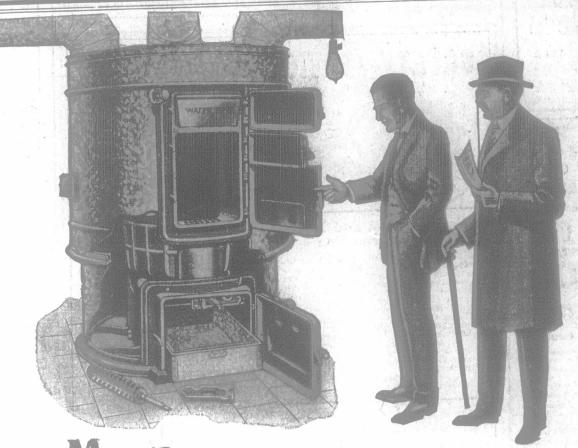


VOL. LI.

ENTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875. LONDON, ONTARIO, JUNE 8, 1916.

No. 1237



Every Man admires a workmanlike

And that is why any man who is thinking of installing a heating system should examine the Sunshine Furnace. It is a piece of

Every part is well thought out. The sections are carefully made. The whole is substantially and accurately put together. And there is a sound reason for every feature. Take the

shape of the fire-pot as an example. The straight walls allow the ashes to fall instead of lodging against the sides, where they would

see the large double tight-fitting doors. Notice how easily the dampers are controlled. Not much trouble to shut off the fire and hold the heat with this furnace. See how dust is directed up the chimney whenever the fire is shaken down. Note the large radiating surfaces and wide passages for heating the air. It was a man who knew his job that designed

send me without expense on my part:

1. Your booklet on the Sunshine Furnace.

2. Also forms for filling out, so that your heating engineers can tell me how to order and install a system that will properly heat my home.

If you wish to know what it will cost to place this fine furnace in your home, write us about it. Our Heating Engineer will send you full information. He will show you how to arrange the distribution of heat so as to get the most out of it. There is no charge; no obligation to buy a Sunshine Furnace. And if you would like a copy of our booklet, "Sunshine," enclose the coupon with your letter.

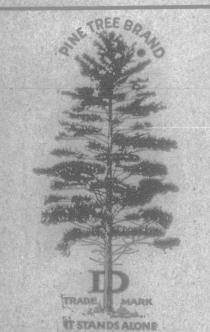
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Produces heavy yields and clean crops Ask your dealer for PINE TREE BRAND

Timothy - Clover - Alfalfa

The valuable Inoculating Material NOD-O-GEN is FREE

PINE TREE BRAND ALFALFA
If your dealer cannot supply you

THE ALBERT DICKINSON CO. Minneapolis



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In every community to fide and exhibit a sample 1916 Hydop Bicycle.

10 DAY'S TRIAL. If owner is not entirely an infeed after riding any Hydop Bicycle 10 days it can be returned and money will be promptly refunded.

TWO GENTS is all it will cost to write us a postal and we will mail free, postpaid, catalogue and colored art tolder showing complete line of bicycles, tires and supplies and particulars of most marvelous offer ever made on a bicycle. You will be astonished at our low prices and remarkable terms, MAKE MONEY taking orders for Bicycles, Tires and Sundries. DO NOT BUY until you know what we can do for you. Write day. HYSLOP BROTHERS, LIMITED DEPT. 2 TORONTO, ONT. RIDER AGENTS WANTED



Build Silos, Dwellings, or any class of building from Concrete Block. The London Adjustable Concrete Block.
Machine makes every kind and size of Block.
High grade. Moderate price. We manufacture a full line of Concrete Machinery. Send for Catalogue No. 3.

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World's Largest Manufacturers of Concrete Machinery

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SIZES Prices and quality right.
For prices on sorted car-lots, write



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When Building-Specify MILTON BRICK

Smooth, Hard, Clean-Cut. Write for Booklet.

MILTON PRESSED BRICK COMPANY
Milton, Ontario

Aylmer Bronze Sprayer



(Used by Seven Governments)

You cannot afford to take any chances on the short-spraying season—the loss is too

OUTFITS AND PRICES. SPRAYER OUTFIT A—Being Pump only, with Mechanical Dash Agitator and Brass Agitator Cock, without Barrel, Price. \$14.00 SPRAYER OUTFIT D—Being Outfit A, Ten Feet Hose, with Couplings Attached, Two Friend Nozsles, One Brass Stopcock, One Y, One Long Iron Extension Rod, without Barrel. Price. \$20.00 Extra Hose, per foot. 16 For Lined Bamboo Extension Rod, in place of Iron Extension Rod add. 2.00 With Barrel. 4.00

Day.
You take no chances—you get results. It is the sprayer you will buy sometime. Why not now?

The Aylmer Pump & Scale Co., Limited, Aylmer, Ontario



New Features and Latest Improvements:

The new Gilson 100% Service Engines, 4½ h.-p. and upwards, are equipped with our new friction clutch pulley with five interchangeable rims, each of a different diameter. Change to the proper speed for every job in a few minutes—A NEW AND EXCLUSIVE GILSON FEATURE.

These engines are also equipped with a magneto, without batteries or coil, with spark retarder, and oil attachment.

We also make 60-SPEED engines in 2½ and 3½ h.-p. sises, mounted on truck with line-shaft, and five interchangeable rulleva.

Drop us a card to-day, and we will send you full descriptive literature.

Does this appeal to you? If so, get a

More Value-More Service-More Satisfaction

Does money saved in repairs and expense bills, time, equipment, etc., mean anything to you? Get Gilson Facts, and find out how the Gilson Go-SPEED and J00% Service Engines do the greatest variety of work—give the maximum satisfaction—are trouble-proof and fool-proof. Their scientific design makes them absolutely safe—they are approved by the National Board of Fire Underwriters. No insurance troubles.

We are making special prices to the first purchaser of one of these engines in every locality.

GILSON MFG. CO., LTD., 179 York St., Guelph

The Light Running GILSON Silo Filler

SIMPLY CAN'T BE CLOGGED

The simple, scientific, carefully worked out construction of the Light Running "Gilson Silo Filler" makes it absolutely impossible to clog throat or blower, no matter how fast the corn is thrown in. The Gilson is rightly called

The King of Ensilage Cutters

because of its remarkable elevating powers, absolute safety, durability, strength and simplicity—it stands supreme. It has convenient and quick knife adjustment; solid steel-bound cutting wheel; patented safety reverse—and is guaranteed to cut and elevate MORE ensilage with the SAME power than ANY other ensilage cutter IN THE WORLD. Write to-day for catalogue and proof. Manufactured and guaranteed by

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THE HYLO SILO



A Hylo Silo, figuring profit at the moderate rate of \$200.00 a year, and compound interest at 6%, will make you the above profit clear in twenty years. Do you know of any investment that will pay you as big returns?

Can you afford to be without a HYLO SILO, or can you afford to put up a silo without getting full particulars of the HYLO—wherein it differs from any other silo, and why it will yield better ensilage with greater profits year after year. Also why the better class of dairymen and farmers—men of discernment and keen business judgment—choose the HYLO SILO. It is the cheapest because it pays the biggest returns. Write for free silo book and prices to-day.

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Rebuilt Portable and Traction **Engines and Threshers**

All sizes for sale cheap. Complete threshing outfit, traction engine with cab, separator, wind stacker, in good operative condition.

The Robt, Bell Engine & Thresher Company, Limited
SEAFORTH ONTARIO

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We think we have the longest experience.

We try to give the best service. We need your cream and will make it "worth your while" to ship to us. A card brings particulars.

Toronto Creamery Co., Ltd. TORONTO

Where are you shipping now? And what are you getting for your

We want more individual shippers and more men to gather cream for

Write for our proposition.

Silverwoods Limited LONDON, ONTARIO

Sweet Milk

WANTED

Delivered daily to Union Station, Toronto. Write for particulars to

PRICE'S DAIRY TORONTO

Brant Creamery

Brantford, Ontario

iced market for cream every day of the year. Write for our book.

Reference: Bank of Nova Scotia

We are prepared to pay the best price for cream at all seasons of the year. We pay express charges and furnish cans Write for particulars.

WESTERN DAIRY, LIMITED ST. THOMAS, ONTARIO

WANTED CREAM

Ship your cream to us.
We pay all express charges.
We supply cans.
We remit weekly.
We guarantee highest market price.

Ontario Creameries Limited London, Ont.

For Sale—A 22 h.-p. Traction Engine in for work, it has 18-in: road wheels, large fire box with water bottom. GEO. M. HENDERSON, Egmondville, Ontario

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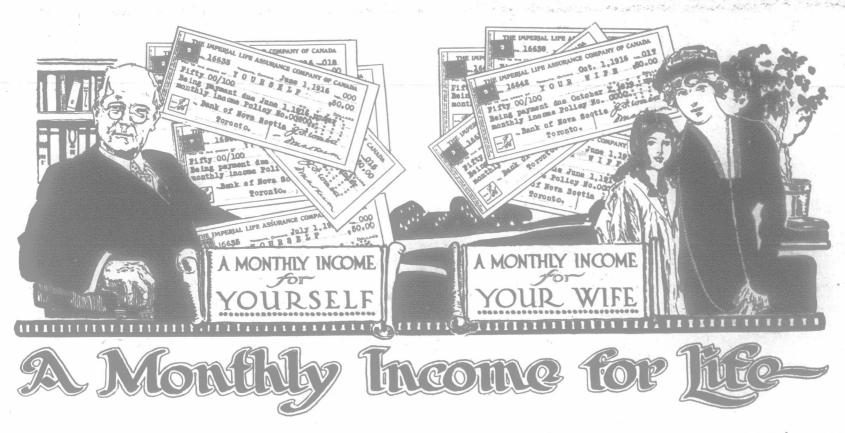
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UPPOSE you knew for certain that when your earning days are over your present income would be replaced by another—one which would be adequate for the support of yourself and of your family! And suppose you were sure that income would continue as long as the need for support exists! Can you imagine anything more comforting?

For Yourself in Old Age

TINETY-FIVE out of every hundred men who live to be sixty years of age are then dependent upon their daily earnings or upon charity for their support. It was this condition that caused Lord Rothschild, the eminent banker, to say "while it required a great deal of boldness and of caution to amass a fortune, it required ten times greater wit to keep it."

But you can easily escape the misfortune of being dependent in your old age. Simply invest a portion of your earnings for a few years in an Imperial Monthly Income Endowment. Then, beginning when you are 55 or 60, or at whatever age you choose, we will send to you-regularly-each month-for the rest of your life—a cheque to provide for your comfort and independence.

If you should die before the policy matures the Monthly Income will be paid to whomever you have named as your beneficiary. And these Monthly Income payments will be made to you or to your beneficiary for not less than 20 years, no matter when your death may occur.

For Your Wife in Widowhood

OUR salary will stop with your pulse. But your widow and children will still require shelter, food, clothing, education.

You can provide now for these needs by means of an Imperial Monthly Income Policy. Then after you're gone we will send to your widow-regularly-each month-a cheque for \$25, \$50, \$100, or whatever sum you may choose. These Monthly Income payments will commence immediately after your death. They will continue as long as your widow lives. Should she not live to receive at least 240 Monthly Income cheques, the balance of that number will be paid to her estate. There is no other provision you can make for her that is so sure, and, at the same time, so convenient. Just think! She will have no worry or bother or expense in looking after the investment of her legacy. She can't lose it. Neither can she be swindled out of it. And it will earn a rate of interest far beyond what could be secured by an inexperienced investor, without danger-great danger-of losing the principal sum.

JOW—while you are insurable and can spare the money—ask us to tell you how small a yearly saving will put an Imperial Monthly Income Policy between you and a penniless old age-between your family and a life of

hardship. Just fill in the information called for on the coupon at the side and mail it to us and we will

send you full particulars without delay.

It will cost you nothing to learn all about this modern form of life insurance. Sign the coupon and mail to us to-day—to-morrow may be too late!

Γhe	Imperial	Life	Assuran	ce Co	o. of	Canada	
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Please send me full particulars and quote premium rate for an Imperial Monthly Income Policy to pay \$....each month. I was born on and if I should decide to purchase a policy would want the Monthly Income made payable to myyears of age.

Address.

Company Assurance **Head Office: Toronto** of Canada

Branches and Agents in all Important Centers

JUNE 8, 1916

Time flies waiting is wasting

You who have waited-why?

Are you one of those who wouldn't get a car until you could get a *real* one—without paying too dear a price?

Your wait is over—here is a real automobile—every inch an Overland—for \$850.

Have you been waiting for a small car which you could own without apology for its appearance?

Wait no more—the \$850 Overland is a beauty.

Do you wait for a small car, which is roomy, comfortable and easy riding?

No need to wait longer—the \$850 Overland proves that comfort does not depend upon size.

Almost everyone with automobile experience has realized the many advantages of the small car.

Men who own both large and small cars use the small one constantly—drive the large one only on occasion.

But until now small cars have been only a convenience—a utility—lacking in appearance, comforts and equipment.

The \$850 Overland has changed all that—

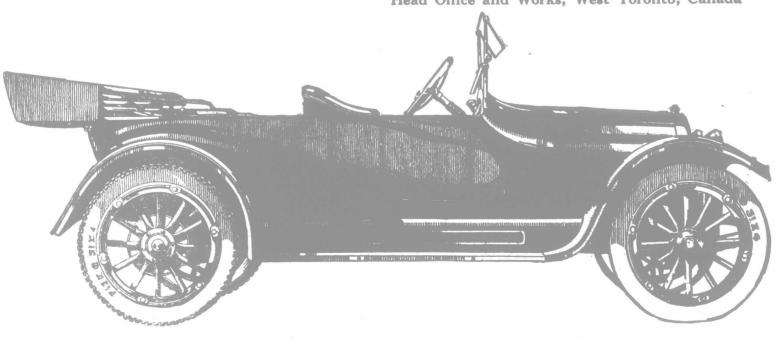
It has the small car advantages—the big advantages of economy—the delightful advantages of ease of control and small turning radius.

But it also has the advantages heretofore found only in the larger, more expensive cars—beauty—finish—style—comfort—every convenience of complete equipment.

Nothing is lacking—not even the thrill of speed and abundant power.

Catalog on request. Please address Dept. 582

Willys-Overland, Limited
Head Office and Works, West Toronto, Canada





\$300

Roadster \$825
Model 75-f.o.b. Toronto.

People who have never driven a car-

People who have driven small cars — with apology and discomfort-

People who have driven the larger, more expensive cars—and counted the cost—

People with no experience—people with much experience—people of small means—people of wealth —all find this \$850 Overland their ideal automobile.

That's why it has swept the continent like a prairie fire—taxing to the utmost our enormous capacity which is easily double that of any other producer of cars of like size and class.

No need longer to ask "Can I afford a car?"

The price of this Overland is \$850 and it is absolutely complete to the last detail—there is not a single extra to buy.

And it is the last word in upkeep and operating economy.

No need longer to ask "Will I be satisfied with a small economical car?"

You will drive the \$850 Overland with pride in any company—on any occasion.

You will be proud of its appearance.

The comfortable roominess and its easy riding qualities will be another source of pride.

Its power and speed, and all round performance, will give you thrills which more than anything else arouse the owner's pride in his car.

So here's what you've waited for, there's nothing left to ask.

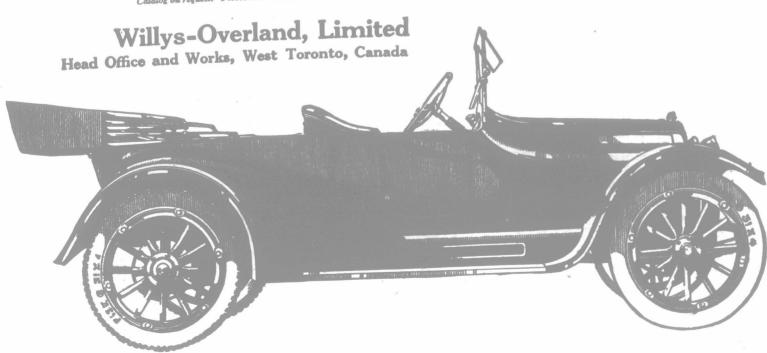
There's just one thing left to do.

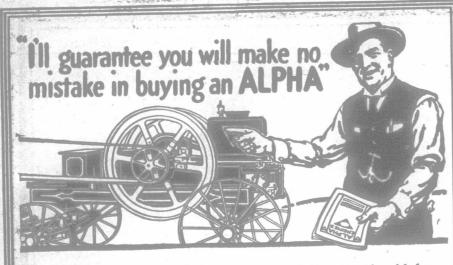
See the Overland dealer—have him show you the car and demonstrate it.

Then place your order without delay for the buying is already heavy and there is a limit even to Overland production capacity.

Roadster \$825 Model 75 - f.o.b. Toronta

Catalog on request. Please address Dept. 582





HE strongest words of commendation for the Alpha Gas Engine come from the men who use this engine. In the long, economical and reliable service the Alpha gives they have positive proof of its value and they never hesitate to assure their friends of the wisdom of buying an Alpha.

Possibly you can buy an engine for less money than you can an Alpha, but you cannot buy an equal amount of good service in any other engine for so little money. In the Alphà you get more years of service, the lowest fuel cost, exceptional freedom from the need of repairs and the easiest engine to operate and care for.

The Alpha is a simple engine, with plenty of power, perfectly controlled by a governor that keeps it running steadily and smoothly under light, heavy or varying loads. This engine has no complicated, delicate parts to require constant attention-not even batteries. It starts and operates on a simple low speed magneto. You can use either kerosene or gasoline for fuel.

You need a gas engine on your farm. Buy an Alpha now. That is the quickest and best way to save the money that is to pay for the engine. Ask for a copy of the Alpha Engine catalogue.

Made in eleven sizes, 2 to 28 H. P. Each furnished in stationary, semi-portable, or portable style, and with hopper or tank cooled cylinder.

DE LAVAL DAIRY SUPPLY CO., Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole distributors in Canada of the famous De Laval Cream Separators.

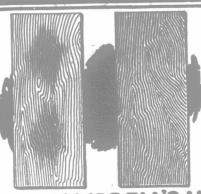
Manufacturers of Ideal Green Feed Silos. Catalogues of any of our lines mailed upon request.

MONTREAL

PETERBORO

WINNIPEG

VANCOUVER



Grease Sinks In But-

that makes no difference if you use Campbell's Varnish Stain on your floors and woodwork. It dissolves grease spots-wipes them out. The illustration shows a greasy board, and beside it a picture of the same board after Campbell's Varnish Stain has been used. The grease spots are gone.

It comes in a yellow can with the famous camel picture on it. Sold everywhere. Ask your dealer for

CAMPBELL'S VARNIS

DISSOLVES GREASE SPOTS

There are 13 colors: Natural wood color, light oak, dark oak, walnut, cherry, mahogany, green, rosewood, white enamel, flat black, gloss black, piazza green and piazza red. Sold by reliable dealers everywhere. If your dealer cannot supply you

LET US SEND YOU THIS BOOK
Mr. Ekin Wallick, contributor to the Ladies' Home Journal, and a national Mr. Ekin Wallick, contributor to the Ladies' Home Journal, and a national authority on home decoration, has written a charming and instructive book, "The Attractive Home." He tells all about rugs, lighting, pictures, furniure and how to make an attractive home at small expense. Regular price, \$1.00. For forty-five (45) cents in stamps we will send you this book postpaid, and a half-pint can of Campbell's Varnish Stain, price 30 cents. \$1.30 worth for 35 cents. Write today and give name of nearest paint dealer or decorator.

CARPENTER-MORTON CO.

Canadian Distributors

A. RAMSAY & SON CO.

Montreal, Can.





Save Your Crop From Blight

BLIGHT will surely wipe out your don't spray your crops regularly. The

CANADIAN

ONE-MAN SPRAYER (Wheelbarrow Type)

is the most convenient sprayer you ever saw. Easily operated, it sprays two rows thoroughly on each trip. Can also be used for small trees, shrubs, etc.

Write to-day for literature describing its unique advantages which are saving farmers thousands of dollars.

48-B



The Old-time Painter Says:-

A painted barn means a well kept farm. There's certain season's a farmer will worry himself greyheaded till he gets his crops under cover.

