (LIMITED)

JOHN WELD, MANAGER

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

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, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.

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preserve the ensiled corn with a minimum of loss.

But, while some silos are better than others, one can make no great mistake in choosing any one of the six or seven kinds favorably mentioned. At least, it is better to build any of these than not to build at all. Corn is a wonderful crop, and, for cattle feeding, at all events, the silo is the best means of curing and housing it. Corn fodder may be all right up until Christmas, but after that silage has a decided advantage, because of its succulence and palatability. And, in spring, should there be some left over, it may be preserved for summer feeding, or held over a twelvemonth, if desired, whereas an excess of dried fodder is liable to waste in the field, or to be thrown into the barnyard. As for the man who has never grown corn at all, he will find that, by adopting a short rotation, growing plenty of corn, and ensiling it, the cattle-carrying capacity of his farm may be increased a quarter to a third, with a more than corresponding increase in profits.

### Economic Astigmatism.

The cool indifference with which Canada observes the log-rolling manipulations in the United States Senate, which is making the new tariff against Canadian agricultural products even higher than the old, would be simply incredible to a reincarnated Canadian of fifteen or twenty years ago. The present Canadian attitude toward the United States tariff-makers is one of non-expectancy, hence cannot result in disappointment. The American attitude on the tariff question is one of economic blindness. Class interest and self-seeking obscure the large, comprehensive outlook which is necessary to a true appreciation of the economic effect of tariffs, and the American Senate is fully maintaining its reputation as the bulwark of class interests, and the instrument of popular oppression at the behest of the favored few. The joke of it all is that almost every class is happy in the belief that it is being protected, childishly innocent of the fact that, if everybody were equally benefited by protection,

the result would be no net advantage to anybody. Protection benefits one interest by taxing others. It can be justified, not as a permanent policy, but only as an expedient, and in most cases a doubtful expedient at that.

### Express Company Rates.

Investigation by the Railway Commission into the express business seems to have brought out the fact that the express companies earn large profits in proportion to capital invested, and, in some cases, at least, pursue the policy of taxing, not according to the cost of the service rendered, but according to what they think the traffic will bear. For instance, the counsel for the Commission drew attention to the fact that the rates for sweet cream were double the rates for sour cream, though the one could be handled for practically the same as the other; hence, if the rate for sour cream was such as to recompense the company for handling it, the rate on sweet cream must be at least twice as high as it should be, which is probably the case. The discrepancy being pointed out, the representative of the Dominion Express Company explained that, through a mistake, sour cream had been carried at the lower rate charged for milk, instead of at the sweet-cream rate, and he would ask the Commission for power to rectify this error, by charging the higher rate for both kinds of cream.

The counsel for the Canadian Express Company took exception to percentage of profits as a basis for determining whether charges were reasonable or not, declaring that it should depend rather on the value of the service to the shipper. The companies further contend that the cost of their service is not to be measured by the capital invested, because they use the plant and rolling stock of the railway companies with which they are respectively allied. But, assuming that they pay due rental for these services, then the residual profits should certainly be a standard by which to fix rates. To claim that express rates should be based on the capitalization that would be necessary to duplicate railroads, would be as absurd as to argue that the cost of carrying a letter should be regulated by the charge that would be necessary if the post office had to run railroads. The fact is that we have the railroads; the express companies, in common with the post-office department, and other shippers, have the use of these public-service utilities at a rate based not on the probable cost of duplicating the railroads, but on the fair and reasonable cost of the service rendered by the railroad corporation to its patrons and subsidiary companies, such as the express company is. The express investigation, therefore, seems to have made pretty clear the need for thorough regulation, if not radical downward revision of express rates.

### Macdonald Inaugural Notes.

Hon. James Wilson, addressing Convocation, at Macdonald College recently, said he had been attracted here to-day by the effort being made to provide in a unique way for the future of the country, by educating boys and girls for country life. In his own country they were working towards the same object, but he had somehow got the impression that Canada was a step ahead in this matter. "We have to keep our eye on you to keep up." He could think of no man, but the founder of this College, who had had the foresight to provide for this particular kind of education. He referred to the immigration of some 60,000 young American farmers into the Canadian Northwest, bringing with them some \$60,000,000, but this he regarded as merely a payment on account, for Canada had contributed many able men to American Colleges and Experiment Stations, and he had just been reminded by our gracious Governor-General that in the days of stress of the Civil War, Canada had contributed 40,000 men to the Union Army. If all the British Provinces were as well governed as Canada, there need be no doubt about the future of the Empire. Dr. Wilson referred to the necessity for the scientific education of the farmer, and for such education for the farmer's daughter as would equip her to adorn the parlor, advise in the kitchen and know herself. He emphasized the importance of the pasture as the most economical provision for animal nutrition, and referred to the present scarcity

of horses, which is not only driving city people to the purchase of automobiles, but seriously hampering agriculture in the West. The political condition of the farmer in the United States was not what it should be. Although half the people tilled the soil, they contributed little to the governing class. "I do not know what the vocational distribution of your legislators may be, but if asked to name six farmers in the United States Congress on pain of instant death, I think I'd have to die."

In his address to Convocation, Dr. Robertson gave a brief statement of the history, aims and ideals of Macdonald College. It had grown out of a number of movements in which Sir William Macdonald's sagacity, devotion and wealth had employed themselves in the direction of the improvement of the conditions of rural life in Canada—in some measure out of each of the following: The Manual-training movement, the Seed-grain-improvement movement, the School-gardens movement, the Consolidated Macdonald Schools, and the Macdonald Institute of the Ontario Agricultural College. In its three schools of Agriculture, Household Science and Teaching, Macdonald College was trying to realize the mottoes of "Mastery for Service," and "Health, Happiness and Social Efficiency." Macdonald College stood for agricultural research, and for education which stood rather to impart power than mere knowledge. Its aim was to prepare country children not to leave the places of their birth, but to live happily and well in the places of their birth. This sort of education cost money, but we were all trustees of the human heritage, and no better use for wealth could be found than that of preparing the next generation to become worthy successors in this trusteeship.

Gifford Pinchot, Chief of the United States Forest Service, said: "Your Principal is one of the first to recognize that the rural problem is an eminently human problem. The growing of better crops is a fundamental necessity, just as learning to read is a fundamental necessity in acquiring an education. But more important than the growing of better crops is the development of better men and women." He had been struck with the statement of Dr. Robertson in a recent publication of the College, that "Co-operation is the habit of the College." This was significant, because co-operation was becoming a necessity to the farmers if they are to hold their own in the inevitable contact and competition with co-operating business interests."

### SOME SENTENCES FROM THE CONVOCATION ADDRESSES.

Dr. Robertson—"Not so very many years ago a young Scottish boy was cracking the whip at the horses in the mill-ring of the threshing machine. Only this morning Mr. Wilson and I were trying to decide which felt the worst when pulled out of bed and sent to work at daybreak of a cold Ayrshire morning."

Mr. Wilson—"We in the United States are working towards the same ideals in agricultural education, but I have somehow got the impression that Canada is a step ahead in this matter. We have to keep our eye on you to keep up."

"I can think of no man but the founder of this College, who has had the foresight to make provision for this particular kind of education."

"The farmer's daughter should have such an education as will equip her to adorn the parlor, advise in the kitchen, and know herself."

"The scarcity of horses is not only driving the city people to the use of automobiles, but seriously hampering agriculture in the West."

Earl Grey—"I venture to predict that when the history of the early days of this century in Canada is written, the progress of the country will be largely ascribed to those forces which have been set in action under the guidance of Dr. Robertson and the munificence of Sir William Macdonald."

### Stay with the Game.

Enough whey has been wasted at cheese factories this spring to feed sufficient hogs to run a packing plant, is the graphic way in which Chief Dairy Instructor Hens emphasizes a shameful waste of feed that has been taking place. And all because hog-feeders failed to stay with the game through a period of dear feed. Now, with live hogs commanding seven and a half dollars a hundredweight, and weanlings in keen request at six or seven dollars a pair, there will, no doubt, be another rush, followed by another crash of bacon values, succeeded by another bare market and tempting prices. The packer gets much blame for the fluctuation in prices, but is it not mostly due to the hog-raisers who go out of hogs in time to miss the good prices, and into them at a period that is bound to leave them loaded with porkers when the market is flat?

The United States Department of Agriculture sends out annually 18,000,000 pieces of printed matter.

**HORSES.**

**Fitting Colts for Show—Sore Navel**

1. I have two good colts which I wish to fit for show purposes next fall. Their mothers are fair milkers. How should I use and feed them? I am told that cow's milk is good. If so, how much should I feed?

2. I also have a colt with a sore navel that exudes a yellowish matter.

SUBSCRIBER.

Ans.—1. It would not be wise to give the colts cow's milk until after they are weaned. You say that their dams are fair milkers, hence the foals will get all the milk that is necessary in the natural manner, and thereby obviate the danger of digestive troubles that always exists when quite young foals are given cows' milk without great care being taken to dilute it and add sugar. After they are weaned, if you still wish to do all that you can for them, it will be safe to give cows' milk, and as to the quantity to give, I may say that this will largely depend upon the supply, as a colt five or six months old can safely be given all a cow will yield if it be given warm, and at least four times daily, and the digestive organs of the colt will have gained sufficient strength to enable it to digest the milk without dilution. In order to do the best you can for your foals to make them winners at the fall fairs, you will need to look after both them and their dams well during the summer. In the first place, good pasture, with a plentiful supply of good water, is essential. The mares and foals should be turned out to pasture every fine day. While the nights are still cold they should be taken to the stable, and, of course, each pair should be given a roomy, clean, well-bedded and well-ventilated box stall. The mare should be fed, say a gallon of rolled oats, night and morning. The colts should be taught to eat as soon as possible. A colt will eat a little rolled or chopped oats at about two weeks of age. If the mare appears greedy, a small box should be arranged for the foal, and it should be fed separately, the dam being tied until it has had an opportunity to eat all it wants. It is safe, except probably in very rare instances, to allow the foal all it will eat. In the meantime, it is wise to have a halter that will fit the foal well, and lead it to and from the pasture. There is very little trouble in teaching a colt to lead under these circumstances, and it will soon become so well halter-broken that it can be led off by itself without trouble. This early training has a two-fold advantage. A colt which in the show-ring will behave itself and go well in hand will easily win over a colt equally as good which has not been taught to lead, but follows its dam in a very unsatisfactory manner, and takes great chances of being kicked or otherwise injured by other horses. In addition to the immediate advantage for show purposes, the early training teaches the young thing to submit to control, and will be much more easily handled when further education is necessary.

So soon as the nights become warm, the mare and foal should be left in the field both day and night, but the regular supply of grain must not be forgotten, and care should be taken that the foal gets its share. Shade of some kind must be provided, in order that they may be able to avoid the extreme heat of the sun during certain hours. So soon as the flies become troublesome they must be taken to as cool a stable as is available during the daytime. If necessary, the stalls should be partially darkened. They, of course, must have their regular ration of grain, and as grass will be plentiful, should be given cut grass. They should be turned out at night. This trouble is necessary, as during certain months, especially from the first of July until the middle of September, it just about keeps a horse busy fighting flies if at large, and neither dam nor foal can thrive well under these conditions. If it be necessary to work the mares, the foal should be left in the stall, which must be so arranged that it cannot get into trouble in mangers, over doors, etc., in its endeavors to get out. Under no conditions must the colt be allowed to nurse when the mare is warm, and if the mare be quite warm a little milk should be drawn by hand and she allowed to stand until she becomes cool. Of course, the best results are obtained when the dams are not worked, but with the exercise of reasonable intelligence a moderate amount of work can be done with the mares without materially influencing the thriftiness of either themselves or foals. It is probably not necessary to mention that both should have free access to salt.

2. Dress the navel three times daily with a ten-per-cent. solution of carbolic acid until healed. If there be an escape of urine, send for your veterinarian.

"WHIP"

**The General-purpose Horse.**

Editor "The Farmer's Advocate":

The veterinaries and professional stockmen say there is no such thing; but the general-purpose farmer, and there are many of us in the Maritime Provinces—though it is not within the limits of this article to describe us—are still of the opinion that there is a general-purpose horse. They are all striving to get them; they all know pretty well what kind of a horse it is, and they all have slightly different opinions. Take twenty-five farmers and combine their opinions, and the writer confesses to being as opinionated as any of them, and probably as far astray. Shake these opin-

and able to do ten if urged a little. We want lots of intelligence. There is as much difference here in horses as men. A strong loin, good spring of rib, well muscled on thigh and forearm, full shoulder, ample chest and heart girth. I think a horse within this description would suit nine-tenths of the farmers in the valley.

How will we get him? "Aye, there's the rub!" Some say grade mares of a stocky build, with some so-called Barrister blood or Morgan blood, bred to light Clyde horses. The fact that all sorts of crosses are being made to get it shows that there is a great diversity of opinion. Like breeding for the general-purpose cow, for one hit a score of misses. R. J. MESSENGER. Annapolis Co., N.S.



A General-purpose Mare.

ions all up together, and cast them in a figurative mould, and you would get a general-purpose horse, and it would certainly be an interesting-looking animal.

However, the farmers of the Annapolis Valley who produce a few apples, potatoes, pigs, cows, eggs, butter, etc., have what they consider a good idea of the above animal, and are in some degree uniform in these opinions.

The accompanying illustration is of a mare pronounced by everyone who has seen her a good type of general-purpose brood mare, and perhaps the following description will approximate what we are after: Height, 15 to 15½ hands (we like them pretty low-set to work in our orchards con-



Barnsfield Forest Queen.

Shire mare, three years old. First in class, and junior champion mare, Shire Show, London, England, 1909.

veniently); weight, 1,200 to 1,400 lbs., with a good coat of flesh. Legs clean, flat, hard bone, with very little or no hair, and not too big feet. Disposition or temperament, sanguine, but not nervous; not too ambitious; a horse that has sense enough not to get frightened and try to run away at every little noise; one that will work along steadily and quietly without worrying flesh off unnecessarily, but still one that can wake up in a light wagon and road at a seven-mile test,

**Money in Heavy Horses.**

The number of men in Canada who make handsome cash returns from raising heavy horses is on the increase. In the northern part of Wellington County, Ontario, in the district surrounding Erin and Hillsburg, are to be found farmers who claim that no branch of farming is so remunerative. Their winnings at fall fairs and horse shows have been creditable, and the long prices obtained for fillies and geldings for several years past have justified them in holding such a high opinion of the heavy-horse industry. The outcome of the enthusiasm of a few farmers has been a gradual increase in the number of men who undertake the raising of this class of stock and a general improvement in heavy horses throughout the northern part of Wellington and the southern part of Dufferin.

With the object of finding out something about the views and methods of prominent horsemen in these districts, a representative of "The Farmer's Advocate" recently spent a few days among them. It was evident that success rested chiefly on intelligent care in feeding, combined with an absolute refusal to breed to any but stallions of superior quality. Fillies of suitable type are kept for breeding purposes only on condition that they make good mothers, and all brood mares are sold before they have become so broken-down that they command inferior prices.

In the show-ring and among horse dealers, the name of D. McKinnon & Sons is well known. High-class fillies and geldings, frequently in matched teams, have been produced for many years. No detail is considered too trivial in connection with feeding or breeding. Illustrations and descriptions of superior animals appearing in "The Farmer's Advocate" and other prominent live-stock journals are studied and kept for reference.

"There are two reasons," says Neil McKinnon, one of the sons, "why men lose foals each year, and are not successful horse-breeders. One is that they themselves are not bred to take care of horses, and the other is that they do not keep the right kind of mares. A great deal depends on the feed and care of a mare, and also of the stallion. In the past twenty years we have had very few cases in which the mares prove not to be in foal.

"As a rule, satisfactory brood mares are kept until they are about 12 years old. At that age, we prefer, to cease breeding them, as we can dispose of them at a fair price. Young mares always are coming on to take their places. On the average, a brood mare, at the age of 12 years, has raised five or six foals. Our mares are all pretty-well-bred Clydesdales, and we use none but the best Clydesdale stallion. Fillies, as a rule, are sold at three years, and geldings, generally in

matched pairs at four years. The average price obtained for geldings and fillies at the ages mentioned runs about \$200. Matched geldings have brought us \$650 for the team. Of course, these horses are bred from mares fit to go into a show-ring. After being used for breeding purposes until they are twelve years old, we can sell them readily at an average price of \$100."

These figures are worthy of serious consideration. With a mare producing an average of, say,

five foals when she has reached twelve years of age, and these animals selling at \$200, and the mare at \$100, a total of \$1,100 has been derived, with which to pay for stallion service, and feed and care of the mare, as well as of the fillies and geldings up to three or four years of age. There are few farmers who could so manipulate figures as to show a loss from keeping such brood mares and raising such stock for sale.

"Frequently," continued Mr. McKinnon, "we have a mare that gives much greater cash returns. There is a mare on the home place now, eleven years old. Her first colt was sold as a yearling for \$200; the second, a four-year-old gelding, at \$325; the third and fourth, both mares, not sold, but worth \$300 and \$240, respectively; the fifth, a gelding, for which \$225 was refused at four years of age; the sixth, a gelding, now three years old, and worth at least \$200; and the seventh, a registered filly, now worth \$250 at two years. Last year she missed, but she now has a filly foal at foot, and is in foal again. We now have almost \$2,000 worth of horses from this one mare.

#### TREATMENT OF MARE AND FOAL.

"As I have already hinted, much depends on the treatment of the mare. As a rule, our mares go to the horse in June. After being bred, no work is done with the mare for a day. She is put in a field with her foal, where she is not disturbed by other horses. After that, she can be worked moderately. We always feed to keep in good condition, but not fat. As long as we cannot count the ribs, she is considered in best condition for what horsemen call luck.

"Throughout the summer, the mare and foal are on the grass as much as possible, except in fly time, when they are out only at night. During winter, brood mares should be worked regularly as long as they have good footing and are not subject to quick jerks, or to plunging in the snow. I work them right up to foaling.

"At all times of the year I feed 1½ to 2 gallons of oats each day to a mare. I don't use two tons of bran in a year; at present prices, it doesn't pay. Instead, I grow flax, and thresh it. In the spring, for heavy work, I feed whole oats. At other times, I prefer them chopped. In preparing the flax for feeding, I fill a bag about one-third full, and then make up the other two-thirds of oats. This is ground, and kept in a box by itself. The flax grinds better when oats are mixed with it. It is fed according to the state of the horse. The full of a small dish, perhaps a double handful, in most cases suits. Roots are given once a day—perhaps one large turnip or two small ones, or carrots of equal quantity. Horses seem to prefer carrots to other roots.

"It always pays to keep a close eye on the mare about foaling time. Generally, it is not necessary, but occasionally the presence of a man saves the life of mare or foal, or both. If she is at regular work, more grain and smaller quantities of the bulky foods should be given previous to foaling. It is not wise to fill the mare full of roughage, if you want strong, lively foals.

#### AVOIDING JOINT-ILL.

"I never have losses due to joint-ill. When one of my mares is about to foal, I take every straw out of the stall, sweep it clean, and put a little slaked lime on the damp places. Then, about every second day I sprinkle disinfectant around the walls and floors. In addition, I have a cup containing dilute carbolic acid on hand, into which the navel string is held for a short time as soon as it is severed. I never cut the string if at all avoidable. As a further precaution, I keep a small tin duster, containing iodoform, and dust some on the navel when I find the foal lying quiet in the stall.

"It seems as though there were two forms of this dread disease. Sometimes it appears to be in the foal when dropped. In this case the youngster is weak, and there is little chance of saving its life by cleanly conditions. Again, the disease may show itself in strong foals after they are about two weeks old. The successful horseman takes every precaution to guard against loss."

The suggestions offered in breeding, feeding and care are practical. The McKinnons and others have succeeded in making money while engaging in an interesting branch of farming. Why not others?

The Morris six-horse team of Clydesdales seems to be attracting wide favor and attention in England. The two wheelers are said to be Scotch-bred, and the swing pair Canadian-bred, while the leaders hail from amidst the cornfields of Illinois. Altogether, the team is said to have won 121 prizes in Canada, Great Britain and the United States, and has been counted on to carry off the blue ribbon at Olympia.

The annual open-air horse show at Galt, Ont., has attained the dignity of an established institution. The show this year, held on June 3rd, 4th and 5th, was reported a record-breaker, as regards both attendance and exhibits.

## LIVE STOCK.

### A Pig-feeding Account.

Editor "The Farmer's Advocate":

I have just concluded an experiment on feeding hogs for my own benefit, and perhaps it may do someone else a favor, so will send you the facts. These pigs were Yorkshire grades, with a trace of Berkshire blood; 17 pigs, born on 22nd of November, 1908, weaned on 7th of January, 1909. The grain consisted of mixed grain as it grew (oats and barley), shorts, and low-grade flour. The shorts were fed alone for the first three weeks, then mixed with mixed grain, chop, and, in finishing, low-grade flour, instead of shorts and a few peas. They received all the whey they wanted, and a few mangels. They received wood ashes, and a little sulphur and salt, and were turned out in the yard for a run occasionally. In March, one of these pigs was sold for a brood sow for \$6.00, which is not quite its value, which left sixteen to finish the test. The amount of feed is as follows:

2,068 lbs. mixed grain, at \$1.50 per cwt.	\$ 31.02
1,900 lbs. shorts, at \$24.00 per ton	17.80
2,520 lbs. flour and mixed grain, at \$1.50 per cwt.	37.80
150 bushels mangels, at 10c. per bush.	15.00
17 pigs, 6 weeks old	34.00
	\$135.62
May 25—16 pigs weighed 3,180 lbs., at \$7.50 per cwt.	\$238.50
March 10—1 pig	6.00
	\$244.50
	135.62
Profit	\$108.88

In other words, this pork was produced for \$2.40 per hundred, and I have the manure on the farm for my labor. Now, Mr. Editor, we hear much about there not being any money in hogs. I always thought I made a little, but now I am sure of it. My advice to those who are doubtful is to prove the matter thoroughly before leaping. These pigs made a profit in midwinter; surely they will do as well in summer.

Oxford Co., Ont. J. E. SANDICK.

[Note.—This is very good, except for one point. The value of the whey should be counted. To ascertain this, try feeding one lot with and one without whey. It would be just as logical to throw in the grain fed as to take no account of the whey.—Editor.]

### Hog Shortage in Great Britain.

A writer in the Scottish Farmer points out the possibility of a pig famine in the near future. This he bases on the stoppage by the Local Government Board, from January last, of the import of pig trimmings, which cannot be clearly identified as parts of the pig, and which amounted, in 1907, according to the official returns, to the enormous sum of £2,992,551. This was principally used in making up sausages, which supply will now have to be drawn from the home-bred pigs. To fill this supply, the correspondent estimates that 482,000 additional pigs will be required, while, instead of being in a position to meet the new demand, the decrease of breeding sows by the number of 29,525 in Great Britain and Ireland during the past year, tends to aggravate the shortage. This is of great importance to Ireland, where the pig trade is so prominent, and everything, says the Weekly Irish Times, points to a ready demand, at rapidly rising prices, during the next few years. English butchers have been complaining for some time of the difficulty in securing a sufficient number of pigs for fresh-pork purposes, and this new demand will greatly increase the scarcity that has been felt. Between the requirements of the bacon-curers and the additional market for fresh pork, there should be a good outlook for pig-breeders, and remunerative prices are expected by the swine-raisers of Great Britain and Ireland.

### Lambs Fattened on Pea Silage.

A silo seventy feet in diameter and forty-three feet high, filled with pea silage made from canner waste, was used last winter by Stericker & Zuill, of Wisconsin, to fatten 3,000 Western-bred lambs, at a profit of around \$11,000. With the silage, a small quantity of corn was fed, never exceeding 1½ pounds a day, and scarcely averaging a pound. A smaller bunch of similar lambs, fed on hay and corn, barely paid expenses. The feeders paid \$1.00 per ton to the canning company for the silage, the company furnishing silo and shed capacity free in return for the manure.

### Bright Jersey Prospects.

Early in the seventies and eighties, when a few Jerseys commenced to make their appearance at the fairs, old stockmen spoke of them sarcastically, and looked at them with a good deal of suspicion. Those days are gone, and the Jerseys now rank among the best dairy cattle in the world. A trip through the country reveals the fact that Jerseys are scarce, simply because those who own them realize that they are economical producers, and are, consequently, not eager to sell. It is a poor country indeed that knows not the Jersey. France has long been a purchaser, Sweden has bought, and Denmark cannot be supplied with all she would take. The Danes are very practical, and have discovered that Jerseys produce butter at 15% less cost than their own cattle. Jerseys are thriving in the United States. Australia, Russia, Spain, the Canary Islands, South Africa and Egypt; in fact, Jersey cattle are in demand all over the world, not for beef production, but for large quantities of rich, wholesome milk, and for delicious butter of quality and quantity unapproached by any other cow. More butter can be obtained from the Jersey milk than can be obtained from the milk of any other breed. They will produce more for the food consumed than any other breed, and that is what makes the money for the dairy farmer.

The prospects for pure-bred Jerseys are most encouraging; the demand is greater, the prices are better, and the outlook generally is brighter than for the past few years. The demand is for good ones; that is, strong dairy workers. Select cows that appeal to one as producers. Utility must not be overlooked in the choice of dairy cows of any breed. Space will not permit of a detailed description of the Jerseys. Suffice it to say they should have a strong constitution, as evidenced by a large heart-girth, a well-sprung rib, giving good capacity, and a well-balanced udder—not fleshy but pendant, and carried well forward and to the rear—with large teats evenly placed, and milk veins which should be crooked, large and extending well forward. The following resume may prove interesting to Jersey breeders:

In the official dairy test at the World's Fair, Chicago, in competition open to all breeds, the Jerseys demonstrated that they would take second place to none in butter production. Merry Maiden 64949 won the grand sweepstakes award at the World's Fair, Chicago, in 1893, for the best dairy cow of any breed, in three tests. This was a very trying test; one that proved the capacity and constitution of the cows in it. Brown Bessie 74997, in the 90-day test, made 20 lbs. 2½ ozs. of butter in seven consecutive days. She made more butter throughout the entire period of the test than any other cow in the same test. Apart from Merry Maiden, no cow in the World's Fair dairy test attracted so much attention as Brown Bessie. A Canadian-bred Jersey, Adelaide of St. Lambert 73652, has the wonderful daily milk record of 82 lbs. 12 ozs. She produced 2,005 lbs. 4 ozs. of milk in one month. At the dairy demonstration, World's Fair, 1904, at St. Louis, Loretta D. 141708, was the winner in Class A for production of butter at greatest profit, and also in Class B, for all dairy products; in 120 days she made 330 lbs. 03 ozs. of butter.

Adelaide of Buchlands 168699, although a strong, rugged cow, with splendid constitution, demonstrates by her wonderful work that beautiful lines and show qualities are not essential for milk production. Her record of 15,572 lbs. 1 oz. milk, producing 999 lbs. 8.9 ozs. of butter, in her authenticated yearly test, is one worthy of mention. Lastly, we might mention another useful cow, Jacoba Irene 146445, who has a remarkable performance to her credit, and can be justly titled the "Champion long-distance dairy cow of the world." In two years her authenticated record shows 31,505 lbs. 9.6 ozs. of milk, producing 2,055 lbs. 15.3 ozs. of butter, which is an average of over 1,026 lbs. of butter per year. This record has never been equalled or approached by any cow of any breed. Her performance is an indication that the age of the profitable dairy life of a Jersey cow is not limited to the age commonly preferred. Jacoba Irene is 10 years old, and just at the zenith of her high-producing career. May she beat her own record, or be surpassed by some other cow!

It must be remembered that these cows possess great constitution, and a careful perusal of their records will show that they are heavy performers. Anyone desirous of breeding Jerseys should consider constitution and performance first, then fancy points, in so far as they can be united practically. When we learn of the performance of Merry Maiden, Brown Bessie, Adelaide of St. Lambert, Loretta D., Adelaide of Buchlands and Jacoba Irene, we are ready to conclude that there is no limitation to the possibilities of the Jersey cow. It is possible to so improve the cows of Canada that we may produce 2 lbs. of butter where we are getting only one now. These tests are not made in the interests of breeders of pure-bred Jersey cattle, but more particularly for those who are indifferent or careless about what they breed. The breeders of Jerseys are, as a rule,



progressive enough to want the best they can obtain, and it should be our aim to strive for something better all the time. There is an active demand for dairy cattle at the present time, and the cow producing the most milk and butter for the least amount of feed consumed is the cow that will win out. Feedstuff is gradually becoming dearer, and must be considered for the economical production of dairy products. No matter by what form of test we try the Jersey she continues to be a surprise. In 1909 we find her making greater tests than ever, fully demonstrating that she is not only the greatest producer, but the most economical producer known to the dairy world. The Jersey has made wonderful progress in the last few years, and shows the wisdom of breeding for production instead of pedigree. It remains with the skilled Canadian Jersey breeder to still further breed and develop better Jerseys.

Enthusiasm is a great power; nothing can be accomplished without it. Therefore, let us go to work, intelligently and enthusiastically, hoping to accomplish more in the future. DUNCAN.  
York Co., Ont.

**Beware of the Bull.**

While the percentage of bulls becoming vicious or disposed to attack attendants or other persons is not large, it is the part of wisdom to adopt a system of management of such animals which will restrict the danger to a minimum. Three cases of farmers in Western Ontario being attacked by bulls were reported in the local papers last week, resulting in the death of two of the victims. And the probability is that in none of these cases was the bull considered dangerous, as in each case the animal was granted the liberty of the barnyard, a course which should never be allowed where the least sign of a tendency to viciousness has once been manifested. Instances have been known in which bulls which had never been known to show bad temper have suddenly become dangerous, and unsafe to be trusted afterwards. Prevention of this disposition depends largely upon the handling and management of the bull when young. Kindness, combined with firmness, should be the basis of treatment, and when the least disposition to ugliness is noticed the animal should be kept securely tied by the neck, and also by the ring in his nose, and when taken out of the stable for any purpose a strong staff should be used, securely attached to his nose ring. A bull that is violently vicious, unless he be a very valuable one, had better be sent to the slaughter-house on short notice, as it is folly to take chances with such a brute. If the animal is of great value he may, with some degree of safety, be handled by keeping him securely blindfolded, which will not seriously interfere with his feeding or usefulness. Bulls should be haltered, and taught to lead when under six months of age, and have the nose ring inserted by the time they are a year old, and thus early brought under complete control, but they should never be subjected to abuse, as in some cases they have been known to resent such treatment, and to hold a grudge against an assailant. Caution in handling such animals is wisdom, and it is safer to be suspicious than over trustful, for when once roused they are terribly dangerous, and a man with any weapon short of a rifle, at a considerable distance, is hopelessly handicapped when attacked by a bull.

**Such Beef!**

It was only to be expected that the Scottish Agricultural Commission to Canada, while finding many features of our farm practice to commend, should criticise our beef. Although the criticism is susceptible of partial explanation by reason of the extent to which dairying is carried on, still that does not wholly excuse the feeding of so many inferior animals, nor the marketing of so many so-called butchers' cattle in a condition which more nearly approaches the stage when they should be put in to feed than killing condition. "It may be presumption," say the commissioners, "to suggest that much of the beef consumed in Canada might be improved; but the fact remains that even in the best hotels both the beef and the mutton are not of first quality." To Scotchmen accustomed to the excellent country produce of the British Isles much of the beef of Canada must be inferior. So also would be that of Wales. No wise Englishman would call for beef in Wales or "bittock" in Paris. Much, too, of the meat in London is foreign, and cannot compare with native-killed, though it may be, and often is, unfairly sold for such at the same price. The commissioners state that there are many parts of Canada where sheep seemed the ideal stocking. The discouragement caused by dogs was a matter of much surprise, and even incredulity. They say: "That the 'pestiferous' dog, as it is called, exists, and is largely to blame for the poor state of the sheep industry in most closely-settled districts, is a fact, astounding though it may seem."

**Soy-bean Cake.**

An Old Country exchange of recent date reported the arrival of a 5,200-ton cargo of soy beans from Vladivostok, being the first vessel of a fleet of nineteen bound for England, from Dalney or Vladivostok, Russia, with cargoes of these beans. Soy beans are a rich albuminoid, leguminous grain, belonging to the vetch type. In Japan, soy beans are used for human food. In Britain, they are to be manufactured into a stock-feeding cake, comparing well with linseed and cottonseed cake in richness, tests in England having also proved very encouraging. If the commercial manufacture and use prove satisfactory, the Japanese will develop Manchuria, and produce larger quantities for the British market.

springy land is found, drains within 30 feet of each other failed this season of excessive wet to carry off the water below as quickly as could be wished for.

It is seldom the land in this section, which is rolling, requires draining, except in parts of fields. Were it required at regular intervals, \$40 to \$60 per acre could be spent. The highest cost in our experience has been \$40 per acre, which ran up to that figure because of having to put in 8-inch tiles for 60 rods, to carry water to its proper outlet. Putting in 3-inch tile laterals, the approximate cost per rod is 30 cents for digging drain, and 20 cents for tiles. The cost for 4-inch tiles will run to .30 and .27; for 6-inch tiles, 3 1/2 feet deep, .40 for digging and .60 for tiles, while an 8-inch tile drain, 3 1/2 feet deep, will run up to .60 for opening the drain, and \$1.00 for tiles, making it \$1.60 per rod.

Expensive as these figures may make it appear to a beginner, still we have the assurance that it pays, and that in a comparatively few years. We can vouch for the statements heard over and over again in many sections of Ontario, westward from here, of the money judiciously spent in tiling being all refunded, by the better crops resulting, in not more than three years, and frequently in two, and occasionally with exceptional conditions in one year. We look for the return this year in a crop of spring wheat, now looking very well, on the land costing

\$40 per acre three years ago to drain, of the outlay in full.



Sunny Jim.

Hereford bull. First at Oxford, England, Show, May, 1909.

**THE FARM.**

**How, Where and Why to Tile.**

Probably this season has demonstrated as never in Canada's past history, the benefits of tile draining well done. Thousands of acres drained thoroughly are this 27th day of May showing an excellent growth, strong and vigorous looking, and fully as forward as the average of past years; while tens of thousands of acres of similar quality, but undrained, still stand uncultivated and unseeded. Judging from past experiences and observations, the fields now being sown do not stand much chance of anything more than half the returns per acre of grain compared with those now showing a splendid braid, so pleasing to the eye. Should this late seeding be followed, as is quite likely, by a dry, hot summer, the late-tiled land, much of it in a putty-like condition, is about certain to bake and crack open, thereby increasing evaporation, and lessening the power of the growing plants getting the necessary food, locked up and unavailable in the dry hardened soil. The drained land will suffer but comparatively little with similar weather conditions. The tillage required to make the desirable fine seed-bed was not over one-half of what was necessary to get the undrained clay land ready to sow, and yet the finer, looser state of the surface tends to retain the moisture and prevent cracking, all lessening evaporation of the water, which the growing crops need, for steady growth and successful returns to the grower. Yesterday, in seeing a neighbor's field being drilled up for sowing mangels, the plow would turn up the soil over and near the drains like that state in which we like to have our gardens at planting time, while a distance from the drains that desirable condition was wanting, all the land having had the same preparation.

My experience for some thirty years tile-draining, has been nearly all with clay and gravelly clay surfaces and subsoils, with a little in mucks, loams and quicksand.

With us the depths giving the better results have been 3 1/2 feet for main drains and 3 feet for laterals, seeing the subsoil is fairly porous. We have some mains 5 to 6 feet deep, but only where higher ground stood in the way of reaching a basin.

So far, it has not been found necessary to place the laterals nearer than 66 feet, as, generally, our land is not inclined to be springy. With longer working of the land there is no doubt, in my mind, but the time will come when the placing of drains between the present laterals, making the distance between 33 feet, will prove an advantage. In a few places, where, at the foot of slopes,

The sizes of tiles to use for mains and laterals depend altogether on the number of acres to be drained into the main and on the fall of ground, making the current slow or rapid. There is no rule which can be safely laid down, especially as to sizes of mains. It is better to err on the side of having them too large than putting in small sizes which will not carry off the water from laterals as quickly as possible. Use three-inch tile for laterals, and four-inch is better where land is level. It is here that the services of some experienced person from the O. A. C. staff is most important to anyone who contemplates tile draining and has had no experience. The services of said staff, available to anyone desiring their aid and instruction, can be had free of charge, further than paying the railway fare—which for that purpose is but one cent per mile—getting them from and to station, and keeping them comfortably while they lay out the drains, take the levels, give an estimate of the required sizes, and so on.

The fall per rod is a much-discussed question of late years. Twenty-seven years ago a neighbor joined me in draining a flat of ten to twelve acres against the grade, as a heavily-timbered swamp blocked the carrying away of the water by its natural course. We both felt we could not afford tiling—a great mistake now evident, as it must soon be tiled—hence we used 1 1/2 inch hemlock lumber, making an opening of 4x6 inches. Starting at the line with a depth of 30 inches, a depth of 6 feet was required at the highest point to get a fall of only 7 inches in 70 rods. That drain is still doing good work; carried the water from the laterals in the flat rapidly, and easily increased the productive value of the land to double its former worth.

Talking to a friend recently on the train, he gave the following leaf from his experience in draining with little and no fall. His farm borders on a lake, which overflows his flats in spring. Some years ago he put 60 rods of 3-inch tiles in, on a dead level, and went on 60 rods further with 2 1/2 inch tiles. The latter 60 rods has a fall of 18 inches. The outlet is into the lake. The water therein stood early this month 14 inches higher than the drain's outlet; yet the flow of water in drain was so strong as to show boiling up through the water covering it. The conclusions come to regarding the fall is this, that it is far more important to have a uniform grade without any depressions than a rapid fall. These days we are spending twenty dollars worth of time taking up a four-inch tile which a contractor failed to put deep enough through a few rods of higher ground. We discovered—but too late to then remedy—the slighting of the work. Not only

was the depth wanting, but the grade was quite irregular, hence the necessity for the extra work.

Wherever the fall makes it possible, a main drain, with all the laterals emptying into it, is by far preferable to having each lateral emptying into an open waterway. The outlets being a bit costly, and requiring close attention to keep them clear of all or any material which is apt to gather in any depression, it is safer and much more convenient to watch one outlet for a system of drains than several scattered here and there.

While draining may be done at any time to suit one's convenience, unless there is too much water to contend with, still we find our clay soil digs much easier in May and June. In late fall, if there has fallen rain in abundance, the soil below as well as on top is softened, so as to render digging easier than in midsummer or soon after harvest. It pays well to have a full set of tiling tools in order to do better work and with greatly lessened labor. Three- and five-inch tile spades are necessary. The three-inch should have an iron tramp, made for the purpose, and sold as an extra, fastened on the shank above the blade. The tramp is reversible for right or left foot, and held tight by a pair of bolts. A narrow, long-handled, round-mouthed shovel and a pickaxe are also needed. Next we will mention the three-inch double-pointed scoop for cleaning out the bottom and shaping it to bed the tiles in. A tile pick, sharpened to a point at one end and hatchet-shaped at the other, to make openings in the main drain tiles to enter the laterals into, is a needed tool, and so is a tile hook with a five-foot handle. The latter is used to lay tiles up to four-inch size from the surface of the ground. The operator stands straddle of the drain, reaches to a tile by his side, and puts it down to its place more quickly and better than can be done standing in the bottom of a narrow drain. Five-inch tiles and larger ones are too heavy to handle with the hook; therefore, hand placing is unavoidable. Special care is required in draining near some kinds of trees, as a small root, finding its way in at a joint, attracted by the moisture, soon forms a mass of thread-like roots, completely filling up the tiles and stopping all flow. Elms and willows are probably the readiest of all to cause such trouble. We have had both kinds fill several feet of five-inch tiles, so as to stop all flow of water. Some roots will run from trees to tiles, a distance of fifty to one hundred feet. It has been reported, but cannot vouch for it, that covering the joints with black-felt tarred paper is a preventive. Our cure has been to cut down the trees which caused the trouble.

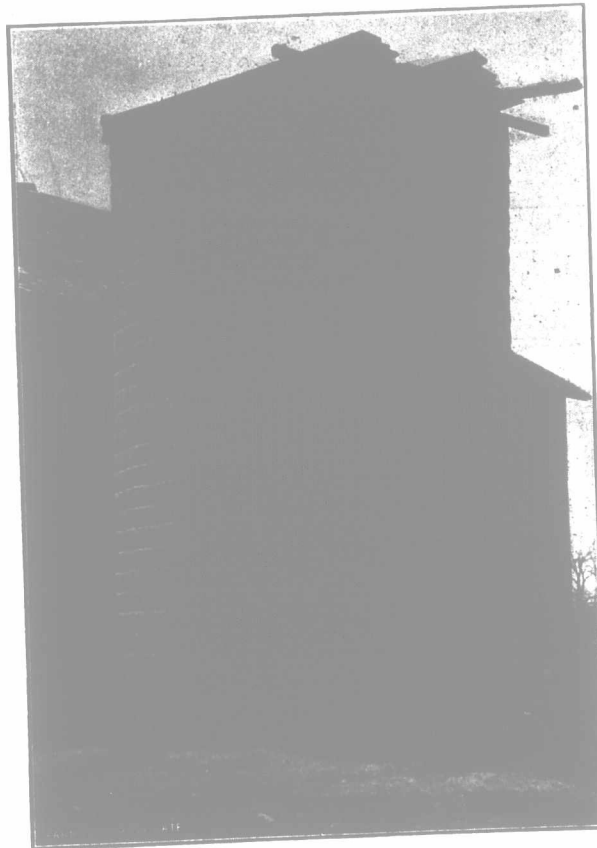
Where drains run a long distance from the outlet in open subsoil, there is danger of their sometimes filling with silt. To overcome that, it is well—at fence, or some other convenient point—to construct a silt basin. It may be built of hard bricks or cement. Whether round or square, the diameter inside should be eighteen to twenty inches, and deep enough to be two feet lower than the tile. The inflow tile being run an inch or two higher than the outflow, the working of the system can be readily seen in the flow of water. There should be a strong cover, with a few inches of soil on top, to prevent frost from injuring the tiles; then whenever accumulation of silt may be expected it is an easy matter to take cover off basin and dip out the silt with post-hole scoop in the two feet below tile bed. Much of the danger of tiles filling up with silt may be avoided by care in laying the tiles. The aim should be to have them jointed closely as possible on the top side, and have the water enter mainly by rising in from the bottom. If the soil is of a loose nature it pays to haul good clay to cover the tiles with an inch or two of the solid soil. At times a good hard tile may have a piece chipped off the end. It is too good to throw away, and yet unsafe to use, unless the precaution is taken to cover the hole with part of a larger size of tile. Never use cull tiles, if got for nothing, is our rule. Another frequent cause of a drainage system filling up in part, or possibly as a whole, is the accumulation of silt, or any other material, obstructing the outlet. That is more apt to occur where the land is flat and grades but slight. Considerable care is required in making satisfactory outlets. Our plan of late years has been to make a cedar two-inch plank box, 8 feet long, with the outside opening cut on a bevel, receding on the top, so as to allow an iron grate being placed, fastened at top, but loose at bottom. That prevents vermin from getting in, and a rush of water will raise the bottom of grate and allow a freer escape of the water. Wherever the grade will allow it there should be a drop of a few inches from outlet to open water course.

JOHN CAMPBELL,  
Victoria Co., Ont.

The greatest American cereal, and one of the world's greatest grain crops, cultivated by the Indians before the discovery of America, and now a commercial crop of Europe, Africa, Australia and America, is corn. The world produces annually 3,340,000,000 bushels of corn, of which the United States boasts 2,575,000,000 bushels, or more than three-fourths of the entire crop of the world.

### Another Cement-block Silo.

Cement silos may be built either with solid walls, or with hollow cement blocks. The former has probably an advantage in point of cost, but the cement-block wall is a better nonconductor of heat, and there is less trouble from feed freezing around the edges in such a silo. The accompanying illustration represents a cement-block silo on the farm of R. F. Martin, Lincoln County, Ont. It is 12 feet in diameter, and 26 feet high, built on a foundation trench 2 x 2 feet, filled in with solid concrete. The floor is of concrete, 6 inches thick, which is unnecessary, as a three-inch floor would answer quite as well, and a shallower and narrower foundation would suffice. The blocks were made by Mr. Martin with his own machine, the dimensions of each block being 24 x 12 x 8 inches in size, and weight 125 pounds. The cement from which the blocks were made was composed of gravel 4 parts, sand 2 parts, and cement 1 part, made as wet as for ordinary concrete. At this rate, 4 cubic feet of gravel, 2 cubic feet of sand, and 1½ sacks of cement, make 8 blocks, 22 blocks being required to complete one circle, at which rate 800 blocks would build this silo to the height of 26 feet, 16 loads of gravel, 8 loads of sand and nearly forty barrels of cement being required for the walls. The foundation took 2 loads of gravel, 1 of sand, and from



Cement-block Silo.

On farm of Robt. Martin, Lincoln Co., Ont.

5 to 10 barrels of cement. Each layer of blocks was reinforced by two strands of No. 9 galvanized wire laid in the mortar. Mr. Martin considers this unnecessary, believing that the reinforcement of every other layer would do as well.

The wall was laid by a mason in six days. One helper, and sometimes two helpers, were required in building. As for block-making, two men could make from 75 to 100 of these large blocks per day, amounting in all to about ten days' work for two men.

Mr. Martin submits the following figures as the cost of his silo:

Cement, 50 barrels, at \$2.00.....	\$100.00
Gravel, 18 loads, at \$1.00.....	18.00
Sand, 9 loads, at \$1.00.....	9.00
Wire, (estimated) 200 pounds, at 3c.....	6.00
Mason work, 6 days, at \$3.00.....	18.00
Ordinary labor, 30 days, at \$1.50.....	45.00
<b>Total cost.....</b>	<b>\$196.00</b>

It is the intention to run the walls up somewhat higher than they are at present. It has given fairly good satisfaction, but would be better for plastering on the inside. The appearance of a block silo is decidedly more pleasing than that of solid cement concrete.

### Alfalfa on the Increase.

That alfalfa is securing the foothold it deserves among farm crops in the central part of Western Ontario, is evident in the fields, large or small, that stand fresh and green this season. A representative of "The Farmer's Advocate" recently visited parts of Dufferin and Wellington Counties, and, although a comparatively small acreage is devoted to this legume, the number of farms on which at least a plot has been tried shows that farmers are willing to give it a test. A pleasing feature is that the trial results in such returns as to induce further sowing the following season, and also to cause neighbors to do likewise. As a rule, a trial plot of half an acre or so is followed by five or ten acres seeded the next year on that farm, to say nothing of what owners of surrounding farms sow.

Those who have tried alfalfa, either as pasture or hay, for all classes of stock, do not hesitate to pronounce it unexcelled. Experience is teaching them that it must not be pastured too close, and also that, in cutting for hay, it must be mown before it comes to full bloom. The prevailing advice as to time of cutting is when about one-tenth of the crop shows bloom. In many instances, the first cut of the first season has been light, but the stand has become thicker and stronger. One important characteristic mentioned by all is that, after alfalfa has become established, it remains fresh and green in the late summer, where other pasture crops are dry and undesirable for grazing purposes.

Although results indicate that this valuable nitrogen-gatherer can be grown to advantage on any well-worked soil that is thoroughly drained, it is evident that, on clay loam lying over limestone rock, suitable conditions are provided, if the land has been thoroughly prepared and made free from weeds. Spring seeding, with a nurse crop of one bushel of barley to the acre, is generally advised. In almost every case it was found that it was best to treat the seed with nitro-culture provided by the Ontario Agricultural College, as the plants were, as a rule, thicker and stronger. One man was disappointed in his seeding, but it was learned that it was put in in August, and, dry weather prevailing, the seeds did not germinate. Loss due to lack of drainage or to standing water was also in evidence. Fields were seen on which a thick stand developed last summer. This spring, low patches on which water lay in the spring are bare, save for the dead alfalfa and an occasional weed.

The net result is a triumph for alfalfa. None have failed on reasonably suitable soil, if due precautions regarding preparation of seed-bed and putting in the seed have been taken.

### Recommends Cement Silo.

Editor "The Farmer's Advocate":

I have noticed several times in your paper inquiries about silo-building, and especially one in your issue of May 27th. The inquirer is asking the cost of stave silo, and size, for twenty cows.

Now, as I have had nine years' experience with a stave silo, and also helped to fill cement silos, I will endeavor to give to your readers my experience, for the special benefit of those who are thinking of building. First, I would not build a stave silo, by any means, if I could possibly get gravel and Portland cement, for about ten years is the length of time the staves will last. Then, it is very difficult to keep them plumb, and, if they are not plumb, when the corn settles it will leave an air-space down one side, and a large amount of the corn will spoil. I find it almost impossible to keep stave silos in shape, for they are exposed to the weather all through the dry season, and become so dried up that the least wind will sway them; and you can't keep them tight, or they are liable to burst when refilled again with green corn. The cement silo, if properly built, is always ready for use, and will last long enough, or, as some may say, forever. The only parts that will rot out are the doors, and they can be easily replaced. Just a word here about the finish of the cement silo. After it has been properly plastered on the inside, give it a good coating of coal tar. This is to prevent the concrete from taking the moisture out of the corn, and it becoming moulded around the edges.

As to size, I think a great many build too small, for two reasons: First, after you have used silage a while, you will like it so well that you will grow more corn; secondly, if you have to hire your outfit to fill, it is much better to have it big enough so as to have your corn put in at one time. It adds a good deal to the expense of filling to have the silo refilled in ten days; besides, generally, the corn left out that long suffers a good deal if it has not been properly set up. An ordinary filling outfit can fill a silo 14 ft. by 30 ft. in one day, if properly managed. I would advise to build large enough so as to get all the corn in at once. Put it up high if you have a bank, or, if not, 30 or 35 feet can be siloed on the level, but leave a small hole in

side of silo, say 10 or 12 feet from top, to save blowing all the corn over the top, and the same hole will be very handy to dump the spoiled corn out when once you open the silo to feed from. After the silo has been filled, it should be kept well tramped every few days for about two weeks. It will become very hot and soft on top. This should be tramped until it is hard; then, about two or three inches will be all the waste. If not tramped, there will be about 18 inches spoil. Perth Co., Ont. A. STEVENSON.

**Size of Tile in Relation to Grade and Kind of Soil.**

"Would it pay to put underdrains as close together as two rods?" Let us see. In 1897, James Marshall, of Hamilton, drained a twelve-acre field of heavy clay. To quote his own words: "The drains were 25 to 30 feet apart, and 3 feet deep. The labor cost \$240, and the tile \$220, making \$460 for twelve acres." This we see, was almost \$40 an acre. Continuing, he says: "In 1898 this field yielded 80 bushels of oats per acre, while the next one, of similar soil, yielded only 45 bushels, and not as good oats." Thus, the gain by drainage was 35 bushels per acre. At, say, 40 cents a bushel, this would mean \$14.00 per acre, at which rate the drainage would pay for itself in three years, and our introductory question is answered. This is experience, and "money talks" in underdrainage as in most things. Examples of this kind are to be found in every county of Ontario, possibly in every township, and a few townships are well drained, yet, on the whole, underdrainage has spread but slowly. I estimate that at least 20 per cent. of the land under cultivation needs drainage. Is that too high? Look at your own township, your own county, and see how much seeding is a month late because of lack of drainage. Why has underdrainage spread so slowly? Because its results have not been given due publicity, because laborers have been scarce and methods of digging slow; because beginners have not felt sure enough of their methods, their outlets, their plans, etc., to warrant them in doing more than a small area, "just to try it," and, lastly, in many cases, because the ready cash has not been available. The present growing interest in drainage is doing much to make its results known; the ditching machine will solve the labor problem; drainage demonstrations will disseminate knowledge of simple methods whereby every farmer may be able to solve his own particular drainage problem; and the financial impediment should gradually disappear as people learn to take advantage of the Government aid offered in the "Tile, Stone and Timber Drainage Act."

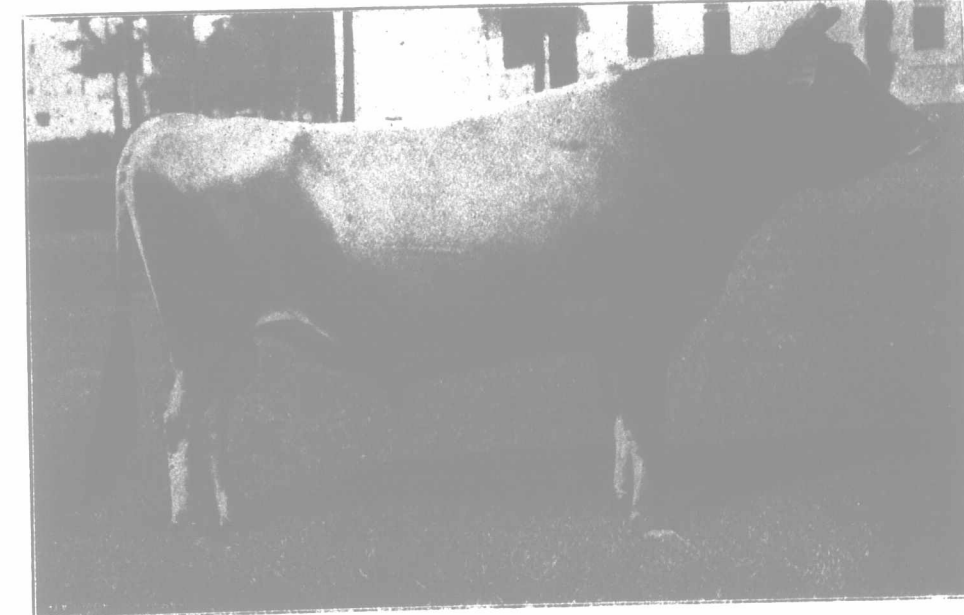
Once a man decides to underdrain, a multiplicity of questions confront him, chief among which is the size of tile to use. The proper selection depends upon three factors. The slope of the drain, the friction in the tile, and the volume of water to be carried, and the last, in turn, depends upon the number of acres to be drained, and the greatest rainfall that is likely to occur in twenty-four hours. Treating these factors separately, we may observe, first, that if the grade is increased, the same size of tile will carry more water on the steep than on the slow grade; for instance, if the grade be doubled, the same tile will carry 1.13 times as much water as before; if it be trebled, the tile will carry about 1.7-10 times as much, and so on. Again, the friction varies with the size; a small tile will have more friction for the volume of water going through it than a large one. This makes the water run more slowly in the small tile, hence a small one should have a steeper grade than a large one. A 12-inch tile is just 16 times as big as a 3-inch tile, but, on the same grade, the water will run twice as fast in a 12 as in a 3, and hence the former will carry 32 times as much as the latter, although only 16 times as big. Now, the grade of a drain should be steep enough to give the water a velocity sufficient to flush all soil particles out of the tile. It takes a 2-inch grade in 100 feet to flush sand from a 3-inch tile, but a 1-inch grade will flush sand from a 12-inch tile. Hence, if there is any possibility of sand entering (and there are few cases where there is not), 2 inches in 100 feet is the slowest grade that should be used for the former, and 1 inch in 100 feet for the latter. It takes only one-quarter as great a velocity to flush clay as to flush sand, and hence, in clay land, tile might be laid on slower grades than indicated above, and the drains be comparatively just as safe from blocking by sediment as the steeper ones exposed to sand; but at the same time the efficiency of the drains would suffer, they would carry less water, because of slower grade. And so I think it false economy to choose a slow grade all over the system, just to avoid a little digging at the outlet or along the main. Lastly, the greatest rainfall in a day is approximately two inches, of which not more than one-half, or possibly one-third, has to be carried by the tile

and, to be safe, this should be removed in about 36 hours, for crops submerged longer than this begin to suffer, especially in warm weather. Thus we see that the problem of what size of tile is suitable, under certain conditions, is a complex one. There are two ways of solving it, by experience, and by mathematics, and they must agree when correctly worked out. After a good deal of experimenting, scientists have found a rule, or formula, which makes proper allowance for grade, friction, and quantity of water; and using this formula, they have been able to work out by mathematics what size of tile should be used to carry the water from a certain area on a given grade. The following table embodies the results:

TABLE OF SIZE OF TILE PIPE OF MAIN DRAIN (McConnell).

Fall in foot in	Acres Drained.						
	3-inch tile.	4-inch tile.	6-inch tile.	8-inch tile.	10-inch tile.	12-inch tile.	
20	18.6	26.8	71.4	150.0	270.0	426.0	
30	15.1	21.8	60.4	120.8	220.8	346.0	
40	11.9	17.0	47.7	98.0	170.1	269.0	
50	10.9	15.6	43.4	90.0	156.0	246.0	
60	10.0	14.5	39.9	83.0	144.4	228.1	
70	9.3	13.4	37.2	77.0	135.0	213.0	
80	8.1	12.6	35.0	72.5	127.0	200.5	
90	7.3	11.9	33.1	69.2	120.6	190.3	
100	6.7	11.3	31.5	66.0	115.1	182.5	
150	5.7	9.5	26.6	56.0	97.3	154.1	
200	5.1	8.2	22.8	48.0	83.9	132.5	
250	4.6	7.3	20.4	42.4	74.4	117.0	
300	4.2	6.9	18.4	38.2	65.5	107.0	
400	3.8	6.3	16.5	32.6	60.3	90.7	
500	3.5	5.9	15.5	30.1	54.0	81.6	
600	3.3	5.2	14.8	28.0	48.6	74.0	
800	2.9	4.1	11.4	24.0	41.4	65.0	
1,000	2.6	3.7	10.2	21.2	37.2	56.0	
1,500	2.1	3.0	8.5	16.8	30.8	47.0	
2,000	1.9	2.8	7.4	15.0	25.0	40.8	

Suppose the reader wants to drain 40 acres, and the slope of the main at the outlet is 4 inches in 100 feet—i. e., 1 foot in 300 feet—what



Viola's Golden Jolly 79314, A. J. C. C. Jersey bull. Bred on the Island. Imported in 1907, by T. S. Cooper & Sons, Coopersburg, Pa., and sold at their annual auction sale, May 31, for \$12,000.

size of tile should he use at the outlet? Look down the "fall" column till we find 1 foot in 300. Following this line to the right, we find the number of acres nearest to 40, viz., 38.2, which is pretty close to 40, and looking at the top of that column we see the size of tile to use, which in this case would be 8-inch. Half way up the main, if 20 acres were being drained through it, and the grade were 2 inches in 100 feet, or 1 foot in 600, the size is determined in the same way, and found to be 7-inch. Where the slope of surrounding land is steep, more than about 3 feet in 100, the rule is to add to the area of the flat one-third of the area of the steep shed. The sum gives the area for which drainage

should be provided. Where the slope is less than about 3 feet in 100, little, if any, allowance is made for water from the surrounding slopes. The reason for this is that the natural gradient of the water table in soil back from drains is about 3 feet in 100, within, say, 36 to 48 hours after saturation. In our work at the College, we use this table exclusively, and we find it tallying with experience pretty uniformly. It is calculated on the basis of flushing sand from the tile, and when the circumstances of the case are such that we have to choose slower grades than 2 inches in 100 feet, we advise putting in catch-basins at intervals along the drain to catch the sediment and prevent blocking of tile.

In working out our drainage plans, the size of tile is the last point settled, the plan, the acreage, the grades, the kind of soil, being all determined in advance. WM. H. DAY.

**THE DAIRY.**

**Quality of Milk, Butter and Cheese.**

Editor "The Farmer's Advocate": There is a cause for the increasing amount of poor-quality creamery butter and cheese. It may be in part carelessness of farmers with their separators and other milking utensils, or partly with the creamery officials, or partly from the cream and milk not being properly cooled by an abundance of ice. But, to my mind, we have to go farther to find the real cause. I believe it is being brought about by our farmers substituting low-testing cows into their herds, because they give a larger amount of milk, for cows they had that gave less milk, but testing higher, hence of a better quality and flavor.

W. G. Medd and others are writing in "The Farmer's Advocate" that they think the cause of our butter and cheese makers not keeping up to their usual standard of quality, particularly of butter, is because of the carelessness of our farmers and their wives in not keeping the separator and other utensils clean. I must say I take only little stock in this uncleanly idea, for I believe our Canadian women are as carefully clean as any women under the sun. And I think the same thing can be said of our creameries, but there may be fault in their system of payment for milk, paying by quantity of milk, not by quality. I rather think, mostly, this is the case, or our farmers would be looking more for quality. My opinion is that this low-testing, thin milk is having the same effect on both cheese and butter, producing low-grade stuff. I have formed this opinion after many years of experience in the cream and butter production of high-testing power. I have come to the conclusion, where the mistake lies is that our dairy farmers, to get the quantity, are putting in the Holstein and displacing the old Canadian-bred stock, many of which are high-testing cows. No doubt, the old blood is fast dying out, by the introduction of the beef breeds, which may not interfere with their richness of milk, but undoubtedly is destroying their continuance in the flow of milk.

My contention is that, the higher-testing the milk is, the more cream it makes, the firmer cream it makes, hence the better texture, quality and flavor, on the same feed, for, no doubt, feed has something to do with quality, as well as quantity. The cow that gives a 6-per-cent. milk will make a much firmer cream, hence a better quality and flavor, than the cow that gives a 3-per-cent. milk.

I am pleased to read, in Mr. Medd's closing words, that he thinks the cow has something to do with the quality of our butter. I have thought this idea of high-testing milk making high-quality cheese and butter, higher than low-testing milk, should be thoroughly demonstrated and worked out at our experimental farms, and thus place our country where she should stand, ahead of Denmark or any other European country, in the production of cheese and butter of the very highest order. T. PORTER.

York Co., Ont.

### Milk that is Strictly Pure.

Since the Ontario Government has appointed a commission to look into the question of milk supply, the methods adopted and precautions taken in the production of pure milk will be of special interest to producers and farmers in general, as well as to retailers and manufacturers.

Brookside Farms Dairy, located about 60 miles out of New York, on the banks of the Hudson River, is the place that has the proud distinction of supplying sweet milk free from undesirable germs. The De Laval Monthly for May contains full particulars regarding production and sale.

### THE PRICE THAT QUALITY COMMANDS.

The milk from Brookside Farms retails in New York City at 20c. per quart and the cream at 72c. per quart, as compared with 8c. for milk and 40c. for cream of ordinary grades. The bacterial count of this marvellously pure milk, as taken from weekly samples through the year of 1908, averaged less than 165 per cubic centimeter (about half a teaspoonful). As an indication of what remarkable purity this is, it is pointed out that the bacterial count of milk produced by the average farm dairy is from 1,000,000 to 5,000,000 per cubic centimeter, and the milk that is classed as "Certified" milk by the medical commissions in the large cities, which is ordinarily considered very pure, may contain as many as 30,000 bacteria per cubic centimeter, and still pass as "Certified."

The City of Boston endeavored to pass a law prohibiting the sale of milk containing more than 500,000 bacteria per cubic centimeter, but found later that it would be absolutely impossible to secure enough milk of even this degree of purity to supply the demand. Thirty per cent of the samples of Brookside Farms milk examined in 1908 showed no growth of bacteria whatever, and the count for the best month in the year showed the remarkably low average of 22. All samples were examined by the Milk Commission of the Medical Society of the County of New York, which commission also examined the milk of a dozen or more other dairies producing certified milk. It was thus possible to make very interesting comparisons, and it was found at the end of the year that the total bacterial count of Brookside milk for the entire year was less than that found for some one week in the milk received from the best of the other dairies submitting samples.

As further evidence of the exceptional purity of Brookside milk, it is recorded by the Milk Commission of the Medical Society of the County of New York, that on February 3rd, 1908, a quart bottle of Brookside milk, bottled on January 28th, was opened, and the contents partly used. The bottle was then recapped and left standing all day on a desk in a warm room. It was then put in a refrigerator, and again opened on February 17th, or twenty days after it was bottled, and the contents were found to be still perfectly sweet. On another occasion a bottle of milk was placed in a refrigerator, and it was found to be sweet after remaining there forty-three days. This absolutely clean milk is simply the result of infinite painstaking and watchfulness.

### AN IDEAL DAIRY FARM.

Brookside Dairy is ideally located, with a babbling brook, shady woods and green meadows. The farm buildings are located on ground gently sloping to the south, thus affording first-class drainage. The establishment throughout is naturally of the most modern construction. S. L. Stewart is in charge.

### THE COW BARN.

The cow barn, or milking room, is one story in height and has a capacity of 64 cows. Numerous large windows furnish a good supply of light, and the King system of ventilation is used. The walls and ceiling are lined with white enameled sheathing, and the barn is equipped throughout with iron stanchions of the most im-

proved design. The watering and feed troughs are made of cement, as is also the entire barn floor, which is damp-proofed. Two complete flushing systems make the work of watering the cows and keeping the barn clean an easy matter. The damp-proofed floor mentioned is an especially valuable idea of Mr. Stewart's, in that it eliminates the cause of rheumatism which animals have contracted in many instances where forced to stand on cement. In laying his floor Mr. Stewart imbedded a heavy layer of tar and pitch about three inches below the surface. This pre-

vented all moisture from coming through, and the floor is always warm and perfectly dry, and he states that he has never had a single case of rheumatism in his herd of nearly 100 cows.



Eating in Cow Stable.

Luncheon in Brookside Farms stables, where absolutely pure milk is produced

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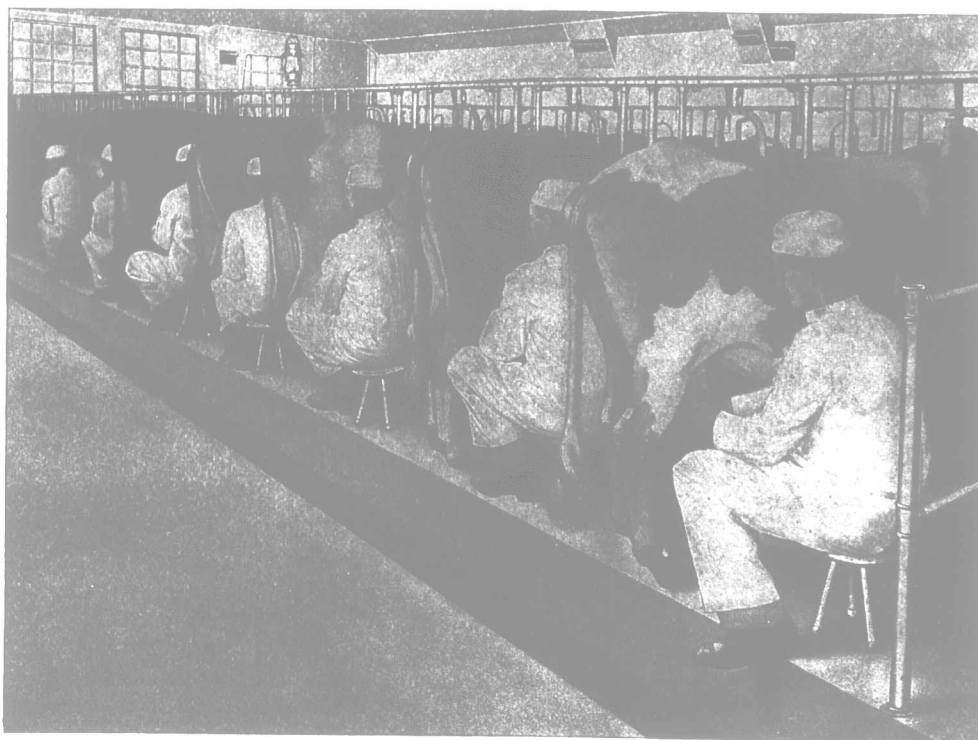
Adjoining the cow barn is what may be called the straining room, constructed entirely of cement, where the milk as it comes from the cows is strained immediately into 20-quart cans and delivered by a novel trolley contrivance to the dairy building, a few paces distant. The dairy building is also entirely of cement construction, and contains the steam plant, refrigerating room,

all the long hair on the cows' udders and flanks is clipped short, as it would afford a carrier for dust. This treatment gives them a neat, trim appearance. Planer shavings are used for bedding instead of straw, thus doing away with another usual source of dust. In dry weather, if much dust is being blown about outside the barn, the ground for some little distance around is sprinkled.

Twice daily the following operations are gone through with in grooming the cows before milking, the first beginning at 4 a.m. and the second at 2 p.m. These operations require an hour and a half morning and night, with ten men to perform them: First, each cow is curried and brushed; second, all soiled spots are washed off each animal with a 2-per-cent solution of disinfectant; third, each cow is dampened all over with pure water; fourth, each animal's tail is washed with the disinfectant solution; fifth, each cow's udder is washed with pure water; sixth, all udders are washed with a mild disinfectant; seventh, udders are rewashed with sterilized water; eighth, each cow's udder is dried with a clean sterilized towel for each animal. Following this, all the doors and windows of the barn are closed tight, and the walls, ceiling and everything inside is thoroughly sprayed with a hose, so as to make it utterly impossible for a single particle of dust to be floating about.

### CLEANLINESS OF THE MILKERS.

The milkers then retire to the dairy building, where all hands and faces are given a thorough washing, after which they don white-duck suits and caps, which have been washed and sterilized since last used. It may also be mentioned here that the milkers are required to bathe thoroughly every day, a shower bath for that purpose being provided as part of the plant equipment. Mr. Stewart also employs the services of a Newburgh physician to regularly examine the physical condition of his milkers, and the physician is instructed to call unexpectedly at any hour he may choose, day or night. Each milker is supplied with a sterilized milk pail and sterilized metal milk stool by the man in charge of the bottling room. The milk pails are covered with



Milking Time on Brookside Farms.

shower baths for the employees, milk cooling and bottling machines, sterilizers, and a De Laval cream separator. At the end of the cow barn is located the 220-ton silo, which supplies the necessary silage for the herd.

### PURE-BREDS NOT KEPT.

Mr. Stewart's herd, as before stated, numbers about 100, all being grade Guernseys and Jerseys, but thoroughly fine animals in every respect. From 60 to 75 are constantly in milk. The value of these cows is placed by Mr. Stewart at from

sterilized cloth, so that no dust may enter them while being carried into the barn. The milkers as they enter the cow barn use their elbows to push open the doors instead of their hands, in order that they may not possibly acquire any bacteria and thus infect the milk when milking. The fore-milk of each cow is drawn into a separate receptacle and set aside, as it has been found that the fore-milk frequently contains bacteria which has entered the teats from the outside air.

As soon as each cow is milked her milk is carried into the straining-room and strained separately, through a sterilized cloth, and the residue, if any, carefully examined, thus enabling the immediate location of any animal which may have possibly developed udder trouble of any sort. The milker then, before milking his next cow, washes his hands in a basin into which the water is made to flow by the operation of a foot lever, in order to avoid possible contamination from the faucet. Within seven minutes after each cow is milked her milk has been cooled to about 35 degrees, and bottled inside of the dairy building. The bottles are immediately sealed with sterilized caps, then packed in shipping cases filled with cracked ice and taken to the express station.

TREATMENT OF VISITORS.

As a further precaution, Mr. Stewart allows no visitors to enter his cow barn at milking time unless they likewise don sterilized suits and caps, which he is, of course, pleased to supply. No one, however, may enter the bottling room in the dairy building. This place is sealed tight, and the visitor must be content with looking through a plate-glass window at the operations going on within. Illustrations of the enormous amount of detail watchfulness and work which Mr. Stewart has found necessary to produce absolutely pure milk may be noted in the fact that he found it necessary to discard a bottling machine having rubber-capped valves, and to replace it with an all-metal machine, since it was found that rubber, no matter how thoroughly washed and sterilized, is a harboring place for germs. Also, by the fact that the fore-milk of the cows is not milked on the floor, as is usually done, for it would make a breeding place for bacteria.

Forty-five barrels of soda cleanser and twelve of disinfectant are used in a year. Prof. Bailey, of Cornell University, on visiting the Brookside Dairy, described briefly and most pointedly the methods of Mr. Stewart, when he said that he was simply applying "surgical cleanliness to dairying." Anyone who has been in a hospital or surgeon's operating room will readily appreciate what that means. When asked if all the little precautions he takes are absolutely necessary, Mr. Stewart replied: "Never has one of these details been neglected but what a big increase has immediately shown itself in the bacterial count in the milk."

The work has been largely a matter of evolution. By testing the milk as it comes from the cow, then by testing it after it is strained and after it is run over the cooler, and at all of the different stages, Mr. Stewart has found it possible to locate at just what point in the operations the bacteria is encountered. He has then immediately taken precautions at that point, and if one thing did not accomplish the desired result he has kept on until he discovered what was necessary, and so the whole process has been worked out through a series of constant experiments and tests covering a period of years, until the present stage of perfection has been reached.

[Note.—This article, intended for last week's issue, and alluded to in the editorial page of that number, was unavoidably held out at the last moment, owing to pressure of space.—Editor.]

Fifty-cent Cows.

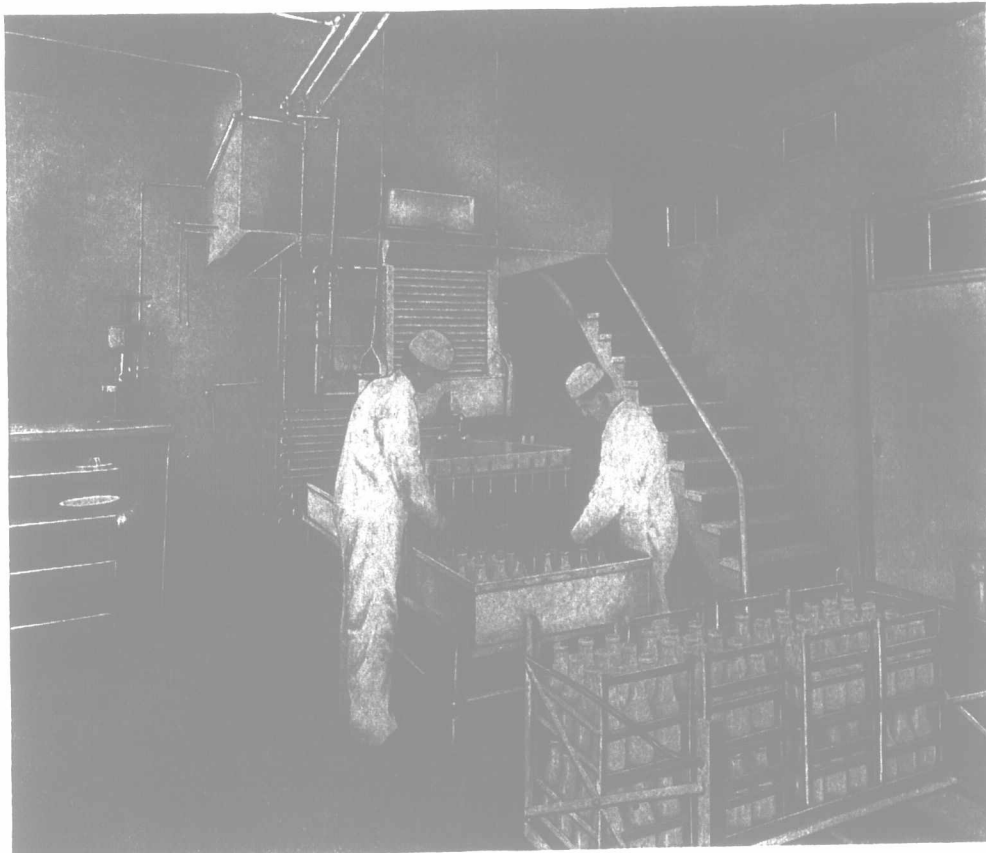
Cow-testing association members are astonished, to put it mildly, at the revelations of the scales and test. In one herd of 17 cows, the average yield was 4,380 pounds milk, 4.2 test, and 183 pounds fat. The highest yield of milk and fat was from a seven-year-old cow, whose test was only an average of 3.8 for the full period of lactation. Her total yield was 7,200 pounds milk, and 274 pounds fat. Notice how high this is above the average—2,820 pounds milk more. The yield of the poorest cow, a 10-year-old, was only 3,050 pounds milk, 3.7 test, and 111 pounds fat. Notice how much this is below the average yield—72 pounds of fat less. But this 10-year-old cow gave much less than half what the seven-

year-old did. There is actually a difference between the two yields of 4,150 pounds milk, and 163 pounds fat. Is the one cow worth twice as much as the other. Carry the figuring one step further, in order to ascertain profit. Valuing milk at \$1.00 per 100 pounds, and even putting the cost of feed at only \$30, one cow made just 50 cents profit on the year's business! Did that pay labor, or interest, or any return for supervision, or supply any incentive to keep cows? But even assuming that the first cow consumed feed to the value, not of \$30, merely, but \$50, the profit is \$22, or just 44 times as much as with the second cow. Supposing one could just deposit the profit made on each cow; with the kind that makes \$22 profit, one could attain a bank balance of \$1,000 by keeping 46 cows, but, with the other kind, it would necessitate keeping two thousand! Who can afford that? The point is evident. Test your cows, and ascertain definitely whether the fifty-cent cow boards in your stables. C. F. W.

A Profitable Cow.

The report, in our May 27th issue, of the year's milk and butter test of Messrs. Van Patter & Sons' Holstein cow, Netherland Aaggie De Kol, stamps her as an extraordinary producer, her milk yield in 365 days being 21,666 pounds, containing 704.835 pounds fat, equivalent to 881 pounds butter, figured on the basis of 80 per cent. fat, or 829.2 pounds, counting 85 per cent. fat.

But to show that she has in this test proven herself an exceedingly profitable producer, we find,



Bottling Room at Brookside Farms Dairy.

from the official report, that the cash received for her milk at the Aylmer Condensary during the test was \$277.45, while the cost of her feed, according to the following statement, was \$126.28. She was given hay, grass and alfalfa, all she would eat, estimated as equal to 15 pounds hay per day. Cost of feed is very difficult to estimate, as last season all feeds were higher than usual. They have been estimated at about the average market price: Ground oats, \$30 per ton; bran, \$24; oil meal, \$33; sugar-beet meal, \$10; silage, \$3; hay, \$6.

There is, then, an unproductive period between each freshening, during which time she must be fed, and, as this cow is due to calve about July 25th, we estimate the cost of feed at \$10 for the period, making a total of \$126.28, on which there is a profit of 120 per cent.

2,080 lbs. ground oats, at \$30 per ton	\$ 31.20
2,555 lbs. bran, at \$24 per ton	30.66
1,053 lbs. oil meal, at \$33 per ton	17.37
390 lbs. s.-b. meal, at \$10 per ton	1.45
12,800 lbs. ensilage, at \$3 per ton	19.20
5,475 lbs. hay, at \$6 per ton	16.40
Feed until next freshening	10.00
	\$126.28

The statement of feed submitted by Messrs. Van Patter is considerably lower than the above, being \$86.50, leaving a profit of \$190.95.

What "Good-keeping" Means.

Editor "The Farmer's Advocate":

The fact that W. F. Olds is mistaken in what I have said about the keeping qualities of Southern Ontario apples, and upon several other points in connection with the growing of apples in Southern Ontario, shows that possibly many others may be equally astray.

No objection can be taken to many things that Mr. Olds has said. That cultivation and the use of fertilizers will lengthen the fruit-growing season, is common knowledge, as can be verified by consulting old reports of the fruit-growers' associations; that southern apples occasionally show fair keeping qualities, is equally true, and it is not to be denied that, in point of color, flavor and size, Southern Ontario apples are the equal of any.

But I wish to direct my attention more particularly to Mr. Olds' many mistakes:

First.—He asserts that I said that all winter varieties grown in Southern Ontario were practically fall varieties, and should be picked in September. Mr. Olds nor anyone else ever heard me say anything of the sort, nor can he point to any signed statement of mine to that effect.

Second.—He asserts that my map, dividing Ontario into fruit districts, shows practically a straight line from Hamilton to Lake St. Clair. Such is not the case, though, to a careless observer, and on a small map, there might be some shadow of excuse for saying this. As a matter of fact, for convenience, I have followed the county boundaries, assigning the tier of counties touching Lake Erie to District No. 1; but I have explained that this is only for convenience in making fruit-crop reports.

No hard-and-fast line can be drawn that will mark off what might very properly be called the tender-fruit district, where peaches and grapes can be grown on a commercial scale, from the next division where these fruits are not hardy. But the nearest approach to it, as I have explained many times before, is the contour line, marking 700 feet above the level of the sea. This would pass through the following prominent points: Starting about at Thedford, near Lake Huron, it would run in a curve southerly to Watford, Alvington, Newbury, Wardsville, Dutton, Fingal, slightly south of Aylmer, a few miles south of Simcoe, reaching Jarvis; and then northerly in a curved line to Brantford, continuing north-easterly to Linden and Kilbride. Even this line cannot be accepted, except as a general guide, and it will vary, for many purposes, from year to year, as the season is colder or warmer. It will also vary with the local inequalities of surface. It might be worth mentioning, too, so as to make the matter perfectly clear, that the conditions that make the difference between District No. 1 and District No. 2, fade insensibly the one into the other. Nevertheless, it is well to note this line, as, in a general way, it marks out conditions essentially different in the extremes, and makes it easier to get a clear idea of the natural advantages of the different parts of our Province.

Another mistake is in taking for granted that the keeping qualities of apples can be determined by the results in a single case. If all the winter varieties in Southern Ontario were well grown, thoroughly sprayed, thinned, picked carefully, and stored at the right moment, even in ordinary storehouses well built, or in good cellars, these varieties would very frequently prove good keepers, and give good financial results.