—but he ought to be worrying all year round if his barns are not protected with a good coat of paint.

preserves the property that protects his crops.

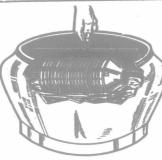
It's a paint that's just made for that purpose—the protection and preservation of barns, silos, stock buildings, fences and the like.

The better appearance it adds to the farm will get a better price when he comes to sell.

As for cost—well IMPERIAL BARN AND ELEVATOR PAINT stands against the weather like lightning rods against lightning, it comes costly to be without either of them

IMPERIAL BARN AND ELEVATOR PAINT is a good preservative paint, keeps its color and will look good and be good for years. If you want to know more about paints for the farm you'd better write for a little booklet that's being given away free of charge by

WINNIPEG TORONTO



MADE IN CANADA

"SUPERIOR" Separator

Help Scarce? Help Yourself!

Easiest to Clean

The SUPERIOR Separator is so easy to turn, any one on the farm can be entrusted with the important work of separating ALL the cream from the milk. It is just an incident in the day's work!

Then the cleaning—how simple and quick! Lift the bowl off the taper spindle—unscrew the nut, drop top and discs onto wire holder and rinse in the can, all are cleaned at once. Hang up holder until discs drain and dry, slip back on shaft—any order will do. There is no bothering about position and balance in the SUPERIOR self-balancing bowl. Just figure how many hours this saves you in the course of a year. course of a year.

And you are assured of the closest skimming at every operation. Write for the book of Superior Separator facts. You need it! WRITE TO-DAY.

The ONTARIO MACHINE CO., Limited Toronto 18 Bloor Street East

THE "SUPERIOR" SEPARATOR 9



Send to-day for particulars of this wonderful machine—order ONLY \$47.50 now, and use it

this spring to run the water off your low lands clean out ditches and dig

and Road

your tile drains. It is a real necessity on every farm. 1856

EXECUSIVES THE PRESTON CARECDACH COLUMNTED

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The Farmers Advocate and and Home Magazine Basselle Basse

LI.

EDITORIAL.

The harrows will save hoeing in the corn.

If you want good fruit do not neglect the last sprayings.

The able-bodied man who is out of work this year is indeed a slacker.

Grain that was early in the mud may yield better than that "mudded in" late.

The man who waited for another drying day was late with his seeding this spring.

A corn crop kept thoroughly cultivated is, as a cleaning crop, almost equal to a summer-fallow.

It has been a great spring to demonstrate the value of underdrainage. It pays to tile wet land.

Hay promises a heavy crop. It will require more machinery to harvest it, for no men are available.

You may not be the best farmer in your neighborhood, but you can at least strive not to be the worst.

A farm work-shop with a place for everything and everything in its place will pay big interest on the investment.

If you can get the seed, plant a few more potatoes than usual. The tendency is toward a small acreage of this necessary crop this year.

The boy who has an interest in the farm or its stock usually is more likely to stay on the farm than is the lad who knows nothing but work.

When sowing mangels late, sprout the seed before sowing. It will gain a week or ten days in growth and give you a better chance at the weeds.

A school-house with an assembly hall and reading room is a necessity in most rural school sections. The best way to get such is by consolidation.

Nothing could be more appropriately named than "Deadman's Hill," one of the outer defences of Verdun. It has meant the end of many a German battalion.

The difference between the poor feeder and the good stockman is quite apparent from a glance at the herds now on pasture. The poor feeder is the loser every time.

A herd of dairy cows is the source of success on many farms. They tend to replace carelessness and indifference with system and interest. There is room for more dairy cows.

Some of the most valuable labor-savers on the farm are simple devices constructed at small cost by the owner or his boys. If you use any on your farm describe them through these columns.

The gang plow was resurrected and placed in commission on many farms this spring to fight the grass which got such a start on late-sown fields. Plowing twice next fall may be necessary to clean the land, and the two-furrowed plow, set to plow shallow after harvest, will help greatly.

LONDON, ONTARIO, JUNE 8, 1916.

A Vigilant Public.

Every farmer knows that the price of clean crops is an attitude of unrelenting vigilance towards weeds. Without unremitting attention, superiority can neither be bred nor maintained in our herds. It is the safeguard against wasting diseases and predatory pests, the means of security and satisfaction in the pursuits of the farm. The same principle holds good in the affairs of the country. "Eternal vigilance is the price of liberty" declared John P. Curran, and this truism, long since passed into a dusty proverb, needs to be taken out of its gilt frame and electrified by the people. History teaches us that no form of government will insure absolutely the liberties and property of the subject from despots and colossal grafters if the searchlights of publicity are turned off and the people suspend their watchfulness. A republic in name may become an autocracy of some sort in reality. Russia, one of the most absolute of monarchies, long regarded as the very opposite of progressive, has, since the war, been enabled to institute a tremendous and beneficient social and fiscal reform, the despair of nations supposed to lead in enlightened policies. Governing constitutions are important, and in them provisions can be incorporated safeguarding the rights of individuals and communities. In drafting the constitution of the American Republic, provision was embodied making inalienable certain rights of the federating states, and in the British North America Act, constituting the Dominion of Canada, the power to control education, important natural resources, etc., was vested in the uniting provinces. Time has attested the wisdom of the foresight that designed these provisos which, under altering conditions, as the country grows, continue workable in proportion as a spirit of fairness and right pervades their administration and their usage by those concerned. It has been said that parliaments and governments, being made up of individuals, are not greatly different from the people who delegate to them authority. The record of governments in this country shows clearly that in time they become effete and corrupt under the linking up of patronage and political partyism. It is useless to deny this, and even partisans are being converted every day to acknowledge its unfortunate truth. All the virtue and capacity on one hand or all the weakness and iniquity on the other are not monopolized by any one party. This brings us back to the responsibility resting respectively upon the press and the pulpit of the land in inculcating a spirit of independence, of fair play and those eternal principles of right that may be stifled but cannot be eliminated, because Divinely implanted. A muzzled, partisan press is the worst foe of the interests of the people. If people settle down to the comfortable belief that with a good piece of legal machinery called a constitution, and "their party" in power that all is well, they are predestined to a rude awakening. They will suffer, and they deserve to suffer if they negligently relinquish their personal interest in the affairs of the country, and their punitive watchfulness of public men who are too prone to become mere distributers of patronage and concessions. One need not turn any farther back than recent sessions of the Canadian Parliament to see with what lavish recklessness public money and the public credit have been sacrificed in a go-as-you-please railway policy, to which attention has already been directed in these columns.

If people allow themselves to be diverted into two hostile camps by political bosses, they may expect corporations to manipulate legislation while smooth-handed promoters pussy-foot out of the treasury with the swag. Cajoled or chloroformed with doses of "pap" distributed here and there, the electorate

relaxes its vigilance, ceases to punish offenders, surrenders its freedom, parts with its control and sacrifices its estate. Just as the Great War is the price the world must pay for breaking the heavy sword of a military autocracy, so here the people will realize how severe the penalty for deliverance from the tyranny of partyism, the folly of greed, and the neglect of eternal vigilance.

A Cure for Laziness.

Laziness is practically unknown in the country districts. The lazy man can scarcely exist now that labor is so scarce, and it requires such an effort to live. Carelessness and procrastination are more common, but we heard the other day of a cure for all these. It is rather a novel cure and yet, according to our authority, who, by the way, is in a position to know, it is quite common and cures many seemingly chronic cases almost before the sufferers have realized what is happening. The treatment may be taken in large or small doses, preferably small at first, increasing gradually as effects warrant. The remedy is a herd of dairy cows. Our expert informed us that in his opinion dairy cows and the advance of dairying had done as much to systematize agriculture and put it on a paying basis as any other one thing, and perhaps as much as all together. The day a man goes into dairying he must begin planning his work. He must rise early. Must milk regularly. Must have his milk or cream at a certain place at a certain time. Must be cleanly and systematic. Must start to stamp out carelessness. Must keep good cows and feed and care for them well and regularly. If he does not do these things he cannot make it go. He finds he is being gradually cured of his former trouble, and he scarcely realizes what has happened. There is no place for laziness or carelessness in the dairy business, and dairy cows well looked after will cure these troubles. A degree of carelesaness, unfortunately, still prevails in the management of some herds, but usually the dairyman is not found in bed late in the morning, is not found behind with his work, and is generally endeavoring to put system into his effort, which means success.

Helping the Farm Boy.

The trend of rural population cityward has been the subject of more articles and addresses for the consumption of country folk than any other one topic of recent years. City orators have solved the problem several times and by a wide diversity of methods, but the problem still remains. The other day, while calling on one of the best farmers in one of Ontario's richest, central counties, the one thing which stood out in bold relief among the many good things of the farm was the real interest which father and sons took in the place. The father's greatest effort was, as he explained and as was evident about the place, to put nothing in the way of the boys developing interest in the farm and in better agriculture generally. When the boys wanted pure-bred stock and expressed a desire to show their good cattle in competition, they were encouraged and aided by an interested father. When one of them became a first-class plowman his desire to prove his prowess in competition was met by all possible help from his father. The boys wanted better seed and they got it. They early showed mechanical ability in the making of handy devices for farm shop repair work, and they were encouraged to develop their own ideas. The farm now has a well-equipped shop and forge, and the boys with their father do nearly all the farm repair work, Their ingenuity has developed rapidly. The farm

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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work is systematized. The workshop is in use every stormy day in summer and almost every day in winter. The result of the father's encouragement and help is satisfied, successful boys who believe in their calling. This is vastly different from the condition which generally prevails where the boys are discouraged from the use of purer and plumper seed, the breeding of high-class stock or the practicing of better plowing and general system in farming by father's complaint of expense and his daily farm drudgery biliousness. It is time fathers, and mothers too, put forth a little more effort to interest their children in farming rather than to drive them from the farm by despising their own calling and holding up rosy pictures of city occupations.

The old-time summer-fallow may be revived this summer. Some, who have dropped this method of cleaning and making up land and whose farms have suffered thereby, are leaving a piece of wet and weedy land for summer-fallow this year. Remember, only a clean summer-fallow counts.

One by one Canadian battalions leave our shores for Britain and the fighting line. It is necessary that all those left behind to carry on the business of the country put forth every effort to keep things running so that when the boys come back they may find employment awaiting them.

There is a difference between the fairyland farming described by the theoretical dreamer, and sound, practical advice based on practical experience. The latter is always found in "The Farmer's Advocate," and it is this one point which puts the paper in a class by itself. It helps the farmer with his daily work,

We happened to be in the gallery of the House of Commons some time ago when a Bill involving millions of dellars was under discussion, but, outside the Cabinet and a few Opposition front-benchers, there were only three members in attendance. What private business would stand such lack of attention?

The Consolidated Rural School-What It Is, and What It Is Doing.

BY RICHARD LEES, M.A.

The problem of providing for rural communities an education that will fit into the life and activities of these communities is one that has been for some time claiming the earnest attention of all who are interested in the progress and development of the country. That the rural school of the present does not meet these conditions is freely admitted. Against it the charges are made, and with good reason it is to be feared in many cases, that it has failed to keep pace with general progress, and is, in many respects, ust about where it was a quarter of a century ago; that it educates away from the country and toward the cities, and that it has failed to secure any grasp on the life, imagination or interest of the people whom it is supposed to serve.

Efforts at improvement have been varied, and though they have met with some measure of success, none have reached the real sources of the difficulty. For this there are several reasons, but probably the most important is to be found in the conditions surrounding the schools themselves. The system of administration is antiquated, out of date, and wholly unsuited to present conditions. The small administrative unit found in the school section makes impossible, in many cases, the provision of the necessary equipment to minister to the educational needs of a rural community. It prevents the getting together in one school a sufficient number of children to make possible many of the best features of school life. anything like the best educational results are to be achieved, there can be no doubt whatever that it can only be by bringing together in one place, a larger number of children than are to be found in many of the rural schools of the present.

Consolidation the Remedy.

After a somewhat extensive study of conditions, here and elsewhere, the writer has become convinced that the best, if not the only efficient remedy for many of the disadvantages of the rural public school is to be found in the system of centralization or consolidation that has been tried quite extensively in some of the other provinces of the Dominion, and to a greater or less extent in nearly all the United States.

This movement had its origin in the State of Massachusetts some forty years ago. The original consolidated school, established at Montague in that State, is still in existence, and is carrying on its work as efficiently and successfully and with as much satisfaction to the people it serves as at any time since From this beginning great progress has been made in Massachusetts as is illustrated by the fact, stated in a recent bulletin of the U.S. Bureau of Education, that of more than 16,000 teachers in the State less than 900 are employed in single-room schools The amount paid for transportation of children to school, increased from \$22,000 in 1889 to \$77,000 in 1896, and \$384,000 in 1913.

Next to Massachusetts most progress has been made in Ohio and Indiana, where the movement has produced a school of a somewhat different type. In these States the schools are larger, taking in a greater number of district schools, and are more distinctively rural in their character. Many of the schools of Massachusetts have resulted from the combination of one or more schools, that were too small for efficiency, with an adjoining one, very often situated in a small town or village. In Indiana, there are about 700 consolidated schools, some of them large, with a dozen or more teachers, and serving whole townships. More than 35 per cent. of the children of the State attend schools of this kind. In 73 of the 92 counties of the State, the movement has made some progress, and in several counties the schools are almost comletely consolidated. According to the latest report, 23,403 children were transported to school at a total cost to the public of \$491,265. Some observations made by the writer on a recent visit to one of these counties may not be without interest here.

Randolph County, Indiana.

This county is situated on the eastern border of the State. It is a small county containing about 450 square miles and consists of twelve townships of very varied size, in which are located two small towns and the city of Winchester, which is the county seat. It is a typical agricultural district, corn being the most important crop. Previous to the initiation of the movement for consolidation, some seven or eight years ago, there were three high schools in the county, situated in the three urban centres. Every township has now a high school. While the new high schools are purely rural and give a training in Agriculture, Domestic Science and Manual Training, they also prepare for entrance into the state university and the agricultural colleges. In 1908 there were attending the high schools of the county 61 pupils who had received their previous training at rural schools. During the year just closing there were 601. Of 149 such pupils who entered the high school classes in 1911 a total of 104 completed the full four years' course and were graduated last year.

In Randolph County transportation is largely by school wagons or vans. There were 98 of them in use in the county. They are owned by the schools, and the drivers, who are under contract, provide the horses. These wagons carry comfortably 20 to 22

children, and they cost for operation an average of \$2.09 per day, according to the last report. One school was visited where the enrolled attendance was 205, and only two children out of the whole number walked to school, ten wagons being employed. This school showed an average attendance for seven months of over 200, and one wagon was reported to have been late once in two years. On arriving at another school a few minutes after the hour for opening, on a very wet morning, all the 370 children in attendance were found in their places, none tardy, and none of the signs of discomfort and inconvenience from the rain that are so familiar in our rural schools on wet mornings. In conversation with school authorities, teachers, parents and pupils, but one opinion was heard as to the efficiency of the transportation system. While admitting that there had been difficulties in the way, it was claimed that they had been met and overcome. The children when asked how they would like to return to former conditions laughed at the idea. Parents expressed their entire satisfaction, and the teachers were enthusiastic.

Buildings and Equipment.

The buildings are of modern design, well adapted to the purposes they are intended to serve, and equipped with an eye to comfort, health and convenience as well as efficiency. Those in Randolph County cost from \$14,000 to \$33,000. They are provided with class and recitation rooms adequate to the attendance, have scientific and cooking labora-tories, and ample provision for Manual Arts and Household Science. Part of the equipment is a waterworks system which supplies the drinking fountains, flush closets, and in some cases shower baths. Provision is made for public gatherings outside the regular routine of the school, and the buildings are so constructed as to make possible the throwing into one of space sufficient to accommodate 300 to 500 people. In the larger schools, special teachers are employed for the Manual Training work, Domestic Science and Agriculture, while in the smaller these subjects are taken by some of the regular members of the staff, care having been exercised to secure teachers capable of doing so. The high school departments are a most important feature of these schools, and their establishment has resulted in a great increase in the number of children who continue their education beyond the public school grades. In two of the townships visited, practically all the pupils who had completed the public school course in the previous year were in the high schools, while it was said that before consolidation only 25 per cent. in one case and 30 in the other had attended high school.

Community Interest.

To one familiar with conditions in Ontario, where the school is too often the most despised, neglected and ill-cared-for place in the district, conspicuous only for its air of dilapidation, the sight of large, stately, beautiful school buildings, placed in commanding situations in the open country, and surrounded by tasty, well-kept grounds was a revelation. On eeing them one could realize how the school grips the imagination of the people, and takes a place in their lives such as is entirely impossible with us. Not only are the people proud of their schools and anxious to talk about them, but they make them the centres about which revolve most of the social interests of the community. The Farmers' Institutes meet in them, and at one series of meetings in Randolph County there was an aggregate of 2,700 people present at five meetings. It is a common practice, at those meetings, for the girls of the Domestic Science Department to serve a lunch, for which a nominal charge is made and the proceeds devoted to some school purpose, such as the purchase of pictures or improvement of equipment. Institutes and Mothers' Clubs use the buildings for their meetings, and, perhaps strangest of all, they are not afraid to meet at the school, even when school exercises are in progress. The teachers, it is said, are even permitted, indeed invited, to become members, take part in the discussions, and share in the other activities. Lecture courses are given during the winter months. Sunday School Associations use the buildings. In fact, they seem to be intended for the use of the community in any service to which they can be put, and not merely places where a few children are incarcerated during 25 or 30 hours each week for some 40 weeks of the year. The teachers of Agriculture, Manual Training and Domestic Science are, by reason of their special training, qualified to direct and advise along the lines of their special training, and so the people seek direction and assistance from the school in many matters pertaining to their interest and work. At the particular time referred to, the testing of seed corn was receiving attention in all the schools.

A Word About Cost.

Many readers are sure to say that while all this is very fine, the cost must put it out of their reach. It is a very unfortunate circumstance that we always insist on having a cheap education. In too many cases, the question of efficiency is lost sight of altogether and cheapness is the one feature that commends itself in any plan. Every school inspector in Ontario can recall many instances where this insane desire to cut down cost to the lowest possible point has so impaired efficiency that the money expended was absolutely wasted. Besides, as a people, we pay very little for education compared with what we pay JUNE 8, 191 for other thi the least part crease by two and spend t we could pos even in money The conso more than the are doing mor

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for other things of less importance. There is not the least particle of doubt but that were we to increase by two or three fold our outlay for education, and spend the money judiciously, no investment we could possibly make would bring larger returns, even in money, to say nothing about the higher things. The consolidated schools of Indiana are costing

more than those that are not consolidated, but they are doing more and the difference in cost is not great. If these schools were to drop their high school departments and other special features and attempt no more than the district schools are doing they could be carried on at a smaller cost than the latter, and the work they do, even in these narrower limits, would be infinitely superior. But they furnish the means of doing the larger work, and the people want it when it is within their reach. To the numerous class who tell us that these things are not possible here, the answer is that we are not speculating on possibilities but dealing with what has been actually accomplished, not only in Indiana and Massachusetts, but in nearly all the states of the union as well as in New Brunswick, Manitoba and other parts of our own country where conditions are infinitely more unfavorable than with us. Are we British people, with the British spirit, or are we willing to admit that we cannot accomplish what others are doing with

Some of the Advantages.

A few of the leading advantages of the consolidated school may be summarized as follows:

1. It has resulted in greatly increased attendance, both in the enrollment and in the percentage of those

enrolled. 2. It makes possible the development of a spirit of co-operation and community interest through the school, which is not possible where the number of children is as small as it is in more than half of the schools of Ontario.

3. The country school comes to possess all the advantages of graded classes, properly equipped laboratories, sanitary surroundings, and the teaching, under properly qualified instructors, of Agriculture, omestic Science and Manual Training.

4. The pupils of the country, like the children of

the cities and towns, are able to enjoy the privileges of a high school education without going away from

5. The school comes to be an institution of impartance, appeals to the loyalty and pride of the people and becomes a centre for the activities of the com-

munity.
6. Teachers cease to be isolated units and are brought together in groups where mutual help and co-operation are possible, thus making it easier to secure and retain the services of better teachers more favorable conditions.