It is also a mistake to suppose that the results of a single year determine the reputation of the apples of a section. The apples of Southern Ontario, let us suppose, may keep well four years out of five. But if they fail to keep well the fifth year, it will fix the reputation of southern apples as being below the best.

Another mistake is in supposing that I have made the reputation of these Southern Ontario apples. As a matter of fact, my share of the work has been to draw attention publicly—and, I hope, emphatically—to the fact that apple-buyers, fruit-dealers and large consumers have for many years considered these apples poor winter-keepers; that the men to whom I have referred do hold this opinion, is absolutely true, and has not been denied; and they are the people who ought to know. My first unpleasant experience was gained many years ago, when I attempted to sell South-

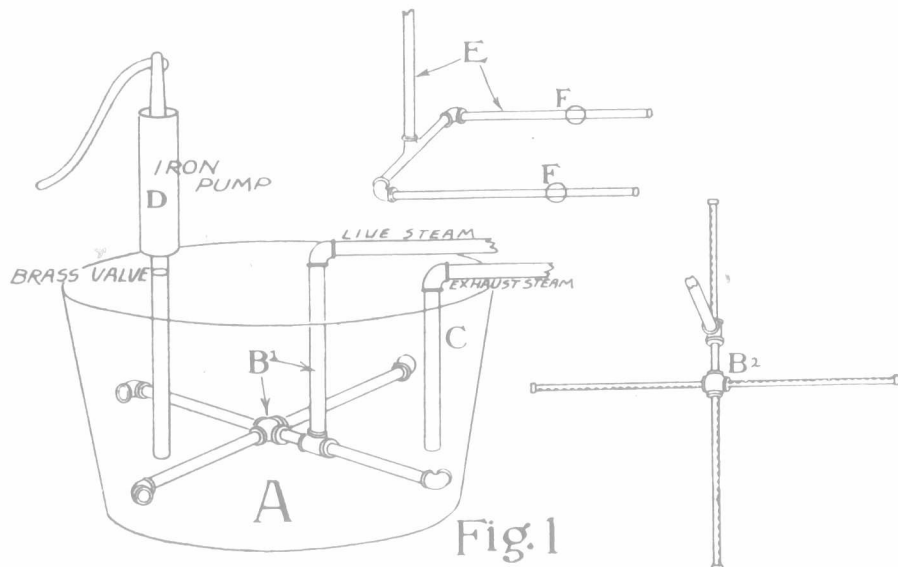


FIG. 1 represents conditions where only one ground whey tank is used (close to boiler), whey being pumped in cans by hand. This single tank can be elevated if desired and the whey ejected directly from the vats, delivered to elevated tank at temperature of about 122°. One of the systems of pipes shown can be put in and whey heated to 155° with live steam. When engine is in use exhaust may be used in ground tank. (A) Tank; (B 1) 1/2-inch live-steam pipes as shown, with open elbows; (B 2) another 1/2-inch system of live-steam pipes, ends plugged and holes drilled as shown, holes turned same angle (either system will keep whey in circulation and assures even heating); (C) exhaust steam; (D) iron hand pump, with brass valve (leather valves wear out quickly with hot whey); (E) another method of arranging live-steam pipes in tank; (F) noiseless heaters. Four noiseless heaters may be placed on (B 1) if desired, instead of elbows.

ern Ontario apples for storing during the winter months. I soon found that no merchant of experience would accept the fruit which I offered him from Southern Ontario, and I do not think it would have been honorable for me to have sold this fruit without at the same time telling where it was grown. In most cases, the condition of the fruit, even in the fall months, was such as to show to the experienced eye that it would not keep well during the winter. But, in some cases, and with less-experienced dealers, they might have been palmed off as good winter-keeping stock.

Another mistake is in assuming that I do not think that the winter varieties would pay in Southern Ontario. The qualities, other than the keeping qualities, are so excellent, and the market for well-grown and well-kept fruit so large, that I believe almost any variety of apple would pay in Southern Ontario. I believe, too, that I have frequently said to those who own orchards in Southern Ontario, when questioned upon the point, "Do not cut down the present orchards if the trees are still vigorous and free from San Jose scale, but take proper care of them, and if you wish to invest more money in orcharding, do it by making further plantings of early varieties," showing clearly that I fully appreciate the value of Southern Ontario apples. It might be explained that I recommend the early varieties (and by early, I mean those that can be harvested during the month of August), because they are more profitable than the average winter varieties, being higher-priced in most cases, and more prolific. Such varieties as the Duchess come into bearing very soon after planting, which is a decided advantage.

A word with reference to what is required in a good-keeping winter variety: In actual practice, the winter varieties, to be valuable, must stand some hard treatment. In the counties north of Lake Ontario, and in the counties of Huron and Bruce, and a part of Grey—and, in fact, wherever winter apples are a profitable crop—the apples are picked and put into barrels, the culls only rejected, and are then taken to storehouses having insulated, frost-proof walls, with numerous ventilators. In these storehouses the apples remain until January, February and March. As a usual thing, they show a very small percentage of loss. If the loss reaches two or three per cent., it is considered that apples have not kept well. If it reaches five per cent., it is a serious matter; and if it reaches ten per cent., it is disastrous. Here is a case, then, where it would be considered a failure, even though ninety per cent. of the apples kept all winter; and yet, I would infer from Mr. Olds' statement, that, because he kept some apples till June of the following year, the storing of these particular apples would be commercially profitable. Can Mr. Olds, or someone else, who considers Southern Ontario apples for winter use a profitable proposition, tell me where even a hundred barrels of these apples have been stored this last winter, and offer assurances that they have kept till February or March, without a loss of five per cent. or over? This would be valuable information.

I infer that Mr. Olds makes another mistake in taking it for granted that there are many farmers in Southern Ontario who pay the same attention to their orchards that he does. Outside of

the Norfolk Association, there are very few indeed, even in his own county. Therefore, the arguments that he brings forward, founded on the results of his well-grown fruit, properly picked, packed and stored, do not apply to more than five barrels out of every hundred grown in Southern Ontario.

In the meantime, I am sure this discussion must do good. I sincerely trust that it will be followed up. I agree thoroughly with Mr. Olds that good culture, thinning of fruit, thorough spraying, and the careful handling of it after it is picked, will make any or all varieties profitable in Southern Ontario, as well as in any other part of Canada where apples can be grown. A. McNEILL, Chief Fruit Division, Ottawa.

**Effect of Separators.**

Editor "The Farmer's Advocate":

The cream separator has, undoubtedly, affected the quality of creamery butter. I think I am safe in saying both for the better and worse, according to the system which it displaced.

Where whole-milk creameries were in operation, the introduction of the hand separator on the farm has had a deteriorating effect on the quality of the butter, because when the milk is skimmed at the creamery it is removed from the bad influence of so many farm conditions, and the cream is uniform and is ripened under best methods; while if skimming is done at the farm the cream is held there and is affected more or less by conditions and surroundings not conducive to finest flavors, and arrives at the creamery in anything but uniform condition; so that comparing whole-milk creamery and gathered-cream creamery, I think the influence of the separator has had a bad effect on the quality of butter. But when it is a question of separator or no separator, and skim at home, then I certainly think that the separators are without a doubt helping to improve the quality of the butter. The exposure of cream to the unfavorable surroundings is reduced to a minimum.

Much improvement is needed among farmers in handling separators and caring for cream. Many farmers skim too thin a cream, believing that, by some unknown method they will get more money if the bulk of cream is large; or else believing that the cream is not properly tested (which I believe is too often the case), and that they will not get full value for the cream rich in butter-fat. The result is that the cream sours very rapidly, and does not arrive at the creamery in proper condition. Keeping separators in dirty stables, not washing after each skimming, and mixing cream before cooling, are all bad practices, tending against the production of finest flavors. Only by an aggressive campaign of education can these conditions be overcome. Dairy butter has a bad effect on the market for creamery butter; owing to its lack of uniformity, and by being sold at one price, regardless of quality, and because of that lack of quality and uniformity, is cheaper, thereby taking away the market to some extent of good creamery butter.

I would not like to say to what extent the price is affected in either case that I have mentioned, as it is very hard to arrive at any estimate in actual figures. I believe that the gathered-cream system of creamery has come to stay, and it is a question whether there is any loss to the farmer after all in the change from whole-milk creameries, as it has reduced the cost of transportation so much that it will compensate for any loss in price of butter.

Huron Co., Ont.

JNO. H. SCOTT.

**Practical Pasteurization of Whey.**

By Frank Hens, Chief Dairy Instructor, Western Ontario.

A large number of cheese factories in Western Ontario will pasteurize whey during 1909. The object of this article is to give some practical information regarding different methods. Patrons and makers, generally, recognize the benefits of proper pasteurization, in increased feeding value of whey, by even distribution of the fat, better condition of the tanks, sweeter whey for calves and pigs, easier washing of cans, checking yeasty flavor, and numerous other ways. From data secured during 1908 the following may be of interest:

	Whey not pasteurized.	Whey pasteurized 150° to 160°.
Average % acidity of whey going in patrons' cans.....	1.12%	.4%
Average % of fat in whey going in patrons' cans .....	.09%	.22%
Total fat returned per ton of cheese (20,000 lbs. whey x .09% = 18 lbs.) (20,000 lbs. whey x .22% = 44) .....	18 lbs.	44 lbs.
Difference in total amount of fat returned per ton of cheese (20,000 lbs. of whey, 44 - 18 = 26).		26 lbs.
Value of fat for feeding per ton of cheese (20,000 lbs. whey), allowing 5c. per lb. of fat (18 x 5 = 90c.) (44 x 5 = \$2.20) .....	90	\$2.20
Difference in feeding value of fat alone per ton of cheese (20,000 lbs. of whey) (\$2.20 - 90 = )...		\$1.30

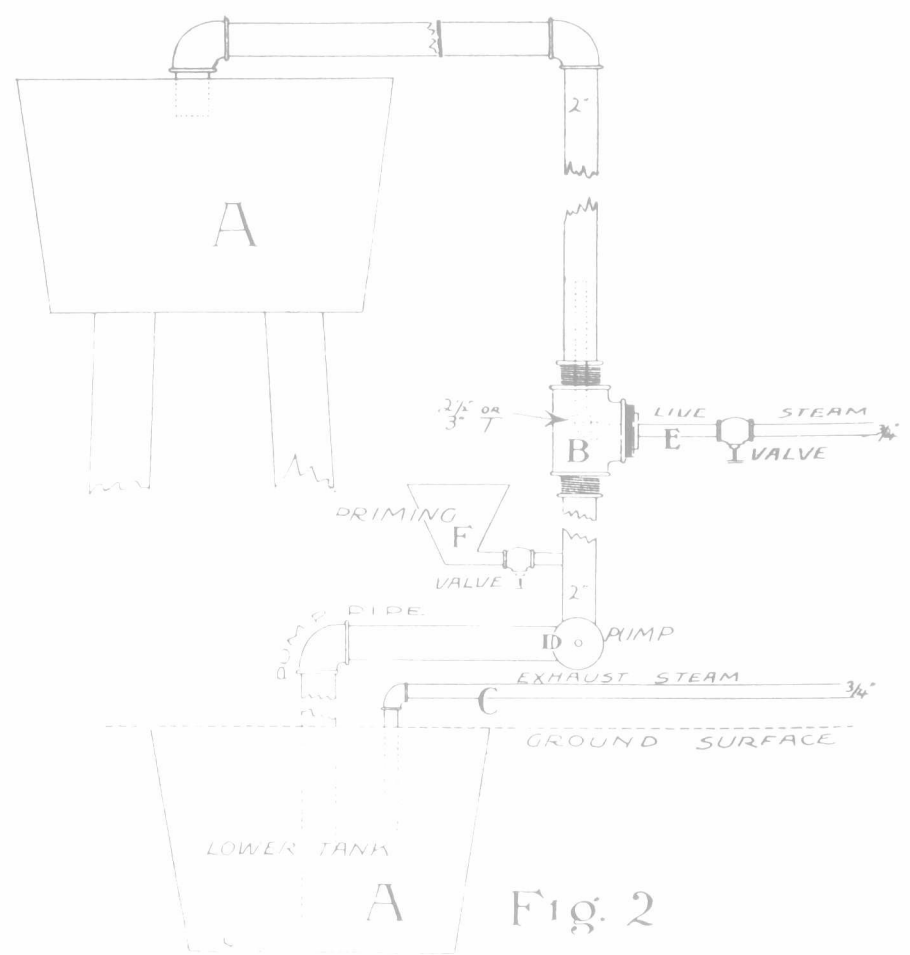


FIG. 2—(A A) Lower and upper tank, (B) 2 1/2 inch or 3 inch T; (C) exhaust steam; (D) pump or ejector, (E) live steam turned up 8 inches inside T (B), as shown by dotted lines. When pump or ejector is started sufficient live steam is turned on through (E) to deliver whey in elevated tank at 155°. (F) Priming valve for pump. Pump pipe two inches, the T (B) reduced to fit. If ejector is used, 1 1/2 to 1 3/4 inch pipe instead of 2 inch. Exhaust steam (C) will be heating whey in lower tank while pump is running. Exhaust steam (C) can, if desired, be turned in the T (B) instead of tank, but would not keep lower tank in as good condition. W.B. probably cost less to pasteurize whey when elevated with this system than any other. Using an ejector instead of pump with this system works well.

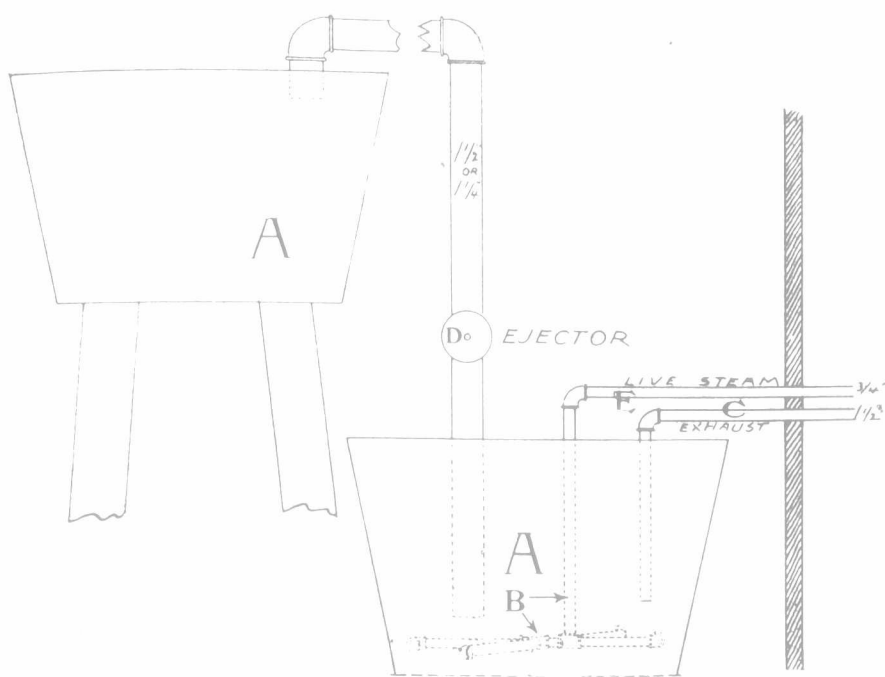


Fig. 3

FIG. 3.—(A A) Lower and upper tanks; (B) live-steam pipes; (C) exhaust steam; (D) ejector or pump. If ejector is used, heat to about 125° to 130° in lower tank; ejector will then deliver to upper tank at about 155°. If pump used, heat to 155° in lower tank.

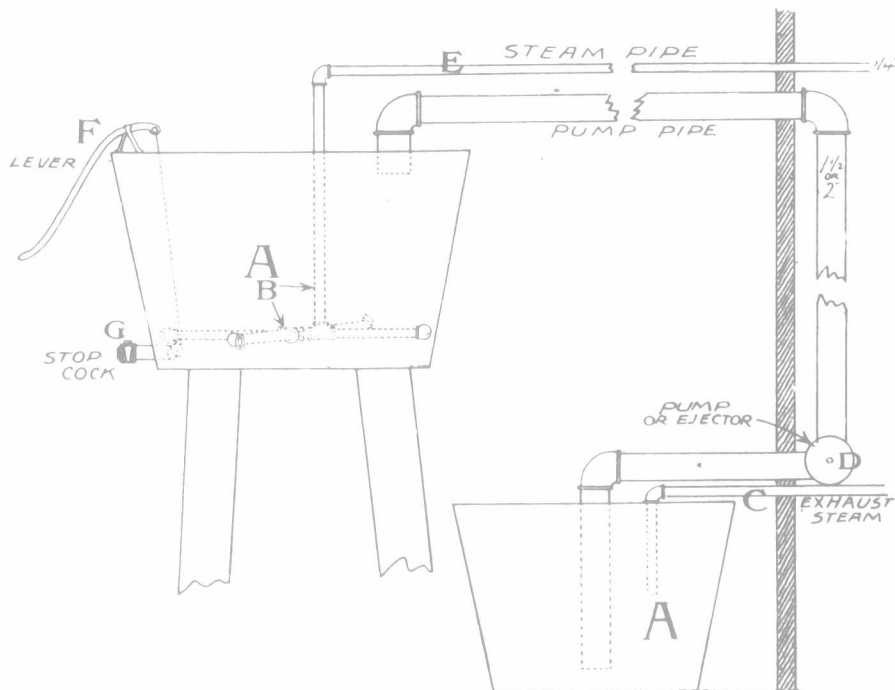


Fig. 4

FIG. 4.—(A A) Lower and upper tank; (B E) live steam in upper tank instead of lower; (C) exhaust steam; (D) pump or ejector; (F) to close valve inside of tank to prevent leaking (can be put on any tank); (G) stopcock; (B E) can be put into lower tank if desired.

If the value of fat for feeding is considered greater than 5c. per lb. the difference in feeding value of pasteurized over unpasteurized whey increases in proportion, or if 10c. and 20c. per lb. of fat be allowed for feeding value the difference in favor of pasteurized whey for fat alone would be \$4.40 and \$5.20, respectively, per ton of cheese (20,000 lbs. of whey).

The average percentage of fat in whey when drawn off vats is about .23%. It is shown where whey is not pasteurized very little fat lost in cheesemaking is really available for feeding purposes, as most of it rises to top of whey in tanks and whey is drawn from underneath, but where proper pasteurization is practiced, practically all the fat is evenly distributed in the whey, and each patron gets a proportionate amount.

It is also shown that the acidity of whey is very much less where pasteurized. Some factories deliver the whey with an acidity not greater than .23%, which is practically as sweet as when drawn off vats. Heating should begin as soon as whey is drawn to check development of acidity, and, so far as possible, the growth of other germ life. Temperature should be raised to 155°. A temperature much over 160° causes albumen to coagulate and whey becomes slimy. From data secured it is shown that whey, from, say, 20,000 lbs. milk, in

average covered tank, if heated to 155°, will remain above 150° from 45 minutes to 1 hour, and above 140° from 1 hour to 1½ hours; above 130° from 2 hours to 3 hours and 20 minutes; delivered in patrons' cans, after 20 hours, from 100° to 120°.

The tank should be covered to maintain temperature and economize steam.

From experiments made during last winter it

is shown that with coal at \$4.00 per ton the cost of pasteurizing, heating to 155°, will be from 50c. to \$1.00 per ton of cheese (20,000 lbs. of whey), or an average cost of 75c., depending on size of boiler, location of tank, method followed and experience.

The accompanying illustrations show five different systems of heating whey, any of which can be arranged to suit nearly all conditions.

[In any of these systems one tank, either upper or lower, preferably upper, should be large enough to hold one day's whey. Tanks as near boiler as possible, outside of cost of tank, pump or ejector and delivery pipe, practically all of which are always in use, should cost from \$5.00 to \$15.00, depending on distance steam has to be carried.]

**Cow Progress.**

The records of the cow-testing associations show a large increase in the number of cows whose production, both as regards weight of milk and butter-fat, is being noted regularly. It is no wonder that the plan appeals to the progressive dairymen of Canada, because record work must mean substantial improvement, and the improved herd is the herd that produces economically.

Since commencing records many farmers have been enabled to increase the yield of milk and fat per cow considerably, because instead of contentedly saying "so many cows so much milk," each individual is studied, and each member of the herd brought up to a good profit-earning capacity. Herds that used to produce only 187 lbs. fat are now up to 220 lbs.; milk production has gone up from 4,850 lbs. to 6,380 lbs. In 1905 one herd averaged 5,374 lbs. milk, but in 1908 the owner had brought all up to 7,240 lbs. milk per cow. One member in 1903, keeping nine cows, obtained

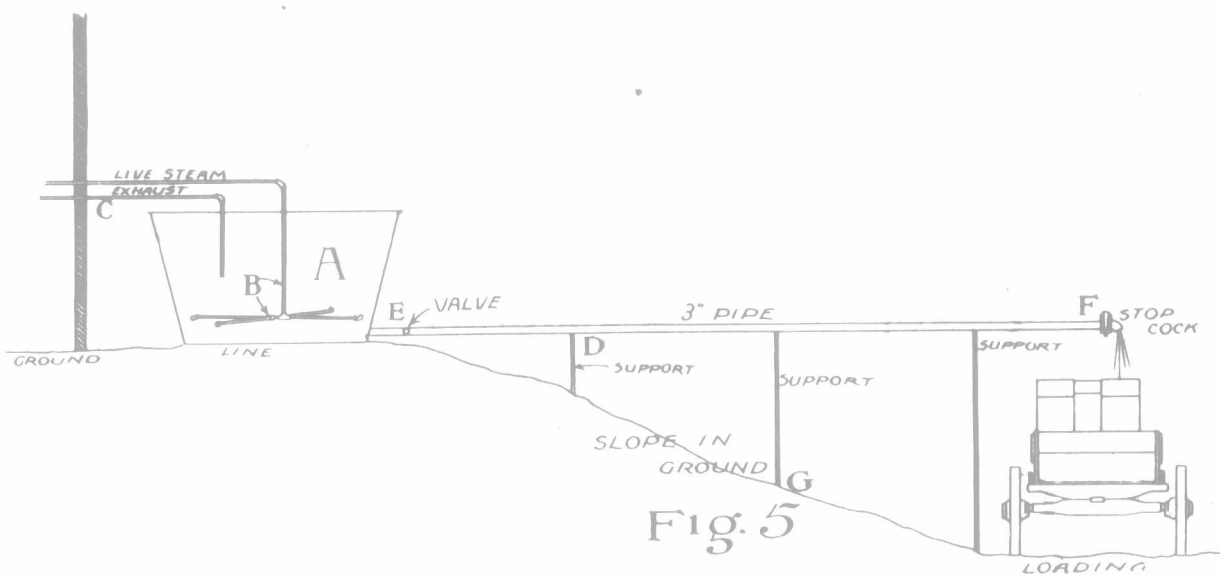


FIG. 5.—(A) Single tank near boiler; (B) live-steam pipe; (C) exhaust steam; (D) 3-inch pipe to carry whey to loading point; (E) valve; (F) stopcock; (G) sloping ground line. This system used where formation of ground will permit. No pumping.

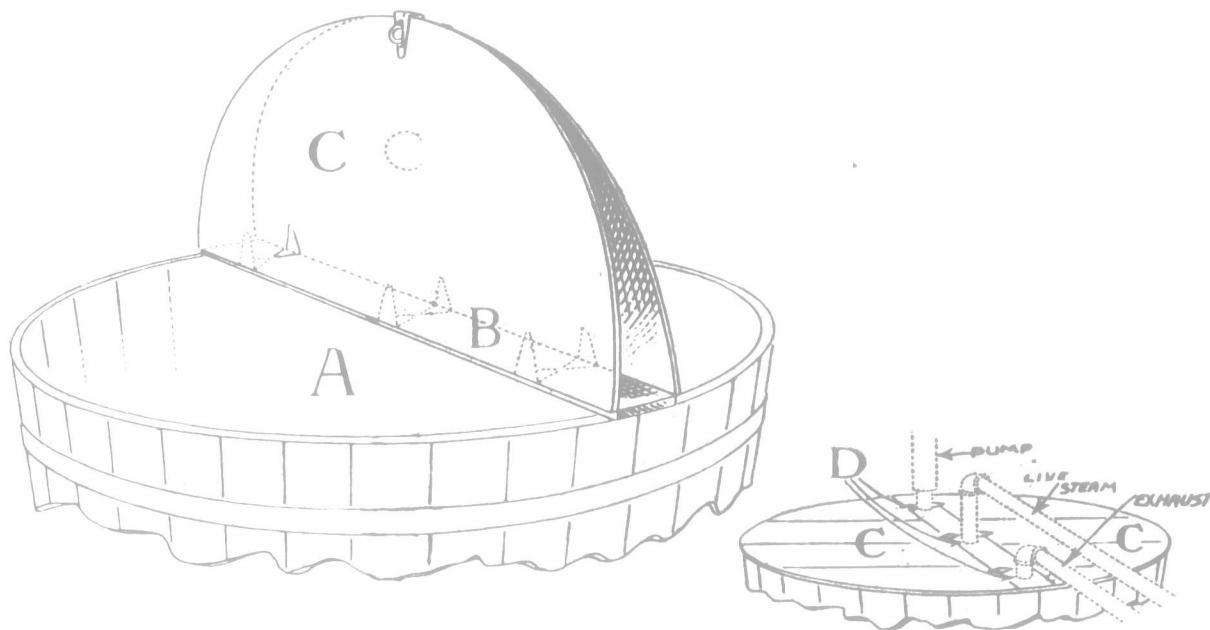


Fig 6

FIG. 6.—(A) Tank; (B) 8- or 10-inch cross piece, 1½ inch thick, over center of tank; (C C) cover raised for cleaning; (D) showing arrangements of pipes through cross piece (B) in order not to interfere with covers when raised; (C C) shows covers lowered over tank.

only 4,360 lbs. from each, but in 1908, with 11 cows, he had an average yield of 7,000 lbs. milk. Cash receipts have increased with another member from \$52 per cow in 1905 to \$76 in 1908.

Instances might be multiplied; these few indicate what it means to the real dairy farmer who seeks improvement. Time spent in weighing and sampling is well spent; definite knowledge is obtained.

C. F. W.

## POULTRY.

### Fattening of Chicks.

Should the farmer desire to specially fatten his chickens before sale or shipment, his simplest and speediest plan is to put his birds at 3½, 4 or 4½ months of age in slatted coops or crates, divided into compartments to hold one or a number of birds, up to four. These coops should have V-shaped feeding troughs in front. The following fattening ration has been found most effective in our poultry department, viz.: Two parts finely-ground oats; one part finely-ground barley; one part ordinarily-ground corn meal. After fifteenth day add beef suet, in proportion of one ounce to every four birds. Mix with skim milk. If the milk is made near the boiling point, the tallow, which should be chopped fine, will be melted by it when poured on the ground grains; or, the tallow may be melted in the hot milk. The birds should be fed all they will eat twice a day. Carefully collect all uneaten food. Leave none to turn sour, and feed none in that condition.

Care should be taken to free the birds from vermin before cooping. This may be done by rubbing sulphur well into the feathers, or by one of the lice-exterminating powders.

Pens and premises should be kept scrupulously clean.

Grit and water should be supplied regularly. Three weeks should be sufficient to fatten the birds satisfactorily.—A. G. Gilbert, C.E.F.

## GARDEN & ORCHARD.

### Fruit Thinning Gives Profits.

Editor "The Farmer's Advocate":

The idea of thinning fruit is new with Ontario orchardists, although it has been carried on for several years, with marked success, in the Western States. My short experience leads me to believe thinning is fully as important as either good fertilizing and working, or the spraying of the orchard. We may ask, why do we thin? In the first place, the remaining apples are larger, more uniform, and better-colored. At the fruit meeting held at Guelph last winter, they were claimed to be worth 25 cents per barrel more, by those who had had experience along that line. In the second place, thinning encourages annual bearing. The tree does not have its vitality lowered by overcropping, from which it takes from two to three years to recover. In fact, I am satisfied I lost ten prime Baldwin trees during the very cold winter about eight years ago, by letting them overbear the previous season. Also, the fertility of the orchard is not wasted in growing culls, there being practically no cider apples, and but few of second grade.

The best time to thin is soon after what is often called the June drop. I started in the first week of July for the early apples. I just snipped the fruit off with the thumb-nail, first taking any that were imperfect, and then the smaller ones. If some of the fruit is in thick clusters, thin these severely, so as to leave the load fairly even over the whole tree.

In the season of 1907 I thinned 100 trees. I commenced in a block of 10 Snows, 10 Wagner, and 40 Golden Russet, which were all well laden. I removed one-third of the fruit from all of these but two, leaving these two for a comparison. In another lot of 40 Northern Spies, there were 6 exceptionally heavy-laden; I left two of these unthinned, from two I removed one-third of the fruit, and from the other two I removed two-thirds of the crop. The remaining 34 trees were well filled; I took off one-third from all but two, these two were left unthinned for comparison. Part of them I did in one picking, and part I went over twice.

In looking over the work of the summer, I found, first, where there is much to remove, it is better to thin twice than once, the second thinning following three weeks after the first. It requires about that length of time to allow for a good variation in the size of the fruit, so that one can see at a glance what fruit is best to remove. Second, it is not quite enough to thin off

only one-third of the fruit when trees are heavily laden; one-half is better. Third, to remove two-thirds of the crop is the extreme limit; fruit is then liable to be overgrown and coarse.

I carefully measured the results at picking time, and compared the trees thinned with those which were not. I found that taking off one-third of the fruit does not diminish the bulk, and even when two-thirds are off, but little. The difference is all in the quality. I am well aware this is a startling statement to make. Scientists tell us that the bulk of the tree's energy is expended in the developing and maturing of the seeds and core of the apple. The pulp is nearly all moisture, with a little humus. Of the two trees of Spies which were unthinned and so heavily laden, not 20 per cent. would pass No. 1, and not over one-half of the remainder were even No. 2 quality. With the two trees where two-thirds were taken off, 95 per cent. would go No. 1. On account of the desperate weather conditions which prevailed, these were not sorted separately, but, even after they were quite badly frozen, the whole lot sorted about 70 per cent. No. 1.

This last season, the crop not being so plentiful, many of my trees required only thinning once. I had a good object-lesson on a block of about 20 trees of Baldwins. These were very high, so I neglected going over them. Among these were two trees yielding a very full crop, and when I came to pick them, fully one-third were nothing but scrubs, the No. 1 would not be at the most over 20 per cent., green-looking, and barely up to the standard; while, on trees right beside them, bearing one-third of the crop, the fruit was grand—70 per cent. No. 1. These last-mentioned trees also brought me as much money, with one-half of the work. I am fully convinced that, had I spent four hours' work thinning on the two over-cropped trees, my profit would have been \$3.00 more. Again, I cannot expect the two over-loaded trees will have apples on this season. I am hopefully looking for a crop on the others.

Leaving out the 20 Baldwin trees, I thinned all the other varieties thoroughly but the Ben Davis. I was afraid of the commercial value of these. They were well filled, but, not being attended to, over one-half were No. 2. Right beside them were 20 Bellefleurs, carrying just a medium load, which, with one good thinning, went 80 per cent. No. 1. The only other kind well filled were six trees of Snow apples. These I thinned twice, removing, altogether, one-half of the fruit. These trees did not quite average 11 inches through the body two feet up from the ground. They cleaned up 44 boxes, and 3½ barrels of No. 2. Those who are versed in boxing apples, know that only a superior grade of No. 1 is used. If they were sorted in the ordinary way, I would probably have had but one barrel of No. 2. I think this result can be attributed to thinning, because all of the orchard had the same cultivation and care.

I believe the indirect benefits of thinning will pay for the outlay in labor. One man can, while working on a ladder around the tree, oversee two boys in the center and two women working on stepladders around the base, at an average cost of 10 cents per hour each. I had no trouble in getting immigrant women to help me; the weather being warm, the ground dry, and no wind, they liked the work. These five pickers should pick off fully as many apples as five good pickers in the fall for the same time. The price of pickers in the fall, when we have a full crop, is 20 cents per hour each. By removing half the fruit in the summer, we reduce the work in the fall by one-third. You will notice that that alone will nearly pay the cost of thinning. With one-third of the work done, we are not compelled to start in the fall before the fruit is thoroughly ripe; and at the same time we find the thinned fruit has ripened up, and is ready to be picked sooner than it otherwise would have been. I believe any system that will enable us to let the fruit remain on the trees until it has fully matured, is of great importance.

In the latter part of September, during the last ten years, I have been in the habit of showing from two to four varieties of apples at the county fair. To get the best samples obtainable, it was necessary to pick about a peck of each variety. After my selection, I stored the remainder in the cellar until regular picking time. When I compared them with the fresh-gathered fruit, the difference was marvellous. I picked, two seasons ago, the top half of my Baldwin trees, about the 8th of October; the lower half remained on the trees ten days longer. These were then placed beside the former. They were unmistakably the better of the two.

These are my views, so far as fruit thinning is concerned. To any who try thinning the coming season, I strongly recommend spraying, particularly for the codling moth. I have destroyed fully 95 per cent. of them by using arsenate of lead. This year, the season being backward, I will not thin much before August. I hope your endeavors to have thinning extensively practiced throughout Canada will be successful.

Ontario Co., Ont.

W. H. FRENCH.

## A Promising Canadian Entomologist.

W. R. Thompson, of the 1909 graduating class, Ontario Agricultural College, on June 1st began work under the United States Department of Agriculture, Bureau of Entomology, as Expert and Agent of the Bureau, and First Assistant to Charles H. T. Townsend, in the Gipsy-moth Laboratory, near Boston, Massachusetts. During his five months' vacation period in 1907 he labored under Prof. Klink in plant improvement, at Macdonald College, Ste. Anne de Bellevue, P. Q., but last year spent the period in the work with dipterous parasites, jointly carried on by U. S., Federal and State (Massachusetts), authorities, with a view to combating the destructive ravages of the moths. A naturalist-born, of untiring enthusiasm, he was fortunate in earning from his chief very high commendation in the official published report of the Washington Bureau, upon the excellence of his work, as one result of which came his present position, immediately at the close of the O. A. C. course. In addition to the general course at Guelph, he took the biological option with distinction, securing a remarkable score on his fourth-year Thesis, giving the results of original research in bird mites, a work of several hundred pages, illustrated with many microscopic photos, so that his future will naturally be followed with deep interest by his Alma Mater. Mr. Thompson is a son of one of the editors of "The Farmer's Advocate."

## THE FARM BULLETIN.

### The Ontario Winter Fair.

The next Provincial Winter Fair is to be held at Guelph, Ont., on December 6th, 7th, 8th, 9th and 10th, 1909. Work is now being rushed upon the large addition that is being made to the fair building, and in good time before the opening date this will be completed. The horse department, which is to be added to the fair this year, will be a great exhibition in itself, at which will be seen the pick of the pure-bred horses of the Province.

For the dairy cattle a model stable will be erected in the new part of the building. This stable will have concrete floors, a thorough system of ventilation, litter and feed carriers, water basins and improved stanchions. Two championship prizes will be offered, in addition to the large regular prizes. These are for the cow giving the most pounds of fat during the test—prize, \$15.00—and for the cow giving the most pounds of total solids—prize, \$15.00.

In the beef-cattle department, the section for cow or heifer, three years or over, is struck out of all classes. Instead, the section for heifer under two years is divided in the classes for Shorthorns and for grades and crosses, making sections for heifer, 1 year and under 2, and for heifer under 1 year; and in Herefords and Aberdeen-Angus and Galloways and Devons the section for steer or heifer under 1 year is divided, making sections for steer under 1 year and for heifer under 1 year.

A regular class is added for beef cattle, grades or crosses shown by amateur exhibitors, with prizes as follows:

	1st.	2nd.	3rd.	4th.	5th.
Steer, 2 years and under 3.....	\$25	\$20	\$10	\$5	C
Steer, 1 year and under 2.....	25	20	10	5	C
Steer, under 1 year.....	20	15	10	5	C
Heifer, 2 years and under 3.....	20	15	10	5	C
Heifer, 1 year and under 2.....	20	15	10	5	C
Heifer, under 1 year.....	20	15	10	5	C

The regular prizes for both sheep and swine will be supplemented by large grants from the various breed associations.

A few changes have been made in the Bantam and fancy-poultry classes.

Judges have been appointed as follows:

Beef Cattle.—Robert Miller, Stouffville; James Smith, Rockland; reserve, J. T. Gibson, Denfield. Beef Carcasses.—Prof. G. E. Day, Guelph; Geo. F. Morris, London. Shropshires and Dorset Horns.—J. C. Duncan, Lewiston, N.Y. Southdowns, Suffolks and Hampshires.—W. H. Beattie, Wilton Grove. Cotswolds, Leicesters and Lincolns.—John Gardhouse, Highfield. Oxfords.—J. E. Cousins, Harriston. Short-wool Grades.—J. C. Duncan, Lewiston, N.Y.; W. H. Beattie, Wilton Grove. Long-wool Grades.—John Gardhouse, Highfield; J. E. Cousins, Harriston. Sheep Carcasses.—Prof. G. E. Day, Guelph; Geo. F. Morris, London. Yorkshires and Tamworths.—A. C. Hallman, Breslau; Prof. G. E. Day, Guelph. Berkshires.—Thos. Teasdale, Concord. Chester Whites and any other breeds, grade or cross.—G. B. Hood, Guelph. Bacon Hogs.—Wm. Jones, Zenda; J. C. Nichol, Humber; R. J. Garbutt, Belleville. Bacon Carcasses.—Prof. G. E. Day, Guelph; Geo. F. Morris, London. Dairy.—Prof. H. H. Dean, Guelph. Seeds.—J. Buchanan, Guelph. Judging Competition.—Prof. G. E. Day, Guelph (in charge). Plymouth Rocks.—H. P. Schwab, Irondequoit, N.Y. Buff Orpingtons and all Leghorns except R. C. White.—Richard Oke, London. Spanish, Black and White Orpingtons, Dominiques, Partridge, Wapnettes, Javas, La Fleche, Creve-Coeurs.—N. Cook, Auburn, N.Y. Games, Game Bantams, Asiatics.—S. Butterfield, Windsor. Ornamental Bantams.



Silkies, Sultans.—Wm. McNeil, London. Rhode Island Reds, and all Wyandottes except Partridge.—Jas. Tucker, Concord, Mich. Minorcas, Andalusians, R. C. White Leghorns.—J. H. Minshall, Brantford. Polands, Dorkings, Red Caps, Houdans, A. O. V. Fowls, Water Fowl.—L. G. Jarvis, Grimsby. Turkeys.—James Anderson, Guelph. Pigeons.—C. F. Wagner, Chas. Carrier, Toronto. Ornamentals.—Wm. Barber, Toronto. Utility, Pen and Dressed Poultry.—Wm. Barber, Toronto; W. R. Graham, Guelph.

### Eastern Ontario Live-stock and Poultry Show.

The Executive Committee of the Eastern Ontario Live-stock and Poultry Show met in Ottawa on June 11th, to make further arrangements for the show, which is to be held at Ottawa on January 17th to 21st, 1910.

In the Dairy Department, there are to be classes for Shorthorns, Ayrshires, Holsteins, Jerseys and Guernseys, and grades. In each of these classes there will be three sections: Cow, 48 months and over; cow, 36 months, and under 48; heifer, under 36 months. The prizes for each section will be: First, \$25; second, \$15; third, \$10; fourth, \$5.

The prize list for the Horse Department of the show was revised. There will be four sections, instead of three, in the open class for Clydesdale stallions. These will be for stallions foaled previous to January 1st, 1906; stallions foaled in 1906; stallions foaled in 1907, and stallions foaled in 1908. The total amount of prize money for these sections is \$435. The prizes and classification for Clydesdale and Shire mares will remain as last year, but both imported and Canadian-bred mares may be shown. A class was added for Hackney mares any age, with prizes of, first, \$30; second, \$20; third, \$10; and the prizes for Hackney stallions foaled previous to January 1st, 1907, were increased to, first, \$40; second, \$30; third, \$20; fourth, \$10. The horses in the Hunter class will be shown under saddle, instead of on the line. Exhibitors of heavy-draft horses will in future be allowed to show the same horses in both single and double harness. The balance of the prize list for the Horse Department will remain as last year.

The live-stock judges for the next show will be as follows: Beef Cattle—Robert Miller, Stouffville; Capt. T. E. Robson, Ilderton. Sheep—A. W. Smith, M. P., Maple Lodge. Swine—D. C. Flatt, Millgrove. Bacon Hogs (alive)—Prof. G. E. Day, Guelph. Cattle and Sheep Carcasses.—Prof. G. E. Day, Guelph. Bacon Hogs (dressed carcass)—J. H. Grisdale, Ottawa; Geo. Gray, Hull, Que. Clydesdales, Shires and Heavy-draft Horses—John Gardhouse, Highfield. Hackneys—Hon. Robert Beith, Bowmanville. Standard-breds, Thoroughbreds and Hunters—Dr. J. G. Rutherford, Ottawa.

Arrangements were made to refund a portion of the freight charges on exhibits coming from a distance of more than 100 miles from Ottawa, and the following regulation was made to govern this: Exhibitors of horses, cattle, sheep or swine, whose shipping stations are more than 100 miles from Ottawa will be refunded the difference between the amount actually paid for freight and the amount that the railway would charge for 100 miles. A carload of stock must consist of not less than 6 horses or 8 cattle or 24 sheep or 21 swine. In mixed carloads, 3 sheep or swine will count the same as one horned animal. Refunds on less than carload lots will be made at proportionate rates.

Farmers' Institutes in Eastern Ontario will be given the privilege of affiliating with the show upon payment of \$5.00. This will entitle up to 100 of the members to free passes which will admit them to the show during the full length of time the show is held.

### Bacon-hog Commission.

We announced last week the appointment of the bacon-hog commission to visit Denmark and Britain. In addition to the five men named in that paragraph, we have been since advised that J. B. Spencer, B. S. A., of the Live-stock Branch, Ottawa, is to form one of the commission, serving in the dual capacity of representative of the Department of Agriculture, and secretary. The commission expect to sail by S. S. Tunisian from Montreal, on Friday morning, June 18th. In all probability, conditions in Denmark will first receive their attention. It is likely that some time will be spent in England in sections that are at all noted for bacon production, and it is to be sincerely hoped, as pointed out editorially in this paper, that Canadian experience will not be overlooked in the search for knowledge abroad.

Simon Lemon, York County, Ont., under date June 8th, wrote: "We are having fine, dry weather. Spring crops are looking well, although seeding was late. Clover has made a rapid growth. Fall wheat is a light crop in most places. Some fields look good. Farmers are looking up."

### U. S. Crops: Good Spring-wheat Prospects.

The Crop-reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates, from the reports of the correspondents and agents of the Bureau, that the area sown to spring wheat is about 18,391,000 acres, or, 1,183,000 acres (6.9 per cent.) more than sown last year. The condition of spring wheat on June 1st was 95.2, as compared with 95.0 on June 1st, 1908, 88.7 on June 1st, 1907, and 92.6 the June 1st average of the past ten years.

The condition of winter wheat on June 1st was 80.7, as compared with 83.5 on May 1st, 1909; 86.0 on June 1st, 1908; 77.4 on June 1st, 1907, and 80.5 the June 1st average of the past ten years.

The condition of rye on June 1st was 89.6, against 88.1 on May 1st, 1909; 91.3 on June 1st, 1908; 88.1 on June 1st, 1907, and 89.4 the June 1st average of the past ten years.

The area sown to oats is about 32,422,000 acres, or 78,000 acres (0.2 per cent.) more than the area sown last year. The condition of the crop on June 1st was 88.7, as compared with 92.9 on June 1st, 1908; 84.9 on June 1st, 1907, and 88.4 the June 1st average of the past ten years.

The area sown to barley is about 6,881,000 acres, or 235,000 acres (3.5 per cent.) more than the area sown last year. The condition of the crop on June 1st was 90.6, as compared with 89.7 on June 1st, 1908; 84.9 on June 1st, 1907, and 90.6 the June 1st average of the past ten years.

The condition of meadows (hay) on June 1st was 87.6, against 84.5 on May 1st, 1909, and 96.8 on June 1st, 1908.

The condition of pastures on June 1st was 89.3, against 80.1 on May 1st, 1909; 97.7 on June 1st, 1908, and 91.1 the June 1st average of the past ten years.

### Sheaf-grain Competitions for Children.

The Superintendent of Agricultural Societies for Ontario, J. Lockie Wilson, is sending out to the directors of local societies a suggestion for special sheaf-exhibit competitions for the girls and boys in each Society; that is, girls and boys under twelve years of age who are children of members of the Society. The rules suggested to govern the competition specify that each exhibit shall consist of a sheaf of wheat, oats, barley or rye, composed of a sufficient number of plants to make a compact sheaf of approximately 8 inches in diameter, these plants to be selected by hand from the standing crop, and to show the full length of straw, roots not included. In placing the awards, it is proposed that the judge consider (a) type, uniformity, compactness and productiveness of head; (b) character of straw; (c) quality of grain in heads.

### Course in Agriculture.

The Whitby Collegiate Institute announces a two-year course in agriculture, to begin in September of this year. The principles of advanced farm practice and the elements of the agricultural sciences will be combined with the ordinary cultural subjects taken up in the Collegiate.

During the fall and spring terms, much of the agricultural work will consist in practical outside classes in judging stock, in observation upon the class experimental plots, and in demonstrations in orchard and field. All boys holding high-school entrance certificates will be eligible for entrance. J. H. Hare, B. S. A., is the district representative of the Department of Agriculture at Whitby.

### Some 1909 Fair Dates.

Alaska-Yukon-Pacific; Seattle, June 1 to Oct. 15.  
Alberta Summer Fair; Edmonton, June 29 to July 2.  
Inter-Western Pacific Exhibition; Calgary, Alta., July 5 to 10.  
Winnipeg Industrial Exhibition; July 10 to 17.  
Inter-Provincial Fair; Brandon, July 19 to 23.  
Regina Industrial Exhibition; July 27 to 30.  
Canadian National Exhibition; Toronto, Aug. 28 to Sept. 13.  
Western Fair; London, Sept. 10 to 18.  
Canada Central; Ottawa, Sept. 10 to 18.  
Sherbrooke, Que.; Aug. 28 to September 4.

### East Middlesex.

Last week saw the bulk of the corn planted or drilled in, as is the usual method nowadays for ensilage purposes, in Middlesex and adjacent counties. The seed corn being of extra good quality this season, rapid germination and growth are expected. Pastures and meadows have benefited greatly by reason of recent rains, and the spring crops, such as oats and barley, probably never presented a better appearance at this length of time after seeding. Fall wheat has steadily improved. There is a good milk flow for the cheese

factories and town supply. Beef cattle and hogs are very scarce, and command high prices. Dairy cows are quoted at \$40 to \$50.

### Acts on Agriculture.

The Quebec Provincial Legislature has been prorogued, after the passing of certain acts respecting agriculture.

Amendments to the Roads Act.—The Roads Act, as it was, allowed the Government to pay to the municipalities two sorts of subsidies, whereof one to the rural municipalities, which, having passed a by-law, in virtue of article 535 of the municipal code, make and maintain their front roads and by-roads under the management of the council, by means of a tax on the ratable property of the corporation, without commuting this tax to statute labor. This annual subsidy is equal to half the expenses incurred in the making and maintenance of the roads, during the year ended on the 31st of December preceding, providing that it does not exceed \$400. The other subsidy is payable to a municipality for works of macadamizing and graveling, and is equal to the half of the expenses incurred in the making of the macadamized or gravelled roads, provided it does not exceed \$500 a year.

To have a road macadamized, the council must pass a by-law, under article 533 of the municipal code; if graveling is intended, the council must proceed in accordance with article 533a.

The amendments, which have been adopted, provide that the municipality must furnish a copy of this by-law to the Minister of Agriculture. This by-law should order the macadamizing or graveling of the road for which the subsidy is asked, and its maintenance as a macadamized or gravelled road.

If the municipality does not proceed under article 535, the by-law must further order that the works for the making and maintenance of the road to be macadamized or gravelled, shall be performed at the cost of the corporation, or under the direction of the council, at the cost of the ratepayers, bound to the road, by means of a special tax on the properties of the ratepayers, notwithstanding anything in the municipal code to the contrary.

These amendments were especially adopted with the object of assuring the proper maintenance of the macadamized or gravelled road. In the United States, it is admitted that millions have been spent uselessly in macadamizing the roads, because they did not know how to maintain them properly. We must not make the same mistake here. In making macadam, the necessary precautions must be taken to make a durable and permanent work. In an article published on this subject, the Scientific American rightly states that the worst enemy of the movement in favor of good roads is the negligence in the keeping of the roads. It is waste of money to macadamize the roads, and to leave their maintenance to the ratepayers by statute labor, or by shares. Experience has shown this.

An act has also been passed to increase the appropriation voted for agricultural societies by \$5,000.

### AGRICULTURAL CO-OPERATIVE SOCIETIES.

The Act respecting Agricultural Co-operative Societies has been amended, by replacing article 1755a by the following: "1755a—The Minister of Agriculture may authorize the formation, in any municipality or parish of the Province, of an association having for its purpose one or more, or all, of the following objects: The improvement and development of agriculture or any of its branches; the manufacture of butter or cheese, or both; the sale and purchase of live stock, farm implements, commercial fertilizers, and other articles useful to the agricultural classes, and the purchase, preservation, transformation and sale of agricultural products, under such name and distinguishing title as its founders may choose, provided that such name, as a whole, cannot be confounded with that of any other existing association."

The effect of this amendment is to allow these societies to perform all necessary operations respecting the preservation and transformation of agricultural products.

Co-operation is becoming more popular every day among farmers, who have already formed a fair number of syndicates for breeding purposes, and other co-operative societies. The amendments adopted will further encourage the co-operative movement.

QUEBEC.

### Liverpool Cattle and Meat Imports

At the recent annual meeting of the Animal and Meat Trades section of the Liverpool Chamber of Commerce, the chairman, Walter Holland, called attention to the serious decline in importations, both of cattle and meat, fresh and frozen. A resolution was adopted urging the Government to at once remove the embargo against Argentine cattle, so that they might again be slaughtered upon landing, in view of the shortage of Canadian and American cattle.

Incorporated 1885  
THE  
**TRADERS BANK  
OF CANADA**

Capital and Surplus, \$ 6,350,000.  
Total Assets, 34,000,000.

You would find it very convenient to have a **Joint Deposit Account** with the nearest Branch of the Traders Bank, in the names of yourself and your wife or son.

Then either could do the necessary banking when in town, depositing or withdrawing money on the one signature.

It would save you many a trip on busy days.

\$1.00 opens a Savings Account.

**THE BANK  
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PEOPLE.**

74 Branches in Ontario. The Manager of the nearest would welcome your account. 70

**MARKETS.**

**Toronto.**

**LIVE STOCK.**

At West Toronto, on Monday, June 14th, receipts numbered 36 cars, consisting of 729 cattle, 71 sheep, 3 calves. Quality of cattle generally not so good; trade steady; prices firm. No exporters were wanted till Tuesday, but they were worth from \$5.90 to \$6.25; butchers' steers and heifers, \$5 to \$5.90; cows, \$4.50 to \$5.25; grass cows, \$3.25 to \$4.25; milch cows, \$3 to \$6; calves, \$3 to \$5.50 per cwt. Sheep, ewes, \$4.50 to \$4.75; rams, \$3 to \$3.50; spring lambs, \$3.50 to \$6.25 each. Hogs, selects, fed and watered, \$7.80 to \$7.90, and \$7.60 to \$7.65, f. o. b. cars, country points.

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

The total receipts of live stock last week were 321 carloads: 5,480 cattle, 3,869 hogs, 1,368 sheep, 579 calves, and 120 horses. Quality generally was good with a few loads of extra-well-finished exporters' and butchers' cattle. The market was very strong for butchers' cattle, with prices higher. The main reason for this was that the American buyers were taking many of the best butchers' cattle for export purposes. The Nelson Morris Co. bought 15 carloads of cattle, the average weight of which was 1,225 lbs. each. Other years, these cattle would have been bought for the local trade, and slaughtered for butchers' purposes. One load of choice cattle, 1,170 lbs., sold at \$6.20, while the best load of export steers, 1,450 lbs. each, sold at \$6.50, which goes to show that weight does not count so much when quality is good.

Exporters.—Export steers sold from \$5.90 to \$6.50, the bulk selling from \$6 to \$6.25; export bulls sold at \$4.50 to \$5.80; export cows, \$5 to \$5.25.

Butchers.—Prime picked lots sold at \$5.90 to \$6.25, loads of good, \$5.50 to \$5.85; medium, \$5.15 to \$5.40; common, \$4.75 to \$5.10; cows, \$4 to \$5 per cwt.

Feeders and Stockers.—Not much trade is being done in either stockers or feeders. The prices asked prevent farmers from purchasing. We saw one load of steers, 900 lbs. each, sold at \$5, and one

load of stockers, 700 lbs. each, at \$4 per cwt.

Milkers and Springers.—Moderate receipts of milkers and springers sold at \$30 to \$60 each, the average price of the good quality cows being about \$50 each.

Veal Calves.—Receipts were liberal and prices steady, at \$3 to \$5.50 per cwt.

Sheep and Lambs.—Export ewes sold from \$4.50 to \$5; yearlings, \$5.50; rams, \$3.50 to \$4 per cwt.; spring lambs, \$3.50 to \$6 each.

Hogs.—Packers commenced the week by offering \$7.65 for hogs, fed and watered at the market, and \$6.40, f. o. b. cars at country points. The result was that few hogs were marketed. Prices at the close of the week were strong, at \$7.75 to \$7.80, fed and watered at market, and \$7.50 to \$7.60 was paid at country points, f. o. b. cars.

Horses.—Considering the season of the year, there was a fair trade in horses at the Union Horse Exchange last week, 100 horses changing hands, to go to various parts of Ontario, at following prices: Drafters, \$160 to \$190; general-purpose, \$140 to \$175; expressers, \$160 to \$190; drivers, \$100 to \$160; serviceably sound, \$35 to \$80. One pair of extra-quality Hackneys were sold for \$650. These were bought to go to Quebec. More good-quality horses would have sold.

**BREADSTUFFS.**

The market for wheat was again reported firmer. Wheat—No. 2 red, white or mixed, sold from \$1.36 to \$1.40; Manitoba, No. 1 northern, \$1.34; No. 2 northern, \$1.32; No. 3 northern, \$1.30; Rye—No. 2, 75c. Peas—No. 2, 96c. to 97c. Oats—No. 2 white, 59c. to 60c., on track, Toronto; No. 2 white, 56c., at outside points. Barley—No. 2, 62c. to 63c.; No. 3 extra, 62c.; No. 3, 60c. Buckwheat—No. 2, 70c. to 75c. Corn—American, No. 2 yellow, 83c. to 83½c.; Canadian, 76c. to 77c. Flour—Ontario 90 per cent. patents, \$5.75 to \$5.85, at Toronto. Manitoba, first patents, \$6.20; second patents, \$5.70; strong bakers', \$5.50.

**HAY AND MILLFEED.**

Hay.—Baled, in car lots, on track, Toronto, \$12.50 to \$13.50. Straw—Baled, car lots, on track, Toronto, \$7 to \$7.75 Bran—Market strong, at \$23 to \$24 for car lots, track, Toronto. Shorts—Car lots, track, Toronto, \$25. Manitoba meal, \$30 per ton. Flax-seed meal, pure, \$3.75 per cwt.

**HIDES AND WOOL.**

E. T. Carter & Co., 85 Front street East, Toronto, have been paying for country hides, 10½c.; calf skins, 14c. to 16c.; horse hides, No. 1, \$2.75; horse hair, per lb., 30c. to 31c.; tallow, per lb., 5½c. to 6½c.; sheep skins, each, \$1.30 to \$1.50; wool, unwashed, per lb., 11c. to 13c.; wool, washed, 17c. to 19c.; wool, rejects, 14c.

**COUNTRY PRODUCE.**

Butter.—Market steady; prices same. Creamery pounds, 23c. to 24c.; creamery solids, 22c.; separator dairy, 19c. to 21c.; store lots, 18c. to 19c.

Eggs.—Market easy, at 19c. to 20c. Cheese.—Market unchanged, but firm for old. Old, per lb., 14c. to 14½c.; new, 13c. to 13½c.

Beans.—Market strong, at \$2 to \$2.10 for primes, and \$2.15 to \$2.20 for hand-picked.

Poultry.—Receipts light. Turkeys, 17c. to 20c.; last year's chickens, 14c. to 16c.; spring chickens, 35c. to 40c. per lb.

**Chicago.**

Cattle.—Beeves, \$5.20 to \$7.25; Texas steers, \$4.60 to \$6.20; Western steers, \$4.75 to \$6.30; stockers and feeders, \$3.60 to \$5.30; cows and heifers, \$2.40 to \$6.25; calves, \$6 to \$8.

Hogs.—Light, \$6.80 to \$7.40; mixed, \$7.05 to \$7.70; heavy, \$7.15 to \$7.80; roughs, \$7.15 to \$7.35; good to choice, heavy, \$7.35 to \$7.80; pigs, \$6 to \$6.80; bulk of sales, \$7.20 to \$7.60.

Sheep and Lambs.—Native, \$3.75 to \$6.10; Western, \$3.75 to \$6.15; yearlings, \$6 to \$7.15; lambs, native, \$5.25 to \$8.20; Western, \$5.75 to \$8.20.

**British Cattle Markets.**

London cables for cattle are 13c. to 14½c. per lb. for Canadian steers, dressed weight, refrigerated beef, 10½c. to 10¾c. per lb.

**Montreal.**

Live Stock.—Export shipments of live stock from the port of Montreal, for the week ending June 5th, were 2,571 head of cattle, against 3,291 head the previous week. On the local market the general tone of the situation in cattle was firm. Demand was a little on the dull side. Some extra choice steers sold at 6½c. per pound, choice being around 6½c. to 6½c.; fine, 5½c. to 6c.; good, 5½c. to 5¾c.; medium, 4c. to 4½c., and common, 3½c. to 4c. The offerings of sheep and lambs continued on the light side, with prices firm. Sheep sold at 5c. to 5½c.; spring lambs being \$4 to \$6 each. Calves, \$2 to \$4 for common and \$5 to \$8 for choice. For the most part the tone of the hog market showed increased strength, and prices were fractionally higher than the low point of the previous week. Select lots sold off cars at 8½c., and some about ¼c. more. Packers, however, showed very little anxiety to secure supplies, being well supplied.

Horses.—Market showed an improvement last week. Dealers reported an improved demand, particularly for the heavier class of horses. Several shipments have been made to Quebec City sections and to New Brunswick, mostly of the class of horses that is used in construction camps. Quite a few horses were sold for city uses also, principally for cartage and express purposes. Supplies are about equal to demand, not being overly large. Heavy draft, 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, weighing from 1,400 to 1,500 lbs., \$185 to \$240; small animals, 1,000 to 1,100 lbs., \$100 to \$150 each; inferior, broken-down animals, \$75 to \$100 each, and choice saddle or carriage animals, \$300 to \$500 each.

Dressed Hogs.—Abattoir-dressed, fresh-killed hogs sold at 12c. per pound. Hams were firm at the recent advance, being 15c. per lb. for large, and 15½c. for small; 16c. for large boneless, and 16½c. for small; Windsor backs and Wiltshire sides being 17c., and spiced rolls 14c. Lard, 9½c. to 10½c. per lb. for compound, and 14c. to 14½c. for pure.

Potatoes.—Very fair demand last week, and supplies were none too heavy, prices, therefore, holding quite firm. Dealers were selling at 95c. here per 90 lbs., up to \$1.10, carloads on track, as to quality; Green Mountains bringing the higher figure. They paid 3c. to 5c. less than these figures in the country, and small lots changed hands at about 10c. more.

Eggs.—Market was, if anything, easier last week. No. 1 stock was quoted at about 19c. here to 19½c., according to quality; straight-gathered being 20c., and selects about 22c.

Butter.—Dealers complained that prices in the country were higher than here. Dealers could hardly sell at 22c. here wholesale, and sales of very nice stock were made at 21½c. to 21¾c. Some fresh-made dairies, in tubs, were about to arrive, and would sell at 18½c. to 19c. Little or no demand for export.

Cheese.—It is said that shipments for the week ending June 5th amounted to 44,000 boxes. Export demand has been very fair, and under its influence the market, after easing off somewhat, again strengthened up last week, to 11½c. to 11¾c. for Easterns; Westerns, 11½c. to 12½c., according to quality.

Grain.—The market for oats continued strong, and No. 2 Canadian Western sold here, in car lots, ex store, at 62c. per bush; No. 1 extra feed selling at 61½c.; No. 1 feed selling at 61½c.; No. 3 Canadian Western at 61c.; No. 2 barley sold at 72½c. to 74c.; Manitoba feed barley being 67½c. to 68c., and buckwheat, 69½c. to 70c.

Flour.—Market continued very strong, but prices were steady at the recent advance, being \$6.30 to \$6.50 for Manitoba first patents per barrel, in bags; \$5.80 to \$6 for seconds, and \$5.60 to \$5.80 for strong bakers; Ontario flour, \$6.75 for winter wheat patents, and \$6.50 to \$6.60 for straight rollers.

Feed.—Ontario bran and shorts not quoted; Manitoba bran quoted at \$22 to \$23 per ton, in bags, and shorts at \$24 to \$25 per ton.

Hay.—Market steady, at \$13 to \$13.50 per ton for No. 1, and \$1 less for No. 2 extra; No. 2 being \$10.50 to \$11.00; clover mixed, \$9 to \$9.50, and clover, \$8 to \$8.50.

Hides.—Demand was very light, and the recent rise in prices was not maintained.

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Capital Paid Up, 5,000,000.00  
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**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.

11c., 12c. and 13c. per lb., respectively, for Nos. 3, 2 and 1 hides, and 13c. and 15c., respectively, for Nos. 2 and 1 calf-skins, and selling them to tanners at ¼c. advance. Lambskins were 5c. up, at 15c. to 20c. each; sheep being \$1 each, and horse hides, \$1.50 for No. 2 and \$2 for No. 1. Rough tallow, 1½c. to 3c. per lb., and rendered, 5½c. to 6c. The quality of hides is showing a gradual improvement.

**Representative Cheese Board Prices.**

Woodstock, Ont., 11½c. Madoc, Ont., 12c. Belleville, Ont., 11 15-16c. to 12c. Brockville, Ont., 12c. Vankleek Hill, Ont., 12c. Kingston, Ont., 12½c. to 12¾c. Winchester, Ont., 12c. Alexandria, Ont., 12c. Belleville, Ont., 11 15-16c. to 12c. Cornwall, Ont., 12c. to 12 1-16c. Iroquois, Ont., 12c. Perth, Ont., 12c. Picton, Ont., 12 1-16c. Huntingdon, Que., white cheese, 11 15-16c., colored cheese, 12c.; salted butter, 22c. Napanee, Ont., 11½c. to 12c. Brantford, Ont., 11½c. London, Ont., no sales. Kemptville, Ont., 12 1-16c. to 13c. St. Hyacinthe, Que., butter, 22c.; cheese, 11½c. Cowansville, Que., butter, 22½c. to 22¾c.; cheese, 12c. Watertown, N. Y., cheese, ruling price, 13c. Chicago, creamery butter, 22c. to 26½c.; dairies, 20½c. to 24½c.; cheese, 13½c. to 13¾c. for twins; Young American, 14½c. New York, creamery specials, 26½c. to 27c.; official, 26½c.; extras, 26c. thirds to firsts, 22c. to 25½c.

**Buffalo.**

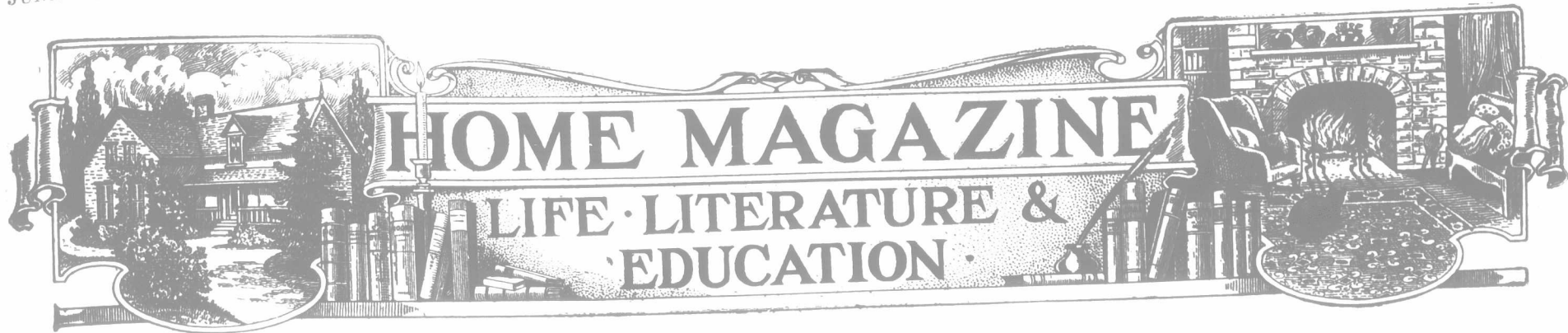
Cattle.—Prime steers, \$6.75 to \$7.25. Veals.—\$6 to \$8.25. Hogs.—Heavy and mixed, \$7.85 to \$7.95; Yorkers, \$7.35 to \$7.80; pigs, \$7.15 to \$7.25; roughs, \$6.60 to \$6.80; stags, \$5.50 to \$6; dairies, \$7.30 to \$7.70. Sheep and Lambs.—Lambs, \$4.50 to \$9; yearlings, \$7.50 to \$7.75; wethers, \$5.75 to \$6.10; ewes, \$4.75 to \$5.25; sheep, mixed, \$2 to \$5.50.

**TRADE TOPIC.**

The slate roof still holds its place as the ideal covering for buildings, being fire-proof, durable and efficient, as well as good looking, needs no painting or repairs, and is in every way satisfactory. The American Sea-green Slate Co., of Granville, N. Y., in their advertisement in this paper, call attention to the advantages of slate roofing, and offer to send, free of expense, their book, "Roofs," which will be found interesting reading to builders, or farmers intending to build or re-roof.

**GOSSIP.**

The 122 head of Jerseys in T. S. Cooper & Sons' annual sale, May 31st, brought an average of \$647.42. Eleven bulls over one year old averaged \$2,161.36, and 55 cows over three years old averaged \$694.72, and 16 heifer calves under a year averaged \$243.12—surely a remarkably successful sale, showing that Jerseys are steadily gaining ground in the estimation of dairymen. As reported last week, the bull, Viola's Golden Jolly, sold for \$12,000; the highest price ever realized for a Jersey bull at auction. The highest price for a female was \$2,525, for the six-year-old cow, Oxford's Estaline, purchased by Dr. Rodman, of Kentucky.



Some time ago, the Board of Trade of Port Hope announced that, through the generosity of Mr. H. T. Bush, \$100 in cash prizes would be given the school children of the town for the best and most tastefully improved lawns, boulevards, flowerbeds, gardens, back yards, and general surroundings of the homes, during the summer of 1909, the first prize to be \$20, with eight others at \$10 each, following. The awards are to be based upon the degree of tastefulness, care, and originality exhibited, and the "individual opportunity of each competitor is to be given due consideration," which, we take, means that prizes will be given to the plots showing the greatest improvement.

The movement is one which might well be copied in other towns and rural districts. Every locality may not have a Mr. H. T. Bush, but it does not seem out of the way to think that the sum of \$100 might be secured in almost any district for such a laudable object.

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As has been expected, the Budget has aroused much antagonism among the wealthy classes of England, and the objectors have found united voice through a number of rich bankers, who have addressed a protest to the Government, claiming that the nature of their business invests them with peculiar facilities for giving authoritative advice in regard to matters financial. This protest sets forth that Mr. Lloyd-George's plan of taking the larger part of the increased revenue for old-age pensions, national defence, etc., from those best able to pay it—the rich—will eventually act as a boomerang, which, curtailing both the expenditure on luxuries and investment of capital, will eventually strike at the poor themselves, diminishing employment, checking charity, and reducing wages.

In answer to this argument, British "Nation" holds that, although the trades engaged in producing luxuries must suffer somewhat, the aggregate employment will be by no means reduced, the expenditure of the money obtained by the increased taxation on luxuries being in no wise lessened, but rather increased, in the promotion by the State of sound public service, the building of battleships—urged by the rich themselves, for the maintenance of national security and credit—afforestation, and other public works, giving work to a host of unemployed. As a proof that existing conditions are not satisfactory, the recent spectacle of a money market "congested with capital, while every trade is thronged with unemployed workers," is pointed to.

"The effect of the Budget will not be to reduce the effective capital, employment or wages of the nation," the editorial concludes. "On the contrary, if the constructive social policy of the Government, for which this money is required, is faithfully pursued, the net effect will be to

take certain elements of surplus wealth, representing unearned or excessive income, which would have been put to unproductive expenditure on luxury, or to wastefully speculative investments, and to apply them to improve the condition of labor and the land, the true parents of national wealth."

To the majority of us, who find that it takes every effort and every opportunity to secure the necessities that mean mere comfort, and yet lay aside a trifle for the rainy day, the case seems clear enough. It seems little to ask a man drawing a yearly income of from \$20,000 upward, as so many of those whose voices are raised in a wail of woe do, to give a little of his superfluous gains, for which he does not even have to expend labor of body or mind, to the public cause. But the request has been made, and the lamentation is great. And yet, not one word of protest would have been heard from these sons of Croesus had a tax been uniformly placed on sugar and tea, the lack of which, to the poor, must mean actual want. Verily, the altruistic spirit is needed everywhere, but most of all in the halls of the inconsiderate among the rich.

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A few weeks ago, certain revelations in regard to German navy appropriations set Great Britain and the British Empire in a state of pan-

perial Press Conference, the general and matured opinion of England's public men has, perhaps found expression, and been crystallized in the words of Sir Edward Grey, generally regarded as one of the least inflammable and most reticent statesmen: "The maintenance of the navy must be the first consideration, not only for the Home Government, but for all the self-governing colonies of the Empire. If the navy failed, it would be useless to discuss any other subject."

Lord Rosebery's speech has been fiercely denounced by the German press, but, when it is endorsed by statesmen such as Grey, Lord Cromer, Mr. Alfred Lyttleton, and Mr. Reginald McKenna, First Lord of the Admiralty, all of whom attended the Press conference, it behooves less-statesmanlike minds among British subjects to wait before passing judgment.

In the meantime, it is significantly pointed out by the Daily Mail that, whereas the proposals made by the British at The Hague Peace Conference of 1907 were followed during the ensuing year by a heavy reduction in the British military and naval programmes, Germany has gone persistently forward. As a matter of fact, "while the British navy estimates between 1904 and the present year have been reduced by no less than £4,000,000, the German esti-

**People, Books and Doings.**

Sir William Macdonald has presented McGill University with an adjoining building site, valued at \$150,000.

The purposes for which the Alaska-Yukon-Pacific Exposition, opened this month, at Seattle, has been set afoot, have been officially declared to be: To exploit the resources and potentialities of the Alaska and Yukon territories; to make known and foster the vast importance of the trade of the Pacific Ocean, and of the countries bordering thereon; and to demonstrate the marvellous progress of Western America.

In the May "Contemporary Review," Dr. R. Nicoll quotes interestingly from the writings of William Bell Scott, the poet-painter, in regard to the poet Swinburne, who died not long ago. Dr. Nicoll writes:

Scott was painting at Wallington, in Northumberland, and Swinburne was spending his school recess at Capheaton, his grandfather's house, which was not far away. Scott says: "Very soon I began to recognize a little fellow who used to pass my postchaise on the road descending from Cambo to Wallington. He was always riding a little long-tailed pony at a good pace towards the village. He had the appearance of a boy, but for a certain mature expression on his handsome high-bred face, which had bright, coarse yellow hair flowing on his shoulders and flashing round his head. Young Swinburne could acquire without trouble, and had a memory enabling him to recite long poems after once reading. He gained at Eton a prize for French.

A few days after my first meeting him, he appeared with the prize-book entering the saloon where we were all at work, hopping on one foot, his favorite expression of extreme delight. It was a large edition of "Notre Dame de Paris," gorgeously bound, with illustrations by Tony Johannot; but the exuberance of his delight was so comical that even Lady Trevelyan could not resist a smile, and Miss Capel-Lofft, a very nervous person, begged him to sit down quietly and show her the prints. For my part, not yet recognizing in this unique youth the greatest rhythmical genius of English poetry,

I looked on in wonder, as at a spoilt child. The whole forenoon that book was never out of his sight. If it lay on the table, his eyes were always wandering to it. The fascination of first love was nothing to this fascination; and when we adjourned for an interval into the garden, there it was, tightly held under his arm, while he ran on before backwards, and ran back to us again, and the sharpest of eyes were fixed upon him with their amused but maternal expression.

But Scott testifies that Swinburne, even then, was altogether free from egotism. He loved and admired the excellent qualities of his friends. "He had the power of loving his



Summer Scene, Lake Leman.

ic. Following the "scare," as in all cases of tenseness of feeling, came a reaction, during which an attempt was made, in many quarters, to show that such fears had been practically groundless, and had been due only to an agitation trumped up for political purposes, and reinforced by the overheated imagination of a populace swayed almost to hysteria by the influence of Du Maurier's drama, "An Englishman's Home." Once more the pendulum has swung, this time, possibly, to the happy medium.

A fortnight ago, Lord Rosebery made a speech, which was censured somewhat on the score of presenting too dark a picture of the European situation. Since then, at the Im-

mates for the same period have increased £10,000,000."

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Austria has entered upon the construction of four Dreadnoughts. Taking this decision as a threat to Italy's naval position in the Mediterranean, the latter retaliates by laying down estimates for 1909-1910 providing for an expenditure of £13,000,000, with a provision for the completing of four Dreadnoughts of the largest size by 1915. . . . So, in Europe, the race runs, and the world waits, helplessly hoping that something may happen to set the nations on a more trustful footing, and prevent this all too-mad expenditure.

friends and bearing with them. His enthusiasm was measureless." Later on, Scott dedicated a volume of poems to Rossetti, Morris and Swinburne, referring to the last as

The youngest, with the rainbow wrought  
About his head, a symbol and a dower.

The moment Swinburne had read the lines, he took a cab and drove to Scott's house. "Tell me now, mon cher, tell me exactly what you alluded to as the rainbow wrought about my head?" "Well," I said, "you know you are hailing in the new time hopefully; you are assisting the advent of the brighter day; you are writing 'Songs Before Sunrise.'" "Ah, is that all? I was in hopes you meant the glory of my hair, that used to be so splendid, you know."

### The Farmer's Wife.

In regard to the duties of a farmer's wife, I would say that a married woman, in ordinary circumstances, has enough to do if she care for her house properly and make home pleasant, looking after her children as only a mother can, without engaging in the dairy, poultry, etc. Home-making is woman's province, if she be wife and mother; and breadwinning is that of the husband and father. An able-bodied man should support his family. It is a misfortune for a married woman to assume too many responsibilities, for the husband insensibly learns to depend upon her, and lessens his own attempt to bring in a sufficient income. He loses the high respect he should have for his wife, and looks on her as a machine for turning out work—the pack-horse of the family—to help fill the family exchequer, a sort of upper servant or slave. A woman, if married, when so involved in outdoor labor, either finds her health injured, as she is not physically fit for such strenuous work, or she misses the opportunity for intellectual development, and also the opportunity to stimulate and direct her children's growing mental powers. Every child has the right to be well born and well reared. Every woman has the right of enjoying all the innocent pleasures of the world, and allowing herself a larger measure of relaxation and recreative pleasure than falls to the common lot of the farmer's wife.

There are some women physically strong, or regular Amazons, who do enjoy that life, and speak from their viewpoint. Then, let them live their own lives, and find their own happiness that way. Or, perchance, a leech-like husband, who has no more manliness about him than to suck his wife's life-blood by such a slavish life, speaks from his standpoint. Now, these are not the ones who should pass sentence on what is to be the standard or custom. But, by those who have a keen insight into men and things, will the correct perspective be reached. The progress of the race, and the destiny of the nation depends on the way it has treated and is treating its women. The reason the Christian nations have made more progress than others, is that they have a higher estimate and honor for their women. The home is one of the greatest organizations in the world, and its fundamental basis rests on placing its women in their true place, for their physical, mental, moral and spiritual needs, development and advancement, so that they may transmit to their children and descendants a higher and better and more moral race, with a higher appreciation of its women. Let the wives be what the Creator intended them to be—man's companion, counsellor and guide, not a slave; do not be a creature of circumstance, or tradition, or transmitted custom; do a little clear thinking for yourself. And remember, the first law of nature is self-preservation, and she who transgresses the law must pay the pen-

alty. Life never pays one for such sacrifices. Find your true sphere in the home—a queen, not slave.

The reform for the emancipation of the farmers' wives will be like all reforms, rise and fall, and rise again—and stand among its worshippers.

A WORSHIPPER.

Middlesex Co., Ont.

## Hope's Quiet Hour.

### Glorious in the Eyes of the Lord.

Then I said, I have laboured in vain, I have spent my strength for nought, and in vain; yet surely my judgment is with the LORD, and my work with my God. . . . Yet shall I be glorious in the eyes of the LORD, and my God shall be my strength.—Isa. xlix. 4, 5.

Why are we so blind to the glory which fills and transfigures material things? We live days and years in dull monotony, even as Moses—who had been set apart for a great work—cared for his flocks in the desert for forty years, before he discovered that God was filling "every common bush" with divine glory. We settle down in a dull, prosaic plodding along life's road, imagining that we are only commonplace "worms of earth," and forgetting that the mysterious statement contained in that much-abused Book of Genesis, is absolutely true: man is not

only formed of the "dust of the ground," but God has breathed His own Divine Life into him, and he is the image and glory to God. As our text says: we struggle sadly on, fearing that our work has been wasted because we cannot see any results, while all the time God is gathering up every precious grain of love-inspired service, and both the work and the worker are priceless and glorious in His eyes. I don't believe our Lord cares so much for the quantity as for the quality of our service. A cup of cold water, really given in His Name, may have more love, and, therefore, more life at its root, than thousands of dollars given without joy or willingness. He does not need either our gifts or our service, but He is watching eagerly for proofs of spiritual life. Phillips Brooks declares that, in His dealings with men, Christ "beat His whole care over the heart. 'Is this man alive?' He laid His hand upon the heart to see whether it was beating, whether the man was trying to be good. 'Is this man dead?' Again He laid His finger on the heart, and, so long as there was a flutter there, so long as he felt, under His sensitive touch, the longing to be good yet trembling in the breast, He said, 'This man still lives, and all awak-

ening of the cold extremities, all quickening of intellect is still possible with him.'"

If the life be there, God can easily be patient. He knows we have all eternity before us to develop in. As Mrs. Browning puts it:

No perfect artist is developed here  
From any imperfect woman. Flower  
from root.  
And spiritual from natural, grade by  
grade  
In all our life. A handful of the earth  
To make God's image the despised poor  
earth.  
The healthy odoriferous earth,—I missed,  
with it  
The divine breath that blows the nostrils  
out  
To ineffable inflatus,—ay, the breath  
Which love is."

When anyone says sadly to me: "I am afraid there is something wrong with my spiritual condition, because I can't feel like some Christians do, I don't enjoy sitting quietly for hours studying my Bible, I try to show my love for Christ by actively helping His children."—I wonder whether they have ever done any gardening. When the spring weather draws the life hidden in various seeds to the surface, would you be delighted if there was a monotonous sameness all over your beds? Did you want your lettuce to develop exactly like your beans? Are you disappointed in the least because your nasturtiums seen very different from your tulips? Each plant draws its own peculiar qualities from the earth, the sunshine and the rain, and you, who have planted the seeds hopefully, are far more pleased with the variety of the plants which are slowly developing from

blade of grass, which would wither and die without it as certainly as the greatest forest tree.

Like a cradle rocking, rocking,  
Silent, peaceful, to and fro,  
Like a mother's sweet looks dropping  
In the little face below,  
Hangs the green earth swinging, turning,  
Jarless, noiseless, safe, and slow;  
Falls the light of God's face bending  
Down and watching us below.

And as feeble babes that suffer,  
Toss and cry and will not rest,  
Are the ones the tender mother  
Holds the closest, loves the best;  
So, when we are weak and wretched,  
By our sins weighed down, distressed,  
Then it is that God's great patience  
Holds us closest, loves us best."

When our Lord declares that not one sparrow falls on the ground "without your Father," He opens our eyes to the fact that God fills all things and, if our eyes are open, we may see Him everywhere. But, though the common desert bush was—and is—blazing with divine glory—though "only he who sees takes off His shoes" in reverent wondering adoration—though the Father's Presence and Life glorify each tiny bird and fill its heart with joy; still we know that we are "of more value than many sparrows." Even heathen poets declared that we are the offspring of God, for "in Him we live, and move, and have our being."