The Railway Situation.

BY PETER MCARTHUR.

Prussia has been described as an army with a country. Canada might well be described as a number of railway corporations with a country. But the country lacks the population and business to make all the railways profitable, and the question arises, "What are we going to do about it?" Making grants to the unsuccessful railways merely puts off the day of reckoning-but perhaps that is the wisest thing to do while the war is in progress. When the day of reckoning comes it will involve a reckoning not only with the railways but with the banks, and practically all the Big Interests. To one who regards the situation "more in sorrow than in anger" this does not seem a good time to undertake or discuss the work that seems inevitable. The progress of the war will undoubtedly bring new developments that may be sufficiently embarrassing without courting a period of industrial chaos that might result from an attempt to solve the railway problem. Any scheme that would prove at all adequate would be too far reaching in its effects to be undertaken at a time when the whole attention of the country is The railway situation can demanded by the war. but care must be taken that it does not become worse while waiting.

There is some talk of the public ownership of the railways, but it is doutbful if this solution could be attempted under worse auspices. To stand any chance of success the public ownership would have to be complete, and it is inconceiveable that a railway so successful as the C. P. R. could be taken over without a struggle that might wreck our political system. We have had railway ownership of the government so long that an attempt to achieve government ownership of the railways would be almost revolutionary. And for the government to take over the unsuccessful railways and try to carry them until the development of the country would make them profitable would be to assume a burden that would prove intolerable when added to the burdens of the war. The government-owned railways would be country to constant connectition by a successful and be open to constant competition by a successful and thoroughly organized corporation that in the past has shown fully as much political sagacity as it has business ability. Obviously if the government is to take over the Grand Trunk Pacific and the Canadian Northern it must also take over the C. P. R. But to take over all our railways would be a greater experiment in public ownership than has ever been undertaken by any country in the world. Other countries

own their railways, but they did not undertake the task after an orgy of railroad building such as we have had. Public ownership seems the logical outcome of the present railway situation, but we are not ready for it either with public opinion or with the capacity to handle the undertaking. Before the rail-ways can be taken over successfully the public must be educated to the magnitude of the task, and an organization perfected that would be greater than any railway organization now in existence. Even the most ardent advocates of public ownership may well be staggered by the prospect. And the worst of it is that we would be attempting to fly before we have even learned to creep. If public ownership is to be the solution of the railway muddle it would be folly to attempt it until the country is rid of the war and in a position to give the question the fullest possible attention.

But there is one solution that must not be allowed, even if we are forced to undertake public ownership at once. Before the outbreak of the war the railway situation was already ominous, and it was alleged, on apparently good authority, that the management of the C. P. R. had intimated to the government just what portions of the weaker railways it was prepared to absorb. These portions would undoubtedly be the ones that could be made immediately profitable, and the inference was that the remainder would be left on the hands of the government or allowed to go to ruin. Back of this rumor there were stories



The Friend of the Boys and Girls.

of feuds between railroad promoters and high financiers that would involve rival banks as well as rival rail-ways—and stories of political deals that would further bamboozle the people. The outbreak of the war put an end to this gossip for the time being, and high financiers had to get under cover so quickly that they had no time to keep up their raids on one But now that the weakness of the C. N. R. another. and G. T. P. have been made evident by their appeal to parliament for aid one cannot help remembering what was at one time discussed as a possibility. Unfortunately this solution of the trouble, which would place the workable parts of our railway systems in the hands of a corporation competent to handle them, is the one that would be most likely to appeal to time-serving politicians ready for a deal. But it would make one corporation that is already too powerful much more powerful and tend to centralize the financial power of the country in a very few hands. Such a solution would give one group of bankers and moneyed men a firmer grip on the country than they have had in the past, and make governments more subservient to their will. Of all possible solutions of the railway problem this would be the most

Nature's Diary.

BY A. B. KLUGH, M.A.

A question of great importance which confronts us is the conservation of the wild life of the Province of Ontario. This Province was originally richly endowed with desirable species of animals, but to-day only a remnant of this endowment is left. It is a duty which we owe to posterity to see that this remnant is not wiped out. There are people who ask, "What has posterity done for me that I should do anything for posterity?" These people are, I believe, an insignificant minority, though we must concede that very many, far too many, people by their actions or often by their lack of action, appear to belong to this class. Conservation of our wild life has not been adequately practiced, not because of any debeen adequately practiced, not because of any deliberate attitude on the part of the mass of the people, but because of lack of thought on the subject, because of inertia, because "what is everybody's business is nobody's business." But if our desirable forms of wild life are to be conserved this thoughtlessness must cease, this inertia must be overcome, and every right-thinking man must make it his particular business to aid in bringing about, not only conservation of the remnant, but a large increase in the numbers of the valuable species.

There are some who think only in dollars and cents

who will ask, "What is there in conserving and increasing our game supply?" To them we can reply in language which they will understand, "Thousands of dollars." Good hunting and good fishing attract large numbers of tourists who spend money freely in those localities in which good sport exists.

Granting then that from every standpoint conservation of our valuable forms of wild life is desirable, and should be seriously and earnestly undertaken at once, we come to the question as to the methods by which it can be brought about. These

The creation of strong public opinion in favor conservation.

The formation of Fish and Game Protective Societies in every locality. The enacting of proper laws regulating hunting and

The rigid enforcement of these laws. The absolute prohibition of the sale of game and

game fishes.

The institution of a gun license.

The creation of game sanctuaries.

The negotiation of a migratory bird treaty between Canada and the United States.

Under each of these heads I shall have more to say later, and in the meantime I should be glad to hear from every reader of "The Farmer's Advocate" who is willing to aid in this great work of conserva-tion. I should be glad of any suggestions or recom-mendations which any reader has to make.

I am in receipt of the following letter from Miss

Mary Waddell, of Orono, Ont., concerning an animal she has come across. "Last week I saw a reptile which I believe to be a lizard. It was probably nine or ten inches long, body tapering down to a point, had four legs, head somewhat like that of a snake, was a dark grey color, with light marks on its sides. Would you kindly tell me something of the life, habits and use of this reptile? I can find

nothing in any of the books I have consulted."

This animal is undoubtedly a Salamander, and from the description of its color is apparently a specimen of the species often called the Gray Salamander. The Saiamanders differ from the Lizards externally, chiefly in having moist, smooth skins instead of the dry, scaly skins possessed by the Lizards. Internally one of the main differences is that the heart of the Salamander has, like that of the Frog, two auricles and one ventricle, while the heart of the Lizard has, like that of the Snake, two auricles and two ventricles. They differ from the Lizards in the kind of places they frequent, the Salamanders being found in rather moist and shady places, the Lizards in dry, sunny

We have in Canada a good many species of Salamanders, and they are distributed pretty generally over the country, while we have but two species of Lizards, neither of which is at all generally distributed. These two species are the Blue-tailed Skink, found in the extreme southwestern counties of Ontario, and the Northern Alligator Lizard, found in British Columbia

The eggs of the Salamanders are laid in the water; where the young on hatching pass a tadpole stage, breathing for a time by means of external gills. Later

internal gills develop and finally lungs. The Salamanders are most commonly found under decaying logs in the woods, and they feed on small insects. Many people are afraid of these little animals, being under the impression that they are venemous, but they are perfectly harmless and do not even possess teeth.

THE HORSE.

On the Horse Question.

The following letter from Wm. Smith, M.P.. Chairman of the Record Board, and Jno. W. Brant, Accountant Canadian National Live Stock Records, has recently been received at this office. It will be of interest to horsemen and mare owners. There is now little doubt but that horses will be higher in price. There are still plenty of horses in Canada, but breeding operations should not be curtailed. Horses are sure to be in keener demand. Good horses are not easy to buy, so we are told, but we were talking, the other day, to a man who offered \$200 for a filly colt at weaning two years ago and bought the same filly recently for \$150, and she had gone on and developed satisfactorily. Horses are still comparatively low, but the enquiry is improving. It looks like a good year to breed for the future. Insist upon quality. Read the letter from Mr. Smith and Mr. Brant.

"The breeding of horses has become a matter of prime necessity. Before the war commenced there was a slump in prices, owing to financial conditions and the inroads of motor power that led to a cessation of breeding. Then the war came with its demand for certain classes. Following the previous decline in the demand many farmers sacrificed their mares. The result is a serious depletion and a sure scarcity.

The demand is increasing and will continue to increase long after peace has been declared. If Canada is to take advantage of the situation the time to start in is now. There will be an assured market demand for foals at weaning time from mares

"Not only has the wastage by reason of war been enormous, but in all the belligerent countries, not omitting Great Britain, there has either been a partial

stoppage or a whole stoppage of breeding by reason of the scarcity of labor, the disturbed conditions,

or entire devastation.

"Whether the war lasts or ceases there must continue an undiminished demand for horses. When peace comes there will be a long period of replenishment Then quality as much and even more than quantity will be required. Hence the evident call to every Canadian farmer is to breed and to breed to the best available, to utilize his mares for production, and to secure the immediate services of the best pure-bred sire of type in his neighborhood. It will pay

will pay.

"This appeal is addressed to you with the endorsation of the various horse breeders' associations of Canada, who urge decisive action by the farmers of Canada, to remedy the serious situation that has a control of the canada.

Lameness in Horses.—XXV. Lymphangitis.

While lymphangitis is correctly classed as a dieletic disease, it causes acute lameness, hence we may be excused for including it in this series. It is a disease of the lymphatic or absorbent system, and is usually caused by good feeding, accompanied by one or more days' idleness. It is known by a variety of names, as "a shot of grease," "weed," and "Monday morning disease." It is given the latter name from the fact that it is often seen in heavy horses on Monday morning, after having rested since Saturday evening, and in the meantime having received the usual quantity of grain. It consists in inflammation of some region of the lymphatic glands, usually of one of both hind legs, but occasionally one or both fore legs are attacked. Some horses are particularly predisposed to an attack, which usually follows a day or two of rest and high feeding. In rare cases it occurs without rest, and is supposed to be caused by a highly-fibrinous condition of the blood. It is also occasionally noticed in horses in poor condition, and poorly fed, in which cases its pathology is hard to explain.

in which cases its pathology is hard to explain.

Symptoms.—The local inflammation is usually preceded by rigors (a shivering fit) which often occurs during the night, hence is not noticed. This may continue for hours, and, as a rule, the intensity of the attack is denoted by the intensity and duration of the rigors, which are accompanied by more or less restlessness. Lameness in the affected limb is manifested in an early stage. The rigors are succeeded by an increase in temperature. The patient now breathes heavily, and sometimes perspires freely, paws and may show symptoms simulating those of colic; the pulse is full, strong and frequent, the visible mucous membranes are injected, bowels usually constipated, and the urine is secreted in small quanti-ties and of high color. The local inflammation is manifested by swelling of the inguinal glands (those on the inner surface of the thigh) when the hind leg is affected) and of the brachial glands (those on the inner surface of the fore arm) when in the fore limb. The first symptoms noticed are often when the teamster goes to the stable in the morning after the horses have had a day's or longer rest. He asks the horse to stand over, and notices that he goes lame. If a hind leg (it is remarkable that the off hind leg is the more frequently involved, and the reason can-not be explained) be affected, it will be noticed by passing the hand down the inner surface of the thigh, with gentle pressure, that there is heat and tenderness, and if in the early stages the surface will have a beaded feel, but as the disease advances the swelling increases and this peculiarity can no longer be detected If the fore limb be involved, this peculiarity to the touch will be detected by passing the hand slowly down the inner surface of the fore arm. The patient is usually very lame and does not care to move or put weight upon the affected limb, and if the inflamed glands be pressed intense pain will be manifested by violently lifting the leg, and in extreme cases the patient has been known to moan or shriek. The swelling usually extends rapidly and involves the whole circumference of the limb from the body down to the coronet. As the swelling increases, the pain and lameness usually become less. In rare cases there is the formation of abscesses but fortunately this seldom occurs, except in a contagious form of the disease little known in this country. Horses that are pre-disposed to the disease are liable to a recurrence of the malady on slight provocation. One attack succeeds another, and after a second or third or sometimes the first it will be noticed that the swelling of the limb, especially below the hock, or knee, does not entirely disappear. It becomes greater after each attack until the limb assumes a greatly enlarged and incurable condition called "Elephantitis."

Treatment.—Preventive treatment consists either in giving horses that are highly fed and predisposed to an attack, exercise every day or reducing the grain ration, or partially substituting bran for grain during the days in which they are idle. In fact, it is good practice to reduce the grain ration of any horse that is worked regularly and highly fed, when he is about

to have a day's or longer rest.

Curative treatment consists in the administration of a purgative of 6 to 10 drams of aloes, according to size, and 2 to 3 drams of ginger, and feeding bran only until purgation commences. In the meantime water from which the chill has been removed should be given in small quantities and often. If evidence of considerable pain be noticed, an anodyne as 1 to 2 drams solid extract of belladeana, or 1 to 2 ounces chloral hydrate may be given, but this **

seldom necessary. If the pulse be full, strong and frequent, it is good practice to give 10 to 15 drops of Fleming's tincture of aconite in a little cold water as a drench. The patient must be warmly clothed and excluded from drafts. The disease is more common in cold than in warm weather, hence the patient must be kept comfortable. The affected parts should be bathed long and often with hot water, and after bathing be well rubbed dry and a comphorated liniment applied, as one made of 3 ounces alcohol, 2 ounces oil of turpentine, 4 drams gum camphor and water to make a pint. If the weather be quite cold, unless the patient can be kept warm and comfortable, the bathing should be dispensed with, as the reaction caused by a draft of cold air, after bathing, tends to complicate matters. Diuretics, as 3-dram doses of nitrate potassium, should be given three times daily. He should be allowed to stand idle until the acute soreness and lameness have disappeared, and then he should be given regular exercise, which helps to dissipate the swelling.

Even in the acute stages, forced exercise reduces the lameness and dissipates the swelling to a great extent, but when he is allowed to stand idle again both reappear, and it has been noticed that each time the swelling is lessened in this way during the inflammatory state, a portion of it has a tendency to become organized and permanent. Even after the inflammatory stage has passed the swelling reappears to a greater or less extent during the night. Hand rubbing and bandaging between the hock or knee and fetlock, as the case may be, tends to prevent swelling after it has become dissipated. Some authorities recommend regular work during all stages, but the experience of most practitioners has been to the contrary.

LIVE STOCK.

If the hogs are confined, throw a few fresh sods to them daily. Charcoal, sulphur, and wood ashes also are good.

The indifference paid, throughout the country, to the quality of the herd and flock sire is a hindrance to the live-stock industry.

Live-stock men are beginning to consider roots and silage indispensable in winter feeding. If no provision has been made for such, it is not too late to do so now

Much wool, now going into military equipment, will never find its way, through the rag trade, back into use a second time, as is the custom in times of peace. This must influence the price of wool for years to come.

Live stock is a good line at present. It will be the most reliable source of profit in the years to come. Improve the herds and flocks in order to meet conditions which may arise when peace is again restored.

The stock on grass in most cases will gain in flesh and vigor during the summer. If possible, ample grain and succulent feed should be produced this season to keep them in a thrifty breeding condition next winter. It pays to feed well.

Very recently published statistics indicate that Great Britain, considered a small and thickly-populated country, has approximately 24,285,514 sheep; Canada at the same time, with its large areas, has only 2,175,302. There is undoubtedly room for more sheep in this country.

At a recent auction sale of Herefords in the United States, 75 animals averaged \$1,287 apiece, and one bull, Superior Fairfax, realized \$10,000. The progeny of Perfection Fairfax alone in the sale brought \$57,000. There is more in a good sire than the majority of livestock breeders can realize.

The actual worth of a good sire has never been demonstrated in full. As live-stock men realize the importance of their herd bull the demand for good sires increases, and this in turn adds to the value of the male that can produce herd headers. The same is true of sheep and swine.

Hog raisers of the ranching States have lost heavily through their brood sows giving birth to hairless pigs. Investigations have been carried on, and to date they indicate a lack of iodine in the feed. Pigs, hairless at the time of birth, are occasionally reported in this country, but as yet it is not common enough to be considered a disease.

The final figures of a recent report of the United States Department of Agriculture show that, compared with Jan. 1, 1915, horses have decreased by 29,000; mules increased, 86,000; milk cows increased, 726,000; other cattle increased, 2,386,000; sheep decreased 794,000, and swine increased, 3,429,000. The decrease in sheep stocks is a significant fact to be considered in taking one's bearings for the future in breeding

Success with Live Stock Depends on the Sire.

Some interesting sales of live stock have been held in the United States this spring. Three of them in particular demonstrated the supreme importance of the herd sire. A bull may be only half the herd, but in many cases he appears to be the "whole thing." The fame of any sire depends more or less on the class of females with which he is mated, and the breeders who have a continent-wide reputation have looked to it that bulls with promise are allowed to mate with the best. On March 1, O. Harris & Sons, of Missouri, held their annual sale of Herefords, and the dominant blood shown in the event was that of Repeater. Six sons of this bull averaged \$3,642, while 24 sons and grandsons sold, averaged \$1,766. Repeater 63rd, a son of Repeater was cashed for \$8,100. So full was the offering of Repeater blood, and so pleasing was it to the buyers that they paid an average of \$1,246 for 61 animals. Phenomenal as the success of this sale may appear, it was surpassed by that held at Orchard Lake Farm, Indiana, on May 17. The stock bull in this case which made it possible to dispose of 75 Herefords at an average price of \$1,287, was Perfection Fairfax. His get alone in this cale brought \$57,000, which amount would probably eclipse that for the progeny of any other bul! of any beef breed. Fourteen of his sons averaged \$2,485, and 18 of his daughters \$1,255.

Turning to another breed, the sale of Uppermill Shorthorns, in Iowa, demonstrated most emphatically the value of Villager Imp. as a sire. Six sons and one grandson of Villager sold for the average price of \$1,350, while eight daughters and one grand-daughter realized the average price of \$703. Females in the sale with Villager calves at foot, or cows and heifers in calf to him were much sought after, because the buyers were aware of the value of this sire, and they had confidence in his progeny.

A few years ago a gentleman from Ontario visited an auction sale of Jerseys in Kentucky. One young bull with exceptionally good breeding was going to a buyer who had placed only a modest bid, and the Ontario patron of the breed was prepared to offer two or three times the amount in order to procure him. Upon expressing his liking for the young bull and intentions of bidding, he was told by his Kentucky friends that he couldn't buy him for they would not let him leave the State at any price. So long as the bull was to remain in Kentucky there was no excitement, but as soon as outsiders began to show signs of being in earnest the breeders at once began to club together that they might retain the bull which they knew would be an asset to the breed in their own State. Too often the best is sold, and this only tends to maintain the herd at a low or mediocre level. Stockmen should show a greater appreciation of good blood, particularly when it flows in the veins of a herd bull.

Every stockman is breeding live stock to sell. If it is pure-bred he intends to sell it for breeding purposes, in which case it should be typey and as near perfect as possible. If it is grade stock, the steers will be fattened sooner or later, so they should be naturally well-fleshed and the kind that will show results for the feed consumed. The good pure-bred or grade cannot be obtained through chance or promiscuous breeding. The sire must be right and good bulls must continue to head the herd. It is said that in Britain pure-bred sires have been used for so long that the unregistered stock is practically as near pure-bred as that duly recorded. The consequence is that for milk and beef production the grade animals are generally little inferior to the pedigreed stock of that country.

It requires about 20 years to breed a herd up to a standard of quality and type that will command attention and respect. Why waste time with poor pure-bred or grade bulls when a good one, which can be procured at little additional cost, will improve the herd and carry the breeder nearer the goal towards which he is striving?

Keeping the Price of Wool Up.

An immense quantity of the World's wool clip is now being used to clothe and equip the 15 or 20 million soldiers fighting in Europe and the thousands training in the colonies. The blankets and uniforms required to clothe these men may or they may not be returned through the rag trade and converted into woollen goods. Ordinarily a suit of clothes is seldom lost when it is worn out. Ultimately it finds its way through the woollen rag trade back into overcoats, cheap felted cloths, and, in its last degree of usefulness, into roofing. Prior to the war Britain mixed about 5 pounds of this manufactured wool with 3 pounds of new wool. European nations go farther in this regard than is the case in America. Much the equipment of war is never recovered. The uniforms are buried with the soldiers, or in other ways lost completely. This destruction of wool will have an effect on the trade that must be felt for years.