And how does God wake in all creation that wonderful, mysterious thing which we call life? How does it push its way upward through all obstacles (as tender-growing plants have sometimes forced a passage through paving-stones), reaching up towards the light and developing in beauty and fruitfulness? Not suddenly, by startling effort or tremendous leaps, but slowly, quietly, imperceptibly. The solid, enduring wood of the tree is built up by the work of the tiny, perishable leaves, and the hidden, lowly, unnoticed roots. Little by little, the helpless baby develops into the tall, strong man, and every breath drawn into his lungs, every step he takes, every crumb he eats, adds its mite to the sum total. He can only grow by little things, he can only assimilate food—bodily, mental, or spiritual—in small quantities. Therefore God, in wise and tender love, gives the routine tasks of every day, so that the soul may grow as they are cheerfully and faithfully performed. Don't fancy that your life is uneventful, just because you have the same tasks pressing on you that were filling up your time last week, or last year. The food and sleep and exercise that a growing child makes use of to build up his life, may be the same to-day as yesterday—but he has grown a little, by their means, and daily growing is a glorious thing. As the body assimilates sunshine and air and food, so the soul is drinking in more and more of God's Life, while the little daily duties are done in a consecrated spirit.

When a crisis comes, a man stands revealed as a hero or a coward—by the power of years of quiet growth. The tree, which can endure the shock of the storm, has gathered its strength—how? By the steady work of plodding roots and weak little leaves, accepting gladly the opportunities given to it of extracting life and health and nourishment from very ordinary surroundings.

And the souls that accept the duties and opportunities within reach, growing steadily by unnoticed victories over pride and selfishness and ill-temper, are getting ready for any sudden strain. It is a mistake to think that pain and sorrow are God's only helpful gifts to a struggling, aspiring soul. Days and years of peace and outside happiness are given to draw us upwards, as the sunshine draws up the eager plants, while the soft rain and gentle dew bathe and refresh them. Every moment of life is glorious, because God's Love is always pouring its glory upon us.

Inmost heaven its radiance pours  
Round thy windows, at thy doors,  
Asking but to be let in,  
Waiting to flood out thy sin,  
Offering thee unending health,  
Love's refreshment, boundless wealth,  
Voices at thy life's gate say,  
"Be immortal, soul, to-day!"

DORA FARNCOMB.



Summer Scene, Canada.

only formed of the "dust of the ground," but God has breathed His own Divine Life into him, and he is the image and glory to God. As our text says: we struggle sadly on, fearing that our work has been wasted because we cannot see any results, while all the time God is gathering up every precious grain of love-inspired service, and both the work and the worker are priceless and glorious in His eyes. I don't believe our Lord cares so much for the quantity as for the quality of our service. A cup of cold water, really given in His Name, may have more love, and, therefore, more life at its root, than thousands of dollars given without joy or willingness. He does not need either our gifts or our service, but He is watching eagerly for proofs of spiritual life. Phillips Brooks declares that, in His dealings with men, Christ "beat His whole care over the heart. 'Is this man alive?' He laid His hand upon the heart to see whether it was beating, whether the man was trying to be good. 'Is this man dead?' Again He laid His finger on the heart, and, so long as there was a flutter there, so long as he felt, under His sensitive touch, the longing to be good yet trembling in the breast, He said, 'This man still lives, and all awak-

those seeds, than if they all aimed at a dull uniformity.

Are you an enthusiastic gardener? Do you rush out after a warm spring shower to see how each tiny leaf and shoot has enjoyed and benefited by it? Do you love and care for your plants individually, giving to each one the special attention that will encourage and help it best? Then rejoice in the certainty that the Divine Husbandman is giving special attention to you, all the year round, every moment of every day, giving you all the culture your nature demands, and drawing you up from your earthly surroundings by the sunshine of His wonderful love. This is the way He describes His watchful care of His vineyard:

"I, the LORD, do keep it, I will water it every moment: lest any hurt it, I will keep it night and day. . . . let him take hold of My strength. . . . He shall cause them that come of Jacob to take root. Israel shall blossom and bud, and fill the face of the world with fruit. . . . He stayeth His rough wind in the day of the east wind. . . . and ye shall be gathered one by one."

How wonderful is the thought that each of us is "glorious in the eyes of the LORD," that each of us has the whole mighty strength of God at his disposal—even as the glorious sun places his mighty strength at the disposal of each tiny

**A Book by "Hope."**

There is no need to explain to our readers who Hope is, or anything as regards the character of her work. She is known and loved wherever "The Farmer's Advocate" is read, and so the announcement that she has written a book will be received with unusual interest, especially by the many who have been helped and encouraged, week by week, by the messages in "The Quiet Hour."

The book, now ready, is entitled "The Vision of His Face," is tastefully bound in cloth, with gilt lettering, and will be forwarded, postpaid, from this office for the sum of \$1.00.

In the rush of busy days we all need to be reminded that the body is the servant of the soul, and that the "things which are seen" are but the shadows of invisible realities. This book shows how the Vision of an unseen Master and Friend can glorify commonplace lives, light up dark places with glorious sunshine, and be a quickening, inspiring force everywhere.

**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.]

**The "Bacteria" Competition.**

Out of a great many very excellent papers submitted in this competition, that of "Only Another," Oxford Co., Ont., has been selected as best, judged from the standpoint of thoroughness, clearness, and usefulness to the housekeeper. Following closely are papers by Miss N. MacTavish, Bruce Co., Ont.; Miss E. Flatt, Wentworth Co., Ont.; and "Poor School," Kent Co., Ont.

Two essays only can appear to-day; others will be published later, as will also the answers to questions.

Before closing, I wish to thank all of those who entered so heartily into this competition, and also to express my pleasure in reading the very kind notes of appreciation which were, in many instances, enclosed. We are, indeed, glad to hear by such direct evidence that our "Advocate" is giving help and encouragement.

**Bacteria.**

(FIRST-PRIZE ESSAY.)

Bacteria are minute vegetable organisms which abound in air, water, soil, and practically everything. With powerful microscopes some varieties may be seen and studied. The individual germs consist of a single cell, though they are often seen joined in strings or masses. They reproduce by simple division of the cell—each part growing to full size, and again dividing—or by a small piece of the cell growing out like a lump to one side and separating, and growing full size. This occurs so rapidly that millions may develop from a single cell in a few hours. [A few are propagated by spores.—Ed.]

Many kinds of bacteria are highly advantageous to man, or to soil, or to water, or to many other things. Were it not for the action of certain bacteria everything dead, whether animal or vegetable, would remain on the surface of the earth. However, all dead substances are immediately attacked by numerous bacteria, which break them up into gases and dust and ashes. The dust and ashes go into the soil, and are again ready to enter into the structure of plants and animals.

Nitrification of the soil is another example of useful bacteria. These bacteria cause the nitrogen of the soil, thus bringing the nitrogen into a form in which it can be used by plants.

It is another kind of useful bacteria that causes bread to rise, and that causes cream to sour to make butter. The good flavor of butter depends on the cultivation of certain bacteria, and the keep-

ing out of other kinds that give a rank taste or smell.

Of course, there are also many harmful kinds of bacteria. Most diseases are of bacterial origin; and there are many other ways in which undesirable bacteria make their unwelcome presence known.

All kinds of bacteria thrive best in a warm, moist place—where the direct rays of the sun cannot penetrate. And knowing these facts, we know how to fight the harmful kinds. Bacteria can be killed or prevented from multiplying by extreme heat or extreme cold; by sunshine, and by certain disinfecting agents, such as carbolic acid.

As for example, if we wished to preserve food, we should, perhaps, place it in as cold a place as possible, having first sterilized by dry heat or boiling water the dish in which it was placed.

To prevent illness by the dissemination of bacteria, we should be very careful to keep the patient shut up in one room away from the rest of the family. The nurse—whether professional or one of the family—should wear only such clothes as can be washed and boiled. No carpets or curtains, or hangings of any kind, should be left in the room. The dishes used in the sick room should be kept strictly apart from those used by the rest of the family. After using they should be washed at once and scalded. The refuse matter thrown off by the body is one of the greatest sources of infection. Great care should be used in the disposal of the excrement and the care

starting to decay in places; and is, therefore, full of the bacteria of putrefaction. The fruit should be thoroughly cooked. The amount of sugar will depend on the kind and on the taste of those who are to use it. Some kinds do not require any. The jars, tops and metal rings should be well boiled in clean water. While still hot the jars should be filled with the boiling fruit until running over. The rubber rings should be dipped in boiling water, and the tops put on and sealed at once. [The rubbers should be new every season. [There are also other methods.—Ed.] As the jars cool, keep screwing the covers down, as they get loose again as they cool. If not perfectly certain of the jars being air-tight, seal them with melted paraffine wax.

Oxford Co., Ont. ONLY ANOTHER.

**Bacteria.**

(PRIZE ESSAY.)

Bacteria are an immense group of extremely small plants, which have attracted great attention on account of their relation to man and his interests. They are so small, that in order to see them you would have to use a powerful microscope, as they are the smallest known of living organisms, whose adult bodies are sometimes barely visible under the highest powers of the microscope.

They are found in the air, water, soil and in the bodies of plants and animals. Some of them are harmless, some are useful, and some are exceedingly danger-

best in wet, or, at least, damp, dark, warm places.

The yeast plant is a very simple, single cell, which produces new cells by a peculiar budding process. Usually the cells thus produced cling together in short transparent chains. Bacillus is distinguished from the other forms of bacteria by consisting of rather elongated rod-shaped cells. Spirillum are more of a serpentine style. Sarcina are like a lot of minute buns piled on top of one another, etc., etc. From the fact that bacteria are mostly ciliated and have powers of locomotion, they are associated in the popular mind with animals.

Repeated heating up to the boiling point of water kills bacteria, and this is the method employed in manufacturing canned meats, vegetables and fruits. The boiling kills the bacteria and their germs, and, consequently, the canned material, if air-tight, does not putrefy. The principle of cold storage is different. Here the freezing simply stops putrefaction during the time that the meat is frozen. As soon as the temperature rises above freezing, the action of the bacteria is resumed and putrefaction goes on again.

We can prevent dissemination of illness by bacteria in four ways: (1) By disinfection; (2) by isolation; (3) by producing immunity to the disease; (4) by perfect sanitary conditions.

Disinfection is a name given to various ways of killing disease-producing bacteria. One method of disinfecting certain substances or articles is to burn them. Another method is to boil them for at least twenty or thirty minutes. A third method is to wash articles in solutions of certain chemical substances in water. The most important disinfecting substances are corrosive sublimate, carbolic acid, chloride of lime, formaldehyde and sulphur dioxide from burning sulphur.

Articles like cloths that have been used to receive the expectorations from consumptive or diphtheric patients, should be burned.

Some articles of clothing can be disinfected by boiling, others by prolonged dry heat in a disinfecting oven.

The excreta should be thoroughly mixed with chloride of lime, and allowed to stand one hour before disposing of.

Isolation means that those suffering from infectious disease are kept away from all others, as far as this can possibly be done.

Immunity is a condition of body in which a person is not liable to take an infectious disease when exposed to it. A person can be made immune to smallpox by being vaccinated, or to diphtheria by having the doctor inject into his system a few doses of diphtheria antitoxin.

By keeping the general health of individuals up to a high standard, and the neighborhood in a perfectly sanitary condition as regards water supply, fresh air, sewerage, and cleanliness of yards, houses, lanes and streets, the spread of infectious diseases can be prevented.

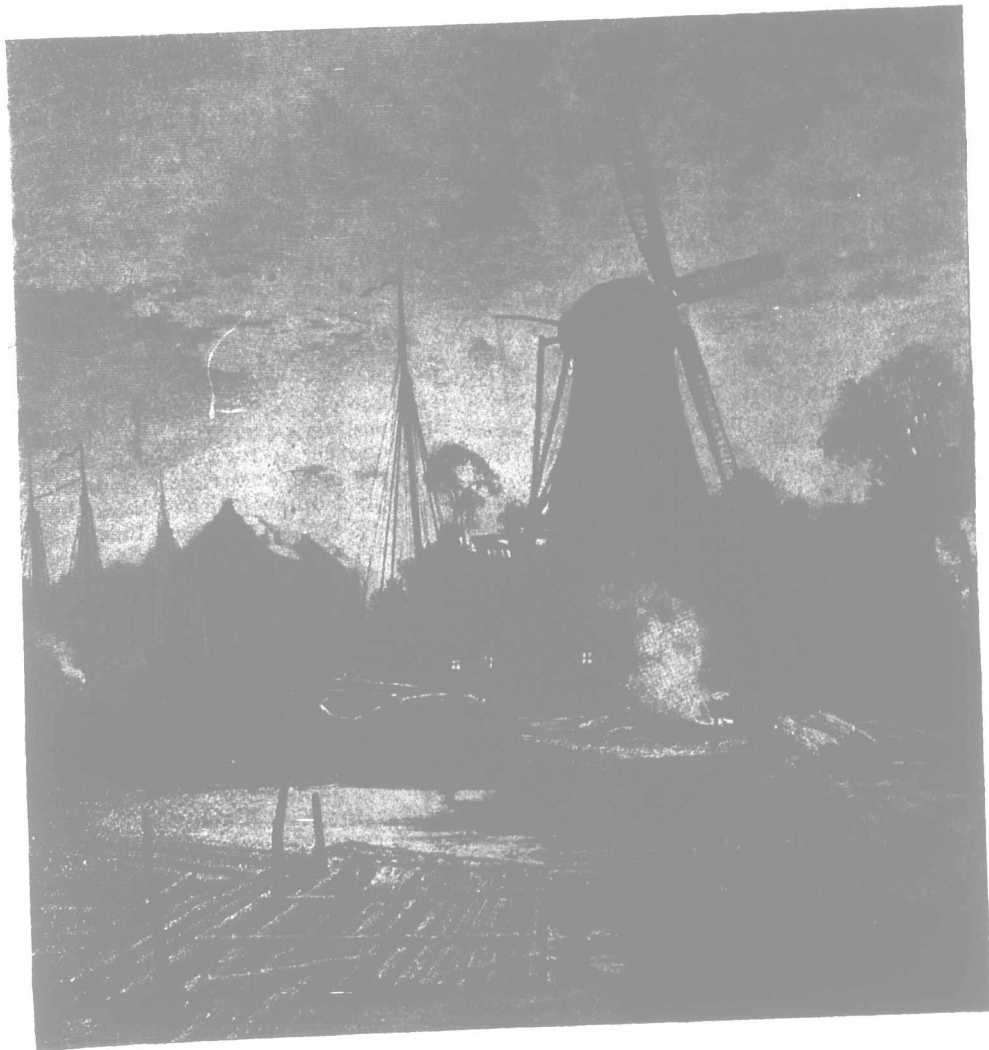
Besides these means of preventing the spread of infectious diseases, the following rules should be observed by any one who wishes to avoid "catching" or spreading disease:

- I. Do not spit on floors or sidewalks.
- II. Do not put into your mouth articles that have been handled by a number of people—such as coins, pencils, pipes, drinking vessels at a public fountain or pump, etc.
- III. Do not cough into people's faces, or allow others to cough into yours.
- IV. Wash the hands often if they have been exposed to dust and dirt of city or town.

To keep bacteria out of fruit you are canning, place the gems and tops in a kettle containing cold water, and allow it to come to the boiling point and boil twenty minutes. Empty water out of gems, but leave them sitting in boiling water, and pour the boiling hot fruit into them. Seal with melted paraffin, and immediately put on the tops. MISS NETTIE MacTAVISH, Bruce Co., Ont.

**Eradicating Ants.**

Dear Dame Durden,—I am writing for the first time to your valuable paper. I



Summer Scene, Holland.

of chambers, slop-pails, etc. After the patient's recovery, the disinfecting of the room and its furniture—under the care of a physician, if possible—will do much to prevent future cases. The burning of sulphur, and the spraying with carbolic acid solution, or a good commercial mixture, are the commonest ways of disinfecting a sick room. We should also guard against the common house fly, as it, as well as the mosquito, carries disease germs. The hairy legs of the fly seen under a powerful microscope are usually covered with disease germs. Therefore, we should be very careful to keep our doors and windows closely screened against these dangerous as well as disgusting pests.

One of the most annoying ways to the housewife by which troublesome bacteria make their presence known is in the spoiling of preserved fruit. This is a matter almost entirely under control. In the first place, the fruit should be perfectly whole and good. It should be rather under-ripe, as over-ripe fruit usually is

ous. They are the agents of the processes known as fermentation and decay, inducing fruit juices, and milk, etc., to sour.

The yeast germ [yeasts, molds, and bacteria are differentiated, but all belong to the lowest forms of plant life] makes our bread light and palatable. It is also used in making vinegar and all fermented drinks. Some are very useful in giving flavor to our best butter and cheese. The germ that sours the cream is very useful, if the cream is wanted for churning or baking, providing it does not become too sour. But if cream becomes too sour before churning the butter has an objectionable "foreign" taste.

The germs which cause disease are the ones we have chiefly to battle with. They induce pus to form in connection with wounds. They are the cause of contagious diseases, such as pear-blight and melon-wilt in plants, and such human diseases as tuberculosis, cholera, diphtheria, typhoid fever, etc. They multiply by division with wonderful rapidity, thriving

enjoy reading the Ingle Nook so much, and always look for recipes.

Now, there is one important question I would like to ask, how to get rid of ant hills in the lawn and orchard? There is one at the foot of a beautiful cherry tree, and I am very anxious to be rid of it. Can you give me any remedy? Thanking you in advance. FARMER.  
Leeds Co., Ont.

Three ways of eradicating ants are recommended. (1) With a hoe-handle, or some such round stick, make a hole in the ant-hill, pour in a tablespoonful of bisulphide of carbon, then fill up with earth. (2) Pour kerosene into the hill. (3) Pour in boiling water.

#### Letter from Mayflower.

Dear Dame Durden,—How are you this lovely afternoon, and all the Chatterers? I am going to the woods, and I wish that you all were here to go with me. It would do me good to run around and pick flowers for Lankshire Lass, if she could be lying down on some mossy bank. It is hard to keep on the sunny side of life against heavy odds, and that is what some of us have to do, but when it is done the better the sunshine.

I love children, and I like the way "The Contented One" wrote. I like her method. I never whipped my three boys and four girls, and they are now between the ages of 11 and 28. They are just as good as they will average the world around. I always talked and reasoned with them.

I tried the dry application on meat, and like it well for ham and bacon. We use plenty of dandelion greens. They are very healthy.

I started this letter the first of May, but it will be June before I get it written. There is sickness in the house, and I haven't time to think, let alone write. Wishing you all many happy hours.  
Glenarry Co., Ont. MAYFLOWER.

#### Freckles.

Dear Dame Durden,—It is almost a year since I last wrote you, asking for a cure for freckles. Your advice was "soap and water," used with a camel's-hair brush. I cannot get a brush here. Do you think rubbing with a soft rag would be as effective?

What would you put on coarse, dry hair to make it soft and pliable? Would frequent washing injure such hair? Have any found a remedy for dandruff?

I tried M. E. L.'s recipe for boiling potatoes, and found it very good.

I enjoyed your chat in last week's issue very much, Dame Durden. Certainly we do not take as much pleasure and enjoyment out of our surroundings on the farm as we should. If we only study the flowers and birds, how interesting they become. Thanking each and all for their many helpful suggestions and recipes.  
MORNING GLORY.

As the answer was given by my deputy while I was away from the office last summer, I cannot answer your query. Lemon juice, if put on every night for a considerable time, will often make the freckles very much paler. It may be mixed with a little milk. I also find the following in one of my books. It seems harmless, and might be very effective. It is labelled "Superior Freckle Lotion":  
½ lb. clean ox gall, ½ dram each of gum camphor and burnt alum, 1 dram borax, ½ oz. each of rock candy and rock salt. Mix and shake well several times a day for three weeks, or until the gall becomes transparent, then strain through filtering paper and apply to the skin during daytime, washing it off at night.

While we are on the complexion topic, here is a very good remedy for poor skin which may be easily made in the country. Cut up a cucumber and cover with water. Simmer, strain, add water enough to make a pint, then add ½ teaspoon boracic acid and 10 drops tincture benzoin.

To have a good complexion—or, at least, as good as possible, for some skins are naturally clearer than others—very frequent bathing and scrubbing with good soap and soft water is absolutely necessary. Every farmhouse should have a bath-tub; sponge baths are not nearly as effective, either for cleanliness or health.

For your hair: Wash it frequently, rinsing well, and rub a little ammoniated mercury ointment (ten parts pure vaseline, one part white precipitate) into the scalp at night.

#### On Child-training.

Dear Dame Durden,—For a long time I have been helped by reading your page, and to me it is more than any Women's Institute could be, for I am sure there is as much information, and we have it right at home.

I agree with a mother who wrote recently telling about being truthful with children. There are also some other things the average mother makes a great mistake in, and that is in not listening to school tales from the very first. Oh, if some of the mothers could see their children after they have learned to lie to them or hide things from them, as other people do. I know one woman who said to me one day when I was listening to a recital my six-year-old schoolgirl was giving me, "I never listen to anything the children bring home from school; I always say to them, 'Run away; I don't want to hear it,' for it's bad to encourage them bringing home yarns," and this woman's children I have known to do things she never dreams they think of.

Now, I am able to guide and direct my little ones by listening to them, and having their confidence, as I could not without. You cannot get a child's confidence without being interested in them. I wish we could form a Mothers' Club through "The Farmer's Advocate." If I see this letter I will know you were not too disgusted with it, and may take advantage of your kindness and indulgence again.  
SECOND MRS. JIM.

Has anyone else an opinion to offer on this question of listening to tales? It seems to me it would need a Solomon to know when to take the child's part and when to take the part of the "other child," who may be in the right as often as not. It seems to me, also, all right to "listen," but is not the judging the difficult part, taking into account the fact that naturally parents feel inclined to favor their own, and that some parents are unreasonably blind in reference to everything that concerns their own offspring? This is an important question,—a very good one for discussion.

#### Soot on Lace Curtains.

Dear Dame Durden,—A reader asked help, how to remove black liquid soot from a chimney on a pair of lace curtains. I had the same thing to contend with this spring. I soaked the curtains in cold soft water for two or three hours, then wrung them out and put in more clean water for perhaps half an hour, then washed in the usual way. Mine were white curtains, and by so doing they were just as white as ever.

I wish to thank you, dear Dame Durden, and the many Chatterers, also Hope in the Quiet Hour, for the help I have received from time to time. Having been left without a mother—a girl's best friend—at the age of eleven years, and the only girl, I had a great deal to learn, and found much help through the Ingle Nook and Quiet Hour.

A FARMER'S DAUGHTER.

Grey Co., Ont.

Many thanks for the above information.

#### A Great Opportunity.

II.

By the time this issue of "The Farmer's Advocate" is in the hands of its many readers scattered throughout the Dominion, we shall, many of us, have either used or lost our "Great Opportunity." The new White Star Steamer "Laurentic" will have steamed up the St. Lawrence, her decks crowded with our guests from many lands, the very air vibrating with their exclamations of wonder and delight, in many tongues, as their good ship was borne upon the bosom of that mighty river safely into port.

At Quebec, time and tide permitting, a whole day will have been devoted to their hospitable welcome, the arrangements for their reception, including a sight of the Citadel, and the many spots inseparable from the earliest history of Canada, having been undertaken by a committee of gentlemen. The night train will have taken them on to Montreal, where a full programme was planned in their honor. One on Saturday

evening, June 12, in the Royal Victoria College, by the governors, principal and fellows of McGill University; another on Monday evening, June 14, by the Canadian Handicrafts Guild; a luncheon by Principal and Mrs. Robertson at Macdonald College, Ste. Ann de Bellevue, and an invitation to a special service at Christ Church Cathedral on Sunday morning, June 13, being received and accepted, and other special services as arranged.

Although but one formal meeting could be held in Montreal, three very important Sections of the Congress in Toronto were in charge of Montreal ladies, notably that on "Education," by Professor Carrie M. Derick, M. A., of McGill University, who has been an active member of the Canadian National Council of Women from its inception, and had the honor to be one of nine delegates chosen by vote to represent Canada on this occasion, the other delegates being Mrs. Edwards, Lady Taylor, Mrs. Day, Vice-president of British Columbia; Mrs. Thomson, of New Brunswick; Mrs. H. A. Boomer, of London, Ont.; Mrs. Torrington, of Toronto; Mrs. McEwen, of Brandon, and Mrs. Dennis, of St. John, N.B. Amongst the many beneficial results anticipated from this auspicious event, one of the most important is that of a clearer understanding of what a National, and, through the Nationals, the International Council really means.

"It is a federation of women workers, less of individuals than of societies, bound together for the purpose of mutual sympathy and co-operation, women who labor for the uplifting of others through philanthropic, patriotic, industrial or educational associations. These form a vast army, whose work, if intelligently united, cannot fail to wield an immeasurable influence. To accomplish this unity, to prevent waste of energy and overlapping of work, putting at the disposal of one part the knowledge and experience gained by another part, and the giving to one another a loyal, moral support, is the aim of a National Council. It is formed on such broad lines that no class or sect need be excluded. The narrow walls of local environments, the dividing lines of Provincial boundaries, are being levelled to the advantage of one's country, and to the fostering of a more vigorous growth of national sentiment, national spirit, and true patriotism."

To this I would add the claim that a Woman's Council is a gentle, persistent force wherewith to keep before our public men the need of legislating for certain reforms. Sometimes we get a hearing, sometimes we do not; not at first, anyway. But now that we have lived down the initial prejudice which too often hampers all woman's work—i. e., that she seeks to usurp the work of men, rather than to supplement and help it—we can thankfully point to many helpful measures which, on the representations made by our members, have become the law of the land, for the betterment of its people, and in the interests of law and order.

#### WHAT SOME OF OUR CANADIAN RULERS HAVE SAID UPON THE SUBJECT.

Perhaps, in this connection, it may not be out of place to quote to our readers the opinions which have been expressed by some of our leading Canadian rulers, past and present, regarding the opportunities for national civic and educational service which become possible to an organized and united womanhood, and what applies to a National Council applies equally, if not with greater force and wider scope, to the collective councils of the several nationalities known as the International Council, whose representatives we are to welcome this June.

Sir John Thompson, of honored memory, who was one of the earliest friends of our Canadian organization, thus publicly spoke of it: "Ary movement which tends to bring together the people of the different

Provinces, of different opinions, politics and beliefs, will be patriotic in its aim and in its work, and divinely blessed in its results."

Sir Wilfrid Laurier has said, "That if the National Council had done nothing else than to bring together women from the East and from the West, they had done a great deal towards the unification of the country, with its diverse races and creeds. . . . What we want in this fair country, above all things, is, as a nation, to have peace, harmony and union among all the heterogeneous elements which the Providence of God has brought into it. For this I look, above all things, to the hand of woman, and you will agree with me that the hand of a woman was made for union," an opinion confirmed in the following words by the Hon. W. S. Fielding: "A meeting of Parliament is a great force and power for good, and so, also, is it with the representatives of the Women of Canada. There is a power for good, though you may not see it, in statistics, for the power of organized womanhood cannot be overestimated."

Finally, as one of the oldest members of the Canadian National Council, I would like to offer—and I do so with some diffidence—my own view of the subject. It is that, as there are in the warp and woof of many fabrics some finer, smaller threads needed to their perfect completion, threads which may not show very prominently in the main pattern, but which would be missed if left out, so it is with the work of our Woman's Council. We are, I honestly believe, content to be those lesser threads in the big whole, recognizing that, although ours may not be the skilled labor which brings that "big whole" to its fullest perfection, yet it behooves us to see to it that nothing which we can by any possibility do, shall be left undone, or that, to use the words of a member of the N. C. W., of Tasmania, that, by our human efforts, God-inspired and God-blessed, we should seek to bring the kingdom of heaven a little nearer to this tired world; that we should realize that, whenever there is a child neglected, a home comfortless, a girl astray, a man inebriated, a city insanitary, a mind left uncultivated, a willing hand left idle for want of hiring, then and there should be recognized the opportunity to form, as a sisterhood of loving service, a National Council of the women of the land.  
H. A. B.

#### Current Events.

Bubonic plague has broken out in China.

••

Pittsburg steel mills are running to the full capacity for the first time in twenty years.

••

Three new agricultural experiment stations are to be located in the Canadian West.

••

Germany is to be fortified by a chain of airship stations along the French frontier.

••

Three boats, the Assiniboia, Perry G. Walker, and Crescent City, were seriously damaged by the breaking of the gates in the canal at Sault Ste. Marie, last week.

#### My Garden.

A garden is a lovable thing, God wot!  
Rose Plot,  
Fringed pool,  
Fern'd grot—  
The veriest school  
Of peace; and yet the fool  
Contends that God is not—  
Not God in gardens! when the eye is cool?

Nay, but I have a sign;  
'Tis very sure God walks in mine.

—Thomas Edward Brown.

**"The Farmer's Advocate" The Roundabout Club**



6356 Girl's Dress, 6 to 12 years.

6356 Girl's Dress, 6 to 12 years. To be worn with or without a gumpie.



6350 Girl's Dress, 8 to 14 years.

6350 Girl's Dress, 8 to 14 years.



6330 Tucked Negligee, 34 to 44 bust.

6330 Tucked Negligee, 34 to 44 bust.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Be careful to give Correct Number and Size of Patterns Wanted. When the Pattern is Bust Measure, you need only mark 32, 34, 36, or whatever it may be. When Waist Measure, 22, 24, 26, or whatever it may be. When Misses' or Child's pattern, write only the figure representing the age. Allow from one to two weeks in which to fill order, and where two numbers appear, as for waist and skirt, enclose ten cents for each number. If only one number appears, ten cents will be sufficient.

Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

"I am going to see your father about you," said a teacher to a boy who had exhausted her patience.

"If you do you'll never come back," "Why?" demanded the teacher. "Cause pa's dead."—New York Tribune.

**Our Literary Department.**

**The Masterful Thumb.**

In our study of Rabbi Ben Ezra, attention was drawn to the use of the word "thumb" in "world's coarse thumb," Stanza 24, of the poem.

"But all, the world's coarse thumb  
And finger failed to plumb,  
So passed in making up the main account;  
All instincts immature,  
All purposes unsure,  
That weighed not as his work, yet  
swelled the man's amount;  
Thoughts hardly to be packed  
Into a narrow act,  
Fancies that broke through language  
and escaped;  
All I could never be,  
All, men ignored in me,  
This, I was worth to God, whose wheel  
the pitcher shaped."

The phrase, "thumb and finger" suggested, by way of digression, the curious significance that has, from very early ages, and among different peoples, been attached to this small member of the human body—the thumb.

Chaucer, in speaking of the "miller," (Prologue to the Canterbury Tales) says he "hadde a thomb of gold, pardee." Mr. Yarrell, in his "History of British Fishes," writes as follows, the association following from a reference to the Bullhead, or "Miller's Thumb" fish: "It is well known that all the science and tact of a miller is directed so to regulate the machinery of his mill, that the meal produced shall be of the most valuable description that the operation of grinding will permit. His profit, or his loss, even his fortune or his ruin, depend upon the exact adjustment of the various parts of the machinery. The miller's ear is constantly directed to the note made by the running-stone in its circular course over the bed-stone . . . and his hand is constantly placed under the meal-spout to ascertain by actual contact the character and qualities of the meal produced. The thumb, by a particular movement, spreads the sample over the fingers; the thumb is the gauge of the value of the produce, and hence have arisen the sayings of 'worth a miller's thumb,' and 'an honest miller hath a golden thumb,' in reference to the amount of the profit that is the reward of his skill."

Dr. H. MacCallum, in a thesis read before the Educational Association at London, referred to the thumb as follows: "In ancient times, men cut off their thumbs that they might avoid going to war. They were called 'paltroons,' derived from the Latin through the Spanish, viz.: 'Thumbless man.' The modern meaning is a characterless man, without principle or courage. It was noticed that men who did this mutilation, invariably degenerated, morally and mentally. An old Scotch saying is 'Beware of a thumbless man.' If man is distinctive at all in the hand, it is in his masterly thumb."

One more quotation from the notes taken by a kindergarten teacher while in course of training for her work:

**THE THUMB—AN INDEX OF CHARACTER.**

One who has studied the tendency of character, as indicated by the thumb, says that if the thumbs of every human being were amputated, the whole race would very speedily degenerate, and lose all the force and ambition that it possesses.

The student of human nature will find no part of man's anatomy so full of reliable data in the summing up of an individual's tendencies as the thumb.

To visit a hospital for the insane, to examine carefully this organ as possessed by the weak and vacillating in character, and compare them with those of strong and forceful, intellectual attainments, will readily satisfy any observer as to the importance of the indication. It is true that the indication affects more the moral than the mental nature, but mental strength or weakness is to such an extent dependent on the moral; that the value of thumb-development has come to be recognized by psychologists as a very important element in the building up of the healthiest mentality.

An employer, in a large way, who was observant, had experience with two lads, one possessing a short thumb, with a rather thick, soft palm; the other a strong, well-developed thumb, with the palm firm and elastic. The latter, by force of character, raised himself to respectability and wealth, while the other remained in his original position at a small wage.

The observer, in making investigations, will do well to note the natural tendencies without attracting the attention of the subject he studies. Almost anyone can spread his thumb at right angles to his index finger, and may do so if asked to spread out his hand, but the person who naturally opens his hand in this way, is possessed of an open, sincere disposition. A mean, selfish disposition, may safely be attributed to the person whose thumb naturally lies parallel to the fingers. The person who, in closing the fists, leaves the thumb on the outside, is possessed of vitality and strength of character, while he who naturally closes the hand on the thumb, is morally dwarfed, and possibly of a weak physical nature. There is no more certain sign of approaching death, in illness, than the closing of the fingers over the thumb, while, of course, the action may frequently be indulged in by a healthy person when suffering from intense cold.

It has been pointed out that man's superiority over the lower animals is summed up in his being a tool-using animal, and while the thumb gives the natural opposing force, in conjunction with each of the four fingers, in the gathering up of any material, so it makes the completion of the tool-using power in conjunction with the other fingers.

In the lower animal kingdom, the highest development is shown by those species that exhibit the nearest approach to the human-thumb development; the kangaroo, the monkey, and the gorilla, being instances. Prof. Henry Drummond refers to the hand as one of the most perfect pieces of mechanism in the human body. He traces its evolution from the lowest form in the Amoeba—a speck of protoplasmic jelly, headless, footless and armless; when it wishes to seize the microscopic particle of food, on which it lives, a portion of its body lengthens out, and, moving towards the object, flows over it, engulfs it, and melts back again into the body. This is its hand. At any place, and at any moment, it creates a hand. Passing upward in the scale, he calls attention to the Sea-anemone, in which the hand is no longer extemporized, as occasion requires, but lengthened portions of the body are set apart and kept permanently in shape for the purpose of seizing food. In this quivering pillar of the body, we get the rude approximations of the most useful portion of the human hand—the separate fingers. The professor then passes over a multitude of intermediate forms, until he notes the hand of an African monkey, the added usefulness of which is increased by the muscular arm upon which the hand is now extended, and the extraordinary capacity for varied motion afforded by the three-fold system of jointing at shoulder, elbow and wrist. The hand itself is almost the human hand with palm, nails and fingers, the important point lacking being the thumb. If the monkey has a thumb, it is but a rudiment.

To estimate the importance of the thumb, one should try for a moment, without using this organ, to hold a book, to write a letter, or to do any piece of manual work. The thumb is not merely an additional finger, but a finger so arranged, from its opposite nature, to possess the practical efficacy, greater than all the fingers put together, and in it is the crowning feature of the finished tool-using hand. To the thumb, we may attribute all the possibilities of mechanical invention.

The kindergarten system, and the promoters of all the newer educational methods, have given great consideration to thumb-development, and, at the present day, the manual training being introduced into the schools of towns and cities, is to some extent compensating the children who have not the natural advantages of the country boys and girls in the matter of dexterity in handicraft and the moral development attendant on the power of the thumb."

Much of the above may be somewhat

far afield from the reference in Browning, but it has been read with interest, no doubt, especially by those who sought to find the precise application of the word, when engaged upon Study IV.

**The Literary Society Prizewinners.**

While the races were going on at the Woodbine, Toronto, a much more interesting race (to a few of us, at least) was going on here in the office. As the marking of the final papers of the Literary Society went on, and the marks were added to those previously recorded, excitement grew apace, the more especially as there were sixteen competitors whose marks had come close enough to make the result doubtful. Finally the list stood complete, with Mrs. Wm. Bacon, Simcoe Co., Ont., standing first; "A Lesser Spark," Bruce Co., Ont., second; and "Milla," Rouville, Que., third.

Following these quite closely came "A. C.," Glengarry Co., Ont.; "G. H. S.," Middlesex Co., Ont.; "J. M. C.," Carleton Co., Ont.; Miss Hume, Halton Co., Ont.; "Meg MacCallum," Algoma, Ont.; Mrs. McBean, Lambton Co., Ont., who are entitled to lesser prizes.

This list, however, by no means exhausts the names of those who did excellent work. We had to draw the line somewhere, but we have pleasure in assuring the following that they came very little behind the above: Mrs. Dakin, Prince Edward Co., Ont.; Miss McKim, Truro, N. S.; J. D. Taylor, Waterloo Co., Ont.; Miss Tupling, Grey Co., Ont.; "Wentworth Mugwump," Wentworth Co., Ont.; Miss Sinclair, Grey Co., Ont.; J. Shaw, Hants, N.S.; Miss Griffith, Welland Co., Ont.; "Un Eleve," Waterloo Co., Ont.; Miss Allan, Wentworth Co., Ont.; "A. B.," Dufferin Co., Ont.; Miss King, Oxford Co., Ont. These all took 70 per cent. or slightly over of the total number of marks.

A long list is left, most of whom did creditable work, but who came lower than those already mentioned. A few of these last took uniformly medium marks throughout; others, while taking marks so low on the first two studies as to throw them out of the innings, yet made remarkable progress, seeming to work into the spirit of the poem more and more as time went on. One, for instance, worked from 15 marks, out of 50, on the first paper, to 37, out of the same total, on the last.

Several, again, who took excellent marks as far as they went, fell out through not completing the course—no doubt through pressure of other things. Among these may be mentioned H. J. Brillinger, Donald MacCallum, "Alberta," C. R. Albright, "E. M. A.," H. Laidman, Miss Govenlock, Miss Kidd, Miss McFaden, Miss Mackay, E. M. Neff, and a few others. Next season we shall try to begin the work earlier in the fall, in order to leave ample time to complete the studies before the spring work on the farm begins.

We must add, also, that on the last study three papers arrived minus either name, nom-de-plume, or address. As we had no way of identifying or differentiating these, we simply had to leave them out of the reckoning. . . . Again, in answer to the student who asked why we did not give some idea as to the length of the answers required, we may say that, although the shorter answers were in some cases published, no difference was made in the marking. Some people require more words than others by which to express their thoughts; others like to add a little embellishment. We have sought to give every opportunity for expression of individuality, and have given equal marks for long or short, provided the grasp of the poem was equal.

Now, in regard to the work done, we can only say that we have been most agreeably surprised. "Rabbi Ben Ezra" is not easy, yet our students have shown themselves able—and more than able—to cope with it, and we feel that they must have been conscious of increasing mental strength, in so doing.

We should have liked more space, and more time, in dealing with this poem. Many questions remain, of necessity, unasked in regard to it; many interesting side-issues undiscussed. But we are assured that, in spite of all limitations, the effort has not been in vain; and we

look forward with renewed encouragement and enthusiasm to another winter's work. In closing, may we thank and congratulate, most heartily, the band of students who have applied themselves so assiduously and interestedly to as strenuous a piece of work as is likely to be met with in the course of our Literary Society. And may we also take the opportunity, in behalf of the Society, to congratulate the winners of the prizes, whose victory has been all the more creditable since won at such close quarters.

### The Last Study.

Rabbi Ben Ezra.

STUDY V.

[Kindly refer to our issue of May 6th when reading the following answers submitted by our students. Many answers, quite as good as the following, were given by others, but we have not space for all.]

1. "The translation of The Rubaiyat of Omar Khayyam is epitomized in the last line of Stanza 26. I have no copy of the Rubaiyat, but this seems to me a direct quotation. The two poems treat the same subjects from entirely different points of view. The Persian philosopher throws a beautiful gossamer over vice; the Jewish Rabbi is inclined to strip the white cloak off her what we call Respectability."

[Several other poems were mentioned,—In Memoriam, Maud, The Forsaken Garden, Don Juan, The City of Dreadful Night, etc.—but the Rubaiyat, as translated by Edward Fitzgerald, was the poem to which reference was made. It is interesting to note, just here, that Browning never forgave Fitzgerald for making a slighting reference in regard to the work of his wife, Elizabeth Barrett Browning. The philosophy of The Rubaiyat (really a beautiful poem when judged from a merely poetical standpoint) was, indeed, very foreign to that of Browning, but, doubtless, the little grudge harbored gave an edge to the latter's words whenever Fitzgerald's work was in question. Browning was a man of noble character, but in this he exhibited a little touch of very human weakness.