England

Editor "Thi

JUNE 8, 19

The effort to belittle Engunder war str the work of official figure 1915 will give ly read that Hestates on to returned in 11914, and the south-east decrease in K there were al Suffolk, about in milk or two years and one year and tyear by 71,65

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England's Farm Stock and Produce in War Time.

EDITOR "THE FARMER'S ADVOCATE"

The efforts that look to be made, now and again, to belittle England's agriculture and her farm production under war stress must be dismissed as idle and perhaps the work of some one inspired. The English Board's official figures and statistics for the farming year of 1915 will give the lie direct to the yarns to be occasional ly read that English farm land owners are pitching their estates on to the market. The total number of cattle returned in 1915 was 6,064,154, 186,210 more than in 1914, and the largest number recorded since these returns were first collected. Every division except the south-eastern returned increased numbers. The decrease in Kent was 5,000 and in Sussex 3,800, whilst there were also fairly large reductions in Norfolk and Suffolk, about 3,000 in each case. Cows and heifers in milk or in calf decreased by 49,717, other cattle two years and above increased by 41,997, other cattle one year and under two by 122,273, and calves under one

The total milking herd of the country in 1915 was 2,434,503. This represented a decrease of 49,717, but apart from last year the total was the largest yet recorded, and was 93,337 above the average of the ten years 1905-14. The number of cows and heifers returned as being in milk on the 4th June, 1915, was 1,881,674, a loss of 25,942 as compared with the number in milk a year earlier, but some 175,000 more than in 1913. Decreases were general in all the divisions of England. The only counties in England which turned increased numbers were Monmouth, Hereford, Northumberland, Cumberland, Rutland, and Durham, but five Welsh counties added to their numbers, and for Wales as a whole the reduction was only 218.

In spite of the reduction in the milking herd of the country, there was a general increase in the number of cattle under one year old; the total returned in 1915, 1,338,100, being 71,657 greater than in 1914, and the largest recorded since this class was first separately distinguished in the returns in 1893. Apart from London, Kent and Suffolk were the only counties which returned smaller numbers. The number of cattle one year old and under two also increased, and, as with the younger cattle, the total was the largest recorded since 1893. The increase in England and Wales amounted to 122,273, or 10 per cent., the total in 1915 being 1,297,223. Every division returned increased numbers, and only one county, Cumberland, showed a reduction, which was, however, quite small.

The total number of sheep in England and Wales on the 4th June, 1915, was 17,522,577, an increase of 262,883 on the figures of June 1914. Among the counties recording appreciable decreases was Northumberland. The East Riding of Yorkshire has added to its flocks. The recovery which has taken place in the last two years from the very low level of 1913 has, generally speaking, been confined to the hill districts of the north

The number of ewes kept for breeding in 1915 was 6,871,738, an increase of 33,404, the addition in Wales being 50,325, and the reduction in England 16,921. In spite of an increase in the number of breeding ewes, there was a reduction in the number of lambs, owing to the unsatisfactory lambing season. The total was 7,169,192, or 100,617 less than in 1914. Lambing results were particularly unsatisfactory amongst hill flocks in the North, and in the Northern Division there was a decrease of 31,400 lambs, although 18,700 more ewes were returned. The reduction in the number of lambs in Lincolnshire was no less than .56,000.

The number of pigs, which increased largely in 1914, was reduced by 61,454 (2½ per cent.) in 1915, but the total 2,420,027, was more than 300,000 greater than in 1913. The number of sows kept for breeding was 298,163, a decrease of 42,221, or 12 per cent. This is a thing that can, and has been quickly remedied, for English farmers to-day in 1916 are holding well on

to their sows. The total number of horses on agricultural holdings in 1915 was, 1,287,182, or 112,365 (8 per cent.) less than in 1914, and every county participated in the decrease. The large reduction in the number was, however, mainly among broken horses on farms, and Mr. Rew says this was no doubt due to the demands of the Army.

The decline in horse-breeding noted in 1914 was continued, but not to so great an extent. The number of foals on the 4th June 1915, was 99,242, a decrease of 2.864 on the year, and nearly 13,000 below the average of the decennial period (1905-14.) The decline was relatively greater in Wales than in England, 5.5 per cent. in Wales and 2.1 per cent. in England. The only division which returned increased numbers was the northern, with a small increase of 120. The total decrease was almost equally divided between light and heavy foals. Stallions for service showed an increase, the total—7,689—being 189 greater than in 1914, and the whole of the increase was in light stallions, there being a triffing decrease among heavy stallions. Of the total, 2,969 were returned as light and 4,720 as heavy. Unbroken horses, one year old and above, decreased by 10,990, the total returned being 202,078.

The area under the three chief corn crops-wheat, barley, and oats-in England and Wales in 1915 was 5,489,939 acres, an increase of 248,044 acres as compared with 1914. Wheat and oats were both grown on increased areas, but the acreage under barley was reduced. The wheat acreage—2,170,170 acres—was 20 per cent. greater than in 1914 and 25 per cent. above the average of the ten years, 1905-14. So large an area has not been devoted to wheat since 1891. The area

under barley, however, which was 1,231,722 acres, 273,409 acres less than in 1914, and was the lowest yet recorded. In every division of England, except the South-Western, the acreage was reduced by 15 to 25 per cent. The acreage under oats, was 2,088,047 acres, an increase of 158,421 acres on 1914, but only 24,869 acres above the average of ten years.

Beans were grown on 266,515 acres, which was 9 per cent. less than in 1914, but there was an increase of 1,000 acres in the East Riding of Yorkshire. There was also a reduction in the acreage under peas, which was 129,831 acres, 23 per cent. less than in 1914, and

the lowest yet recorded The acreage planted with potatoes in 1915 was 463,399 acres, 1,778 acres more than 1914, and 28,450 more than the average for ten years. Only once has this acreage been exceeded, viz., in 1905. Lincolnshire added 380 acres to its potato growing area, although there was a decrease of 1,730 acres in the Holland Division of the county. The West Riding of Yorkshire increased its potato acreage by 1,350 acres, but there was a reduction in Lancashire of 2,550 acres, and in Cheshire of 2,740 acres. The acreage of turnips and swedes, for the fourth year in sucession, was the smallest on record, and the total, 931,856 acres, is now 16 per cent. less than the average for ten years. The reduction of the acreage of mangolds was relatively smaller, but was 4 per cent. less than in 1914. The decline in the acreage of clover, sainfoin, and grasses under rotation, has, however, gone on steadily since 1907, and was continued last year, the total, 2,362,365 acres being 331,102 acres below the average of ten years. The acreage of permanent grass was 28,367 acres less than 1914, but the total, 16,087,393 acres, was 16,000 acres greater than in 1913. Small farm holdings would appear to be reduced in numbers and middle sized farms are increasing. ALBION.



A Good Head and Eye.

A Few Valuable Live-stock Shipping Hints.

The Union Stock Yards of Toronto Ltd., are sending out a number of bulletins intended to aid in the prevention of bruises and injuries to stock on the way to market. Bruises result in losses of more than \$1,000,000 annually in the vicinity of Toronto. Here are a few of their paragraphs of advice which are reasonable and should be acted upon:

Dehorn your cattle. Farmers—use care in delivering stock to loading

station. Drovers—use care in loading at shipping point. Report to your commission firm, or stock yards management, any trouble with loading pens or chutesremedy will result.

Don't beat animals with sticks.

See that there are no nails or projections in cars. Report to your commission firm, or the stock yards manager, any abuse of your stock in unloading. firm time loaded, with car number, and report any delay in

movement and train service.

Bear in mind that losses through bruised animals

find their way back to the seller. Tie all bulls in cars.

Watch the condition of cars.

Avoid mixing horned and dehorned cattle. Make it a point to apply caustic as soon as the calves' horns appear. This is just as important an operation as the castration of bull calves, and will result in as much increased value.

Never beat animals with sticks-buyers don't want bruised meat, and set price accordingly. Be sure your car is well bedded and free from

Cattle are dehorned free of charge at Union Stock Yards, Toronto. Don't fail to avail yourself of this privilege when buying stockers and feeders.

Remember every time you strike an animal you take dollars off its value Dehorning prevents: Damage to beef; damage

to hides; damage to each other; injury to attendants; and helps keep up fences on the farm.

Castrate all buck lambs now and receive highest

price when marketed. Castrated lambs are at a premium on all live-stock markets.

Dock all lambs. The improved marketing appearance will repay you well.

Reasons: The tail of a lamb is useless; the accumulation of manure on a lamb's tail breeds disease

and maggots; docking adds greatly to appearance.

Castrated and docked lambs will make better feeders, rest more contentedly, produce more weight on the desirable cuts than a buck lamb. When shipping lambs see that car is well bedded

with straw, and load not more than 70 per deck.

Bed wagons well and do not overload when bring-

ing hogs to town.

Don't stuff or overfeed your hogs when shipping.

It is a dangerous practice and often results in suffocaespecially in warm weather.

Bed cars during warm weather with sand; straw and sawdust will heat.

Partition off all weak, crippled and vicious animals. Do not market thin, unfinished hogs. A thin, growing pig will produce dollars to the farmer, and is worth little to the packer. Market weights from 175 to 220 pounds.

Two Feeds or Three Per Day?

Cattle feeders have different opinions as to the advisability of feeding beef cattle being finished for the market, two or three times per day. Some claim that feeding three times makes needless work, and that the cattle do not make any heavier gains than when practically the same amount of feed is fed in two feeds per day. Of course, in each case good feeders emphasize regularity. It would be folly to feed twice to-day and three times to-morrow, and so continue without any set rule. While talking W. G. Rennie, recognized as one of the leading farmers in York County, a few days ago, he happened to remark that he had just loaded his beef cattle on the car at Agincourt, ready for the Toronto market, and in the course of conversation he stated that last winter he tried feeding twice per day in place of his usual practice of giving three feeds per day, and that it would be his first and last trial of the method. As a general thing Mr. Rennie, by feeding three times per day, is able through the season to put on about 300 pounds gain on each steer. By this is meant that the cattle are 300 pounds heavier when sold on Toronto market than when bought on that market for feeding in the fall. The cattle this year did not make as good gains, for, weighed full at the shipping point, they had only made a gain of 300 pounds each, and they would likely lose from 40 to 60 pounds each before being sold on the Toronto market. There is room for some experimental work in the matter of feeding twice or three times per day, as good feeders can be found who claim their cattle make just as good gains when fed only twice per day. We sometimes wonder whether or not they actually weigh the cattle fed. These cattle would average around 1,200 pounds when finished. It is a different matter with pigs. They are fed almost entirely on concentrates, and twice-a-day feeding does as well as oftener.

THE FARM

Observations in Hastings County.

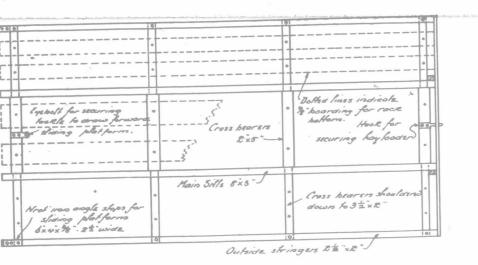
On a recent visit to Hastings County, noted as one of the good dairy districts of Eastern Ontario, a representative of this paper found the farmers suffering from the pretty general unfavorable weather. This had impeded farm work and made seeding very late, as has been the case almost everywhere in Ontario this season.

A noticeable feature in connection with farm crops was the attention being paid to and the interest taken in sweet clover. This type of legume will receive a thorough test in Hastings County year and the following seasons, when it will establish itself on the farms of the county or prove that sweet clover is not adapted to present day agriculture. What is true in Hastings county regarding the enthusiasm centering around this plant, long considered a weed, is pretty much the case all over Ontario. Wherever representatives of this paper interested in sweet clover and determined to test its usefulness on their own farms.

Hastings County is, strictly speaking, a dairy district. The dairymen are served by approximately 70 cheese factories and 3 creameries. The former are joint-stock companies in which the milk producers themselves are the chief share holders. On the day prior to our visit to the county, cheese sold on the Stirling Board for 1915-16 cents. This indicates prosperity for the men who are instrumental in supplying the milk from which dairy products are made. of these cash earnings are being invested in buildings and conveniences in the home. One young man was visited, who, although he had not been farming for himself very long, was installing a water system to supply the barn, milk house and dwelling. The stables erected some years ago show a lamentable dearth of light and ventilation but the newer buildings are being

put up according to modern teaching.

The District Representative in the county, A. D. McIntosh, has on every occasion, when an opportunity presented itself, advocated better stabling conditions and this campaign is evidently bearing fruit. Farmers call frequently at his office in Stirling to receive information and suggestions on all matters pertaining to agriculture in the county. During the month of April 1916, the Call Book in which the record is kept, showed 225 callers who interviewed Mr. McIntosh personally,



PLAN OF MAIN RACK -: SCALE OF FEET !-Fig. 1.

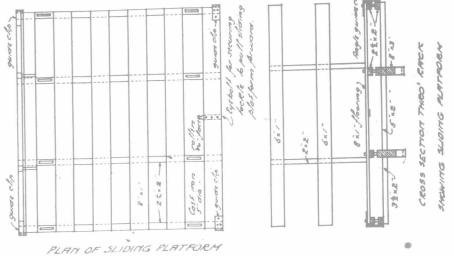


Fig. 2.

and 50 telephone calls. Treating grain for smut, spraying, pruning, treatment for black leg, and seeds were the topics upon which information was most commonly requested. The representative expressed regret at being obliged to lose his assistant, G. A. Williams, who was transferred to another county. Up to May 6, ten druggists in Hastings County had sold 1,077 lbs. of formalin and expected to dispose of 550 more pounds for treating grain before the season Three-quarters of a ton of formalin properly applied would prevent the loss of many bushels of grain.

Some large and well-cared-for orchards were observed in our visit to this Eastern Ontario county, which boasts of about 12,000 acres in all. Twenty-five per cent. of this acreage, it is claimed, is handled in a commercial way or receives such care as would tend to make it a paying proposition.

A Cement Walk to the Barn.

On the majority of farms no provision is made for a dry walk from house to barn, although the distance, whether it be long or short, must be traversed many times a day. On sandy soil it is possible to make and keep a fairly satisfactory earth walk, but in the clay districts the walk cuts up every spring and fall and is sloppy after every rain. No one particularly desires to tramp through mud when going to work or coming to meals and yet thousands of families living on the farm must do that very thing. Blocks of wood or old boards are sometimes thrown down to walk on but at best they are only a temporary arrangement and soon break up or get displaced. A permanent concrete walk is within reach of most farmers. The gravel can be hauled in the winter when the teams are not busy and experts are not required to lay the walk. Any handy man could mix the gravel and put it down in a short

On a farm recently visited there was a three-foot concrete walk from house to barn and in the estimation of the writer it added many dollars to the value of the farm. One could go to the milk-house or barn in comfort, even in the wettest season. The walk also aided fort, even in the wettest season. in keeping dirt from being carried into the house on the men's boots. The walk was about five inches thick. The bottom four inches was made of one part cement to eight parts good gravel and the top inch was one part cement to three parts sand. It was blocked off in three-foot squares, except where the wagons crossed and there it was in six inch squares. There is always a danger of frost heaving a concrete walk, but this can be largely overcome by good drainage. In building a walk, a trench is dug about four inches wider than is desired, and four inches deep. Two by four scantlings are then staked in place and raised one inch from the bottom, to hold the concrete until it sets, then they should be removed. The cement and gravel should be thoroughly mixed before being placed in the trench. An iron or wooden block may be used to pack the concrete. A thin iron may be put across the walk every three feet to divide it into blocks. This can be removed when the concrete has set. Frequently heavy iron is used to cut the blocks after they have partially set. Fither method is practicable. The expense of a walk for the average farm is not great. When the distance is one hundred yards, about eleven cubic yards of gravel, three cubic yards of sand and fifteen and one-half barrels of cement would be sufficient to put in a permanent walk. If the farm teams are used for hauling the gravel and sand, \$1.50 per yard should be a fair price for that material laid down at the farm. The price of cement varies, but at \$1.60 per barrel the total cost for cement, gravel and sand would not exceed \$45. It would only cost a few dollars to mix the concrete and by the walk. The cost would be considerably crete and by the walk. The cost would be considerably reduced if no account was taken of teaming. Many buildings are less than 100 yards apart, while others are a greater distance. The cost would be lessened or increased accordingly. Even if it does cost fifty or sixty dollars to put down a permanent walk that will keep the feet dry and clean when going to and from the bart, those who have so invested their cash claim it was money well spent. A population walk may be a triffing money well spent. A permanent walk may be a trifling thing, but it greatly improves the appearance of the

Sliding Hay Rack.

One labor-saving device frequently suggests another, and so the hayloader creates a use for a sliding hay rack. The hay is delivered at the rear of the wagon and must be forked to the front, thus necessitating the labor of two men'in order to properly and conveniently build the load. By using the sliding rack the front half of the load is built first, then drawn ahead and the remainder of the load put on. One man does the work that requires two with the ordinary rack. Those who have used the sliding rack in conjunction with the hay loader speak highly of its efficiency as a labor saver. The accompanying illustration shows in detail the construction of a rack which has been used by Charles M. Fischer, of Waterloo County, for two years. It is claimed to be easy to operate, to lessen the work of loading, and by having the load in two sections, it tends to facilitate unloading whether it is done by hand or horse-power. Figure No. 1 illustrates a plain, flat rack that can be used for either hauling hay or sheaves. The plan of the sliding platform is shown in Figure No. 2. This is fitted with rollers which run and the cills and outside attingence of the prain rock. on the sills and outside stringers of the main rack. It is fastened to the back of the rack while being loaded and then is quite easily drawn forward by means of a small block and tackle. Guide-clips on each corner prevent it from getting out of place. This portion of the rack is not heavy and is easily removed, as it simply

and managed to retain the humus and plant food. These farms furnish good crops practically every year, and go to prove that the abandoned farms in the district might have been saved if the soil had not been robbed.

Pine trees do well on this light soil, and possibly would have given greater yearly returns, if handled properly, than any cultivated crop. In some places an endeavor is being made to rectify the mistake made by the pioneers. Many acres of practically waste land are being set to pines each year. It will be a number of years before the small, two or three-yearold trees will be large enough to cut for lumber, but if lumber remains at the present price the trees will give a fairly good rental for the land. The Government Forestry Farm in Norfolk County has supplied a large number of farmers with trees to be used in reforesting waste parts of their farms. The value of this work is shown by the increasing number of orders for trees each year. One corner of the Forestry Farm that was blow sand eight years ago is now a regular pine forest. In the seven years the trees have attained a height of about twelve feet, which shows the rapid growth they make in soil that is valueless from a cereal crop standpoint. The past generation reaped the harvest from these areas that are to-day destitute of herbage, but by planting the waste places to pines the future generations will reap the benefit.

It is also possible to reclaim and make valuable from an agricultural standpoint many acres that

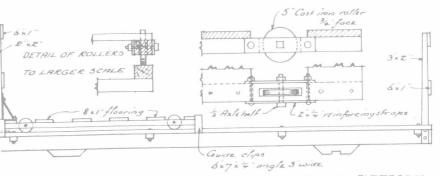
are counted worthless today on account of the drifting nature of the soil. If humus can be incorporated, the sand particles will be bound together, moisture will be retained and agricultural crops will grow. It is difficult to get a catch of red clover, but it is possible that rye or buck-wheat will grow. After plowing under one of these crops it frequently happens that cloyer will grow the following year.

When a crop of clover, to plow down, can be secured, there is a possibility that the soil can be made productive. There are demonstrations of this in many blow-sand sections. In one locality where there are abandoned farms not far distant, there was a field of drifting sand with only a few mullins growing four years ago. It hadn't produced a crop for years, but to-day it shows as fine a stand of wheat as one could wish. How was the change brought about? Plowing under green rve or buckwheat and clover has added life-giving substance to the earth and this year the field will laugh with harvest. This kind of soil will certainly require more feeding than the heavier soils, but by judicious cropping profitable returns are made. Fruit trees have been planted in the sand where it was difficult to keep the roots covered the first year. By growing and plowing under the crops mentioned the

satisfactory growth. Where sweet clover has been tried it has proven to a valuable crop in making over these worn-out All legume crops are soil renovators and as this particular one is considered to be the least difficult to grow, it may play an important part in reclaiming land that has at one time been robbed of elements essential to plant growth. Legume crops are gaining in favor. They are demonstrating their value as a feed as well as their power to improve the soil. On many farms a large acreage is seeded to clover each spring, but there are others where more clover might profitably be sown. Legumes give life to the soil and have a beneficial effect on clay soils as well as on drifting sand.

soil is being built up and the trees appear to be making

A District Representative in one of the Eastern Ontario counties writes "The Farmer's Advocate that a local druggist in his district has sold over 50 gallons of formalin in bulk, and 2 gross of formalin in sealed bottles, making a total of 688 pounds in the spring of 1916. This was for treating grain for smut.



ELEVATION OF MAIN RACK AND SLIDING PLATFORM

Fig. 3

rests on top of the other rack. Figure No. 3 is a side view of a rack showing the sliding platform drawn to the front. Above the rack the rollers are shown in detail. The five inch rollers with three-quarter inch face have given satisfaction. They run on a half-inch axle which fits into strips of iron which are bolted to the sills as a reinforcement. When this style of a rack is used it makes it possible for one man to build the load. Very little time is required to move the loaded part forward. A hay fork or slings for unloading can be used as well as with the ordinary

Holding a Sand Farm.

Proof, that soil does not always remain productive without judicious care and returning to it each year. in the form of farmyard manure, green crops or fertilizers, plant food to make up for that removed by cropping, is in evidence in different parts of the Province where sandy farms are being abandoned. Pioneers say that these very farms, whose surfaces move in the direction the wind is blowing, were one time covered with great pine trees and when the land was cleared it produced rom thirty-five to forty bushels of wheat to the acre. The nature of the soil made it easy to cultivate, and evidently it was thought possible to continue growing wheat and selling it year after year without keeping much stock on the place. Where this policy was adopted the soil soon lost what humus it contained and there was nothing left to bind the sand particles. To-day these farms are a desert of drifting sand and bear witness of a short-sighted policy in farm management having been followed. However, there are farms in the midst of this waste

land, like oases in a desert, that have been cropped

In the prof

JUNE 8, 19

The P EDITOR "THE

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The Practical Small Farmer.

EDITOR "THE FARMER'S ADVOCATE"

In the profitable management of the small farm the greatest factor to be considered is the farmer himself, and the amount of brain power he is able to exercise in the proper development of his few acres. Joseph Chamberlain, the great British statesman, is responsible for the statement that three acres and a cow were sufficient for food, clothing and shelter, for an average

In the development of his farm every farmer has to meet his own problems, although he can, to a limited extent, profit by the experience of others. Statistics may go to show the failure of the small farm, but there must be a reason for this condition. Let us endeavor to analyze. The small farmer is in the same relative position to the extensive farmer, that the small store is to the large departmental store. The larger store can make sufficient surplus profit in some department to more than counterbalance a deficit in another. In the case of the small merchant he must endeavor to handle his goods in such a manner, that no line gives him a loss. So with the small farmer, continually awake to the most modern methods of cultivation and crop production on an intensive basis, there can be no allowing any part of his land, or stock, to be unprofitable.

The man who takes the small farm is usually of the laboring class, very often coming from the larger cities where the dreariness and the drudgery of the average labor conditions has caused him to seek better prospects. In a great many cases the thought of the farm appeals to him as a place of unlimited food supply, obtained by the simple process of dropping a few seeds in the ground and keeping a few hens and one or two cows, as the case may be. As a rule it does not dawn on the prospective farmer that necessary to these few things is required a great deal of expended mental and physical energy, to mature them to a point where they will show a balance on the right side of the ledger.

For example: On a good average farm of about seventy-five acres, the owner, who ran an extensive summer boarder business, produced only about twentyfive per cent of the requirements of his summer table. A number of low grade cows were kept where two or three first-class, well-bred cattle, would have given a greater yield, and taken less labor and pasture. The lack of personal enterprise, and a desire to have things come too easily, are mainly responsible for this condition. Not half a mile distant is another man who rented a farm two years ago, of approximately fifteen acres of arable land and fifteen acres of bush pasture. Leaving a position with only a week's wages due him, having to borrow one hundred and fifty dollars to help stock his small farm and get under way, this man recently stated that he had not only repaid the loan, but had bought another cow and a horse, still retaining a surplus on deposit in the bank. The first party is turning his land over to sheep, thinking that they will give the greatest returns for the least effort. The other man intends trying to crop alfalfa thereby increasing his crop and enabling him to winter more cattle. His greatest source of income is from a summer milk trade. These examples are merely cited to show that in a few cases chosen at random, the success or failure is largely due to the individual qualities of the farmer himself.

As a matter of fact, to be successful on a small farm requires more real business ability than an actual knowledge of farming. It requires the determination to make two ears of corn grow where only one grew before, to produce better stock, better poultry, more eggs, in fact to produce and have only that which will grade first-class. There is one quality that every farmer must possess and that is the quality of stick-to-itiveness. There is a reason for every failure. Look

for and find that reason, and success will be yours.
Allow no part of the farm to be unproductive; the by-products of one branch must serve the needs of another; and, above all, let none of your moments be idle, if you are not actually at work during the hours assigned to labor, use this time in constructive planning. This course followed by a determination to fulfil these

plans will work wonders on any farm.

Any mechanical device which is a time saver and of moderate cost should be utilized, thereby allowing more time for the power develop Fertilizer must be carefully and scientifically applied. Study the rotation of crops from year to year; wherever possible have succession crops. This applies particularly to the farmer who goes in for truck gardening, for the art of having a fifteen-acre-producing farm on ten acres of land is indeed one worthy of the closest at-

One of the greatest helps to the farmer should be the reading of periodicals dealing with things about the farm, and the sorting into places of handy reference the articles having a bearing on his particular needs. A careful perusal of the advertisments is suggested, for here the farmer will find all the latest and the most modern ideas displayed for his attention, and it is wonderful the amount of information a two cent stamp will

The Departments of Agriculture are at his command and a request will bring information on almost any subject dealing with the farm and its products Surely in the results of the thousands of dollars spent annually by the various Departments of Agriculture the small farmer will find many things of benefit It is to be regretted how little these educational factors are used

by the average farmer of to-day.

It is essential for the small farmer to gauge his market properly, and then to grow the products that are in the greatest demand. For example, in a country where every effort is turned to the growing of wheat

other crops will, in all probability, yield the small farmer a much greater profit. The farmer who will grow earlier and better vegetables than his neighbor will always find a ready market for his products at advanced prices. The means are many whereby the farmer can increase the profits of his few acres by a little careful forethought. It has been said: "If a man make a rat trap better than his neighbor, the world will beat pathway to his door'

As an illustration of what can be accomplished on a small plot of ground, the following is of interest: On two acres of land, an effort is well under way to establish a self-supporting home. First of all a pure-bred Jersey cow was installed which has already duplicated herself in a heifer calf. A large truck garden has been started and samples of soil have been sent to an agricultural college for analysis and the land will be treated as directed by the college authorities. Fruit trees have been planted wherever it has been possible to put them, as the demand for all kinds of first-class fruit is excellent. One building was erected with the idea in view of accommodating all the live stock. The major portion of this is devoted to a line of fancy poultry. These birds have shown a profit of over one hundred dollars the first year, aside from the winning of nearly fifty dollars in prizes. At one end is the stable for the cow, at the other is the office above which is the small greenhouse used for the sole purpose of obtaining early plants for the garden, the floor area being only one hundred and fifty square feet. Built on the roof above the cow stable is the permanent bee house, without which no small farm is complete, for as a profit maker bees have no equal for the money invested. In a corner of the poultry house is a small hutch, and the interested inquirer is informed that this is the home of a pair of valuable black Siberian Hares being raised with a view to trying them out for their fur-bearing qualities. Behind this building are the winter quarters of the Indian Runner ducks. Egg machines they are, their like cannot be duplicated for this purpose. From Feb. 11 to Nov. 14 of the same year seven ducks averaged



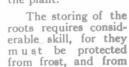
The government of Canada, through the press and other mediums, is urging the farmers to produce more, and economize to the greatest possible extent. There are several ways, small it is true, but none the less important, in which this may be done, and which are usually overlooked on the average Ontario farm. One which is within the reach of every farmer is the home production of mangel seed.

The amount of field root seed used in Ontario annualapproximates 1,000,000 pounds. Of this amount, 350,000 pounds is mangel, and 250,000 pounds sugar beet seed. The source of supply for these is northern France, England and Germany. The production in these countries is, of course, greatly reduced, and it is owing to the fact that the war has touched this, as well as almost every other industry, that attention should be turned to the growing of these crops in Canada, with a view not only to producing sufficient for home use, but to the building up of a permanent industry.

Aside from the annual saving of hundreds of thousands of dollars which now go to foreign countries, the home growing of mangel seed offers other advantages. The farmer who grows his own seed knows that he is producing the variety he desires, whereas he has no reliable guarantee that the seed he purchases is true to name. Another important argument in favor of the home-grown product is that it yields better crops than imported seed. The results of experiments at the Ontario Agricultural College during the past six or seven years bear out this statement.

The successful production of a crop of seed demands compliance with certain conditions. The roots to be set aside for planting the following spring must be carefully selected while the crop is still growing. Large roots should not be selected as they are harder to handle, take up more storage room, and from the standpoint of quality and quantity of the seed produced, are no better than those of

better than those of medium size. Roots two or two and a half inches in diameter are the best, and should approach as nearly as possible the type of the variety they represent. They should be free from disease, smooth, and even, and any showing abnormalties such as pronginess or thick - neck, rigidly excluded. Harvesting must be carefully done so as to avoid breaking off the roots, and injuring the skin, which renders the root susceptible to rot while in storage. The tops should not be trimmed too closely, as it is likely to injure the crown, which is the seed-producing part of the plant.



heating and consequent rotting. They are usually stored in a root cellar or in pits. The cellar should be They are usually dry, well ventilated, and the temperature maintained at 35 to 40 degrees. If stored outside, the pit must be located in a well-drained situation which can be secured on sloping ground. The roots may be stacked three or four feet above the ground surface, and covered with straw and earth, the thickness of the layer varying according to climatic conditions,-ventilation being provided by means of a tile or other suitable contrivance. Twelve or eighteen inches of straw, and six inches of earth are usually sufficient, and the earth should be

gradually removed as the warm spring weather comes on.
A sandy or clay loam is best adapted to seed growing. Heavy clay does not yield as good a crop as the lighter The soil should be well drained, and heavily manured with well-rotted manure the season previous. Weeds, especially couch grass, are objectionable as cultivation cannot be carried on throughout the season. The roots are planted as soon as the soil is in good condition, which will be late May or early June. The roots are planted in rows two or two and a half feet apart, with the plants two feet apart in the row.

Where only a few are grown they may be planted in holes dug the proper distance apart. The root is set full depth with only the crown showing. This is important.

The seed is harvested when the clusters become a greenish-brown color. The crown is cut off, the stalks allowed to dry for a few days, after which they are then made up into small stooks, and allowed to become thoroughly dry. It is very important that the seed should not be exposed to freezing temperature, as even two or three degrees of frost seriously affects the germination. If only a small quantity of seed is grown it may be stripped from the stems, or may be threshed with a flail and cleaned with a fanning mill, after which it is stored in a cool, dry place, until required for sowing A. T. BROWN.

the following spring. Peterboro, Co., Ont.



A Building to Accommodate All the Stock.

one hundred and ninety eggs each. One duck was

killed accidently after having laid for three months.

Endeavoring to have only the best stock, always buying the best seeds obtainable for the garden, plant ing only the finest nursery stock, even on two acres there is every assurance that it will not only be possible to build up a self-supporting home, but one that will show a comfortable annual profit. The one essential is to plan your work and then work your plan. If a farmer cannot succeed and thrive on a farm of sixty acres it must be a matter of ignorance or laziness, both inexcusable, but to succeed on a farm of ten acres or genuity. One of the main factors is to acknowledge our own personal element and carefully analyze it. Learn the art of self responsibility or the capacity to make yourself do the things needed without being taken to task.

The farmer's one motto should be: "Never put off till to-morrow" and a strong will is needed to entirely overcome the evils of procrastination.

ELDON K. STAEBLER. Leeds Co., Ont.

Following the lead of Russia, recognized as a pioneer in systematic investigations into the relations of plant growth, crop production etc., and climatic conditions, the United States has established a Division of Agricultural Meteorology under Prof. J. W. Smith for several years section director of the Weather Bureau at Columbus, Ohio.

One of the most biting American newspaper cartoons recently depicted the German Emperor and his son in conference amid the ominous gloom of Verdun conflict:

The Kaiser.—"What progress have we to report?" Crown Prince.—"As far as you can see the corpses,

Sweet Clover Gaining in Favor.

Almost any county in Ontario can claim to be the home of sweet clover, but York County is the home of many sweet clover enthusiasts, and from observations we are inclined to think that sweet clover is doing York Jarmers some good and is making them some money. A few days ago, in the northern part of the county, we visited a farm where, growing in the same field, under similar conditions, the alfalfa if anything having the advantage, we found the two crops, sweet clover and alfalfa, side by side. The land was high and to all appearances suitable for alfalfa, but, while the crop had come through the winter without being actually killed, the plants were spindly, far apart, and did not show half the growth and thrifty condition of the sweet clover alongside. We are not citing this instance as a boost for sweet clover. We would advise those thinking of trying the crop to sow it only on a small scale at first, until they find out for themselves whether or not it is of any use to them. Several farmers in different parts of the Province have found that they

can grow, to good advantage, a small acreage of this crop. They have also found that alfalfa on a greater part of the soil of the Province is a risky crop, and cannot be depended upon to give, year after year, good yields. In a two-day trip by automobile through York County we only saw one really first-class field of alfalfa. There were several other fairly good fields, but most of them were killed in spots, and the alfalfa was being crowded out by June grass. It seems to be a fact that unless the soil and climate are particularly suited to the crop, alfalfa, a valuable crop where it can be produced successfully, is not a particularly safe proposition. The man on whose farm the two crops are being tried side by side has had sweet clover before, and is this year sowing a fairly large acreage. He finds no difficulty in getting his stock to eat it, and naturally while the crop is comparatively a new venture on his place, he looks for it to do his farm considerable good, and at the same time provide winter feed for his Holsteins and Percherons. The time is past when sweet clover can be regarded as a weed, and weed only. It is establishing itself amongst the pasture, hay and fodder

crops of the country, and for building up light, sandy soil, or poor land, it has a value which cannot be ignored.

THE DAIRY.

The American dairy cow is now officially credited with an average yield in 1915 of 5,370 lbs. of milk.

In a recent contribution to the Milk Trade Journal, Prof. L. L. Van Slyke states his conclusions that a strictly accurate basis of payment doing full justice to each milk, according to its composition, must consider both fat and skim-milk solids or solids-not-fat, allowing for each pound of solids-not-fat, one-tenth the amount allowed for fat. The solids-not-fat must be determined in each case as well as the fat.

A Day in an Up-to-date Cheese Factory.

Cheese is one way in which thousands of tons of milk are marketed each year. The manufacture of cheese is not a new industry by any means, as ancient history gives accounts of this product being found in the larders of the people three thousand years ago. Many European countries are noted for the cheese manufactured in their dairies, and the art of coagulating the solids of milk and making them into cheese was introduced to this country by the first settlers. It was one of the easiest and most profitable ways of disposing of the milk during the summer months. Wherever sufficient milk could be secured within a radius of six or seven miles a factory was erected and run, either by a private individual or by a co-operative company, the members of which were all milk producers. Until recent years there was very little competition for milk. Consequently cheese factories did a flourishing business.

The use of the cream separator and the possibility

of shipping cream to large creameries and having the skim-milk remain on the farm for use in raising hogs and calves, the increased demand for whole milk to supply the city trade, the starting of condenseries and milk powder factories, all tended to rob cheese factories of a large amount of their raw material. In some sections competition was so strong that cheese factories were forced to close their doors. However, the abnormal demand for cheese the past two years has caused the price to advance to the point where cheese factories may compete favorably on the milk market. With cheese selling wholesale around 19 cents per pound, factories are able to pay from \$1.40 to \$1.50 per hundredweight for milk. The patrons usually have the whey returned to the farm, and, with the present price of hogs and millfeed, good pasteurized whey is valued at 20 cents per hundred pounds by many feeders.

While there are numerous kinds of cheese on the market, Canadian manufacturers have specialized in making Cheddar cheese to such an extent that the quality produced gives their product premium place on the world's markets. In 1915 Canada exported over 137,000,000 pounds of cheese, valued around \$25,000,000. It is claimed that for home consumption four times this amount is required. These figures will show the extent and importance of the industry to Canadian dairymen. During the past year dairymen were especially favored with an abundance of grass and a high price for the product of their herds. This year the season is commencing favorably. Grass is plentiful and prices for cheese are high. In many factories the quantity of milk received is considerably in excess of the amount for the same date last year.

In order to manufacture a large quantity of cheese of high quality, the building and equipment should be up-to-date for handling the milk from the time it reaches the factory until it is placed on the market in the condensed form as cheese. The cheesemaker requires to have a knowledge of chemistry and bacteriology, besides plenty of practical experience in dealing with the various problems which confront him. At times he must be a diplomat in order to deal satisfactorily with some of the patrons who are dissatisfed with the test or have had a day's milk returned. To the casual observer cheesemaking may appear to be easy work but when a uniform product of high quality must be made of a conglomeration of raw material from probably 100 different sources, keen judgment, quick action and hard work are involved of a cheef until and have it deliveted to the factory in a wave condition, free from bad flavors, the work of as class and a world be lightened, the loss of that in the taken world be lightened, and a superior world. I trevalent

Milk for Making Cheese.

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should be cooled to 60 degrees F. immediately after it is drawn. The aerater, which was once in use, has been discarded in most sections as cooling the milk by setting the can in water is found to be preferable. The milk-house or place where milk is cooled and kept over night should be free from disagreeable odors. Particular attention should be given to the washing of cans and utensils. Fat or dirt cannot be removed by cold or luke-warm water. A good washing solution that will cut grease should be used in the first wash water and then scalding water should be used for rinsing. This will dislodge dirt and destroy any harmful bacteria that might be lurking in the seams or creases of the utensils. from fresh cows should not be sent until the ninth milking and milk from a sick cow or one off her feed should never be sent to the factory. The cheesemaker can detect these things when the milk is heated in the vat. Every patron of a cheese factory should have a covered milk-house in which to cool the milk and prevent rain water from contaminating it. Where the milk must be left on a stand for any length of time in the morning, some shelter should be provided. There is no product of the farm that deteriorates in quality so quickly as milk, unless special care is

Buildings and Equipment.

From the standpoint of buildings, equipment, and system of management, the Innerkip factory, in Oxford County, might well be copied by anyone intending to build a factory or to renovate an old one Dairymen in the district realizing the advantages of having a cheese factory in their midst to furnish a home market for their milk, organized a joint stock company and erected part of their present factory in 1873. It is a company formed by the dairymen for the benefit of the dairymen, and is not run to enrich any one man or number of men. Expenses of operating the factory are deducted from the receipts each month, and the remainder divided among the patrons according to the amount of milk and butter-fat delivered. A board of directors, who appoint a president, secretary, treasurer, and salesman, are elected annually by the members of the company to manage the season's business. A cheesemaker is engaged at so much per hundred pounds of cheese, and he furnishes everything used in the manufacturing of the cheese. Any improvement about the factory that will aid in facilitating the work in the factory or in improving the quality of cheese is readily made by the up-to-date board of directors. Cheese is made only during the summer season, and a complete equipment for making butter during the winter months is on hand. During the past year 208 tons of cheese and 35 tons of butter were manufactured

Anyone driving along the road is given a good impression of this factory. The grounds are clean and tidy, the buildings are kept painted, along the front is a well-arranged flower garden and the south windows are full of potted plants in full bloom. A little paint and a few flowers add much to the appearance of any building. The credit for keeping things in such excellent condition is due to the cheesemaker, E. M. Johnston, who has been at the helm and has guided the work in and around the factory for the past eighteen years.