We may say here, that when settling all such questions as this (No. 1), the marks were invariably placed almost infinitesimally low—this to avoid unfairness to students who may have had but few privileges for broad reading.]

2. (a) "In lines 4, 5, St. XVII., Browning means the soul God gave to man; not spelled with a capital, but in capitals. 'THAT' is sacred, a part of God, and, therefore, eternal."  
(b) "This dance of plastic circumstance" is the daily routine of formative custom and accident, external things that mould our lives. The word 'dance' indicates our light esteem of these circumstances, unconscious, as we are, of their influence; it expresses, too, the swiftness of their passing."

"Plastic" is here a transferred epithet, the meaning being that 'we' are plastic."

3. "Explanation of metaphor, Stanza XXIX—XXX.—  
"God is the Potter who moulds us, the clay on 'time's wheel.' The cup is character or the soul. Our circumstance or different condition in life is the machinery bringing strengthening influences to bear while our soul develops."

"In fancy I see the cup the poet depicts. Grecian or Roman art is suggested. In the grooves encircling the base of the cup are laughing nymphs or cupids decked with garlands. This is Youth, impressionable youth! Impressions good or bad received then sink deep, for the clay is yet moist from the Potter's hand. Yes, the grooves are deeply marked, but there is gladness, innocence, love; life is not taken seriously as yet, its problems do not weigh heavily."

"Look upward toward the brim—this is Age—the lines of the design are more severe. The colors blend, but are modified. There may be grooves here too, grooves of habit or stern stress of circumstance. And the designs standing out regularly and clearly are of 'skull things'—suggestive of grim thoughts, of death possibly, or grave responsibilities, stern realities in life faced."

"Then in Verse XXX the poet shows us the climax, the feast, with the 'Master' presiding and the 'cup' filled with

the 'new' wine. The poet holds aside the curtain, as it were, for a brief glimpse into Eternity, and we catch the beautiful idea of our souls, in communion forever with Christ."

"Life is here compared to the beautiful wine cups used at Greek feasts. Laughing Cupids around the base denote youth, the time of laughter and love. The border of skulls at the rim point to old age and the grim approach of Death. But we are bid to look beyond the making of the cup to the feast it shall grace when finished; to the wine of joy which shall flow from it to the Master's lips."

4. (a) "The potter in looking at the cup thinks not of the material from which it was formed, but has in his mind's eye the uses to which it is to be put."

"The festal board, lamps flash, and trumpets peal,  
The new wine's foaming flow,  
The Master's lips aglow!"

"In old age, he whose life is perfected for the Kingdom has no need of the hopes, trials and ambitions of youth."

(b) "To slake thy thirst." As the chief use of a cup is to slake thirst, so man's chief end is to glorify God."

(c) "The clay has been moulded into a cup for God to slake his thirst at. The man has been so purified by his trial and sorrows, that he, by his deeds and thoughts, glorifies his Maker, 'The Divine Potter.'"

"To slake thy thirst." St. XXXI., means that God has a purpose for each one of us, and He cannot be satisfied unless we fulfil that purpose. He thirsts for the acts of love and kindness, which it is ours to perform."

"God who registers the cup  
Of mere cold water, for his sake  
To a disciple rendered up,  
Disdains not His own thirst to slake  
At the poorest love ever offered."

(To be continued.)

## The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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### CHAPTER XIX.—Continued.

"Certainly, everything should be done for us, brother; but I have no defence to make for my sex, none! I dare say we women deserve all that men think of us, but then it is impolite to tell us so to our faces. Now, as I advised you, Renaud, I would counsel you to study gardening, and you may one day arrive at as great distinction as the Marquis de Vandriere—you may cultivate chou chou if you cannot raise a bride like Amelie de Repentigny."

Angelique knew her brother's genius was not penetrating, or she would scarcely have ventured this broad allusion to the brother of La Pompadour, who, by virtue of his relationship to the Court favorite, had recently been created Director of the Royal Gardens. What fancy was working in the brain of Angelique when she alluded to him may be only surmised.

The Chevalier was indignant, however, at an implied comparison between himself and the plebeian Marquis de Vandriere. He replied, with some heat:

"The Marquis de Vandriere! How dare you mention him and me together! There's not an officer's mess in the army that receives the son of the fishmonger! Why do you mention him, Angelique? You are a perfect riddle!"

"I only thought something might happen, brother, if I should ever go to Paris! I was acting a charade in my fancy, and that was the solution of it!"

"What was? You would drive the whole Sorbonne mad with your charades and fancies! But I must leave you."

"Good-bye, brother—if you will go. Think of it!—if you want to rise in the world, you may yet become a royal gardener like the Marquis de Vandriere!" Her silvery laugh rang out good-humoredly as he descended the stairs and passed out of the house.

She sat down in her fauteuil. "Pity Renaud is such a fool!" said she; "yet I am not sure but he is wiser in his folly than I with all my tact and cleverness, which I suspect are going to make a greater fool of me than ever he is!"

She leaned back in her chair in a deep thinking mood. "It is growing dark," murmured she. "Le Gardeur will assuredly be here soon, in spite of all the attractions of Belmont. How to deal with him when he comes is more than I know; he will renew his suit, I am sure."

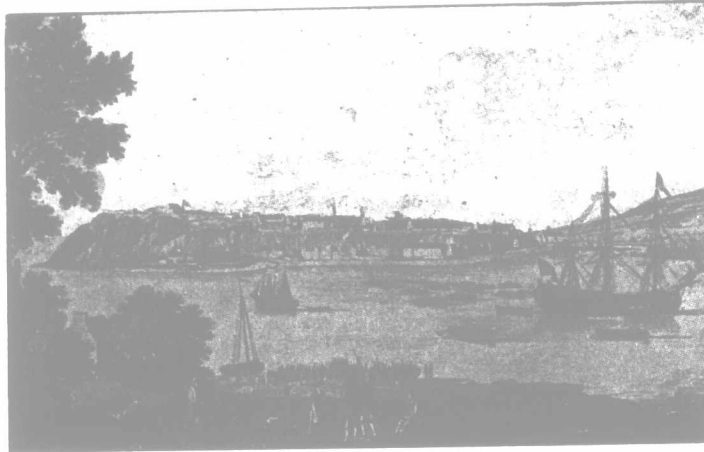
For a moment the heart of Angelique softened in her bosom. "Accept him I must not!" said she; "affront him I will not! cease to love him is out of my power as much as is my ability to love the Intendant, whom I cordially detest, and shall marry all the same!" She pressed her hands over her eyes, and sat silent for a few minutes. "But I am not sure of it! That woman remains still at Beaumanoir! Will my scheming to remove her be all in vain or no?" Angelique recollected with a shudder a thought that had leaped in her bosom, like a young Satan, engendered of evil desires. "I dare hardly look in the honest eyes of Le Gardeur after nursing such a monstrous fancy as that," said she; "but my fate is fixed, all the same. Le Gardeur will vainly try to undo this knot in my life, but he must leave me to my own devices." To

day in honor of the fete of Pierre Philibert, upon his return home from the campaign in Acadia. Troops of ladies in costumes and toilettes of the latest Parisian fashion gladdened the eye with pictures of grace and beauty which Paris itself could not have surpassed. Gentlemen in full dress, in an age when dress was an essential part of a gentleman's distinction, accompanied the ladies with the gallantry, vivacity and politeness belonging to France, and to France alone.

Communication with the mother country was precarious and uncertain by reason of the war and the blockade of the Gulf by the English cruisers. Hence, the good fortune and daring of the gallant Captain Martiniere in running his frigate, the Fleur-de-Lis, through the fleet of the enemy, enabling him, among other things, to replenish the wardrobes of the ladies of Quebec with latest Parisian fashions, made him immensely popular on this gala day. The kindness and affability of the ladies extended, without diminution of graciousness, to the little midshipmen even, whom the Captain conditioned to take with him wherever he and his officers were invited. Captain Martiniere was happy to see the lads enjoy a few cakes on shore after the hard biscuit they had so long nibbled on shipboard. As for himself, there was no end to the gracious smiles and thanks he received from the fair ladies at Belmont.

At the great door of the Manor House, welcoming his guests as they arrived, stood the Bourgeois Philibert, dressed as a gentleman of the period, in attire rich but not ostentatious. His suit of dark velvet

harmonized well with his noble manner and bearing. But no one for a moment could overlook the man in contemplating his dress. The keen, discriminating eye of woman, overlooking neither dress nor man, found both worthy of warmest commendation, and many remarks passed between the ladies on that day that a handsomer man



View of Quebec in 1759.

what devices she left him was a thought that sprang not up in her purely selfish nature.

In her perplexity, Angelique tied knot upon knot hard as pebbles in her handkerchief. Those knots of her destiny, as she regarded them, she left untied, and they remain untied to this day—a memento of her character and of those knots in her life which posterity has puzzled itself over to no purpose to explain.

### CHAPTER XX.

Belmont.

A short drive from the gate of St. John stood the old mansion of Belmont, the country-seat of the Bourgeois Philibert—a stately park, the remains of the primeval forest of oak, maple and pine; trees of gigantic growth and ample shade surrounded the high-roofed, many-gabled house that stood on the heights of St. Foye, overlooking the broad valley of the St. Charles. The bright river wound like a silver serpent through the flat meadows in the bottom of the valley, while the opposite slopes of alternate field and forest stretched away to the distant range of the Laurentian hills, whose pale-blue summits mingled with the blue sky at midday, or, wrapped in mist at morn and eve, were hardly distinguishable from the clouds behind them.

The gardens and lawns of Belmont were straggling with the company. To

and more ripe and perfect gentleman than the Bourgeois Philibert had never been seen in New France.

His grizzled hair grew thickly all over his head, the sign of a tenacious constitution. It was powdered, and tied behind with a broad ribbon, for he hated perukes. His strong, shapely figure was handsomely conspicuous as he stood, chapeau in hand, greeting his guests as they approached. His eyes beamed with pleasure and hospitality, and his usually grave, thoughtful lips were wreathed in smiles, the sweeter because not habitually seen upon them.

The Bourgeois had this in common with all complete and earnest characters, that the people believed in him because they saw that he believed in himself. His friends loved and trusted him to the uttermost; his enemies hated and feared him in equal measure; but no one, great or small, could ignore him and not feel his presence as a solid piece of manhood.

It is not intellect, nor activity, nor wealth, that obtains most power over men; but force of character, self-control, a quiet, compressed will and patient resolve; these qualities make one man the natural ruler over others by a title they never dispute.

The party of the Honnetes Gens, the "honest folks," as they were derisively called by their opponents, regarded the Bourgeois Philibert as their natural leader. His force of character made men willingly stand



in his shadow. His clear intellect, never at fault, had extended his power and influence by means of his vast mercantile operations over half the continent. His position as the foremost merchant of New France brought him in the front of the people's battle with the Grand Company, and in opposition to the financial policy of the Intendant and the mercantile assumption of the Frigon.

But the personal hostility between the Intendant and the Bourgeois had its root and origin in France, before either of them crossed the ocean to the hither shore of the Atlantic. The Bourgeois had been made very sensible of a fact vitally affecting him, that the decrees of the Intendant, ostensibly for the regulation of Trade in New France, had been sharply pointed against himself. "They draw blood!" Bigot had boasted to his familiars as he rubbed his hands together with intense satisfaction one day, when he learned that Philibert's large trading-post in Mackinaw had been closed in consequence of the Indians having been commanded by royal authority, exercised by the Intendant, to trade only at the comptoirs of the Grand Company. "They draw blood!" repeated he, "and will draw the life yet out of the Golden Dog." It was plain the ancient grudge of the courtly parasite had not lost a tooth during all those years.

The Bourgeois was not a man to talk of his private griefs, or seek sympathy, or even ask counsel or help. He knew the world was engrossed with its own cares. The world cares not to look under the surface of things for sake of others, but only for its own sake, its own interests, its own pleasures.

To-day, however, cares, griefs, and resentments were cast aside, and the Bourgeois was all joy at the return of his only son, and proud of Pierre's achievements, and still more of the honors spontaneously paid him. He stood at the door, welcoming arrival after arrival, the happiest man of all the joyous company who honored Belmont that day.

A carriage with outriders brought the Count de la Galissoniere and his friend Herr Kalm and Dr. Gauthier, the last a rich old bachelor, handsome and generous, the physician and savant par excellence of Quebec. After a most cordial reception by the Bourgeois, the Governor walked among the guests, who had crowded up to greet him with the respect due to the King's representative, as well as to show their personal regard, for the Count's popularity was unbounded in the Colony, except among the partisans of the Grand Company.

Herr Kalm was presently enticed away by a bevy of young ladies, Hortense de Beauharnais leading them, to get the learned professor's opinion on some rare specimens of botany growing in the park. Nothing loath—for he was good-natured as he was clever, and a great enthusiast withal in the study of plants—he allowed the merry, talkative girls to lead him where they would. He delighted them in turn by his agreeable, instructive conversation, which was rendered still more piquant by the odd medley of French, Latin and Swedish in which it was expressed.

An influx of fresh arrivals next poured into the park—the Chevalier de la Corne, with his pretty daughter, Agathe La Corne St. Luc; the Lady de Tilly and Amelie de Repentigny, with the brothers de Villiers. The brothers had overtaken the Chevalier La Corne upon the road, but the custom of the highway in New France forbade anyone passing another, without politely asking permission to do so.

"Yes, Coulon," replied the Chevalier, "ride on!" He winked pleasantly at his daughter as he said this. "There is, I suppose, nothing left for an old fellow who dates from the sixteen-hundreds but to take the side of the road and let you pass. I should have liked, however, to stir

up the fire in my gallant little Norman ponies against your big New England horses. Where did you get them? Can they run?"

"We got them in the sack of Saratoga," replied Coulon, "and they ran well that day, but we overtook them. Would Mademoiselle La Corne care if we try them now?"

Scarcely a girl in Quebec would have declined the excitement of a race on the highroad of St. Foye, and Agathe would fain have driven herself in the race, but, being in full dress to-day, she thought of her wardrobe and the company. She checked the ardor of her father, and entered the park demurely, as one of the gravest of the guests.

"Happy youths! Noble lads, Agathe!" exclaimed the Chevalier, admiringly, as the brothers rode rapidly past them. "New France will be proud of them some day!"

The rest of the company now began to arrive in quick succession. The lawn was crowded with guests. "Ten thousand thanks for coming!" exclaimed Pierre Philibert, as he assisted Amelie de Repentigny and the Lady de Tilly to alight from their carriage.

"We could not choose but come to-day, Pierre," replied Amelie, feeling without displeasure the momentary lingering of his hand as it touched hers. "Nothing short of an earthquake would have kept aunt at home," added she, darting a merry glance of sympathy with her aunt's supposed feelings.

"And you, Amelie?" Pierre looked into those dark eyes, which shyly turned aside from his gaze.

"I was an obedient niece, and accompanied her. It is so easy to persuade people to go where they wish to go!" She withdrew her hand gently, and took his arm as he conducted the ladies into the house. She felt a flush on her cheek, but it did not prevent her saying, in her frank, kindly way: "I was glad to come to-day, Pierre, to witness this gathering of the best and noblest in the land to honor your fete. Aunt de Tilly has always predicted greatness for you."

"And you, Amelie, doubted, knowing me a shade better than your aunt?"

(To be continued.)

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.

HOLIDAYS AND SUNDAY CHORES.

- 1. Does the law give a farm hand, hired by the month, every other Sunday (regardless of bargain)?
- 2. Can he take all national holidays, and get wages for the same?
- 3. If he fails to keep contract in returning every other Sunday to milk cows, etc., can any of his wages be withheld for same? Said party hired for six months.

Ontario.

Ans.—No, that is to say, it would not exempt him from chores.

2. Yes; providing he attends satisfactorily to the usual routine chores.

3. We do not see that the employer would be justified in withholding wages as implied, but consider such conduct on the employee's part, if repeated without reasonable cause in the face of warning, would furnish grounds for termination of the contract. The number of questions asked us concerning this matter of chores, indicates either a lack of liberality and tact on the part of employers, or gross indifference and thoughtlessness on the part of employees, or a little of both. The exercise of more give-and-take spirit would conduce to harmony of work and peace of mind.



More Bread to the Barrel

That extra cost per barrel which you pay for

Ogilvie's Royal Household

doesn't go into anybody's pocket.

It covers the cost of inspecting the entire wheat crop of the country, and selecting the choicest grain.

It pays, for cleanliness, for purity and for scientific flour-making.

A barrel of Ogilvie's Royal Household Flour goes farther than a barrel of any other flour. It makes more bread and better bread.

You are not really spending that extra amount—you are investing it.

Go to your grocer and say "Royal Household."

22

Ogilvie Flour Mills Co., Limited, Montreal.



PICKED PIMPLE AND DIED

Under above heading a leading daily paper, of May 27, tells of a farmer's son in Leeds County contracting blood poisoning through picking a pimple. This happens only too often. We always advise patients not to press pimples and blackheads, but to leave them in and use

OUR HOME TREATMENT

to cure the trouble. It will do it every time. Let us convince you. We've been treating pimples, blackheads, blotches, eczema, etc., successfully for over seventeen years. Write us if you have any skin, scalp, hair or complexional trouble. Our charges are moderate, and we always cure. Get booklet "F"; it's free.

**SUPERFLUOUS HAIR, MOLES, Warts, Ruptured Veins, etc.**, always permanently destroyed by our reliable method of antiseptic Electrolysis. Satisfaction assured.

**HISCOTT DERMATOLOGICAL INSTITUTE**  
61 College St., Toronto. Estab. 1892

Congressman John T. Lenahan, of the Luzerne bar, was once engaged in a bribery case and was questioning a prominent witness. "Have you yourself ever refused a bribe?" he asked. "No, but ——" "That's all!" thundered John. Later on Mr. Lenahan was asked why he dismissed the witness so soon. "Because," he replied, "I knew by the 'but' that he was going to tell me no one had ever attempted to bribe him."

One day an Irishman was asked to come to work an hour earlier than usual. This he promised to do. Next morning he was an hour late. "Shure, sor," he explained, "I should have been no good if I'd come, as I was fast asleep."

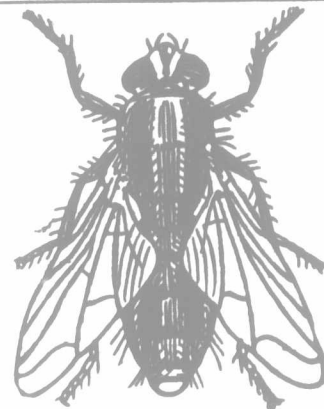
TWO SAFE INVESTMENTS

**No. 1.** A first Preferred Stock in a large manufacturing company—guaranteed 7 per cent. This is a highly profitable business. Interest is payable half-yearly at 7 per cent. per annum. There is also a bonus of stock which will increase the profit 50 per cent.

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WILSON'S FLY PADS

STAND ALONE AS KILLERS OF HOUSE FLIES. AVOID USELESS IMITATIONS. PRIZEWINNING HEREFORDS FOR SALE.

The Forest View Farm Herd. The best in Canada. First in sweepstakes at Toronto, London, and seven other leading Canadian shows during the season of 1907 and 1908. Owing to the death of the owner, this herd must be dispersed. Everything must be sold by October 1st. Come and get a bargain. For further particulars address:

**N. B. GOVENLOCK, ADMINISTRATRIX,**  
Forest, Ontario.

# Vanco Brand Lead Arsenate

The newest and most effective remedy for POTATO BUGS,  
or any leaf-eating insects.

IT WON'T BURN.  
IT SPRAYS EASY.

IT STICKS WELL.  
IT KILLS SURE.

#### PRICES:

100-lb. kegs .....	11c. per lb.
50-lb. " .....	11 1/4c. "
25-lb. " .....	12c. "
12 1/2-lb. pails .....	13c. "

NET CASH F. O. B. TORONTO.

Use two or three pounds to the barrel of water, forty gallons.  
Write for circulars on spraying.

MADE IN CANADA ONLY, BY

## CHEMICAL LABORATORIES, LIMITED

148 Van Horne Street, Toronto, Ont.

## 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.

**BUY 95% FERTILE EGGS**—That will produce winter layers. Ancona eggs, \$6 for 100; fifteen for \$1. Single-comb White Leghorn eggs, \$4 for 100; fifteen for \$1. Special price on larger quantities. Free circulars. Edward C. Apps, Box 224, Brantford, Ont.

**EGGS REDUCED**—Indian Runner ducks, \$1.00 per 15. Single-comb Brown Leghorns, 75c. per 15. Frank Bai ard, Glanworth, Ont.

**EGGS FOR HATCHING**—Barré 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.

**S. C. WHITE LEGHORNS** of prizewinning strains. Eggs priced for remainder of season. 75c. for 15 hatch guaranteed. Geo. D. Fletcher, Binkham, Ont., Erin Station.



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

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

**THE** cheapest land in the U. S. for general farming, fruit and vegetable growing is in Sevier County, Arkansas. Improved farm land \$10 per acre. Fruit and vegetable land just as cheap. Good soil. No cold weather. Healthful climate. Write for circulars. Farmers & Merchants Bank & Trust Co., DeQueen, Ark.

**WANTED** by experienced herdsman, good feeder and fitter for show or sale. Single. Well recommended. J. Robson, 146 Cartier St., Ottawa.

**WANTED**—A herdsman who can fit Shorthorns for show. Send references to: W. H. Gibson, Huntlywood Farm, Beaconsfield, near Montreal.

#### Widow Must Sell.

Dandy 25-acre poultry and fruit farm; on good road; near neighbors, schools, telephone mail delivered; 1 1/2 miles from village; 75 bbls. apples yearly, cherries, currants, quinces; 100 cords of wood; 10,000 ft. timber; rich soil; garden and general crops; 10-room cottage; good outbuildings. Only \$1,300. Half cash. Page 62, Strout's May-June Bulletin. Copy free. E. A. Strout Co., Dept. 2415, University Bldg., Syracuse, N. Y.

At the annual meeting of the American Holstein Association, held at Syracuse, N. Y., on June 3rd, the Secretary's report showed the number of animals registered within the past year was 19,591. To the close of the fiscal year 10,285 animals have been admitted to the Advanced Register, of which 704 were bulls. The Treasurer's report showed that the receipts for the year were \$59,539.18, and the disbursements \$26,492.69, leaving a balance on hand of \$33,046.49. Certainly a very healthy show!

#### GOSSIP.

In the one-day butter test, at the Royal Jersey Agricultural Society's Show, the last week in May, the first award and gold medal went to Mr. Perride's Bamboozle, whose milk yield was 42 lbs. 4 ozs., and butter, 2 lbs. 9 1/2 ozs. The second award and silver medal went to Mr. Labey's Origa's Queen, whose milk yield was 46 lbs., and butter, 2 lbs. 7 ozs. The average amount of milk to make a pound of butter, scored by the seventy cows entered, was 1.9/10 gallons.

#### THE DAVIDSON SALE.

It is a long time since there was a dispersion of Shorthorns in Canada that deserves more notice than does the dispersion of the James I. Davidson herd, at Balsam, Ont., on the 1st of July next. The herd has not been long established, but the members of it have been lately bought with the idea of having as good cattle as could be found, and at the same time a herd that was bred in the way Mr. Davidson has always been led to believe was the best.

No man has had so much to do with the introduction of Cruickshank cattle in America as the late James I. Davidson; no man is a firmer believer in their excellence as producers of the best feeding cattle than is his son, who is forced to sell this herd when it was just nicely gotten together.

A poor man cannot afford to keep a poor cow; no man is rich enough that he can afford to keep a herd of them. Such cows and heifers as will be sold in this sale do not have to be kept at a loss; they will keep you if given fair treatment and reasonably good management.

There are cows and heifers and bulls, bred in the most attractive way, with substance and quality that make them fit for any herd, and ten chances to one if they are not the best in it after they are placed there. They are money-makers, for every female is right so far as known, and the bulls are the same.

It will be the most interesting summer event in Shorthorn circles this year, and all breeders of good cattle should make an effort to be on hand. See the advt., and write Robert Miller, Stouffville, Ont., for catalogue giving full description of cattle.

#### SHEEP AT BATH AND WEST SHOW.

At the Bath and West of England Show at Exeter, the last week in May, nearly all the principal breeds were represented. In Cotswolds the principal exhibitors were Messrs. Garne, Houlton and Fowler. In shearing rams and ram lambs the Garnes were first, and Houlton second. In shearing ewes, Houlton was first and third, Garnes second. In Shropshires the leading exhibitors were Sir R. P. Cooper, M. Williams, and F. Bibby, the last named winning in shearing rams, with an exceptionally strong

entry. Williams was second and third in this class, and first in ram lambs, with an extra good one. Sir R. P. Cooper was first and second in shearing ewes. In Oxford Downs J. T. Hobbs, A. Brassey and J. Horlick were the winners; Hobbs being first in shearing rams and Brassey second. Hobbs was also first for ram lambs, and Horlick second. In shearing ewes, Hobbs was first and second; Brassey third. In Hampshire Downs J. Flower was first for shearing ram and Carey Coles second. For ram lambs, D. Nichol was first; Flower second. Dorset Horns were shown by W. R. Flower, Sir E. A. Hambro and F. J. Merson; the first named winning in shearing rams, ram lambs and shearing ewes, and Sir Hambro second.

The Jersey cow, Double Time, of the dairy herd of the University of Wisconsin, is reported as having finished a year's test on May 12th, making a record of 14,521 lbs. of milk and 691.5 lbs. butter-fat, equivalent to 806.53 lbs. butter.

#### BOOK REVIEW.

##### HOW TO RAISE POULTRY.

"American Poultry Culture" is a new book by R. B. Sando, of Potsdam, Ohio, issued by the Outing Publishing Co., New York; Canadian publishers, The Musson Book Co., Toronto. It has evidently grown out of experience, the only way in which a really useful book can be produced, and is especially designed for beginners and smaller breeders. On his way to success, the author tells us that he "has wrung the neck of an old hen that spoiled a \$5 setting of eggs, by quitting her job at the end of the second week; has had his incubator cook 200 eggs in an hour, a homemade brooder catch fire and burn up, together with the 50 chicks that were being brooded in it, and one end of the building, in which the brooder was located, has seen a fifteen-minute shower down a flock of chicks that cost \$50 in money, and fifty scores of dollars' worth of work and worry; fought lice, roup, gapes and cholera to a fare-you-well, and yet with all this trouble has been at least fairly successful." Some think that poultry-keeping is going to be overdone, but Mr. Sando thinks not, for the good reason that the demand for eggs and birds is growing faster than the supply. This book is the right sort for the farm, and covers about every practical point that one would need—farm-poultry practice. The pictures are not fancy sketches, but photogravures, adding real value to the fifteen comprehensive chapters. The author deals with both artificial and natural hatching, but from our personal observation the past spring, we think he might have urged very strongly the superiority of individual hatching coops for hens. We can commend the book, copies of which, at \$1.25 and postage 10 cents, may be ordered through this office, or by sending us two new subscribers to "The Farmer's Advocate."

#### TRADE TOPIC.

**HOW TO OBTAIN RELIABLE FARM HELP.**—The Salvation Army continues to bring to this country a selected number of immigrants. In making application for your farm help, it is suggested that MARRIED couples, with or without children, should be asked for, as being the most stable and permanent. Colonel Howell, of the Immigration Department, 22 Albert Street, Toronto, will, during the next few weeks, be in a position to supply this class of farm laborers, providing suitable home accommodation can be furnished. Send for application forms early, as the season is advancing.

This sign appears in a London shop window.

"One gone, one a pot." It refers to home-grown honey, and its price, and is said to mark the initial effort of our Simplified Spelling Board, under the personal direction of Prof. Brander Matthews, to inoculate the British with the virus of the new orthography.

#### QUESTIONS AND ANSWERS. Miscellaneous.

##### DISPOSAL OF CREAM—WATER SUPPLY.

1. Is it more profitable for the farmer to sell his cream to the creamery, or to churn it at home, farmer living twelve miles from market?

2. Have a barn with metal roof, 100 feet from well, with about two feet of a drop. Would it be advisable to have water off barn run into well through gravel to filter it? Would it spoil well for house use, or would it be better to have well drilled to keep it from going dry in the fall.

Ans.—1. While the cash returns may be as great, or a trifle better, perhaps, in some cases, from making butter at home and marketing it in town, still, if time and flesh of the housewife and family, and wear on vehicles and teams are considered worth anything at all, it will certainly pay much better to patronize the creamery.

2. If good water is commonly obtained in your district at a reasonable depth by drilling, we believe a bored well should be recommended. There is considerable dust and bird manure on the roofs of barns, and, while a mechanical filter would clarify the water, it would not remove the substances in solution. If the water were to be filtered, a fair-sized reservoir or tank would be required to hold the water pending filtration—either that or else a large-sized filter would be required. Again, filters sometimes get out of effective working order, and either clog up or allow substances to pass through that ought to be retained. In addition, there is the chance of a rain-water supply proving inadequate in a period of drouth. If the filtered water were to be used at all, we think it would be better to run it into a separate well for stock-watering purposes only. Even this we would not do without compunction, for, while many animals are watered with unfiltered rain-water from barn roofs, apparently with satisfactory results, the thoughtful sanitary stockman will demand pure water for his domestic animals, just as he would desire for himself.

##### WATER FILTER.

Kindly give directions for making a small water filter.

Ans.—A gravel filter, with capacity of 100 gallons per day, would require to have a surface of one and a half square feet, and should be seven feet deep. The amount of water that will pass through a filter depends upon: First, the character of the filter; second, its surface area, and third, the depth or head of water above the filter. Three feet of water over the filter should give sufficient pressure. The filter should be contained in a basin or tank, and should have in the bottom a line of two-inch tile connecting with the iron pipe that leads to the clear-water basin. Over the tile should be laid one foot in depth of broken stone, over that a foot of coarse gravel, then a foot of fine gravel, then from one to two feet of medium sand. Care should be taken to have each layer of uniform grade, as a lack of uniformity of the grains composing it will interfere seriously with the permeability of the filter. If there is much solid material in suspension in the water, it will be caught in the top layer of the filter and will gradually clog it. The top layer, therefore, should be occasionally examined and renewed, by scraping off until clean sand is reached, and replacing to the required depth with fresh sand.

An inexpensive charcoal filter may be made as follows: Take two stone pots, or jars, and place one above the other, the bottom one being a water jar, with a side hole and faucet, if such a jar can be secured; otherwise, if no faucet can be used, the top jar may be removable to enable the water to be dipped out of the lower jar when required. The top jar must have a hole drilled or broken in the bottom, and a small flower-pot saucer inverted over the hole. Then fill in a layer of clean, sharp sand, rather coarse. A layer of finer sand, a layer of pulverized charcoal, with the dust blown out, then a layer of sand, the whole occupying about one-third of the jar.

GOSSIP.

HOLSTEIN-FRIESIAN OFFICIAL TESTS FOR APRIL, 1909.

Buckeye Maid 3rd (3039), at 8 years 10 months 6 days of age: 17.30 lbs. butter-fat, equivalent to 20.18 lbs. butter; milk, 598.0 lbs. Owned by Dr. L. de L. Harwood, Vaudreuil, Que.

Seven Spot De Kol (8586), at 6 years 10 months 11 days of age: 16.94 lbs. butter-fat, equivalent to 19.76 lbs. butter; milk, 475.5 lbs. Owned by Gordon H. Manhard, Manhard, Ont.

Flora Wayne Sarcastic (6316), at 3 years 10 months 7 days of age: 16.83 lbs. butter-fat, equivalent to 19.63 lbs. butter; milk, 486 lbs. Owned by David Caughell, Yarmouth Centre, Ont.

Lady Waldorf De Kol (4408), at 6 years 6 months 4 days of age: 16.29 lbs. butter-fat, equivalent to 19.00 lbs. butter; milk, 520.7 lbs. Owned by W. W. Brown, Lyn, Ont.

Iosco De Kol C. Mercedes (7307), at 2 years 10 months 4 days of age: 16.00 lbs. butter-fat, equivalent to 18.63 lbs. butter; milk, 434.2 lbs. Owned by David Caughell.

Aggie Bell De Kol (4263), at 6 years 10 months 15 days of age: 15.65 lbs. butter-fat, equivalent to 18.26 lbs. butter; milk, 500.2 lbs. Owned by Gordon H. Manhard.

Princess Dixie De Annandale (3132), at 8 years 25 days of age: 14.922 lbs. butter-fat, equivalent to 17.52 lbs. butter; milk, 483 lbs. Owned by Ed. B. Purcell, Bloomfield, Ont.

Princess Calamity De Kol (7017), at 4 years 2 months 3 days of age: 13.97 lbs. butter-fat, equivalent to 16.30 lbs. butter; milk, 385.8 lbs. Owned by W. W. Brown.

Posch Inka Sylvia (5942), at 4 years 1 month 5 days of age: 13.92 lbs. butter-fat, equivalent to 16.25 lbs. butter; milk, 403 lbs. Owned by Gordon H. Manhard.

Pride of Dundas 2nd (6491), at 4 years 16 days of age: 13.67 lbs. butter-fat, equivalent to 15.95 lbs. butter; milk, 424.7 lbs. Owned by Gordon H. Manhard.

Burkeye Keyes 2nd (6616), at 3 years 18 days of age: 13.35 lbs. butter-fat, equivalent to 15.57 lbs. butter; milk, 389 lbs. Owned by Ed. B. Purcell.

Gaza Aconeth De Kol 2nd (7334), at 7 years 4 months 1 day of age: 13.26 lbs. butter-fat, equivalent to 15.47 lbs. butter; milk, 467.9 lbs. Owned by T. L. Dunkin, Norwich, Ont.

March Beauty (4537), at 6 years 12 days of age: 13.04 lbs. butter-fat, equivalent to 15.22 lbs. butter; milk, 353.5 lbs. Owned by Thos. Goodison, Manhard, Ont.

Polly T. Korndyke (6150), at 4 years 1 month 6 days of age: 12.27 lbs. butter-fat, equivalent to 14.32 lbs. butter; milk, 375 lbs. Owned by A. D. Foster, Bloomfield, Ont.

Centre View Maud Jewel (6308), at 4 years 1 month 1 day of age: 11.60 lbs. butter-fat, equivalent to 13.54 lbs. butter; milk, 421.1 lbs. Owned by P. D. Ede, Oxford Centre, Ont.

Korndyke Pietertje Keyes (7395), at 2 years 10 months 16 days of age: 10.86 lbs. butter-fat, equivalent to 12.67 lbs. butter; milk, 368 lbs. Owned by A. D. Foster.

Burkeye Keyes (6034), at 3 years 10 months 26 days of age: 10.73 lbs. butter-fat, equivalent to 12.52 lbs. butter; milk, 360 lbs. Owned by A. D. Foster.

Tidy Mercedes Canary (8120), at 2 years 2 months 22 days of age: 10.30 lbs. butter-fat, equivalent to 12.05 lbs. butter; milk, 329.5 lbs. Owned by T. L. Dunkin.

Viola Calamity Posch (6304), at 3 years 11 months 22 days of age: 10.01 lbs. butter-fat, equivalent to 11.68 lbs. butter; milk, 336.5 lbs. Owned by Walter S. Schell, Woodstock, Ont.

Burkeye Keyes 3rd (8074), at 2 years 23 days of age: 9.84 lbs. butter-fat, equivalent to 11.48 lbs. butter; milk, 314 lbs. Owned by Hubert McDonald, Bloomfield, Ont.

Beauty Verbelle Burke (7603), at 2 years 11 months 28 days of age: 9.66 lbs. butter-fat, equivalent to 11.27 lbs. butter; milk, 354.4 lbs. Owned by Walter S. Schell.

Houwte Pietertje Akkrum (8497), at 2 years 4 months of age: 8.97 lbs. butter-

fat, equivalent to 10.47 lbs. butter; milk, 299.3 lbs. Owned by T. L. Dunkin.

Mary Queen Posch (9052), at 2 years 3 months of age: 8.67 lbs. butter-fat, equivalent to 10.11 lbs. butter; milk, 272 lbs. Owned by Walter S. Schell.

Keys Triumph (8178), at 1 year 10 months 3 days of age: 8.29 lbs. butter-fat, equivalent to 9.68 lbs. butter; milk, 336 lbs. Owned by A. D. Foster.

Ruby Jean (7595), at 2 years 11 months 17 days of age: 8.00 lbs. butter-fat, equivalent to 9.34 lbs. butter; milk, 279.2 lbs. Owned by P. D. Ede.—G. W. Clemons, Secretary.

On June 1st, Clay Robinson & Co., commission salesmen, sold on the Chicago market for Colorado shippers, 466 shorn lambs of 1908, averaging 84 lbs., at \$8.90 per cwt., and on June 3rd, for another Colorado firm, 220 woolled lambs of the same year, averaging 88 lbs., at \$9.90, these being the highest prices ever realized for woolled and shorn lambs on the Chicago market.

Volume 20, of the British Hampshire Down Flockbook, recently issued, has been received at this office, thanks to the Secretary, J. E. Lawrence, The Canal, Salisbury. It is a substantially-bound and clearly-printed volume of 419 pages, containing pedigree records of rams numbering from 8572 to 9562, also records of a large number of flocks, a list of officers, members, and judges, and the rules of registry.

The red two-year-old Shorthorn bull, Benmore =70470=, sire Ben Lomond (imp.) =45160=, dam Danish Beauty (imp.) =48740=, is advertised by William Smith, Columbus, Ont., for sale, or exchange for a female of approved pedigree. Benmore is described as one of the good young bulls of to-day, his breeding is first-class, he can be bought for a very moderate price, and should readily find a place in some good herd, where his breeding and individuality would tell.

Hampshire hogs (the white-belted breed) and Lakenvelder (belted) poultry are the specialties in stock advertised by A. O'Neil & Sons, of Birr, Ont., near London. Messrs. O'Neil report a keen demand for these unique varieties from a widespread territory, their sales during the past winter being numerous. The young stock now offered is said to be well up to the standard of excellence, and they are prepared to fill orders for single animals or pairs not akin.

That the demand from the United States for breeding sheep from Canada in the next few months will be brisk, and at good prices, is evidenced by the record prices received for commercial sheep on the Chicago market recently. In this connection the Chicago Live-stock Report remarks: "Prosperity has been with sheepmen for the past two or three years. In fact, they have been on the up-grade for the past five or six years, and indications are favorable for a further improvement in sheep conditions. One of the results of this has been a large investment in breeding stock, notably in the West. In recent years, stock coming to market from the West has been gradually getting better in quality, and, consequently, meeting with a better reception from buyers and the consuming public. Ranchmen have wisely bought better blood, and brought their sheep up to a high standard of excellence. An illustration of what is being done was shown here this week, when a consignment of 300 pure-bred yearlings arrived from England on the way to Idaho. They were mostly Hampshires, and were considered the best lot of field sheep that ever landed in this country."

TRADE TOPIC.

Bargains in top buggies are offered by The Clement Brown Trading Co., of Toronto, in this issue. These vehicles are guaranteed to be of first-class quality, but by saving the middleman's profits prices are low. Write to this firm for illustrated catalogue and tell them you saw their notice in "The Farmer's Advocate."

QUESTIONS AND ANSWERS. Miscellaneous.

TAKING SOIL FROM ROAD.

1. Can a pathmaster stop a man from taking dirt from the side of the road?  
2. If he has drawn dirt away, can the pathmaster compel him to fill up the place where he got it from?

Ontario.  
Ans.—1. The pathmaster can forbid it, but, if the man persisted, it would be for the council to take steps to prevent his removing the dirt.

2. No; but the council might proceed against him for damages for the trespass.

MANURE FOR NEXT YEAR'S POTATO GROUND.

What time this summer should stable manure be spread on sod for a crop of potatoes next year? Also when should the manure be plowed down? H. McF. Prince Edward Island.

Ans.—Assuming that a crop of hay is to be taken this summer, and that the grass has already made too much growth to admit of manuring at once, we would say, apply as soon after haying as the manure is made, and plow under either this fall or next spring. By advising application as soon as the manure is ready, we do not mean to imply any special need for hurry in manuring next year's potato ground, but simply that, as a general rule, once manure is made, the sooner it is applied to the land, the less the waste. More especially is this the case when the manure can be put on a growing sward.

MOTHERLESS FOAL.

Was five weeks old when the mother died; is a large colt (Percheron); it is now four days since the mother died. We have got it so it will drink out of a dish; we feed it green clover, with a little bran sprinkled on it.

1. How much milk at a time should I feed it, and how often?  
2. As it gets older, should we increase the milk? At present we give it one cup cow's milk, one cup warm water, one teaspoonful brown sugar. We give it this every three hours through the day, and all it gets through the night is some green clover and some bran on it.

F. J. S.

Ans.—Your feeding of the foal is pretty nearly right. It would be better to use the best granulated white sugar, as it is purer than the average brown sugar, a dessertspoonful, in enough warm water to dissolve it. Then add three tablespoonfuls of lime water, and enough new milk to make a pint, and feed half a pint six times a day, gradually increasing the quantity and lessening the number of feeds in a day until he is a month old, when four feeds, the last at 8 or 9 o'clock in the evening, will be sufficient. At four weeks old, the foal should begin to nibble a little oatmeal, and should be given a small handful at a time in a manger, placing a little in his mouth with the hand at first; later, add a little bran and a handful of grass, not wet with dew or rain, or a little well-cured clover hay. At two months old, some sweet skim milk, at blood heat, may be substituted for part of the new milk, and at three months, he may have all the sweet skim milk he will take.



Your Little Girl Can Do The Washing WITH THE "New Century" Washing Machine

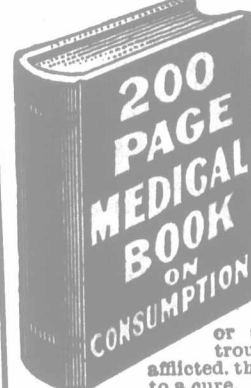
It's far easier than churning or running a sewing machine. No rubbing—no work. Just turn the handle for 5 minutes and the clothes are washed—snowy white. Has a strong wringer stand that allows the water to drain right into the tub. Price delivered at any railway station in Ontario or Quebec—\$9.50. Our booklet tells how to turn wash day into child's play. Write for free copy. 88 Downwell Mfg. Co. Limited, Hamilton, Ont.

Cowan's Maple Buds

are different from and better than any other chocolate confection you ever tasted. Maple Buds are not made by any other concern, as the name and design is fully patented. Look for the name on every Bud.

The Cowan Co. Limited, Toronto. 87

Consumption Book

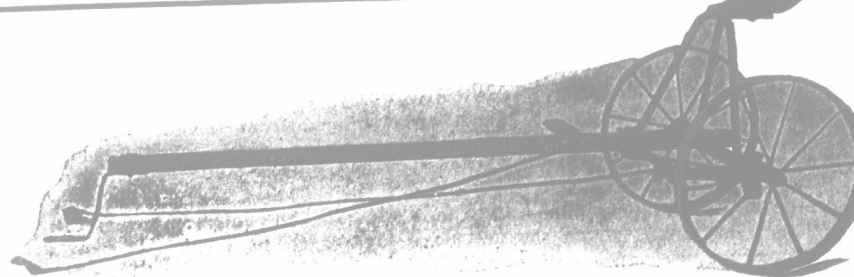


FREE

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case hopeless. Write at once to the Vonkerman Consumption Remedy Co., 1324 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.

Husband—Only think, my colleague, Cohen, whom we had to dinner last Sunday, has died suddenly.

Wife—How I wish we had invited him for next Sunday!



ST. THOMAS HARROW CART

Not a lazy man's tool. It's up-to-date. It is easier to pull the driver in the cart than to drag lines on the bit. Made by

ERIE IRON WORKS, LIMITED, St. Thomas, Ont.

If your dealer does not handle them, send direct to us for further information. This cart suits any harrow.

### Dr. Page's English Spavin Cure

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle and to remove all unnatural enlargements.



This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin or money refunded, and will not kill the hair. Manufactured by Dr. Fredrick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

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## ANCHYLOS

THE MODERN CURE FOR Bone Spavin and Ringbone.

I believe there is not a case of bone spavin in Canada that Anchylos won't cure. I want hard cases that look to be incurable. Surely the horse is worth a dollar trial, when I agree to give you back the dollar if I fail to cure.

Read what Mr. Knich says:

Mr. J. A. McLarty, Thessalon.—Dear Sir—I wish to thank you for curing my mare of a large bone spavin. She was so lame I had made up my mind to shoot her. I saw your advertisement in The Globe, also The Farmer's Advocate, the beginning of April, and sent to you for one bottle. I used it, and it has made a remarkable cure. The parts are all healed, and the hair is coming in again. I tried four of the different advertised cures without results. Anchylos is certainly the horse-man's friend. HENRY KNICH, Livingston's Creek.

Address, sending \$1.00:  
J. A. McLarty, Thessalon, Ont.

### Shetland, Welsh and Iceland Ponies

I have on hand a number of single ponies and matched pairs; all ages; thoroughly broken to harness and reliable in every way.

E. DYMENT, Copetown P.O. and Sta.

A prisoner at the sessions—he must have been Irish—had been duly convicted of theft, when it was seen, on "proving previous convictions," that he had actually been in prison at the time the theft was committed.

"Why didn't you say so?" asked the judge of the prisoner angrily.

"Your lordship, I was afraid of prejudicing the jury against me."

## ONCE MORE THE PROOF IS GIVEN

That Dodd's Kidney Pills cure even inherited ill-health.

Charles Dayon suffered from early youth, but the old Reliable Kidney Remedy banished his ills and made him strong.

St. George, Man., June 14.—(Special).—Yet another case in which ill-health inherited from parents has been vanquished by Dodd's Kidney Pills is that of Mr. Charles Dayon, a farmer well-known in this neighborhood.

"I suffered from a number of ills from an early age," says Mr. Dayon, who is now thirty-two years old. "I inherited my trouble from my parents. I was weak, nervous and run down. I suffered from backache, and my muscles would cramp. I had a heavy, dragging sensation across the loins. I was always thirsty; I had great difficulty in collecting my thoughts, and my memory was failing me.

"I was altogether in a bad way when I started to use Dodd's Kidney Pills, but they helped me almost from the first box. They gave me strength, and helped me so much in every way that I am satisfied a little longer treatment will make me a well man."

Mr. Dayon's symptoms were the symptoms of Kidney Disease, and Dodd's Kidney Pills cure every form of kidney disease, no matter what stage it is in, or how it is contracted.

### QUESTIONS AND ANSWERS. Veterinary.

#### UNTHRIFTY MARE.

Five-year-old mare is dull and lifeless, slow at work, tires easily, has a poor appetite, and is losing flesh. I think she has worms. There is a constant rumbling sound in her bowels. J. A. E.

Ans.—Your mare is suffering from chronic indigestion, and probably she has worms. Have her mouth examined and, if necessary, her teeth dressed, as even young horses frequently require this. Take 3 ounces each of sulphate of copper, sulphate of iron, gentian and nux vomica; mix, and make into 24 powders, and give her a powder every night and morning. If necessary, repeat the prescription. V.

#### PERVIOUS URACHUS.

1. Last year I treated colt's navel with carbolic acid. When three days old the navel cord dropped off and urine commenced to escape. I stitched it, but it did not stop. I sent for my veterinarian and he gave me a dressing which checked it. In a few days it commenced to swell in hind leg. I used some liniment and the swelling disappeared and the colt's neck swelled. One morning it could not rise. I fed it its mother's milk out of a bottle, but it died in a week.

2. I have a colt now whose navel I treated with formaline, and in five days it dropped off. No urine is escaping, but there is a boil on one side of navel, and pus escapes. The colt is strong and healthy.

3. How often should a navel be treated?

4. How soon should the navel cord drop off?

5. How can escape of urine from a navel be checked? M. W.

Ans.—1. This colt died from complications which arose from weakness due to the continued escape of urine from navel.

2. Continue to dress the navel four or five times daily with a good antiseptic, as a ten-per-cent. solution of carbolic acid, a 20-per-cent. solution of formaline, or a solution of corrosive sublimate, 15 grains to 8 ounces water. (I prefer the latter), until it dries up. Flush out the cavity of the boil three times daily with a five-per-cent. solution of carbolic acid. If urine commences to escape, send for your veterinarian.

3. Four or five times daily until it has become completely healed.

4. The time varies from two days to a week.

5. The most approved plan is to apply a thoroughly-disinfected ligature through the skin, enclosing the navel cord and tying tightly, and allowing it to slough off. In some cases, application of caustics, as butter of antimony or a red-hot iron, will suffice. V.

#### Miscellaneous.

##### APPLYING FOR PATENT.

1. Will "The Farmer's Advocate" please tell me how to proceed to take out a patent?

2. Can I apply for a patent and get a length of time before I pay for it, and be protected?

3. What will it cost? INQUIRER.

Ans.—For information concerning patents, address Marion & Marion, Patent Solicitors, Montreal, asking for their "Inventors' Adviser," and mentioning this paper.

##### SHOE SELLING.

1. Is it lawful and just to the people of Ontario for the — Shoe Co. of Toronto, to advertise — shoes for sale at stated prices, and then have them shipped from the United States with 30 per cent. duty, to said customers of Ontario?

2. If shoes are shipped from the States on such an advertisement, can Easterners refuse to take shoes?

3. What steps will customer take to get his money refunded? Ontario.

Ans.—1. We think not.

2. Yes, unless the dealers are willing to pay the duty, and do so.

3. He should write them demanding the refund, and if necessary sue for it in the Division Court.

## Inside Facts About All Kinds of Roofing

Before deciding on any roofing, for any purpose, send for our free book which will give you the inside facts about all roofings—shingle, tin, tar, iron—and prepared, or "ready" roofings.

This book is fair, frank, comprehensive. It tells all about the cost of each kind of roofing. It tells the advantages and the disadvantages of each, as we have learned them in twenty years of actual test. It is a veritable gold mine of roofing information.

The reason we send it free is because it tells, too, about Ruberoid roofing.

### The First "Ready Roofing"

Since Ruberoid roofing was invented, nearly twenty years ago, there have sprung up more than 300 substitutes. Many of these substitutes have names which sound like Ruberoid. Before they are laid and exposed to the weather, they look like Ruberoid. But don't let these facts deceive you.

A roof of Ruberoid is flexible enough to stand the contraction of the cold and the expansion of the sun's hot rays.

It is so nearly fireproof that you can throw burning coals on a Ruberoid roof without danger of the roof taking fire.

It is rain proof, snow proof, weather proof. It resists acids, gases and fumes.

These wonderful properties of Ruberoid are due to the Ruberoid gum which we use—our exclusive product.

Ruberoid roofing also comes in attractive colors—Red, Green, Brown, suitable for the finest homes. These color roofings are made under our exclusively owned patents.

The colors of Ruberoid do not wear off or fade, for they are a part of the roofing.

If you are going to roof, though, learn about all roofs. To get this book, address Department #85, The Standard Paint Company of Canada, Ltd., Montreal.

## RUBEROID

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Be sure to look for this registered trademark which is stamped every four feet on the under side of all genuine Ruberoid. This is your protection against substitutes which many dealers brazenly sell as Ruberoid. Ruberoid is usually sold by but one dealer in a town. We will tell you the name of your Ruberoid dealer when you send for our free book.

The Standard Paint Company of Canada, Ltd., Montreal, Canada

New York Hamburg London Paris

## Read This Letter! It tells of Past Misery—and the New Life of Miss Aikins

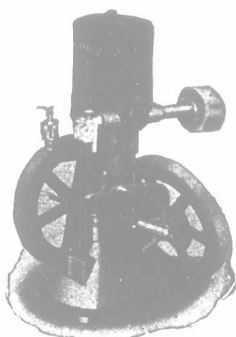


I suffered till I thought all was lost. Nothing could aid me. Mrs. Summers' treatment made me a healthy and strong girl. I owe my life to her! Miss Josephine Aikins, Niagara-on-the-Lake

THINK of the thousands of women this moment suffering the same agonies Miss Aikins suffered! I want every ailing woman to write me in confidence, and I will give the advice and 10 days' free treatment of the medicine you must have to regain your girlhood health. I study your case individually. I do not treat every woman's ailments alike. I am a woman, I know woman's weakness and illness from actual experience, and I effect cures which no Doctor could ever hope. I don't want a cent! I give you 10 days' free treatment, the letter of advice, and my book—"Woman's Own Medical Adviser," to prove that my treatment quickly and permanently cures all ills caused by weakness peculiar to woman. My free book illustrates how and explains why we women become ill, and how you can cure yourself at home, without loss of work, time, trouble, danger, publicity or doctor bills. You need not feel obligated in writing me. If the trial helps you, a complete cure will cost you only about 2 cents a day, for perhaps a month. Don't hesitate to write me. I want to hear from every sister now, before it is too late. Won't you write me to-day, for your own or your friend's sake? Remember everything is free!



Send for "Woman's Own Medical Adviser." Mrs. M. Summers Box H. 821 Windsor, Ontario.



## "Plain Gas Engine Sense"

A book for gas and gasoline engine users. Supplied free with our engines, or 60 cents, postpaid.

## "LONDON" ENGINES

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## IMPORTED CLYDESDALES

My new importation of Clydesdale stallions and fillies, land-actor, and right royally bred. I will sell them at very close prices, and on terms to suit. C. W. BARBER, Getineau Point, Quebec. "Close to Ottawa."



## 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.



## Clydesdales and Hackneys

I still have on hand a few right good Clydesdales, from 2 to 6 years old. Any one cheerfully given to a good home. Terms to suit. Full particulars will be P. O. and Station, Howick, Quebec. I. L. MERCER, MARKDALE, ONT.

**"I HAVE LIVED UNDER THAT OLD SLATE ROOF MORE THAN FIFTY YEARS WITHOUT SPENDING ONE PENNY FOR REPAIRS AND IT IS STILL IN PERFECT CONDITION"**



There are hundreds of instances in this country where Slate Roofs have endured for fifty to one hundred years without costing the owners one cent for painting, repairs or other expense. No other kind of roofing can show such a record for extreme durability and absolute freedom from expense and "roofing trouble" as slate.

**Sea Green and Purple Slate**

is the ideal roofing material for any building, new or old. Once laid, your Slate Roof is on for all time, longer than you will live and will never cost you one cent for painting, repairs or anything else.

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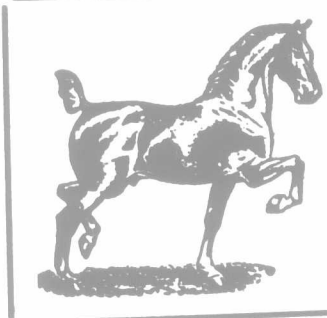
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It is solid rock and cannot wear out any more than the rocks in your fields. It cannot rust, warp or decay. Water cannot get through it or fire burn it. It is unaffected by heat or cold, reduces your insurance rate and affords pure, clean cistern water.

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**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 inspection and comparison. I think I have the best lot for size, style, character, quality and action ever imported. 27 Clyde stallions and 8 Hackney stallions to select from. Prices right, and terms to suit.

**T. H. HASSARD, MARKHAM, ONT.**  
POST OFFICE, 'PHONE AND STATION.

**CLYDESDALES AND SHORTHORNS.**—Both imported and Canadian-bred, at Columbus, Ont., the Home of the Winners. Our last importation landed in August. They include the pick of Scotland, from such renowned sires as Baron's Pride, Everlasting, Baron o' Bucklyvie, Hiawatha, Marsella, Sir Everest, and Prince Thomas. We have on hand over 30 head to choose from, from the above noted sires, from 1 to 6 years old, and including stallions and mares. Correspondence solicited. Call and see them at our barns, Columbus, Ont., before purchasing elsewhere. Our prices are right. Long-distance phone in houses. Phone office, Myrtle station. Myrtle station, C.P.R.; Brooklin station, G.T.R.; Smith & Richardson & Sons, Columbus, Ont. Oshawa station, G.T.R.

**CLYDESDALES AND FRENCH COACHERS**

We have still on hand a few choice Clydesdale stallions—all young—that for size, style and quality will stand inspection. We have also a few Clyde fillies—imported and Canadian-bred, and two French Coach stallions. Correspondence and inspection invited. Our prices are easy and terms to suit. Phone connection.

**R. NESS & SON, HOWICK, QUEBEC.**

**For Sale:** Choice Clydesdale, Hackney and French Coach Stallions; 100 acres 3 1/2 miles from Meaford: Close to school. Soil clay loam, free from stone or gravel. 90 acres level. Good house, barn and stables. \$3,500 for quick sale. Henry M. Douglas, Box 48, Stayner, Ont.

**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.**

**Clydesdales and Hackneys** We have for sale a few choice Clydesdale mares, imported and Hackney stallions and mares for sale always. **HODGKINSON & TISDALE, BEAVERTON, ONTARIO.** G. T. R. and C. N. R. Long-distance phone.

**I HAVE STILL LEFT THREE CLYDESDALE STALLIONS** 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.**

**QUESTIONS AND ANSWERS. Veterinary.**

**ABSCESS.**

Two-year-old colt has a soft, fluctuating swelling the size of a hen's egg on his breast. R. C.

Ans.—This is an abscess, caused by a bruise. Open at the lowest part and allow the escape of pus or serum. Then flush out the cavity three times daily with a five-per-cent. solution of carbolic acid until healed. V.

**CASTRATION—JOINT ILL.**

1. Yearling colt was castrated four days ago and has done well. To-day I turned him out with a mare, and the colt served her. Will this ability continue, and is it due to improper castration?

2. Foal was weak on one fore fetlock when born. I put splints on and it got stronger. Now it is swollen on both knees and the swelling is extending to the feet, and it is very weak. H. E.

Ans.—1. Occurrences of this kind are not unknown, but are unusual, so long after castration. It is possible for a colt to reproduce shortly after castration. If both testicles were removed, the ability to act this way will soon disappear, and is not due to an improper operation. Of course, if but one testicle was removed, the colt will act the same as a stallion.

2. The splints did not cause the swelling of the knees. I am afraid your colt has joint ill, and a recovery is doubtful. Give it five grains iodide of potassium in a little of its mother's milk four times daily. Foment the joints and legs frequently with hot water, and after bathing, rub well with a liniment composed of 1 ounce each of oil of turpentine, tincture of myrrh, tincture of arnica, and gum camphor; 8 ounces alcohol, and water to make a pint. V.

**NODULAR DISEASE IN SHEEP—HEIFERS FAIL TO CONCEIVE.**

1. Two years ago my ram pined away and died. Last winter a young ewe did the same. A post-mortem in each revealed little lumps all through the intestines. My new ram is showing the same symptoms as the others did, but he seems better the last few days.

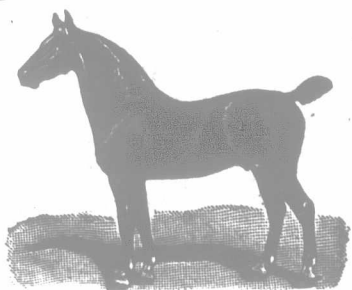
2. Several years ago I bought an Ayrshire bull, but he produced only five calves for me, as he did not seem able to serve a cow. Two of the heifers had a calf each, but, although I have bred them regularly to different sires, they fail to conceive. Another two-year-old does not conceive. F. H.

Ans.—1. This is called "nodular disease," and is caused by a germ, taken either in water or on grass, on low-lying ground; at least, that is supposed to be the cause. A diseased animal does not show symptoms until the disease is far advanced. It is probable a post-mortem examination would reveal the disease in various stages in many of your sheep. Treatment is of no avail. Prevention consists in keeping the sheep off infected pastures. It is usually considered wise to destroy the whole flock, and, unless non-infected pasture is available, to cease raising sheep.

2. The failure to breed is probably due to closure of the os uteri (the entrance to the womb). When a cow shows oestrus, she should be tied and operated upon. The operator oils hand and arm, inserts the hand through vulva and vagina until the fingers reach the os. Then, with a rotary motion, he forces his finger into the womb. In some cases it is necessary to use an instrument, as the fingers are not strong enough. There are instruments especially designed for the purpose. They are called "dilators for the os," and can be obtained from dealers in veterinary instruments. A female catheter, or a sound, or a piece of hard wood about 1/4-inch in diameter, made very smooth, can be used. In some cases there is a fibrous growth around the os, and it cannot be dilated without cutting, in which case it is well not to operate, as even though she should conceive, the growth is likely to reappear, and delivery will be very difficult, and often fatal to both dam and foetus. Breed the cow in about an hour after operating. The failure of the bull to make a good sire did not cause the trouble in the heifers. V.

*Warranted to Give Satisfaction.*

**Gombault's Caustic Balsam**



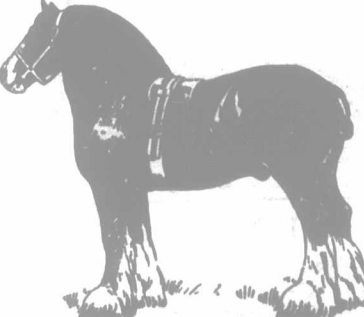
**Has Imitators But No Competitors.**

**A Safe, Speedy and Positive Cure for** Curb, Spint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puff, and all lamenesses from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all 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 express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

The Lawrence-Williams Co., Toronto, Ont.

**INSURE**



**YOUR STALLIONS**

**Just as you insure your Buildings.**

The loss of a stallion represents a certain capital, the reimbursement of which comes in handy to replace the lost animal whether death be due to accident or disease.

On payment of a small premium our Company will insure your stallions, as well as your Horses, Mares, Colts, Fillies, Bulls, Cows, Calves, Hogs and Sheep, against death by accident or disease.

Booklet sent free on demand. **GENERAL ANIMALS INSURANCE CO. OF CANADA,**

R. Ness, Pres. J. d'Halewyn, Sec. Dept. C., New York Life Building, MONTREAL. Burnett, Ormsby, Clapp, Ltd., general agents for Western Ontario, Wellington St., Toronto

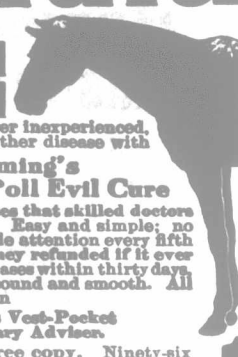
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Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain. Cures Spavin Lameness, Allays Pain Does not Blister, remove the hair or lay the horse up. \$2.00 a bottle, delivered. Book 1 D free. **ABSORBINE, JR.,** (mankind \$1.00 bottle.) For Synovitis, Strains, Gouty or Rheumatic Deposits, Varicose Veins, Varicocele, Hydrocele, Allays pain. Book free. **W. F. YOUNG, P.O.F., 258 Temple St., Springfield, Mass. LYMAN'S Ltd., Montreal, Canadian Agents.**

**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. V.

## Fistula and Poll Evil



Any person, however inexperienced, can readily cure either disease with Fleming's

### Fistula and Poll Evil Cure

—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and year money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vast-Pocket Veterinary Adviser.

Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durably bound, indexed and illustrated.

**FLEMING BROS., Chemists**  
75 Church St., Toronto, Ontario

## THE IDEAL Green Feed Silo



will more than double the returns from your dairy. Not an experiment, but a time-proven fact; many of them have been in constant use for years. Built in all sizes, and shipped complete. Write for special Silo Catalogue "C."

**CANADIAN DAIRY SUPPLY CO., LTD.**  
MONTREAL, QUEBEC.

## THE "MAPLES" HEREFORDS

Canada's Greatest Show Herd.

For Sale: 25 bulls from 6 to 18 months of age, bred from imported and show stock; also about the same number of heifers, none better. Prices right.

**W. H. HUNTER,**  
Orangeville P.O. and Sta.

## HOMESTEAD ABERDEEN-ANGUS

Young cows at \$60 and up. Calves at \$25 and up. Come and see them, or write:

**WM. ISCHE,**  
Sebringville, Ont.  
Long-distance phone.

At Dominion Exhibitions, Halifax, Nova Scotia, in 1906; Sherbrooke, Que., 1907; Calgary, Alta., 1908, our Aberdeen-Angus herd won all the champion and grand champion prizes. Out of a possible of 42 first-prizes our herd won 40. We have a good graded show herd for sale. Also single animals, bulls and females.

**JAMES BOWMAN,** Elm Park, Guelph.

## 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.

Present offering: Two choice bulls ready for service, and anything in the female line. A choice lot and sold right.

**GEO. DAVIS & SONS,**  
ALTON, ONT. Station, C. P. R.

## Imported Bull!

To save inbreeding I will sell the Cruickshank (Duthie bred) imp. bull, Sittytown Victor = 50093 = (87397), a proven sire of merit, gentle and active. Also some young bulls by him, out of imp. dams. Address:

**John Brydone, Milverton, 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.

Twelve choice red bulls, 10 to 18 months, by Imp. Protector; some out of imported dams. Also Hackney fillies. M. C. and P. M. Rys.

**McFarlane & Ford,** Box 41, Dutton, Ont.

A few young bulls and sows, ready for service, to offer. **Geo. D. Fletcher,** Binkham P. O., Ont., Erin Shipping Station, C. P. R.

PLEASE MENTION THIS PAPER.

## GOSSIP.

### GILEAD SPRINGS PONIES.

The breeding of Iceland, Welsh and Shetland ponies is the specialty of E. Dymont, of Copetown, Ont., on his splendid farm, Gilead Springs, near Copetown Station, 10 miles west of Hamilton, on G. T. R. Owing to the extraordinary demand for ponies, Mr. Dymont has now only 11 on hand, his sales since last report being 1 to Dr. Harvey, of Guelph; 1 to D. Rose, of Embro; 1 to J. Watson, of Palgrave; 1 to R. Campbell, of Keene; mare and foal to Dr. Little, of Hamilton. Mr. Dymont enjoys a widespread trade, and active demand for ponies, and the many letters in his possession from customers expressive of their satisfaction on receiving their purchase, is the strongest kind of testimonial to the honest description and straightforward way he does business by correspondence. Still on hand for sale are one black Welsh pony, 11½ hands high, six years old; another two-year-old gray Welsh filly, 10½ hands, an extra-good one; still another is a sorrel yearling Welsh filly that will make something very choice; a little beauty is a yearling piebald stallion that should develop into a winner. Write Mr. Dymont to Copetown P. O., for quotations, as these will soon go.

### AYRSHIRE SPECIAL PREMIUMS.

The American Ayrshire Breeders' Association offers the following special prizes for the season of 1909: \$600 in special premiums on the individual entries, with five premiums in each class, at the Alaska-Yukon-Pacific Exposition, at Seattle, Washington, in September. Also a special premium of a silver cup valued at \$25, called the Secretary's Cup, is offered through the Ayrshire Breeders' Association at the Alaska-Yukon-Pacific Exposition, for the best Ayrshire cow in milk, of any age, bred by the exhibitor. \$300 in special premiums on the individual entries at the National Dairy Show in 1909. There is also offered, through the Ayrshire Breeders' Association, by a friend, a handsome sterling silver cup, valued at \$125, called the New England Cup, for the best young herd bred by the exhibitor (except that the bull may be bred by other than the exhibitor). Entries to this special prize cup, limited to members of the Association living in the United States.

Animals entered in all the above classes shall be registered in the American Ayrshire Record, and owned by the exhibitor, who shall be a member of the Association—C. M. Winslow, Secretary.

### BUENA VISTA OXFORDS.

Shorthorn cattle and Oxford Down sheep are the specialties in live-stock breeding on the Buena Vista Stock Farm of J. Cousins & Sons, of Harriston, Ont. With particular attention paid to the splendid flock of Oxfords, as an expert judge of sheep there is probably no man in Canada that stands higher in the estimation of sheep-breeders than E. Cousins, of this firm, his decisions in every case being in strict accordance with his own sound judgment, for no man could influence him a hair's breadth. The firm are not exhibitors, but sheep of their breeding in other hands have won a host of honors, particularly at Toronto and Guelph. Just now their flock is about 90 strong; for several years headed by the noted Toronto, London and Ottawa winner, Imp. Hamtonian 96, certainly one of the best stock rams ever imported, he has lately been sold to A. Stevenson, of Atwood, and in his place was purchased the splendid ram, Imp. Hamtonian 136, winner of second at Toronto and first at Ottawa and London. This year's crop of lambs are all by the former stock ram, an exceptionally-choice lot, extra-well covered, and showing plenty of bone; later they will be for sale. A few choice shearing ewes are left for sale, the balance of the shearing rams have lately gone to Peter Arkell & Sons, of Teeswater. The Shorthorns are an extra-big, strong lot, Bates foundation, Scotch topped. As a general-purpose herd of Shorthorns, there are none better in the country. On hand for sale are about 17 heifers, a most desirable lot for the Ontario farmer, and they can be bought well worth the money.

## James I. Davidson,

BALSAM, ONTARIO,  
WILL SELL BY AUCTION, ON

Thursday, the First of July, 1909,

AT SITTYTOWN GROVE FARM, THE WHOLE OF HIS

## Shorthorn Herd

There are 30 FEMALES, besides numerous calves at foot.

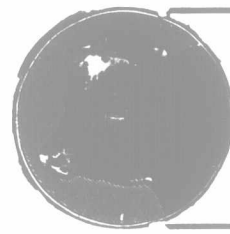
There are 6 BULLS old enough for service.

The herd has lately been founded, and the best judgment of a noted breeder has been displayed in making the collection. The cows include some of remarkable scale and quality, all are good breeders and money-makers. The bulls are of a very high order, bred and made to be reliable as sires and show bulls too.

The whole of the cattle are of the best Scotch breeding. They were bought to breed from and not to be sold. Owing to the continued ill health of the proprietor, buyers will get the benefit of this at their own price.

The cattle are in good condition, but have no special preparation. Many of the young things have been prizewinners, and the calves being prepared for showing now are very strong.

ASK **Robert Miller, Stouffville, Ont.,** FOR CATALOGUE, MENTIONING THE FARMER'S ADVOCATE.



SOME SHOW PROPOSITIONS IN BOTH MALE AND FEMALE

## SHORTHORNS

as well as a number of the useful sort of both sexes. Prices right. Large lot to select from. Up-to-date in breeding, etc. Catalogue.

**JOHN CLANCY,** H. Cargill & Son, Cargill, Ont.  
Manager.

## 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 ¼ mile from Burlington Junction station, G. T. R.

**FRED. BARNETT, MANAGER.**

**J. F. MITCHELL, BURLINGTON, ONT.**

## Shorthorns and Shropshires SHORTHORN BULLS PRICED

Herd headed by Imp. Queen's Counsellor = 64218 = (96594). For sale: Three young bulls; also cows and heifers bred to Queen's Counsellor. The Shropshires are yearling rams and ewes, bred from imported Buttar ram.

**H. L. STEAD,** Wilton Grove, Ont.  
London, G. T. R., 6 miles; Westminster, P. M. R., 1 mile. Long-distance phone.

Red, two years old, from a good imported cow, price \$100.

Roan, thirteen months old, extra good, short-legged calf from one of my best cows, \$100.

Red and White, thirteen months, out of Lady Madge, by Langford Eclipse, price \$75.

**JOHN MILLER, BROUGHAM, ONTARIO.**  
CLAREMONT STATION, C. P. R.

## 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. ELORA STATION, G. T. R. AND C. P. R.**

Bell telephone.

The 1908 Toronto grand champion, Royal Chief 65495, heads my herd. For sale are: 3 spring bulls and a few heifers, sired by him, and out of show cows. These are choice young things that are sure to please. **R. F. DUNCAN, Carluke P. O., Ont.** Caledonia Station, G. T. R., or station 13 Hamilton and Brantford Electric Road.



## Choice Scotch Shorthorns

We are offering several very choice heifers: Duchess of Glosters, show heifers among them. Also a few extra good young bulls.

**S. F. Johnston & Son, Ashburn P. O., Myrtle Station.**

## SHORTHORN BULLS

Herd-heading quality and breeding. Also good ones at farmers' prices. Females for sale. Write, or come and see. Farm adjoins town.

**H. SMITH, EXETER, ONTARIO.**



HAVE YOU SECURED ONE OF "THE FARMER'S ADVOCATE" PREMIUMS

**HAD GIVEN UP ALL HOPE OF LIVING.**

**Heart Trouble Cured by MILBURN'S HEART AND NERVE PILLS**

Mrs. Andrew Savoy, Grattan's, N.B., writes: In the year of 1905 I was taken sick and did not think I could live any length of time. My trouble was with my heart and people told me that nothing could be done for a case like mine. I consulted the very best doctors but they could do me no good. For seven weeks I could hardly cross the floor. I had no pain, but was so weak nobody in the world can believe how I felt. I had given up all hopes of living and had given my little girl to my sister-in-law.

One day a friend came to see me, and calling me by name, said, 'Lizzie, if I were you I would try a dose of Milburn's Heart and Nerve Pills as they are good for heart trouble.' My husband got me a box, but for two days I was not feeling any better, but on the fourth day my husband said, 'I believe those pills are doing you good.' I was able to say 'Yes, I feel a good deal better this morning.' He said, 'Well, I will get you another box right away.' I took two boxes and three doses out of the third one, and I was perfectly well and have not been sick since then.

I will never be without them in my home for God knows if it had not been for Milburn's Heart and Nerve Pills, I would not have been alive now.

Price 50 cents per box, 3 boxes for \$1.25.

The T. Milburn Co., Limited, 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, London, Ontario.

**Willow Bank Stock Farm SHORTHORNS AND LEICESTERS.**

Herd established 1855; flock 1848. Am offering a special good lot of young females, bred to the great Duthie bull, Imp. Joy of Morning = 32070 =. Also young bulls and Leicester sheep fitted for showing. Write for prices.

JAMES DOUGLAS, CALEDONIA, ONTARIO.

**SHORTHORNS**

Several good yearling heifers for sale at very reasonable prices. Also one red eleven-months-old bull. Barred Plymouth Rock eggs for hatching.

JOHN RACEY, Lennoxville, Que.

Into a general store of a town in Arkansas there recently came a darky complaining that a ham which he had purchased there was not good.

"The ham is all right, Zeph," insisted the storekeeper.

"No, it ain't, boss," insisted the negro. "Dat ham's shore bad."

"How can that be," continued the storekeeper, "when it was cured only last week?"

The darky scratched his head reflectively, and finally suggested:

"Den, mebbe it's had a relapse."

**Do you eat enough of this**

The great benefit in health and strength that always is enjoyed by regular eaters of good oatmeal is known the world over. Every year there are more and more eaters of Quaker Oats, which is recognized in this country and in Europe as the one perfect oatmeal.

All the experiments of the government food experts and the athletic trainers of one of our great universities prove that cereal eaters are the strongest and healthiest, and Quaker Oats stands at the head of the list of cereal foods. It is not only the best food, but it's the cheapest food on earth. Eat it daily for breakfast. It's one of the best foods in the world; produced in Canada by Canadians.

For city trade Quaker Oats is packed in the regular size packages, but for those who are not conveniently near the store for daily shopping the large size family package is just the thing. The large package contains a piece of handsome china for the table.

**GOSSIP.**

Wm. Ische, of Sebringville, Ont., a station five miles west of Stratford, advertises for sale young Aberdeen-Angus cows and calves at very moderate prices.

**PROFITABLE AYRSHIRE COWS.**

It is only recently that the American Ayrshire Association has started testing, writes C. M. Winslow, Secretary, but the result is very gratifying, in showing what the Ayrshire can do on a long test of from one to five years consecutively. A short test of seven or thirty days is interesting, in any breed test, as showing the capability of a cow when submitted to the highest strain in the ability of the cow, manipulated by skillful handling, but it is the long-term test that really shows the true worth of a cow, and a cow that can, for a full year, keep up her flow of milk, and annually drop a calf, is the profitable cow, for it shows not only her dairy ability, but her strength of constitution, which are really the only standards by which to judge of a cow or breed. Since we started the official testing, up to the present time, we have secured the following records, which are the highest official records of any Ayrshire cows either in the United States, Canada or Scotland.

In her two-year-old form, Baby Douglas 21849, gave for a year, 9,652 lbs. of milk and 440 lbs. of butter.

In her three-year-old form, Jennie of Sand Hill 19490, gave for a year, 10,160 lbs. of milk and 510 lbs. of butter.

In her four-year-old form, Bessie of Rosemont 17904, gave for a year, 14,102 lbs. of milk and 675 lbs. of butter.

As a mature cow, Rena Ross 14589, gave for a year, 15,072 lbs. of milk and 751 lbs. of butter.

As a mature cow, Acelista 12094, gave for five consecutive years, 52,000 lbs. of milk and 2,137 lbs. of butter, and dropped five calves.

In the year's test just ended, the following cows have made records which have not as yet been published:

One herd of five cows gave for the year, 57,811 lbs. of milk and 2,304.13 lbs. of fat, equal to 2,688 lbs. of butter by Experiment Station method of figuring.

Another herd of five cows gave for the year, 53,559 lbs. of milk and 2,245.94 lbs. of fat, equal to 2,620 lbs. of butter.

Another herd of five cows gave for the year, 54,637 lbs. of milk and 2,118.92 lbs. of fat, equal to 2,466 lbs. of butter.

Another herd of five cows gave for the year, 49,705 lbs. of milk and 2,044.33 lbs. of fat, equal to 2,385 lbs. of butter.

Another herd of five cows gave for the year, 49,661 lbs. of milk and 2,018.93 lbs. of fat, equal to 2,350 lbs. of butter.

These 25 cows averaged 10,614 lbs. of milk for the year, and 428.61 lbs. of fat, equal to an average of 500 lbs. of butter. Some of the individual cows have tests as follows:

Frisky of Bonshaw 17018, gave 11,688 lbs. of milk and 543.48 lbs. of fat, equal to 634 lbs. of butter.

Auchenbrack Sweet Pea 2nd 21625, gave 12,937 lbs. of milk and 526.95 lbs. of fat, equal to 615 lbs. of butter.

Fern Ayer 16289, gave 13,601 lbs. of milk and 519.64 lbs. of fat, equal to 606 lbs. of butter.

Curfew Bell 21255, gave 10,449 lbs. of milk and 465.89 lbs. of fat, equal to 544 lbs. of butter.

Garlaugh Bloomer 2nd 20944, gave 12,434 lbs. of milk and 470.35 lbs. of fat, equal to 549 lbs. of butter.

**TRADE TOPIC.**

**FREE SAMPLE OF AMATITE.**—Many of the readers of this paper may not know that the makers of Amatite Roofing distribute free samples for the information of prospective purchasers. Some have probably doubted that a roofing could be made which would need no painting, and the sample of Amatite is convincing evidence that a practical mineral surface has been invented. Sending for the free sample does not entail any obligations, and there is no charge—not even for postage. With the sample is sent a little book telling all about Amatite, and showing pictures of roofs in all parts of the country where Amatite has given protection without painting for many years. Drop a postal card to the nearest office of the Paterson Manufacturing Co., Ltd., Toronto, Montreal, Winnipeg, Vancouver.

**EVERY DAIRY FARM should have Cooper's Fluid**

It is a remedy for Abortion in cows. Write us direct and we will tell you how to use it.

COOPER'S FLUID soothes and heals sore Udders. It is an absolute cure for Ringworm and Mange, and instantly kills Lice and other Vermin that infest cattle.

COOPER'S FLUID—being the best Germicide—is the best protection against the dreaded Foot and Mouth Disease.

COOPER'S FLUID is the ideal disinfectant for Stables, Cow-barns, Hen Houses etc. It instantly destroys germs and vermin and keeps the place sweet and clean.

**SEND US YOUR NAME**

saying in which paper you saw this advt. and the number of cattle you have, and we will tell you how to prevent Abortion in cows.

For sale by druggists and dealers generally or direct from **9 WM. COOPER & NEPHEWS, TORONTO.**

**Geo. Amos & Son, MOFFAT, ONTARIO.**

For sale: Several good young heifers, some of them show heifers, and all of the very best Scotch breeding. Correspondence solicited and inspection invited.

Moffat Station, 11 Miles East of City of Guelph, on C. P. R.

**SHORTHORNS**

Nine bulls from 8 to 20 months old, reds and roans; 10 yearling heifers and a few cows. Will sell very cheap to make room in stables.

**CLYDESDALES**

One pair of bay mares and one dark brown, heavy draft and two spring colts.

**JAMES McARTHUR, Gobles, Ontario.**

**5 Good Young Bulls** at very reasonable prices in order to clear, also 2 VERY CHOICE JUNIOR YEARLINGS IN SHOW CONDITION. We can sell some extra well bred cows and heifers (bred or with calves at foot) at prices which should interest intending purchasers. Our farms are quite close to Burlington Jct., G. T. R. Long-distance telephone.

**W. G. Pettit & Sons, Freeman, Ontario.**

**Shorthorn Cattle AND LINCOLN SHEEP.**

Females of all ages for sale of the thick-fleshed, low-down kind that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes, bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale.

**J. T. GIBSON, DENFIELD, ONT.**

**A. Edward Meyer, P. O. Box 378, Guelph, Ontario,**

**Breeds SCOTCH SHORTHORNS Exclusively**

Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 65042 = (90665) 2957/66 A. H. B.; Chester King = 68708 = 28804 A. H. B. Young stock for sale. Long-distance phone in house.

**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.**

**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. Waidemer Sta., C. P. R.**

**JOHN GARDHOUSE & SONS**

Always have for sale a number of first-class Shorthorns, Shires and Lincolns, of both sexes. Drop us a line, or better, come and see for yourself. **HIGHFIELD P. O., ONTARIO.** Weston Sta., G. T. R. & C. P. R. Long-distance phone in house.