The main building where the milk is received has a cement floor sloping slightly to a gutter which is used to remove whey and wash water. The scales for weighing the milk and six large vats are placed in this building. Mechanical agitators used in each vat are run from an over-head line shaft. During the butter-making season the vats are removed from one end, and separators, pastentizers, coolers and churns are set up. The same line shaft is used for running the machinery. At one ide of this building is the engine room, and at the critis aroom where the curd is milled, salted and paid in the presents At the end of this and running at ight angles, is the curing room and ice house. The autside appearance of this building tesem is a local set the instead was to keep the scasons as he must at was majored. The present-day method is to ship out every ten days

or two weeks. The over-head part is now used as a storage, except a small portion which is partitioned off as a board room. On the ground floor is a small storeroom, a large curing room and an ice chamber which holds about 30 tons of ice. The walls of this building are four feet thick and it was possible to control the temperature fairly well without ice, but a good deal of mould developed on the cheese. This difficulty is largely overcome by regulating the circulation of cold air from the ice chamber. The walls, floor and ceiling are so thoroughly insulated that a change in temperature outside exerts very little influence inside. The temperature is kept around 50 degrees. F

degrees F The whey is run to a large galvanized tank and is pumped from there to an elevated tank from which the milk haulers secure the supply for the patrons. Whey is thoroughly pasteurized and the tanks washed each day. The result is that the patrons have a sweet product to feed their hogs or calves, and there is absolutely no foul odor around the factory. Every patron gets his just amount of whey returned, as a man is engaged to come each morning and measure out the allowance. He uses the milk sheets and gives around 70 pounds of whey for every 100 pounds of milk. This method avoids a good deal of trouble. All sewage is disposed of through the septic tank. Consequently there are no stagnant pools of putrefying milk or whey in the vicinity of the factory. Several years ago the directors drilled for water and were

fortunate in striking a flowing spring. This insures an abundance of pure, cold water the year round.

The "pooling system" of paying for milk was discarded 22 years ago. When paying by test was first adopted there was a little dissatisfaction for a year or two, but when the patrons realized the fairness of the new method, all controversy was dropped, and now no one would be satisfied with receiving payment according to the quantity of milk delivered.

payment according to the quantity of milk delivered. As the factory is located about four miles from a shipping point, the expense of hauling cheese to market would be a considerable item if one man was hired to do the work. To avoid this expense the patrons take turns in shipping the cheese, and it is to their credit that they seldom fail to do their share of the

The district from which the factory secures it milk supply is divided off into routes. Hauling the milk and returning whey is usually contracted for at so much per season. Between seven and eight o'clock, five days of the week, about 25,000 pounds of milk are received, and on Monday mornings almost twice this weight. To manufacture this amount of milk into cheese Mr. Johnston employs three men.

From Milk Can to Curing Room.

A cheesemaker and his assistants are kept busy from sunrise until well on in the afternoon. Before the milk starts coming in, the cheese in the curing room must be turned, the boiler fired up, the previous day's cheese must be placed in the curing room, and everything got in readiness for the day's operation. As the milk is weighed in, a sample is taken from each patron's can and placed in a composite sample bottle to be tested at the end of the month. The milk is piped to the vats, and about 10 pounds of starter is added to each 1,000 pounds of milk, and the milk is heated to 86 degrees. The starter introduces the proper kind of lactic acid bacteria to sour the milk. When colored cheese is being made, threequarters of an ounce of cheese coloring to 1,000 pounds of milk must be added. When the milk shows 1.7 per cent. acid with the acidimeter it is set, by ng three ounces of rennet to 1,000 pounds of milk. While rennet is being added the milk is kept stirred to evenly distribute the rennet. It takes about thirty minutes to coagulate the solids of the milk. much acid hastens coagulation, while alkali retards it. Consequently, in order to have a uniform quality of cheese, the maker must pay close attention to details. Curd is coagulated casein which holds in its meshes most of the fat, some water and a small portion of albumen, sugar and ash of the milk. It ready to cut when it breaks clear before the finger. A horizontal curd knife is used first and is drawn

lengthwise of the knife is used with Care must be t position to avoid cut the temperato expel the wh either by use of in heating it ever gether. It take the milk is set The curd overcooked it res a weak-bodied test to determi has been displace to use and mor dicated, whey is into a vat with stirred for some The quicker it cheese it makes bility of serious curd, or allowing ripe milk also t always kept of the time of ac milk is good eve of curd from da some of the mill to regulate the and it is almost cheese.

the curd, it is milling, and it put through the certain degree is salted. Salt the process of not give equal watch must be Regular cheese an injur finished product but about two used at this t curd is spread of it. This is the remainder is pr to thoroughly requires a shor but when the velvety feeling,

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From start factory has no kept on the c at the right ti the quality of portant work ing everything scalded after times every da as well as the and dried in r must also be v Along with thi kept clean. I every spring to ing, as well as work done in being accomp

Ripe

Cheese is is held in stora Some markets In the curing of the cheese raised the che is the highest be obtained. will injure the will spoil the aim at keepir This can be d built and ice mould to deve to prevent th the temperatu atmosphere be of shrinkage i impossibility tories ship th they are store where the ten control. Clos are looked fo

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lengthwise of the vat. Afterwards a perpendicular knife is used which cuts the curd into small cubes. Care must be taken to have the knives in proper position to avoid jamming the curd. As soon as it is cut the temperature is raised to cook it, in order to expel the whey. The curd must be kept moving, either by use of a rake or steam agitators, to assist in heating it evenly and to keep it from matting to-gether. It takes about three hours from the time gether. It takes about three hours from the time the milk is set until the whey is ready to be drawn The curd must be properly cooked. If it is overcooked it results in a corky cheese; if undercooked, a weak-bodied cheese is the result. The hot-iron test to determine when whey should be drawn off has been displaced by the acidimeter, which is handier to use and more accurate. When 1.6 of acid is indicated, whey is siphoned off and the curd is dipped into a vat with a slatted bottom and kept thoroughly stirred for some time to expel the whey and dry it. The quicker it can be dried after dipping the better cheese it makes. Up to this time there is a possi-bility of serious loss of fat by careless handling of the curd, or allowing too much acid to develop. Over ripe milk also tends to cause loss of fat. Account is always kept of the amount of milk in each vat and the time of adding rennet, etc. If the quality of milk is good everything runs smoothly and the quality of curd from day to day is of similar quality, but if some of the milk is "turned" a little it is more difficult to regulate the time of cooking, gassy curds develop, and it is almost impossible to produce good quality

After most of the whey has been expelled from the curd, it is allowed to stand for a time before milling, and it assumes a meaty texture. After being put through the mill it is again kept stirred until a certain degree of acidity is indicated, then the curd is salted. Salting the curd is an important step in the process of cheesemaking. The same rule will not give equal results with all vats, therefore, a close watch must be kept in order to salt at the right time. Regular cheese salt should be used, as inferior salt has an injurious effect on the quality of the finished product. The amount of salt varies somewhat, but about two pounds to 1,000 pounds of milk is used at this time of year in many factories. The curd is spread out and part of the salt sprinkled over it. This is thoroughly mixed through before the remainder is put on. Several stirrings are necessary to thoroughly and evenly incorporate the salt. It requires a short time for the curd to take the salt, but when the gritty surface is gone and there is a velvety feeling, it is put in the hoops.

In the bottom of the hoop is placed a cap cloth, then a bandage is put in and the curd measured into the hoop so that a uniform weight will be maintained. When the hoop is filled, the top cap cloth is put on and the fibrous ring placed around the edge, and then the wooden follower is put in. The hoops are slipped into place in the press and pressure gradually applied. After about one hour in the press the cheese are taken out and the bandage carefully pulled up and turned down on top. Then they are put in the press for the night.

From start to finish the man in charge of a large factory has no idle time. A close watch must be kept on the curd in order that it may be worked at the right time. A little carelessness would injure the quality of a day's make. Included in the important work of cheesemaking is the matter of keeping everything clean. Cans, vats and utensils are scalded after being used, floors are washed several times every day and cloths used to cover the curd, as well as the cloth in the curd vat, must be washed and dried in readiness for the following day. Cheese must also be weighed and boxed ready for shipment. Along with this work the engine must be stoked and kept clean. In the Innerkip factory, time is found every spring to paint the whole interior of the building, as well as all the vats. There is system in the work done in this factory, which results in so much being accomplished.

Ripening and Marketing Cheese.

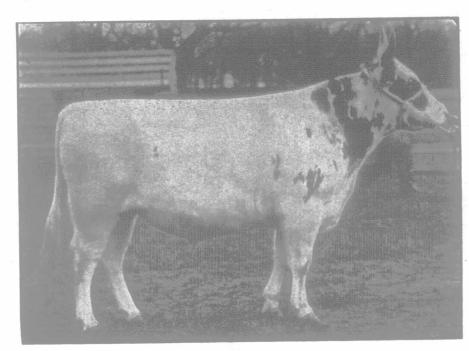
Cheese is seldom marketed in a green state, but is held in storage until it reaches a stage of maturity. Some markets demand older cheese than others. In the curing room various changes in the texture of the cheese take place. As the temperature is of the cheese take place. As the temperature is raised the cheese cures faster, but about 65 degrees is the highest temperature at which good cheese can be obtained. Seventy degrees for any length of time will injure the texture and flavor, while 80 degrees will spoil the best of cheese. Cheesemakers generally aim at keeping the temperature around 50 degrees. This can be done where the curing room is properly built and ice is used. Too much moisture will cause mould to develon, but a certain amount is necessary mould to develop, but a certain amount is necessary to prevent the cheese drying and cracking. When the temperature is allowed to rise too high, or the atmosphere becomes dry, there is a considerable amount of shrinkage in weight during curing. Owing to the impossibility of controlling these things many factories ship the cheese every week or ten days and they are strend in a control cold strange was house. they are stored in a central cold-storage warehouse, where the temperature and humidity are under direct control. Close body, fine texture, and clean flavor are looked for in high quality cheese.

Cheese is Nutritious, Palatable and Digestible.

Cheese is somewhat complex in its composition, but it has a high nutritive value. Some claim it is

hard to digest, and for that reason it is sparingly used in many homes. Numerous experiments have been conducted to test its food value and digestibility, and the results go to show that cheese cannot be discriminated against because of any suspicion that it is not a healthy food. In reality, it is milk in a condensed form that may be held with practically no deterioration in quality. One pound of cheese contains a large portion of the protein, fat and ash of one gallon of milk. No kind of meat carries such a large percentage of protein as cheese. Fresh beef, as purchased, has, weight for weight, very little more than half the food value of cheese, either in protein or fat. It is also claimed that one pound of cheese is equal to two pounds of eggs, or three pounds of Even at the present high price it is economical when compared with other foods. It might profitably be used in larger quantities than it is in this country.

The richer the milk the softer and more palatable the cheese. Although the casein of milk enters largely into the composition of cheese, the true value of milk for cheesemaking is in proportion to its fat content. The erroneous idea that the butter-fat content of



Chancellor. Champion at Ayr Show, 1916.

milk was wasted in cheesemaking has been one cause of a more strenuous effort not being made in cheesefactory districts to improve the herds along that line.

The cheese factories have had their good and bad years. Sometimes prices paid for milk were lower than other concerns were able to pay and they lost patronage, but, taking one year with another, the cheese factories afford profitable markets, especially during the summer months. Good milk, a well-equipped factory and an efficient manufacturer, are necessary in order to produce high-quality cheese. There will always be a market for good cheese, as the demand for this food, both at home and abroad, is increasing. This ensures a market for whole milk that returns a by-product in the form of whey that has a value as hog feed and for raising calves. A factory cannot be run without the support of the dairymen in its vicinity. Factories have been closed because they were unable to compete with other markets for milk, but patrons who have been loyal to their factory have not suffered financially when the average price for a number of years is taken. At certain times milk may be worth more on other markets than it is for making cheese, but as a rule when everything is considered the factories are able to pay the top price.

HORTICULTURE.

The Frost Problem.

EDITOR "THE FARMER'S ADVOCATE":

Fruit growers generally, I think, pretty well agree that some system of orchard heating is profitable, provided, of course, the right time is hit and the frost actually occurs. One is apt to lose faith in its economic value, however, when after watching hundreds of gallons of expensive fuel go up in smoke to learn that the temperature outside of the orchard did not fall to the danger point—the expected frost never came! This experience is so vexatious that perhaps the next time danger threatens the orchardist decides to "take a chance" and refrain from firing. This time the frost does come and the crop is ruined.

This movement had its origin on the Pacific coast, and has rapidly spreat eastward. It is now no novelty in the Middle States, and I venture to say that the time will not be long before it has be-come firmly established

in the orchards of Canada. Although investigation work along this line is as yet in its infancy, science is gradually doing much to reduce the gamble of frost protection to a minimum. The plant physiologist and the meteorologist have obtained and are able to place at the disposal of the grower considerable knowledge of the subject.

The growing parts of plants, such as the buds and blossoms of fruit trees, are made up of cells mostly of micro-scopic size. Each consists of a wall of cellulose, enclosing protoplasm and cell sap. The sap, though chiefly water, contains various substances in solution that cause its freezing point to be lower than water itself. Hence the weather must be colder than 32 degrees Fahrenheit before ice will form inside any plant. Once it was supposed

that the expansion of the sap in the cells, due to freezing, similar to the bursting of water pipes during severe weather, was the cause of frost injuries. This theory was disproved by the examination of freezing plant tissues under the microscope. It was found that ice forms not in but between the cells gradually extracting the water through the cell walls. There are two ways in which this loss of water may kill the protoplasm of the cell, and plant physiologists are still divided in their opinions as to which is the more

Until a few years ago it was generally believed that the damage is chiefly done after the actual freezing is over, and may be avoided if the temperature rises slowly. That is, if the temperature rose gradually the water would have time to soak back through the cell wall, and the protoplasm would resume its normal condition. In a rapid thaw the cells would not be able to take up the water as fast as it was furnished. Thus much of it would be lost, causing the structure of the protoplasm to be permanently broken down and destroyed.

According to the other theory, the injury occurs during the frozen state and depends on the duration of that state. This is the more recent view, and



Innerkip Cheese Factory and Curing Room

maintains that the injury is purely chemical, involving a concentration of salt solutions in the cell, due to the loss of water.

It is very probable, however, that both the duration of the frozen state and the rate of defrosting are important in determining the fate of the fruit. Evidently much more investigation is needed concerning the nature of frost effects within the plant.

Quite likely most orchardists have noticed that some varieties are better frost resisters than others. Take apples for an example. It has been observed that Wealthy, Fameuse, McIntosh and Oldenburg are less easily injured by frost than other apples blossoming at the same time.

Then, in selecting varieties, the date of blossoming is an important consideration. The Weather Bureau will give details regarding the average and extreme dates of spring frosts that would enable the grower to choose varieties late enough to avoid much danger, in the long run, from this source. This would be to some extent, however, offset by the market demand for early fruit, so that the question of hardiness independent of the blossoming date becomes of the greatest importance. The best practice for the grower is to choose those varieties that local experience has found to be especially hardy, leaving varieties that are doubtful for experiment on a small scale, or for the experimental farms to produce the desired information. Perhaps, in time, the plant breeders will attack the problem of producing hardy varieties of early fruit—utilizing such facts as the remarkable frost-resisting properties of sugar in the plant tissues as discovered in recent Swedish investigations.

Detailed temperature surveys of fruit-growing regions are desirable in order to determine the places of minimum frost danger. Many sections of the country have their "warm spots," "verdant zones" or "thermal belts" especially favored by their freedom from frosts. On the other hand we hear of cold "islands," "frost holes" and the like. This is a question chiefly of topography. It is a well-known fact that cold air tends to drain by night from hills to low lands, and as a consequence valley bottoms are particularly subject to frost. The middle slopes of high hills are usually freer from frost than other localities. The stagnant cold air cannot settle upon them, besides they receive ample ventilation as result of the active circulation going on at night between hill and valley.

Another important factor that insures comparative immunity from frost is the nearness of a large body of water. If this lies in the direction from which the prevailing winds blow during the frost season, it exercises a conserving influence upon the temperature.

Daily access to reports of the Weather Bureau is advantageous in giving notice of abrupt and intense drops in temperature. It is also a good plan to study the normal succession of weather phenomena in one's locality; the average duration of warm and cold periods; and the average fall in temperature from the afternoon maximum to the following early morning minimum. The presence of clouds and winds greatly diminishes this fall. Both cold and warm periods generally come on gradually, accompanying the passage across the country of the great barometric areas known as "highs" and "lows."

Elgin Co., Ont.

AGRICOLA.

Spraying Meant Fruit.

One day recently we visited an orchard near the shores of Lake Simcoe. It is an old orchard made over. The owner at one time had little faith in spraying and general orchard care, but through the efforts of the District Representative in his county, he was induced to prune and to spray thoroughly. Wisely, he experimented at first. As a general thing it is wise before going into anything on a large scale to know something of what the results may be. Six rows of Spies in a five-acre plot in the big orchard were sprayed, and the six rows in that particular season were the only trees to produce fruit. The two outside rows of the six were not heavily laden, but the four inside rows produced a heavy crop of good, clean fruit. In the particular section referred to, the tent caterpillar was very bad. The results of this experiment convinced the owner of the orchard that it pays to spray, and he is spraying thoroughly this year.

Black Knot Experience.

Observation and experience of a Western Ontario fruit grower in the care of plum trees several times affected with black knot, seems to indicate that the susceptibility of the tree to attack and seriousness of spread was in proportion to heavy fruit bearing. Lombard trees were most subject to the disease, and those bearing excessively for several seasons in succession suffered most severely. The heavy drain of over-production seemed to weaken the constitution of the trees. Better tillage about the trees and liberal applications of manures, including unleached wood ashes, was being tried to revive their health and strength along with the usual removal of affected portions. Further research in the pathology of this disorder is suggested by the writer.

Fruit Prospects Good.

The first fruit crop report of the season is just to hand, and on the inside cover page under the heading "False Economy" a situation is depicted which will not prove profitable to the fruit grower. In our travels around the country this year we have noticed what the correspondents who report to the Department of Agriculture have noticed, namely, that in some districts growers are not spraying, largely because they feel that prices will be low and it will not pay them to spray. Of one thing we are sure, prices will be low for fruit which has not been sprayed. We can do no better than quote from the fruit crop report.

report.

"In the light of our experience of the past two years it is surprising to find any growers holding this view of the situation. In the fall of 1914 the apple crop was large; part of the fruit was left to waste on the ground, and there was little prospect of exporting even the usual quantities. A special effort was at once put forth to extend our home market and to increase consumption. The result was that all the fruit harvested was consumed quickly and there was a shortage in the spring months. This experience alone should encourage the grower to do his utmost to produce clean, high-quality fruit this year.

"Growers, especially those in Eastern Canada, will also remember well the crop of last year. Owing to the great amount of scab which developed during a very wet summer, the percentage of No. I apples was small, and on account of the short crop it was thought by some that even the most inferior apples would find a market. Instead of that, the shipping of such fruit resulted in a heavy loss in most cases.

"The consuming public is obviously becoming

"The consuming public is obviously becoming more discriminating every year, and inferior, scabby apples, which a few years ago found a fair market, cannot now be sold at remunerative prices. This fact was clearly demonstrated last year by the very high prices realized for the better grades and the difficulty of selling inferior fruit, except at very low prices.

"We would again urge every grower to spray judiciously and thoroughly. Neglecting to do so is false economy. Better fruit means better prices. It is impossible at this date to estimate what our crop of apples is going to be, although the bloom is very heavy; but whether it be a heavy crop or a light one, the grower who has clean, high-quality fruit will experience the least difficulty in marketing it."

Weather conditions in Ontario, Quebec and British Columbia, according to the report, have been such as to delay blossoming, and some fear is expressed as to their interfering with pollinization. Frosts have done little or no damage. The weather in Nova Scotia has been very dry. The blossoms are about ten days late. Prospects for the apple crop of 1916 are particularly favorable. In Ontario practically all varieties of apples have blossomed profusely. Spraying has been interfered with by unfavorable weather and scarcity of labor. Very little planting has been done this year. In Quebec trees wintered well and a full bloom is reported. In Nova Scotia the bloom is not uniformly heavy, but an average crop is expected. It is hoped that the cold, dry weather has somewhat checked apple scab in that Province, and growers expect high-quality fruit where spraying is not overlooked. In British Columbia the earlier varieties promise a heavy crop, while the winter varieties are lighter. The State of New 'ork promises a heavy crop, particularly of Baldwins. Frosts have done damage to peaches and pears in Georgia, California, Colorado and in Walla Walla, Idaho and Yakima, sections of the United States.

Fewer tomatoes will be planted this year, but it is reported that the prohibition of Canadian canned vegetables put on by Britain has been withdrawn. Sour cherries promise a big crop. Sweet cherries

suffered some winter injury in the Okanagan Valley.
Strawberries indicate a good crop, but in Ontario raspberry canes were severely injured in many cases during the winter.

Pears promise well where grown commercially, and plums in some sections are heavy, while in other places they are lighter than last year.

Peaches bloomed heavily, but it is thought that some damage may have been done to the setting owing to the unfavorable weather. There should be a fairly heavy crop of peaches, advice to the growers of small fruit should be read with interest:

with interest:

"The small fruit season will open in Ontario about the middle of June with the shipment of strawberries from the Niagara Peninsula, and from points between Hamilton and Toronto. For several weeks thereafter thousands of crates of berries will be leaving those districts every day. In order that the fruit may arrive at destination in good condition and give satisfaction to both shipper and consumer, we wish to take this opportunity of pointing out the necessity of observing the following points:

"1. Instruct your pickers not to put into any package berries which are immature, decayed or in any way defective.

"2. Have all your packages well filled.

"2. Have all your packages well filled.

"3. Do not over-face crates by putting the finest looking berries or the best filled boxes on the top layer. See that the boxes in the lower layers are just as well filled and contain as good fruit.

"4. Do not ship crates without seeing that these

"4. Do not ship crates without seeing that these conditions are observed.
"When consumers pay a high price for strawberries

which are half green and practically tasteless, they

are discouraged from buying that fruit even when the properly matured berries reach the market at reasonable prices."

Inspectors have been instructed to give special attention to this matter and to report all cases of over-facing.

POULTRY.

Poultry Notes.

In order to keep vermin in check in the poultry-house nests, perches and walls should be frequently cleaned and thoroughly disinfected. Hens will not lay if they are tormented at night by mites, and during the day by lice. Cleanliness in the pen is essential to success in poultry raising.

Young chicks pestered with lice will never amount to much. Watch the youngsters closely, and if there is any sign of vermin apply grease to the head and under the wings.

. . . .

Give the growing chicks access to shade if possible. The orchard or corn field makes an ideal place to rear chicks.

Hens and chicks require a large amount of water during the warm weather. See that the drinking fountains are filled with fresh water every day.

Chicks on free range secure a considerable amount of meat food in the form of worms and grubs. If chicks are confined to a pen they require to be fed meat food in some form in order that they will develop quickly.

Pullets hatched before the first part of June and well fed through the summer should produce eggs before the snow flies.

Gather the eggs twice daily, and market them within a week after they are laid.

Co-operative Marketing of Eggs.

EDITOR "THE FARMER'S ADVOCATE":

In considering the pros and cons of any change in the present system of marketing farm produce, such as the co-operative plan of egg selling, one naturally wonders how other people have fared in making the experiment. We in Canada cannot do better than take Denmark as an example. Under the co-operative system Denmark has grown rich and prosperous, and while she has increased her exports at the same time she has increased still more the production per capita of her live stock. The exportation of eggs (chiefly to the United Kingdom) has become a business of national importance to Denmark. In 1895 she was exporting about seven million crowns' worth of eggs per annum, but under co-operation, in 1910—fifteen years later—this go-ahead little country had increased her exports to twentyseven million crowns' worth. At the beginning of those same fifteen years, Denmark owned nearly six million hens; while at the end of 1910 the number had been increased to twelve millions. So you see while the number of possible layers had just over doubled, the value of the yield had nearly quadrupled. This is but one instance of what co-operation has done for Denmark, and there is no reason why Canada should not do as well, or better.

In the first place, if a co-operative society would do good business, it is indispensable that it should be able to command a sufficient supply of eggs, to be collected from readily accessible farms.

Eggs are a highly perishable article, and their commercial value depends entirely on their freshness. In starting a co-operative society, the central egg depot must be carefully chosen. This depot must be within comparatively easy reach of the henroost, and at the same time it must have easy access to its markets. The collection of eggs must be frequent. In summer nothing less than three times a week will prove satisfactory, though twice a week will do in the colder weather. As the whole idea of the society is to sell a guaranteed fresh egg for the best price obtainable, no efforts should be spared to see that the eggs are strictly fresh. Infertile eggs keep better than those that have been fertilized, —therefore, if the eggs are intended solely for selling, it is advisable to keep the cockerels out of the yards

altogether.

We will now try to show how the co-operative practice deals with the eggs. Acting as a link between the producer and the market, the society really stands in the position of a dealer with the supplier, while at the same time safeguarding his interests. Apart from the quantity of its eggs, the society must make sure of, and be able to guarantee the quality of its eggs. To do this it must have sufficient power over its members to be able to compel them to deliver only fresh eggs. In order to carry out its guarantee of fresh products only, the first requisite is that the depot shall be able to identify the eggs of each supplier, so that in the case of any bad eggs being placed on the market the responsibility can be brought home, and, if persisted in, the offender can be dismissed.

It does so by giving each supplier a distinctive mark, with which he has to mark all eggs supplied by him to the society, and this mark is then entered on the society's

register. This market, but it operative socie deal on the r duly marked, h Before being s into marketab for soundness. portance there examined for eggs must be i the freshness candled, but t operator is at a who repeated sends in bad certain that a dition, the fin or cartons, is

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There is sc

register. This mark, of course, counts for nothing on the market, but it becomes a warrant for the use of the cooperative society's trade mark, which will count a great deal on the market. Assume that a member's eggs, duly marked, have passed into the keeping of the society. Before being sent to market the eggs must first be put into marketable condition, and must also be examined for soundness. Prompt delivery being of prime importance there is no time to waste. The eggs must be examined for appearance, and all dirty or cracked eggs must be rejected. As the society is guaranteeing the freshness of its products, the eggs must also be candled, but this will not take very much time if the operator is at all experienced. In Denmark any member who repeatedly, either intentionally or otherwise, sends in bad eggs is expelled from the society. Being certain that all accepted eggs are in a first-class condition, the final step before packing, either in crates or cartons, is to grade the eggs, as uniformity in size is most important.

The settlement of accounts between the society and its members should be prompt, and in no case less than once a month. No matter whether payment is by number of eggs received, or (as done in Denmark and Germany) by weight, a price should be agreed upon which will leave a margin for managemental expenses, and something more, this surplus eventually being divided as a dividend among the society's members. The increase of price paid for eggs under co-operative dealing is such as to allow the current market rate to be paid at once, and, as the society's business increases, it will be found that more than the market rate will be received, besides the advantage of always having an open market. Summed up, the real idea of the co-operative plan of marketing is to eliminate the middle man, to sell direct to the consumer, and for one person to do the selling that ordinarily several would do.

B. C. HADDON.

Remove the Male Birds from the Flock.

Leaving the male birds with the flock after the breeding season is over causes a yearly loss of many thousands of dollars to poultrymen of this country. This loss could easily be prevented. Fertile eggs deteriorate very quickly when subjected to a temperature of around 100 degrees F. A few hours of this temperature either in the nest or in a basket is sufficient to start the germ developing, and make the egg unfit for human consumption. It is natural for hens to hide their nests, and frequently a week or more may elapse before the nest is found and the eggs gathered. Such eggs are spoiled for table use if they are fertile. If they are infertile they are little injured, although they cannot grade firsts. During the summer months, when poultry run at large on the farm, it is very difficult to find all the eggs every day, and every egg in which the germ starts to develop is spoiled for commercial purposes and is a direct loss. The frequency of a few bad eggs occurring the start of t curing in crates has had the effect of lowering the market for all eggs. Now that buying on a quality basis is being generally practiced, the careless poultryman is the only loser. In the nest is not the only place where the fertile eggs become unfit for use. Too frequently the egg basket is left in the pantry window where the temperature is sufficient during the day to involve the sufficient during the day to incubate the eggs, but the cool nights cause the germ to die and the eggs spoil. Many eggs become unfit for use after they reach the local merchant. If they remain long beside any disagreeable odor they have a tendency to take on that odor. Having had bad eggs served them several times has prejudiced many people against eating eggs during the summer months. A stale egg is very uninviting

In the average flock the male birds are only kept one season. They are disposed of some time during the fall or winter. It costs ten or twelve cents per month to feed a bird, and, as a rule, it is no fatter in October than it was in June. There are four months feeding with no returns, except that more care must be taken in gathering and storing eggs in order to keep them in a marketable condition. There is nothing to lose but considerable to gain by getting rid of the head of the flock in June. If the bird is to be kept for use the next season he should be penned off from the main flock during the hot summer months.

THE APIARY.

Making a Start with Bees.

EDITOR "THE FARMER'S ADVOCATE":

To the would-be apiarist, after having considered carefully the difficulties and uncertainties of beekeeping, it is rather a confusing problem as to what manner it is best to make a start in the business.

If at all feasible, the beginner should spend at least one season working for a successful and progressive bee-keeper. However, when one intends keeping only a few colonies to supply honey for the home tabe this is out of the question. In this case it would be well to spend a day in the apiary of a progressive bee-keeper where one can pick up tricks of the trade that might take weeks to dig out of text books. Have the apiarist point out the queen, give a practical demonstration on hive manipulation,

etc.

There is scarcely a spot on the surface of the earth.

which will not, to some extent, support bees; and it would pay to try a colony or two of bees no matter where you may be located. An ideal locality for bees includes a succession of bloom from early spring to late fall, a rather heavy soil containing lime (favorable for the growth of legumes), and a territory not already occupied by bees.

It is not always possible to select just the location for an apiary that we might like, and we are, therefore, compelled to take what we can get; but where conditions permit on the farm, back of the house in an orchard is a good place. This provides shelter from the wind and gives partial shade (too much shade is detrimental). The apiary should be convenient to the house, to the work-room and to water. It should be secluded from the street or driveway, and from neighbors' houses or fields. The ground should be even, level and well drained. It should be rolled and smoothed down so that a lawn mower can be run over every portion of it, as the grass should be kept down around the hives.

The importance of a small beginning with as little expense as possible cannot be too strongly urged. After the first investment make them pay their way. It is very easy to lose the whole investment, as beekeeping is a business that depends perhaps more than any other on the weather.

The best time to buy is in the spring, and whenever possible buy near home. The bees near home

can usually be bought cheaper.

The Langstroth hives are the best, and other styles should be bought at a reduced price. The combs should be in wired, movable frames, straight and composed of worker comb. The Italians are the best, but the Blacks may be bought at a reduced price and re-queened later with a pure Italian

If there are no modern bee keepers in the vicinity one may have to purchase the bees in box hives. The bees can then be transferred into a modern Langstroth hive by methods described in any bee book.

In some localities it may not be possible to buy bees from any one. In this case probably the best way to make a start is to buy one or two two-pound combless packages of bees with a queen. Before purchasing these, however, buy five or ten Langstroth hives in the flat, nail them up according to manufacturer's printed directions, then paint them.

With each package of bees full directions are

With each package of bees full directions are sent as to the methods of procedure in building these packages up into full colonies. In buying bees in combless packages one has the advantage of cheaper express and is safe from foul brood.

With regard to equipment the following list will

With regard to equipment the following list will be found fairly complete: smoker, veil, hive tool, extra hives and supers, foundation, wire, wire embedder, queen excluder, bee brush, feeders, bee book (Science of Bee Culture by Dr. Phillips, or A. B. C. and X. Y. Z. of Bee Culture), extractor.

Carleton Co., Ont. W. F. GEDDES.

FARM BULLETIN.

Agricultural Legislation in the Province of Nova Scotia.

The past few years have been fruitful of so much agricultural legislation that the need now does not seem to be so much legislation as action. However, two specifically agricultural Bills were passed, and two others were defeated during the session of the Nova Scotia legislature which closed on May 18th. These are worth some comment.

These are worth some comment.

Of the Bills that passed, the first was a Bill for the Encouragement of Dairying by the Formation of a Dairymen's Association. Such an association has been in existence for three years, but the present Bill makes provision for a Government grant to assist the Association in the holding of Conventions, Exhibitions of dairy products, etc. The Association is one of the live bodies of Nova Scotia and is giving big results. It has been one of the factors contributing to the 400 per cent. increase in the product of Nova Scotia creameries from 1910 to 1915. The President for the current year is D. W. Murray, of Scotsburn, and the Secretary is W. A. Mackay, Dairy Superintendent for the Province. Mr. Murray is one of the pioneers of the Scotsburn Creamery, and it seems fitting that he should be elected to the office of President when it is considered that this creamery increased its output from 1908 to 1915, from 16,000 lbs. to 290,491 lbs., and has started 1916 at a clip 34 per cent. in advance of the previous year.

cent. in advance of the previous year.

The second Bill to pass was "The Foul Brood Act." In this Bill provision is made for the appointment of inspectors who may examine any apiary where foul brood is suspected to exist. If any inspector is satisfied such disease is present in a virulent form, it shall be his duty to order all the contents of the hives, etc., destroyed. Other clauses of the Bill make it illegal for owners of diseased bees or infected appliances to sell or in any way, except destruction to dispose of such

destruction, to dispose of such.

An important Bill, which passed in the Legislative Assembly but was defeated in the Legislative Council was what was popularly termed the "Scrub Bull Bill." The following is the important clause:

"Within a district in which an Agricultural Society has been formed and is in operation, or within a district in which a Live Stock Improvement Association has been formed and is in operation under any Statute of Canada, no unregistered bull shall be offered

for public service. The owner of any unregistered bull offered for service in contravention of this section shall be liable to a penalty of twenty dollars for each offence."

It should be explained that the services of pure-bred bulls in Nova Scotia, except in a few centres where there are breeders of pure-bred stock, are made available either through the Provincial Agricultural Societies or the Federal Live Stock Improvement Associations. These bodies are often hampered in their work because, after investing money in a pure-bred sire, they find that some owner of a scrub bull will, at a reduced fee, take away the business. The real loss does not fall so much on the Society as on the community as a whole which one would think should, in these days, realize the benefit that will accrue through the "breeding up" of live stock. A large number of members of Agricultural Societies and Live Stock Improvement Associations signed petitions asking for this legislation. It is hoped that the defeat of the Bill this year will not discourage its supporters, but that an extra effort will be put forth which will finally lead to the extermination of the scrub bull evil from the Province.

Another defeated Bill was that relating to legal partition fences, which at the present time may be of any structure. The Bill required that "such fences shall not be built of barbed wire unless the adjacent proprietors agree to the erection of a barbed wire fence between their adjacent lands." The object of the Bill was to insure a class of partition fences more suitable especially for sheep but also for all classes of live stock.

The appropriations for the year in comparison with the expenditure for the previous year were as follows:

Estimated Actual Ex-Expenditure penditure 1915-16 1914-15

General Agriculture, including salaries, grants for Dairying, Exhibitions, Entomological Inspection, Meetings, Field and Orchard Demonstrations, and Competitions, Agricultural Societies, Stallion Enrolment, Provincial and County Farmers' Associations, Poultry As-

Total.....\$85,000.00 \$82,264.66

In addition there was a capital appropriation of \$14,000 to be used for some minor additions to the Agricultural College plant, for the completion of the Government Creamery at Margaree Forks, and the Government Cedar Mills at Baddeck, and for the erection of another Government creamery in Cape Breton.

These appropriations are to be supplemented by the Federal Grant under the Agricultural Instruction Act, which for the years 1916-17 will amount to

Recruiting as It Used to Be.

EDITOR "THE FARMER'S ADVOCATE":

A century and a half ago there were recruiting campaigns in Canada and the other colonies in America much like those of to-day, but with certain important differences. In New England, which was then still British, and in the Canadian provinces, young men were invited to take a share in the struggles of the mother country, and were appealed to on the same score of patriotism and courage, and on the same principle of voluntary enlistment, as now.

The invitations were given out, however, in a different way. The recruiting officers had no such widespread system of newspaper publicity to help them as there is to-day, for outside of the cities few papers were ever seen. News was given instead by posters and notices displayed in public places, and while even now, with all our newspapers, effective use is being made of the recruiting posters, in those earlier times they were much more largely and generally relied upon as a means of attracting volunteers.

There was also a difference, as one would expect, in the style and wording of these calls to service. The nation's appeal was not made on as high and unselfish a ground as to-day, but seemed to be more largely an appeal to the spirit of bravado and adventure. Probably the recruiting officers of that time understood what was most likely to attract the young men whom they sought, but it is good to know that a better and more serious spirit now prevails.

a better and more serious spirit now prevails.

In 1795, when Britain was in the thick of the Seven Years' War with France, numbers of recruits from the colonies in America joined the colors in response to various calls from the Government. One of these calls, as posted in the taverns throughout New England, was as follows:

"All able-bodied fit Men that have an Inclination to serve His Majesty King George the Second, in the First Independent Company of Rangers, now in the Province of Nova Scotia commanded by Joseph Gorham, Esq., shall, on enlisting, receive good Pay and Clothing, a large Bounty, with a Crown to drink the King's Health. And by repairing to the Sign of the Bear in King Street, Boston, and to Mr. Cornelius Crocker, Innholder in Barnstable, may hear the particular Encouragement, and many Advantages accruing to a Soldier, in the Course of the Duty of that Com-

JUNE 8,

pany, too long to insert here; and further may depend on being discharged at the expiration of the Time entertain'd for, and to have every other Encouragement punctually compli'd with."

Three years later, when the worst of the war was over but peace not yet declared, the Navy sought recruits in almost as alluring a fashion, as may be seen from this advertisement in the Boston Post Boy in June, 1762:

"NOW BOUND ON A CRUISE OF SIX MONTHS against His Majesties enemies, The Brigantine Tartar, a Prime Sailor mounting Fourteen Six Pounders, Twenty Culverines, and will carry one Hundred and Twenty Men. Commanded by William Augustus Peck. All

GENTLEMEN SEAMEN

and able-bodied Landsmen who have a mind to make their Fortunes, and are inclined to take a Cruise in this said Vessel, by applying at this King's End Tavern at the North End, may view the Articles which are more advantageous to the Ship's Company than were ever before offered in this Place."

Very much of the same kind was an official notice posted in Halifax in the spring of 1813. The New England colonies had by that time broken away from the mother country, and the war of 1812-14 was at its height. The British Navy, which was still made up entirely of sailing vessels, needed more men, and invited recruits in Nova Scotia, where able-bodied sailors might naturally be looked for, in this merry

way:

"WHAT SHOULD SAILORS DO ON SHORE while King, Country and Fortune point to the Ocean! His Majesty's Schooner PICTOU, of twelve guns, commanded by Lieutenant Stephens, as fine a vessel of her size as ever floated on salt water, wants a few jolly, spirited fellows to complete her complement for a short cruise, who may all fairly expect to dash in Coaches on their return, as well as other folks. Apply on board, at the Navy Yard."

Recruits for either the Army or the Navy are not being promised fortunes to-day, nor even the prospect of riding in coaches when they come back. War is not so jolly a thing as it was a hundred years or more ago, and when its summons means so much of sacrifice and unknown peril it is but natural that the nation's attitude, as expressed even in posters and on the billboards, should be more sober and more simply worded.

AUBREY FULLERTON.

Prospects in York County, Ontario.