**WHY NOT BUY A HIGH-CLASS SCOTCH SHORTHORN COW, Or a Heifer, Or a Bull, Or a Few Shropshire Ewes, Or a Few Cotswold Ewes, NOW, While You Can Buy Them Low?**

I can offer you something in any of them that will make a start second to none. Write for what you want.

**ROBERT MILLER, STOUFFVILLE, ONT.**

**SPRING VALLEY SHORTHORNS**

One 14 months' old imported bull, bred by A. M. Gordon. Good enough to head any herd. Five Canadian-bred bulls from 12 to 16 months. Will be priced very reasonable, as we do not want to run them over.

**KYLE BROS., AYR, ONT.**

**Greengill Shorthorns!**

Our present offering consists of 10 young bulls, from 8 to 20 months. All nice reds and roans. A number of them from imp. sire and dam. Prices right.

**R. Mitchell & Sons, Nelson P. O., Ont. Burlington Jct. Sta.**

**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.**

**Shorthorn Bulls** Ready for service. One will make a show bull. Also young things from Matchless, Crimson Flower, Miss Ramsden, Rosemary, Diamond and Lady Fanny dams, the get of Chancellor's Model. Prices to suit times. Come and see. **Israel Greff, Elmira, Ont.**

**Pine Ridge Jerseys—For Sale:** (Earl Denton head of the herd.) Females, all ages. Yearling bull and a bull calf, 5 months, from a 10,000-lb. cow. Can spare also a few young cows and heifers due to calve soon.

**WM. WILLIS, Pine Ridge Farm, Newmarket, 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.**

## Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

**Fleming's Spavin and Ringbone Paste**  
Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.  
**FLEMING BROS., Chemists**  
78 Church St., Toronto, Ontario

# WOOL

HIGH PRICES. ✱ ✱ ✱ WRITE US.

**E. T. CARTER & CO.,**  
84 FRONT ST. E. TORONTO, CANADA

**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 specialty. 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.

## FAIRVIEW HERD HOLSTEINS

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 29½ pounds each, and over 4.3% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple, 31.62 pounds butter in 7 days, and 12.56 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, Nevelton, St. Lawrence Co., N. Y., near Prescott, Ont.**

## 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 testing over 4 per cent. in 7 days.

**P. D. EDE, Oxford Centre P. O., Woodstock Sta., Ont.** Long-distance phone, Burgessville.

**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.**

**MAPLE GLEN** For sale: Only 1 bull, 11 months old, left; dam is sister to a 26-lb. tested cow. Any female in herd for sale, 7 with records 20¾ to 26¾ lb. official tests. An 8-yr.-old G. D. of Paul Beets De Kol, in calf to Oakland Sir Maida—her record 21.88 as a 5-yr.-old. Price \$400, or will dispose of herd en bloc, a great foundation privilege. **G. A. Gilroy, Glen Buel, Ont.** Long-distance phone connects with Brockville.

## 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.**  
**Sunny Hill Farm** No more Holsteins for sale at present. Eggs from choice White Rocks and Buff Orpingtons, one dollar per setting. **DAVID RIFE & SONS, Hespeler, Ontario.** Waterloo County, C. P. R. and G. T. R.

**HOLSTEINS and YORKSHIRES FOR SALE**  
**R. Honey, Brickley, Ontario.** NORTHUMBERLAND COUNTY.

Bulls fit for service, from cows with large records. Sows fit to mate, also young pigs, both sexes, of the very best bacon type. Prices reasonable.

**HOMESTEAD HOLSTEINS**  
For sale: Bull calves sired by the champion, Count Mercedes Posch, whose nearest dams' records average 25 lbs., and out of Advanced Registry dams.  
**G. & F. GRIFFIN, Burgessville, Ont., Oxford Co.**

**DON'T** Buy a HOLSTEIN BULL till you get my prices on choice goods from five months to one month old, from best producing strains. **FRED ABBOTT, Harrietsville, Ont.**

## QUESTIONS AND ANSWERS. Miscellaneous.

### GOITRE IN SHEEP.

Would a sheep, having goitre, be fit for use, or eating, and is there any cure for it? P. B.

Ans.—If it is a very pronounced case of goitre, we would not advise using the animal for breeding purposes. The flesh, we think, is quite safe for food. A cure may be effected in a young lamb by clipping the wool from the part and painting it a few times with iodine. In the case of a strong sheep, the cure is to cut into the growth quite deeply, and as soon as bleeding ceases, inject with a syringe a small quantity of full-strength tincture of iodine. The enlargement should also be painted with iodine at regular intervals, say once in two days.

### SIDEBONES.

I purchased a registered Clydesdale stallion last spring, and about a month ago he became lame on his front feet, and, reading a horse-doctor book, I find out they are sidebones. I also spoke to the veterinarians in town, and they say they are sidebones. Could you give a permanent cure for this? I have blistered him twice now, but it has done no good. If exercised for a quarter of a mile he does not go lame, but if rested for a while, will stumble and go lame for a distance. SUBSCRIBER.

Ans.—Sidebones cannot be cured. They consist of a growth of bone that it is impossible to remove. When the animal is lame, blistering allays pain and cures the lameness, but the bony excrescence still remains. Apply strong blister, consisting of biniodide of mercury and cantharides, each two drams, and sweet lard, two ounces. If this does not avail, get your veterinarian to fire and blister him, and, if necessary, repeat the operation in six or eight months.

### LIABILITY ON INSURANCE NOTE.

A is persuaded by an agent to take out a life-insurance policy, which costs him \$25.95 a year. After paying the first year's payment, he changes his occupation, and goes to learn a trade. He finds his salary is not large enough to keep him and pay his insurance, and decides to give up the insurance; but is persuaded by the agent to sign a three-months' note for a second year's payment.

Can the insurance company successfully compel him to pay the note, he being under twenty-one years of age, and a Home boy, with a very poor education? Ontario. NELSON.

Ans.—Assuming that A, when he gave the note, was of the age of fifteen years or upwards, that the insurance was upon his own life and for the benefit of himself or of his father, mother, brother or sister, and that the note was in favor of the insurance company, we think that A, notwithstanding he is still a minor, is liable upon such note.

### SALE OF COW.

A had a dispersion Shorthorn sale last October. Breeding lists were furnished, giving only dates when cows were bred last, but no guarantee as to them being with calf. B purchased a well-bred, registered cow, at \$55, taking eight months, with interest. B never came back, nor wrote to find any faults, until a month before note came due. He then came and said he had sold the cow last fall, or winter, for \$40, for beef, and says that is all he will pay. Some time after he got the cow, he sent word by a neighbor that the cow had come in season. A sent word to B that the bull was not sold, and that B could bring the cow and breed her free of charge. This he did not do. Has A the legal right to collect the full amount of note? Ontario. W. J. S.

Ans.—Yes, and apart from the legal aspect of the case, it is clearly (presuming that the facts have been correctly set forth above) a very small and unprincipled course on B's part to object to payment of the note. The purchase of an animal at a sale, or anywhere else, is necessarily somewhat of the nature of a speculation. Had B sold the cow for \$100, is it likely that he would have gone to A begging him to accept that amount in lieu of the note for \$55?

PERFECT

## STEEL HOG TROUGH

**A Clean, Strong, Never-Wear-Out Trough**

Made of steel, the Chewing Hog cannot gnaw it. Our Troughs will stand the ravages of time and weather, and is a great ECONOMIZER on the old wooden style.

— Buy Direct From Manufacturer —

and save the Middleman's profit. We refund your money—every cent —if our Troughs and Steel Tanks are not as represented. Write today for our Catalogue and SPECIAL OFFER. Address Dept. M.

**Steel Trough and Machine Co., Limited**  
TWEED, ONTARIO

**BURNLEY POINT HOLSTEINS!**  
3 thrifty bull calves for sale, 8 months old. They are choice ones. Also 1 three-year-old bull.  
**WM. BATTY, CLARKSON, ONTARIO**

**Holsteins**  
Record of Merit stock. One bull 13 months old. A number of bull calves, also a few young cows and heifers for sale.  
**THOS. HARTLEY, DOWNSVIEW, ONT.**

## Holsteins

### FOR SALE: COWS AND HEIFERS

All ages. Also bull and heifer calves, including daughter and granddaughters of Pietertje Hengerveld Count De Kol, whose TWO famous daughters made over 32 lbs. butter each in 7 days, and sire of the "world's champion milking cow," De Kol Creamelle, which gave 119 lbs. in one day, over 10,000 lbs. in 100 days. Also for sale daughters of De Kol's 2nd Mutual Paul, sire of Maid Mutual De Kol, which gave over 31 lbs. butter in 7 days, also granddaughters of Hengerveld De Kol. Other leading breeds represented. Putnam station, near Ingersoll.

**H. E. GEORGE,**

**CRAMPTON, ONTARIO.**

### HOMEWOOD HOLSTEINS

For Sale: Only thrifty 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.

### MAPLE HILL HOLSTEIN - FRIESIANS

Special offering: Am now offering for first time my stock bull, Sir Mercedes Teake (489), champion bull at Toronto and London, 1908. Can no longer use him to advantage, as I have twelve of his daughters in my herd.

**M. L. & M. H. HALEY, Springford, Ont.**

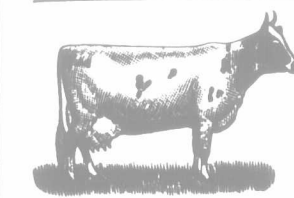
**G. W. CLEMONS, ST. GEORGE, ONT.**

### 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. P. 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. Breckon, Manager.**

**Ayrshire Cattle**—Imported or Canadian-bred, for sale at all times; satisfaction guaranteed. For particulars, write: **W. THORN, Lynedoch, Ont.** Trout Run Stock Farm.

**AYRSHIRES** Bull and heifer calves ready for breeding dams. Right good ones. **Hickory Hill Stock Farm, N. BYMENT, Clappison, Ont.** Dundas Station and telegraph.



## 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.**

### A BETTER LOT OF AYRSHIRE Cows and Heifers

Were never to be seen before at **Stockwood**. Deep milkers; good tests; lots of size, just the kind for foundation stock. Young bulls from prizewinning dams; also heifers. Prices low. Terms to suit purchaser. All stock guaranteed before shipping.

**D. M. WATT, St. Louis Sta., Que.**

### Stonehouse Ayrshires.

36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves.  
**HECTOR GORDON, Howick, Quebec.**

## AYRSHIRES AND YORKSHIRES!

Kindly send in your orders at once for imported stock. We can cable orders and have them shipped in May. Calves from imp. dams or from home-bred Record of Merit dams. Females any age. A few young pigs.

**ALEX. HUME & CO., MENIE, ONTARIO.**

**HOARD'S STATION, G. T. R.**

Phone in residence.

**EVA DE MENIE**

**UTILITY GLENORA OF KELSO = 15798 = AYRSHIRES** at head of herd. For sale: Females of all ages, and several young bulls, some out of 11,000-lb. cows. Come and see, or address: **R. C. CLARK, Hammond, Ont.** Railway station, Hammond (G. T. R. and C. P. R.).

### CHERRY BANK AYRSHIRES.

I am now offering young bulls and heifers true to type and high in quality. Some with imp. sire and dam; also will spare a few older females.  
**P. D. McArthur, North Georgetown P. O., Que.** Howick station, Que.

### Springhill Ayrshires

Present offering: A number of high-class bull calves, out of imp. sire and dams. Females all ages, imported and home-bred. Write your wants. Visitors always welcome. Phone connection.  
**Robt. Hunter & Sons, Maxville, Ont.**

**CLAYFIELD** Buy now of the **Champion Cows** **STOCK** **would Flock of America, 1906.** Flock headers, ranch rams, ewes of different **FARM!** ages. All of first-class quality, and prices reasonable. Write, or call on **J. C. ROSS, Box 61, Jarvis, Ont.**

### Cattle Labels \$2 and

**Sheep Labels \$1.50** for fifty tags. **Sheep Labels \$1** for fifty tags. With name and numbers. By return mail, prepaid. Write today. Sample free. **F. G. JAMES, Bowmanville, Ont.**

### SOUTHDOWNS 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 shearings, the choice of last year's lamb crop, also for sale.  
Long-distance Telephone. **ROBT. McEWEN, Byron, Ont. Ry. Stn., London, Ont.**

### Fairview Shropshires

We now offer Excellent ewes, choice rams, and the best lots of lambs ever offered. All sired by our famous Chicago and St. Louis Grand champion rams, His Best and B. Sirdan.  
**J. & D. J. Campbell, Fairview Farm, Woodville, Ont.**

### American Shropshire Registry Association.

**HENRY L. WARDWELL, PRESIDENT.**  
Largest membership of any live-stock organization in the world. Vol. 21 of the Record published. Write for rules.  
**Fortimer Levering, Sec., LaFayette, Indiana.**

When Writing, Mention This Paper.



**LIVER COMPLAINT**

The chief office of the liver is the secretion of bile, which is the natural regulator of the bowels.

Whenever the liver becomes deranged, and the bile ducts clogged, liver complaint is produced, and is manifested by the presence of constipation, pain under the right shoulder, sallow complexion, yellow eyes, slimy-coated tongue and headache, heartburn, jaundice, sour stomach, water brash, catarrh of the stomach, etc.

Liver Complaint may be cured by avoiding the above mentioned causes, keeping the bowels free, and arousing the sluggish liver with that grand liver regulator,



**LIVER COMPLAINT.**

Mr. Geo. Fawcett, Hamilton, Ont., writes: "Having suffered with liver complaint for years and tried all sorts of remedies, I was advised to try Milburn's Laxa-Liver Pills. I must say, that after taking two vials of them, I feel quite a new man, and can strongly recommend them to anyone."

Price 25 cents per vial or 5 for \$1.00, at all dealers or mailed direct by the The T. Milburn Co., Limited, Toronto, Ont.

**Large White Yorkshires**



An offering during this month a good lot of young boars ready for service, young sows of breeding age, and a choice lot of spring pigs. Pairs supplied not akin. All bred from large imported stock. Write

H. J. DAVIS, Woodstock, Ont.

Maplehurst Herd of Tamworth Swine, Bronze Turkeys, Toulouse Geese, Pekin Ducks, S.-C. W. Leghorns.

Tamworths of excellent breeding and ideal bacon type. Herd won sweepstakes at Toronto and London, 1905-6-7-8; winnings at World's Fair, St. Louis, 1904.—sweepstakes aged and junior herd, and two grand championships. Apply to:

D. DOUGLAS & SONS, MITCHELL, ONTARIO.  
Bell phone in residence.

Morrison Tamworths, Sherborns and Clydesdales. Tamworths from Toronto winners. Either sex. Any age. Sows bred and ready to breed. Pairs not akin. CHAS. CURRIE, Morrison, Ont. Schaw Sta., C. P. R.

The minister's class at the kirk of Tobermory had been reading the story of Joseph and his brethren, and it came to the turn of the minister to examine the boys.

The replies to all his questions had been quick, intelligent and correct. Such as:

"What great crime did these sons of Jacob commit?"

"They sold their brother Joseph."

"Quite correct. And for how much?"

"Twenty pieces of silver."

"And what added to the cruelty and wickedness of these bad brothers?"

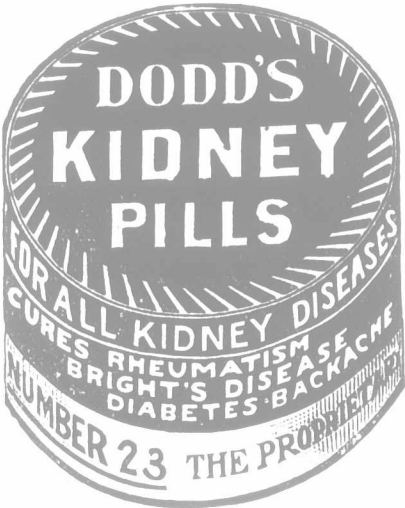
A pause.

"What made their treachery even more detestable and heinous?"

"Then a bright little Highlander stretched out an eager hand."

"Well, my man?"

"Please, sir, they sell't him ower-cheap."



**QUESTIONS AND ANSWERS. Miscellaneous.**

**PEARLY EVERLASTING.**

Find enclosed a weed which I got in my clover seed last year. If it is bad, would it ripen before hay would be ready to cut?

W. T. O.

Ans.—The plant enclosed is one popularly known as Pearly Everlasting. It is not a particularly bad weed, though it sometimes injures pastures slightly by crowding out the grasses. By breaking up the sod, it can be destroyed. The stage of development which the specimen has reached would indicate that it would seed before haying.

**EFFECT OF USE ON INCUBATOR**

Do you think that an incubator will do as good work after it has been run for a few years, as it will when new? Some say that they get so full of detrimental odors that they cannot hatch nearly as many chickens. Do you think that lining them with tin would help any to keep odors from getting into the wood? Any information you can give me will be welcome. I would like to see more about artificial hatching in your paper; would like to hear from someone with years of experience. A READER.

Ans.—We believe it is somewhat common experience of those who buy incubators that, while they usually give excellent results at first, they are not always so satisfactory after a few years of use. Just why this should be is not a settled point; but we doubt whether odors have anything to do with it. A more plausible theory would ascribe it to certain bacteria, while others, again, think that lessened vigor of artificially-hatched breeding stock is a factor in the case. We cannot say that either or any of these suppositions is correct, but would recommend the thorough and copious use of disinfectants in the machine just after and previous to using, selecting of breeding stock as to vigor, and preferably the hatching of breeding stock with hens. The construction and lining of the machines is a matter that may well be left to the manufacturers.

**DUCKS LAYING EGGS WITHOUT SHELLS.**

Can you tell me the cause of ducks laying eggs without shell, open at one end sometimes; seem to drop them anywhere. I feed oats whole, morning and night. They are out all day. They get lime and grit; sometimes a handful of barley chop. One of them died some time ago. What is the best food for young ducks, to make them grow best.

C. J. M.

Ans.—There is hardly any doubt in this case that the trouble is owing to the ducks being overfat, the result of over-feeding. Would advise dropping the two whole-grain rations, and giving a very small quantity of the barley chop in the morning, and a small feed of oats when they come home at night. The digestive apparatus of ducks is not such as will easily digest rations composed mostly of whole grains. Roaming about they pick up a great amount of food. The ducks in this case seem to have a good run, presumably where they can find running water, or a pond.

The following ration has been found successful in rearing ducklings. For the first three or four days, mash of corn meal, a little hard-boiled egg chopped fine, ground wheat or oats, or granulated oatmeal; the whole being mixed with boiling milk. The young birds are very fond of cabbage, lettuce or clover, which should be chopped fine, and may be mixed with the mash, which make crumbly. Give skim milk for drink.

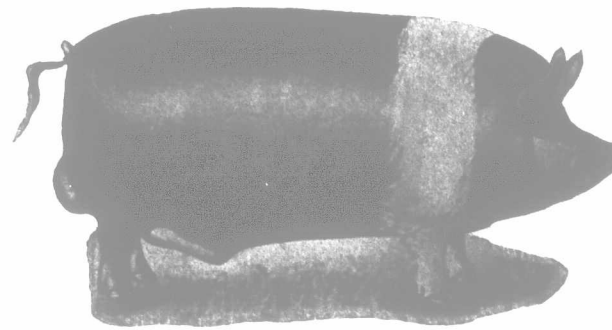
Later on, a mash may be made of corn-meal, bran and oatmeal, with chopped green stuff, and mixed with skim-milk, boiled.

Feed the young ducks five times per day. Keep them in dry quarters, out of the hot sun, and supply water in limited quantity in shallow dishes, so as to prevent them from ducking into it.

After three or four weeks, reduce the rations to four per diem. As the ducklings grow, the rations may be added to by house waste, ground bone, beef scraps, or cooked meat. Small pieces of charcoal are aids to digestion. A small quantity of sand, say 5 per cent., added to the rations, is beneficial.

A. G. G.

**Hampshire Swine**



Of the most popular show and breeding type. The breed that won over all three years in succession, including Canada and United States. We offer for sale now fifty pigs, both sexes, from 6 weeks to 3 months old, and will make good ones for fall breeding, also a few choice sows safe in pig. Call on or address:

**A. O'NEIL & SON, Birr, Ont.**

**Willowdale Berkshires!**

Won the leading honors at Toronto this fall. For sale are both sexes and all ages, from imp. stock on both sides. Show things a specialty. Everything guaranteed as represented. J. J. WILSON, MILTON, ONT., P. O. AND STATION. C. P. R. AND G. T. R.



**SUNNYMOUNT BERKSHIRES**

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.



**OHIO IMPROVED CHESTER WHITES.**

Largest strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 6 weeks to 6 months old. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe delivery guaranteed. E. D. GEORGE Putnam, Ont.

**DUROC-JERSEY SWINE**

Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either sex. Also Embden geese. MAC CAMPBELL & SONS, HARWICH, ONT.

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are the easily-fed, quick-maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now.

JAMES WILSON & SONS,

FERGUS, ONTARIO.

**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.



**NEWCASTLE TAMWORTHS, SHORTHORNS AND GLYDESDALES.**

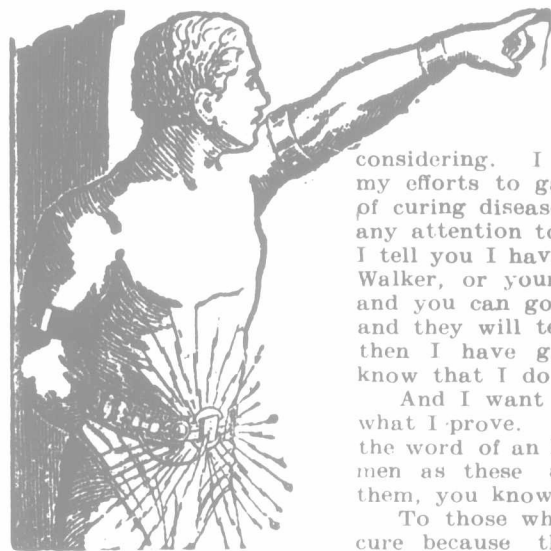
Present offering: 3 Shorthorn cows with heifer calf at foot, 3, 4 and 5 months old respectively, and bred again; a choice lot of Tamworth boars and sows from 6 weeks to 5 months old, also a few really good sows bred during April and May. A. A. COLWILL, NEWCASTLE, ONT.

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of the right type. Apply to:

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You can talk with the men and women who have been cured by my treatment, and that's worth considering. I might preach for years in my efforts to gather converts to my way of curing diseases, and nobody would pay any attention to my arguments, but when I tell you I have cured your neighbor, Mr. Walker, or your old friend Mr. Williams, and you can go and ask them about me, and they will tell you I have cured them, then I have given you proof, and you know that I do all I claim.

And I want you to give me credit for what I prove. There's nothing surer than the word of an honest man, and when such men as these admit that I have cured them, you know that I can cure you.

To those who still doubt there is any cure because they have been misled by false representations, and want evidence of cure in their own cases before paying, I am willing to take all the chances of curing any case of RHEUMATISM, LUMBAGO, LAME BACK, SCIATICA, VARICOCELE, NERVOUS DEBILITY, CONSTIPATION, LOST ENERGY, resulting from exposure and excesses in young and middle-aged men. Give me reasonable security and you can

**PAY ME WHEN CURED**

I will not promise to make a Hercules of a man who was never intended by Nature to be strong and sturdy. Even that man I can make better than he is; but the man who has been strong and has lost his strength I can make as good as he ever was.

Dear Sir,—I have never felt better than I do now. I have taken no medicine of any kind since I got your Belt, and I believe I am completely cured, as I have not used the Belt for more than two years. I have recommended your Belt to many people. W. J. PATTERSON, Moncrieff, Ontario.

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For any work any culvert can be put to, nothing else yet made quite equals this new Pedlar product—Pedlar's Perfect Corrugated Galvanized Culverts. Only the Pedlar People in all Canada make a culvert of Best Billet Iron, in semi-cylindrical sections, corrugated under enormous pressure (over 60 tons to the

square inch!) and Galvanized After being shaped

**PERFECT  
CORRUGATED  
GALVANIZED  
CULVERT**



**Most compact and portable culvert made, and the easiest to put in place.**



## This Is The Practical Culvert

Not only is the iron that makes Pedlar Culverts best quality money can buy, but it is unusually heavy—from 14 to 20 gauge, instead of lighter gauges common to inferior goods. This extra-strength enables a Pedlar Culvert to stand heavy traffic upon roads, even though protected by only a very thin cushion of soil. Mark, also, that this is the ONLY culvert made that is galvanized AFTER being curved and corrugated,—thus insuring it positively against rust and decay.

## Extra-Heavy, Strong, Rust-Proof

The peculiar Pedlar flange, or locking-rib, along the whole length of each side of these Culverts, clamps together easily and most rigidly. There are no bolts, no rivets, no lock-nuts of any kind,—simply clamp the edges of the flanges together, making a triple thickness of inter-sealed heavy metal along the sides of the pipe (read below here how this is quickly done) and you have a Culvert that is enormously strong, tight, and not only leak-proof but strain and rust and frost-proof, the rib allowing for expansion and contraction.

**Made of Best Heavy Billet Iron**

**Galvanized AFTER Being Shaped**

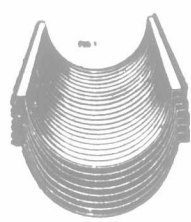
You cannot appreciate the value and the simplicity of this until you have seen the culvert itself. It is the easiest culvert to put together, and it is better when put together. It is the most portable. It costs less per linear foot to ship by freight, and a whole lot less to haul,—it nests, that's why, of course. And it will serve any culvert use better.

I KNOW it's pretty hard to make some folks believe a new thing is better than what they've been used to—a Pedlar Culvert, for instance, than concrete or wood or whatnot. But I feel pretty sure that you will SEE it is, if you will just look into the question fairly and squarely before

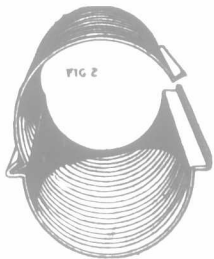


you undertake any more culvert construction, or road improvement, or ditching. Don't judge this NEW culvert by anything you've heard about other culverts. MINE IS DIFFERENT—a whole lot different, and a whole lot ahead of any other. Write to my people and make them show you why and how. We're making this in all standard diameters, from 8 inches up to 6 feet, so your wants can probably be supplied. Write and ask questions anyhow.

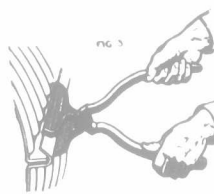
*G. A. Pedlar*



When the sections of Pedlar Culvert, of any diameter—it's made from 8 inches to 6 feet—reach you, they are nested like Fig. 1. Note the two distinct flanges—the radial and the recurved. These fit into each other, and are FLAT, while the CURVE of the culvert is corrugated. Place section on top of section, and the flanges, or locking-



ribs, engage easily, as you see in Fig. 2. The joints between one length and another are "broken"—no over-lap reaches more than half-way round the culvert's diameter; and this is possible with NO OTHER metal culvert made. It is a most valuable feature, for it reduces the chance of leakage to the very least minimum.



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200 King Street W.  
CHATHAM

### TRADE TOPICS.

The apple-growing industry is a substantial one; few enterprises offer surer or more attractive profits. There will never be an over-production of first-class stock of either apples, cider, cider jelly and cider vinegar. Indeed, it is impossible to produce the enormous quantity needed to meet the demand. It is said that to-day not one-tenth enough cider is produced to supply the demand for pure cider vinegar, and chemical vinegars are foisted on the public in its stead. With the improvements in modern machinery, cider and cider vinegar costs less to produce than ever before, yet, on account of the public demand for only first-class apples, many hundreds of thousands bushels of apples are allowed to go to waste each year that might readily and easily be turned into cider for cider vinegar. The Hydraulic Press Mfg. Co.

of Mount Gilead, Ohio, who are the pioneers in the manufacture of Hydraulic Cider Presses, and cider and vinegar-makers' supplies, have kept in touch with all of the modern discoveries regarding the production of refined and clarified cider and cider vinegar, and have from time to time issued literature bearing on the subject. Write them for particulars.

**BINDER TWINE.**—With the general adoption of automatic harvesters comes the problem of binder twine, which, with most farmers, receives too little attention. Twine is a very small item on the farmer's yearly budget of expense, yet it may easily become the cause of a large and expensive total of mishaps and delays. Just a little knot hidden away in a ball of binder twine will catch in the knottor, stop the machine, and hold up the harvest while the machine is re-

threaded. A few such delays may mean the difference between getting the crop all in to-day and waiting till to-morrow. Another fault in twine is unevenness. The Plymouth Cordage Company are now advertising the merits of their binder twine throughout the country. The twine subject is vital enough to justify farmers in becoming fully posted on the difference between twine and good twine.

**PAINT THAT PRESERVES.**—The Martin-Senour Co., of Montreal, in this issue advertise their paint for farm buildings, and point out that it not only beautifies, but also preserves the wooden materials to which it is applied. Pure paints are made for use on buildings, vehicles, or implements. Local dealers handle it. Particulars can be had by writing to the firm and mentioning "The Farmer's Advocate."

A harrow cart is one of the latest labor-saving devices placed on the market. Following a team on foot in the hot summer days, or at any season, is a tiresome task, and we have long wondered that some genius had not invented a riding harrow. Now we have it, and the advertisement of the Erie Iron Works Limited, of St. Thomas, Ont., plainly indicates. Farmers should look up the ad and write for their circular, which sets forth in detail the advantages of the contrivance.

### GOSSIP.

In weaning pigs, take them away in detachments, beginning first with two or three of the plumpest, largest and strongest; then the next strongest batch, leaving the poor ones of the litter to complete the drying off. The boar ought always to be kept in a pen by himself, preferably away from the other pigs. He should have a good-sized yard in which he can exercise. If allowed to run with the others, he is likely to injure them. Keep him thrifty, but not too fat.

### SHEEP AS WEED-DESTROYERS.

The variety-loving habits of sheep in the matter of diet render them very useful in destroying weeds that give trouble in crop growing. It is a well-understood fact that sheep-raising farmers have the cleanest, as well as the richest, farms. With intelligent management, cropped land may be entirely cleaned of nearly all weeds, while the few that remain will be so thoroughly kept in check as to give little trouble. If allowed to act as scavengers, sheep will render excellent service in the work of cleaning up permanent pasture, private roads, fence borders, and other out-of-the-way places, and if turned on stubble following a grain crop, many late-seeding weed plants will be nipped off.

The three-year-old Jersey heifer, Ninety-Nine of Westnook, owned by Thos. Holt, of Southington, Conn., has recently completed a seven-days authenticated test, in which her milk yield was 395 lbs., a daily average of 56.44 lbs., testing 17 lbs. butter-fat, and now holds the world's Jersey record for a three-year-old cow. She was sired by Briarcliff Lad, by Oonan's Lad, and her dam was by Nora's Hugo Pogis, thus showing a complete outcross between the St. Lambert and Island type of Jerseys. Ninety-Nine was 34 years old at the conclusion of her test. She had ordinary herd care, and was only milked twice a day till she got to 56.4 lbs. daily, when it was decided to put her on a week's test, and she was milked three times a day, when she gave as high as 21 lbs. at a noon milking.

### THE FARM 'PHONE SOLVES MANY PROBLEMS.

The farmer of Canada has come to realize and utilize the telephone as a means, not only of retaining his children in the best life mankind can live—the farmer's life—but of increasing the profit of his vocation, and of developing that vocation upon the same businesslike lines as his dependent fellow, the merchant of the cities.

With a telephone at his service, every farmer can often so regulate his purchases and his sales as to buy at the bottom of the market and sell at the top of it. The telephone makes him independent of the hearsay, often untrustworthy, assertions of the city man's daily newspaper; for the 'phone gives him ready communication with first-hand sources of information as to prices, demand, and prospects, and, as well, is the surly he has of the readiest aid in an emergency like fire, illness, or need.

Certainly, the educative literature being distributed so widely, cannot fail to show the tremendous advantage which the telephone gives the farmer who is enterprising enough to install one over his less progressive neighbor. More over, the extension of the use of this invaluable invention must have, also, a wide and worthy effect upon the social conditions of the time, inasmuch as it does such yeoman service in supplying an irresistible inducement to the younger generation to follow the trade of the older—a trade without which every city on earth would be bankrupt.



**"I wish that I had bought Amatite Roofing. It needs no Painting."**

WHY should you buy a roofing that needs to be painted every little while to keep it tight, when, for the same money or less, you can buy Amatite which needs no painting?

Amatite is waterproofed with Coal Tar Pitch, — the greatest waterproofing material known. Water can't get through it. It gives the kind of protection that only the ideal roof can give.

The outer surface is composed of real mineral matter, which makes painting unnecessary.

Can you imagine a better combination for a good, serviceable, economical roofing than coal tar pitch and a real mineral wearing surface?

With an Amatite Roof on your buildings you end your roofing troubles. When you buy a roofing that requires frequent painting you begin them.

Smooth surfaced roofings that require painting are a nuisance and an expense. When you buy them, you buy trouble—not protection.

**FREE SAMPLE.**

We should like to send you a sample of Amatite, so that you can look it over. We know that anyone who will examine the proposition will buy Amatite ten times out of ten. We should be glad to send you this sample and booklet immediately. Write to nearest office.

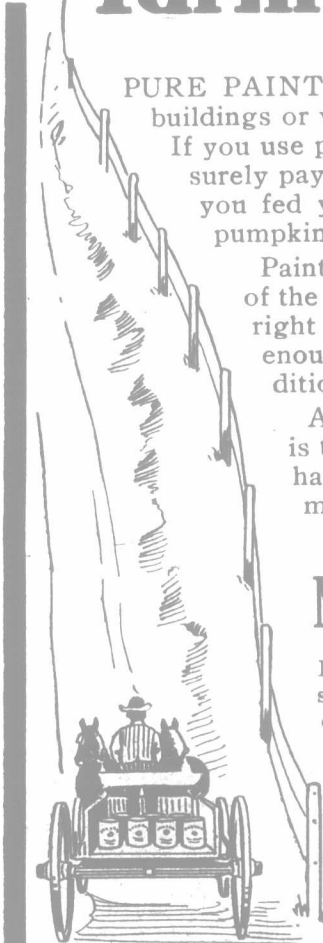


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# Paint That Preserves Farm Buildings



PURE PAINT is a sure preservative whether it covers buildings or vehicles or implements or anything else. If you use paint because it is cheap you will just as surely pay dear for it in the end as you would if you fed your stock with a mixture of corn and pumpkin seed.

Paint to preserve buildings must be made up of the right raw materials and mixed with the right skill and machinery to make it durable enough to withstand all severe weather conditions and variation of climate.

Any paint may look well but the only test is time. Yes, the old steady sun and the hammering storms will prove that common paint don't preserve.

Next time you're in town ask your dealer for

## Martin-Senour Paint

If he don't sell it drop us a postal and we will send you color cards and prices of one or more of the many good paint things we have ready for your use. Let us tell you all about them in our beautiful booklet "The Home Beautiful." Free upon request. Write to-day.

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Almost any man can assemble a "Pease Economy" furnace himself—it has so few parts and requires little cement.

**Base and Base Ring** is all cast in one piece of heavy iron.

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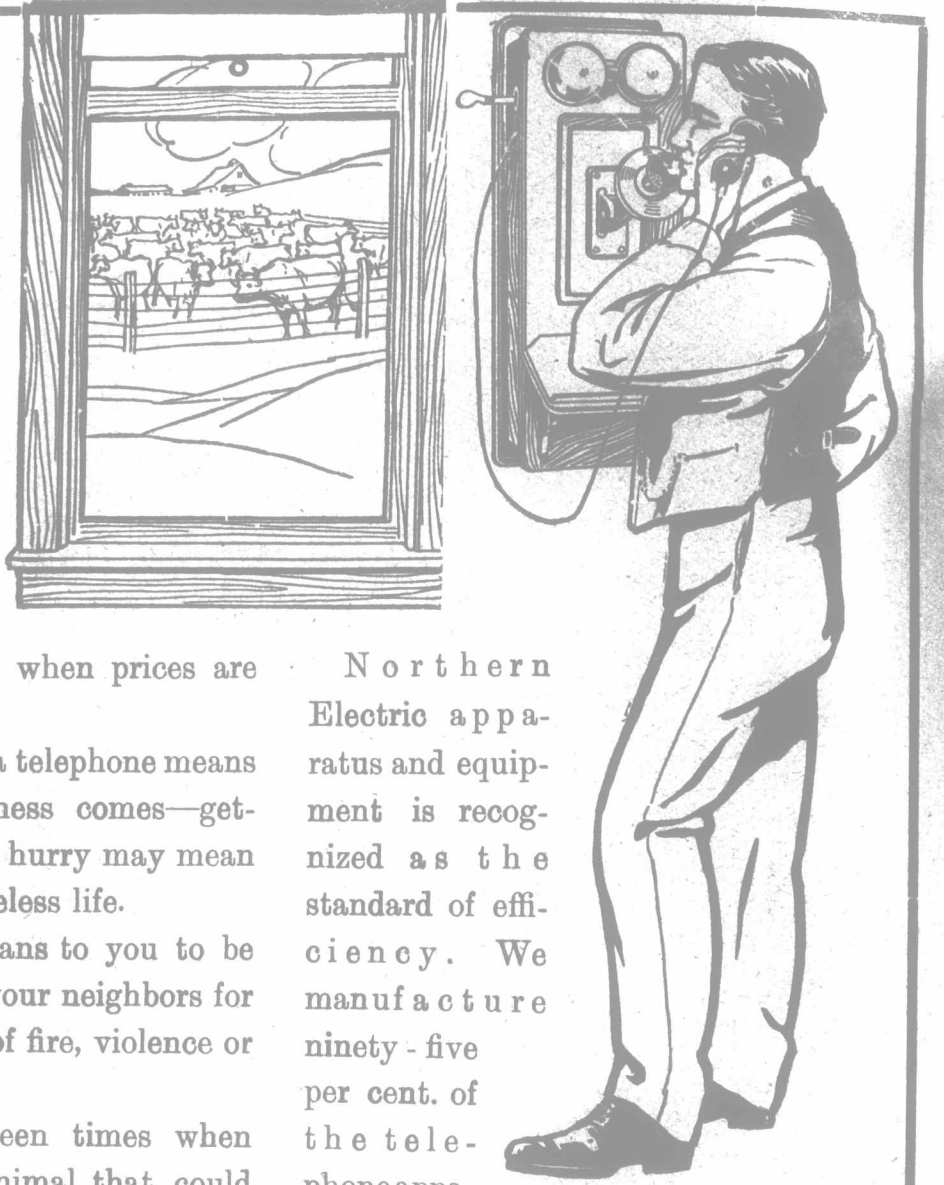
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**Subscribe for The Farmer's Advocate**

Do you realize exactly what a telephone means to you, and at what little cost you can have an efficient service—



**H**AVE you ever gone carefully into the advantages of having a telephone on your farm?

Have you ever considered what help it would be to you? What money and worry it would save you?

Let us just see what it does mean to you?

When you want something from town—a new part for your reaper, a particular kind of wire fencing, or any of the many things that you may want from time to time which requires a special explanation—under ordinary circumstances you have to go into town yourself and lose a half-day that could be profitably spent on your farm.

Over the telephone you can explain exactly what you want, make sure your dealer has it, and then send a boy for it.

When you are ready to sell your cattle, grain, hay, etc., you stand to lose considerable money unless you know what the current prices are before you ship your produce into town. With a telephone it takes you but a moment to find out how the market stands, and you can

sell your products when prices are highest.

Just think what a telephone means to you when sickness comes—getting the doctor in a hurry may mean the saving of a priceless life.

Think what it means to you to be able to call upon your neighbors for assistance in case of fire, violence or accidents.

Haven't there been times when you could save an animal that could be ill spared, if you could get a veterinarian in time?

Besides this, think what it means to your women folk—social chats that brighten the day, arranging of visits, getting up parties,—the telephone puts you in close, intimate touch with your neighbors in spite of the distance that separates your homes.

You can have this valuable service at very little cost.

But the only way to get the right service is to get the right telephone. You must have one that you can depend upon day in and day out—one that will always give you perfect service. A reliable telephone is of inestimable value—a poor telephone is worse than none.

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Electric apparatus and equipment is recognized as the standard of efficiency. We manufacture ninety-five per cent. of the telephone apparatus

used in Canada—the kind that is in use from Halifax to Vancouver. So if you want accurate, dependable service, buy and use only Northern Electric apparatus and equipment.

The first step towards getting such a service is to write for our book "Rural Telephone Equipment" and talk it over with your neighbors.

Write us and say you are interested getting the right telephone service in your community, and we will send you full particulars. Ask for Bulletin No. 1216, and we will send you detailed particulars.

Write to-day.

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