It was recently our privilege to spend a couple of days in York County, Ontario, one of the oldest and best counties in the Province. A trip up Yonge Street is not encouraging to the practical farmer, particularly that section lying within twenty miles or more of Toronto which has been largely bought up by real estate speculators, or moneyed men from the city. The country on either side of the highway for several miles has that appearance, all too common in close proximity to large cities, namely, partially shacktown, and then the other extreme of over-done buildings and farm surroundings. Back from this thoroughfare, however, may be found some of the best farms in Canada, and it is an inspiration to go over some of these and see the results of persevering effort, combined with a practical knowledge of scientific agriculture.

Much of the soil in the county is quite heavy clay or a stiff clay loam, and the wet season has made it exceedingly difficult in parts to get the seed in in good time. However, many farmers had finished seeding by the middle of May, but, of course, many others had not started, and some would have very little seeding done up to the first of June. Fall wheat throughout the county comprises a small acreage, but is generally looking well, and gives promise of a crop almost, if not quite, as large per acre as that of last year. Meadows are looking particularly well, and there is promise of one of the best crops of hay the section has ever seen. This will be welcome, for hay crops in York and Ontario Counties have not been heavy for the past few years. Some were sowing mangels, and some had their mangels in at the time of our visit, the 25th and 26th of May, and an occasional corn field was being planted. However, most of the mangels and corn will be put in late.

While most of the farmers of the county were not grumbling seriously, the general consensus of opinion was that the yield of grain would not be as large as that of last year. The crop was going in later for one thing, and much of the land had grown up badly with grass before it was sown, so badly in fact that many farmers were obliged to lay their cultivators and disks to one side and resort to the old-time method of gang-plowing the land, even where it had been well plowed last fall. We noticed also that many fields had not gone in in as good a condition as their owners would have liked on account of the wet weather which has prevailed for some time. The land worked heavy and soggy, and all the grass was not killed. There will be considerable buckwheat and summer-fallow in some parts of the county. We were surprised to find in certain sections of Scarboro township farmers so well on with their work. Many had finished seeding in good time, and the grain, considering the season, was showing up very well at the end of May. The farmer who farms well will have a more marked advantage this year than in

an ordinary season, and the man who sowed early, even though the land was a little wet, stands a better chance of a good yield than the farmer who delayed hoping for drier weather.

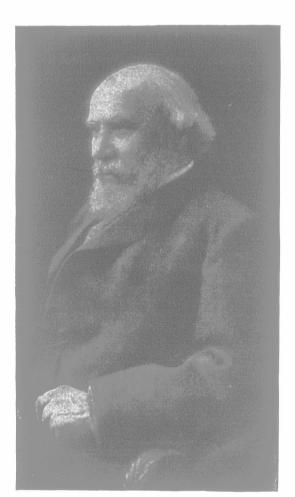
Perhaps in no section of Ontario are hired men scarcer than in York County. Recruiting has been brisk and close proximity to Toronto is another factor increasing the scarcity of farm help. Many of the boys and hired men from the county joined the county battalion or some of the units raised in the city. However, we heard little complaint from the men with whom we talked. They are willing and ready to do their part to help bring this war to a close, and while they could use the men at home are not complaining because they have joined the colors. Farmers generally have decided that they will do all they can with the help available, and the rest will have to go

York County is not a fruit-growing section, but, where cared for, the trees give promise of a heavy yield of fruit this year.

In part of the county a stretch of macadamized road under the new system is completed, and it has been a good object lesson this spring. Some of the townships in the county are noted for their bad roads, due to the heavy nature of the soil and the absence of gravel. These roads have been almost impassable this year, but the roads built and maintained by the good-roads system did not break through, and were always in good condition.

James J. Hill Passes.

The world's greatest railway builder, James J. Hill passed away at his St. Paul, Minnesota, home, May 29, after a career unequalled in the world's history of railway enterprise and empire building. James J. Hill was born at Rockwood, Ontario, in 1838, the son of James and Anne Hill, who lived on a farm near that village a short distance east of Guelph. He was, from the beginning, a great reader and it is said that his father who had come to Canada from Armagh, Ireland, in 1829 and his mother from Tipperary in 1832 wanted young James to be a doctor, but the father died early and James, with another brother was forced to get out to work. When he was fifteen years of age he entered a small store in Rockwood and from there went to Guelph, from which place he left for New York State



The Late James J. Hill.

and eventually landed in St. Paul, Minnesota on the 15th. of July, 1856. His first job in St. Paul was loading slabs for which he got \$1.25 a day and worked one day. He then got a job with a steamship company and from that time on was connected with the transportation business in one phase or another. He was successful in all his early business enterprises and finally became the station agent at St. Paul for the St. Paul and Pacific Railway Company. In 1878 he purchased the defaulted bonds of this company which gave him possession of 400 miles of completed road from St. Paul to St. Vincent at the Canadian boundary. In 1879 a reorganization took place and the road was called the St. Paul, Minneapolis and Manitoba Railway, with Mr. Hill as general manager. In 1883 he became President. Step by step the roads were extended until the Pacific was reached in 1893. Branch lines cover several States and since 1890 these properties have been known as the Great Northern

Railway Company. In 1901 with the Northern Pacific Railway, the Chicago, Burlington and Quincy system, with a trackage of nearly 9,000 miles was purchased. Steamship lines were started on the Pacific to meet the needs of Asiatic trade, and, throughout, the success of the career of the late James J. Hill was phenomenal. The road bought iron ore lands in Northern Minnesota to the value of over \$4,000,000.

Mr. Hill was not alone a railway builder. Throughout his career he was interested in agriculture, particularly the agriculture of the country through which his lines passed. He was a believer in the best of pure-bred stock and many were his gifts of fine animals to improve the country. He maintained demonstration stations along his lines and delivered agricultural addresses in person. Although a busy man he was not too busy to write articles for the agricultural press and no longer ago than the Christmas number of 1912 did a special article from his pen appear in "The Farmer's Advocate," entitled "Lessons for Canada from American Experience," in which he cautioned this young country against the steady drift of population from country to city, cautioned conservation of national resources, placing most importance of all upon soil fertility, which, to be maintained, means that the country must foster livestock farming.

stock farming.

The man, who by devotion to business and rare foresight was able to rise from a poor boy to the world's greatest railroad king, was able to turn two long lines of rusting steel into the greatest railway in the world, and who was able to open up thereby and develop agricultural resources almost unbounded has passed to the Great Beyond, but the memory of this sympathetic foresighted, keen-business, Canadian-born American will live through the ages.

A Revived Interest in Bird Life.

Forces have been at work in Essex County, Ont., that have brought the people generally to appreciate birds and their services to mankind. A potent influence has been the life of Jack Miner, and the haven for wild life that he has established and guarded on his farm. For years this champion of birds has pled for a better understanding between man and the feathered creatures of the air, claiming all the while in his characteristic manner that man instead of the bird is wild. The people of Essex County are now beginning to realize that birds are useful, a source of pleasure to those who know and understand them, and altogether worthy of attention and protection. It is not a hobby of the idle few. The business man, the teacher, the farmer and representatives of all occupations and professions are talking about wrens, martins, robins and all useful species that respond to kind treatment. Towns and villages vie with each other in the numbers and kinds of birds that nest and rear young within the limits of the corporation. It provides a healthy, intelligent topic for conversation and a pleasant pastime. The writer observed many wren and martin houses in the county recently where the birds made their homes and got free rent. They paid for it, however, by their onslaughts on insects around the dwellings and by their presence.

They paid for it, however, by their onslaughts on insects around the dwellings and by their presence.

Recently a field day was enjoyed at Jack Miner's, where naturalists from a distance and from the county convened to study and learn how to attract wild life around their houses. It is hoped this enthusiasm will become contagious and spread to all parts of the country. There is nothing that will beautify a home or dwelling like trees, shrubs, flowers and birds. There is a general reversion to the natural and an expulsion of the artificial from the lives of all honest living people at this time. Birds are beautiful, serviceable and a protection to man. Their known value increases as we understand them better, and it is hoped that the enthusiasm which has gripped the people of Essex County will spread until the country at large will foster and protect the wild life that has been so ruthlessly treated.

Goldie's Fern Again.

EDITOR "THE FARMER'S ADVOCATE":

My note on Goldie's Fern in "The Farmer's Advocate" of May 18th, page 878, has called forth several letters. Some of your readers are interested enough to try to save the handsomest of our native true ferns from extinction if they could be sure of it when they find it. This willingness is no less gratifying, seeing that the motive is sentimental rather than economic. The fern would certainly prove highly decorative in a situation perfectly adapted to it, but I do not know of any utilitarian value it has unless it may be, like its near and somewhat similar relative—the male fern, a specific for the tape-worm.

None of the letters received at date—June 3—describe the species to which they refer with adequate definitiness. Indeed, I think every one of them most probably refers to a species in the "flowering fern" family known as the cinnamon fern, whose sterile fronds often attain a height of 5 feet. The latter is common in our wet woods, especially those containing tamaracs or evergreens.

Goldie's fern loves the cool, gravelly loam of rich maple and beech woodlands. Its fruit or spore-cases appear as brown dots on the under side of its dark-green leaves, arranged in a pair of rows close to the mid-ribs of the segments. The leaf-stems are clothed near their base with shining, rather dark-brown, chaffy scales. It is useless to send a piece of a frond to anyone for determination before the spore-cases can be plainly seen on the back of the segments.

JOHN DEARNESS.

After on of the Oka given place this year's

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A B. C. Fruit Letter.

EDITOR "THE FARMER'S ADVOCATE":

After one of the most severe winters in the history of the Okanagan Valley, spring doubts have largely given place to an optimistic outlook on the future of this year's crops.

Seven years ago, at the early stage of the orchards, there was a severe winter that wiped out many of the orchards, because the growers did not understand how to handle the irrigation problems, but now that they know that because there is water running in the flumes and ditches it does not necessarily follow that it is advisable to put in on the land after July 15, they are bringing their trees through the winter in much better

There are other problems from which they must get a lot of healthy exercise before they have solved them, one of these is thinning. We got a splendid lesson in that last season. Apricots were a failure across the line and in many sections of British Columbia also, consequently the prices were high and the local growers tempted by that let their trees bear to the limit. This year the trees are weak, sickly in growth, and the crop is very limited indeed, yet prices are going to be as good as if not better than last year. Along with this there is the aggravating and expensive condition of the trees due to faulty pruning. Most of the growers have been practicing open pruning on cots, and a more discouraging sight than some of the apricot orchards present after the heavy crop of last year is hard to find. A lawyer friend of mine who had one of these orchards and who did not know much of the business asked me to go and see his place and advise him what to do. I did not wonder at his discouraged tone after seeing the havoc which the lack of thinning had worked on an orchard of cots open pruned. He certainly has his hands full to save the trees, but another year's high prices will not tempt him to let his thinning go at the risk of his trees. This year he has a very small crop on the trees that were not thinned and did not break down.

The report comes in every few days confirmed each time that the Western States have suffered severely by frosts. The pear crop is almost a complete failure there, as is also the case with the grape crop in many of the states. A large percentage of the stone fruits are also reported injured.

In British Columbia there is a splendid crop of pears assured, particularly in the Southern Okanagan. Up the northern end of the lake some slight frost effects

are reported, but nothing to signify.

The apricot crop in the Okanagan will not equal one-third of last season. One of the large wholesaler's representatives was speaking to me about it and he said, "serves the beggars right, they will learn not to hog it another year." He has been over the apricot districts pretty thoroughly, and he is convinced that if one-third of the last season's crop is on the trees that

is all there can possibly be counted on. Apple trees came through the winter in splendid condition in most sections of the Okanagan, and there is every assurance of a splendid crop, though where the pickers and packers are to be had is a matter of deep concern at present, as the Okanagan has sent a very large number of its men to the front. In Summerland District over 10 per cent. of the population has enlisted, and other parts of the Valley are equally well represented, so there is reason for some uneasiness on the question of how to move some of the perishable crops.

In stone fruits cherries received a little nip, and will be light in some sections. Peaches will not be a heavy crop, because of the fact that some of the sections had the vitality of the trees pretty well used up withstanding the winter, also there has been very little spraying, which means a lot of wormy peaches.

In the northern part of the Okanagan there is a

little uncertainty as to the quantity of the plum crop,

though perhaps these misgivings are only the usual essimistic outlook of the few. In the south end of the Valley the prospects are assured for a medium crop of plums and prunes. Cherries are heavy in some localities, while in others they are very light, probably the total will average fair.

In vegetables there is a falling off, particularly in tomatoes and cucumbers. Potatoes are the largest planting known in the Province, and probably the greater percentage of this increase is to be in the Okanagan, where there is a large evaporating plant established for making soup for the militia. A considerable undertone of criticism is afloat throughout the Province against the practice of using diseased seed, the worst offenders being Chinamen, which does not tend to let the demand for government inspectors to seize the seed, diminish at all.

Melons will probably be increased, as will likely the sweet-corn plantings, a more suitable package for both of these crops has been agreed upon by growers, and this alone gets over a big drawback to the growing of these

Hay has soared to an unusually high price on account of the long, cold winter, but the first cuttings are about ready in the lower Okanagan, which will relieve the difficulty shortly.

WALTER M. WRIGHT.

Conditions in Essex County.

The effect of the continued spring rains is being severely felt in the southwestern counties of Ontario. There the land is generally quite flat, and no particular field of the farm becomes fit to work before the remaining part of the farm is also ready. In spite of this physical characteristic of the country many have their lands well tiled and are able to approach these well-drained fields and seed them between showers. After all has been done that could be done many still have their oats and barley in the bins instead of in the ground, and they are at their wits end to know what to do. In Essex County, particularly, it is claimed that a good yield is only obtained where the seeding is done early, for the climate is such and the summer temperature so high as to make it unwise and unprofitable to sow the small grains at a late date. Although this doctrine is preached by some a number of farmers will, during the first week of June, attempt to seed a few fields to oats and barley. Buckwheat and millet are being considered, but they will be used only as a last resort. Corn, for which Essex and her sister counties of Southwestern Ontario are noted, will be planted quite ex-tensively if the Weatherman will relent in time and allow Essex farmers on their land. Those who are equipped with silos consider that plenty of corn will solve the feeding problem, for they will then have grain for fattening stock as well as hay and ample silage. There is still another line of farming where hogs constitute the majority of the live stock maintained. Silos, of course, are not a part of the equipment on such holdings, for they have grown corn almost exclusively for grain, and augmented it with oats and barley for hog feeding. One prominent Essex County farmer visited recently expressed the opinion that farmers in his district would do well, in case they could not seed to grain, to summer-fallow their land and sow alfalfa. This advice, of course, will apply with most force where the land is well

According to a good authority there are approxi mately 40 ditching machines operating in Essex County alone, and in Essex, Kent and Lambton Counties there are as many machines as in all the other counties of Ontario put together. Where the land is flat and very nearly level the ditching machine is almost an absolute necessity. The old-time prodown to only one-half inch fall in 100 feet mechanical accuracy is required for a uniform bottom. More than that, it is now difficult to get the work done by man labor. Men who can and will ditch are

So-called Daylight Saving.

EDITOR "THE FARMER'S ADVOCATE":

The agitation for a so-called daylight saving law is gradually on the increase in many of the cities and towns in Canada, yet we hear from the farmer never a word. The farmer nondoubt has enough perplexing problems to try to solve without this one and yet if we can see this question aright, there is no class that would be affected by setting the clock an hour ahead so much as the farmer would. Personally, I cannot see where any daylight is going to be saved during the summer months, as there are now over two hours of daylight both before the legal working day commences, and after it closes. The chief point that will be gained is an extra hour of daylight at the end of the day for recreation, sport, etc. and if we are to believe press reports we find that the consumption of gasoline by motor cars has greatly increased in Britain since this law came into effect. Without entering into a lengthy argument as to the effect of this proposed change upon the farmer, I only wish to stir up the busy farmer so as we will get his views. I will say that which every farmer knows, viz., that for killing weeds, curing hay or harvesting crops, generally, one hour at the end of the day is worth more to him than a dozen in the early morning or, that from 5 to 6 o'clock p. m., of the present workor, that from 5 to 6 crock p. m., of the present working day is worth very many of 6 to 7 a. m., as are proposed to be taken into this daylight-saving day. If it is a move to have more time for pleasure possibly we should wait until we have peace again on earth, forgetting pleasure for a season. I think this change would be serious for the farmers whose men drop work sharp at 6 o'clock, and I think that unless our legislators can arrange to have the dew fall an hour earlier in the evening and dry off an hour earlier in the morning, they had better leave the day as at present.

Middlesex Co., Ont.

R. H. HARDING.

A Strawberry Enemy.

If you notice the foliage of a plant in the new strawberry plantation begin to droop and look sickly, take a small garden trowel and dig carefully down beside the root and you will likely find a fat, white grub of the May Beetle at work eating into the heart. Put him to death at once and refill the little excavation with moist, mellow soil, and if you caught the villan in time the plant will survive the sub-earth attack. In some localities the pest has almost ruined many fine strawberry plots. Changing the plantation to fresh soil is a very wise precaution. Frequent and thorough tillage up to as near the plants as practicable will help to keep the enemy from intrenching himself. Watch for signs of his presence when removing the first blossoms and cultivating.

Toronto, Montreal, Buffalo and Other Leading Markets.

Toronto.

The total live stock receipts at the Stock Yards for the week were:

	City	Union	Tota
Cars		487	547
Cattle	gar day -0	4,611 9,244	5,352 9,793
Sheep	242	910	1,155
Calves. Horses.		1,054 2,619	1,353 2,82

The total receipts for the corresponding week of 1915 were:

	City	Union	Total
Cars	38 .	434	472
Cattle	335	4,060	4,395
Hogs.	. 622	8,114	8,736 1,259
Sheep		876 914	1,259 1.055
Calves.	201	2.347	2,551

The combined receipts of live stock at the two markets for the week show increases of 75 cars, 957 cattle, 1,059 hogs, 298 calves and 273 horses, the only decrease being the slight number of 107 sheep, compared with the corresponding week of 1915:

market were lighter last week than for the two or three weeks previous. Packers are getting a little more particular in their selections, and insist upon a better quality of stock, else the price is cut. Cattle reached the high level of 10 cents per lb. early last week, but the end of the week found the market easier, and prospects were that prices would be easy to steady for the coming week. During the week 4,571 cattle, 915 calves, 6,592 hogs and 835 sheep were sold at the Union Stock Yards. Prices were steady at the close of the week, but it was more difficult to make sales, and the tone of the market was on the easy side.

Heavy Cattle.—Very few were offered and prices held steady, although buying was slow.

Butchers' Cattle.—Choice butchers' cattle were not plentiful, but trade was not brisk. A few small lots made \$9.50 to \$9.75 Thursday, but most sold between \$8.60 and \$9. Drovers were disappointed in the prices. Tor-onto values being higher than Buffalo and Montreal, several orders from these markets could not be filled.

Stockers and Feeders.—Trade in stock-

Deliveries of live stock at the Toronto | ers and feeders was very quiet. Prices have been so high that farmers could not see their way clear to buy, even though a slight easing-off was recorded. 75 and the best feeders up to \$8.85 and even \$9.

Milkers and Springers.-The milker trade was keen. Week before last 100 head were purchased for Saskatchewan. Last week two more cars were taken for the Western Province. Prices ran from \$80 to \$115 each, according to quality.

Veal Calves.—Calves were one of the strong features of the market. They were up 50c., and eagerly sought after at \$10 to \$12 per cwt. for the best. A few even beat this price and went at \$12.50.

Sheep and Lambs.-Sheep and lambs were off all around. Sheep sold 25c. easier. Yearlings went down from \$1 to \$2 for the week, and spring lambs were \$1.50 lower. Sheep with wool on are worth \$2 per cwt. more than clipped. Prospects are for lower market this week.

Hogs.-Packers hint at lower prices. The week closed at \$11 to \$11.15 off cars, and \$10.75 to \$10.90 fed and watered. Quotations: Heavy Steers.—Choice, \$9.25 to \$9.85;

good, \$8.75 to \$9.25.
Butchers' Cattle.—Good, \$8.75 to \$9.10, a few handy, choice up to \$9.40; medium, \$8.25 to \$8.60; common,

\$7.75 to \$8.25. Cows and Heifers.—Choice, \$7.75 to \$8.50; good, \$7.25 to \$7.75; medium,

\$6.50 to \$7.25. Bulls.—Best heavy, \$8 to \$8.75;

medium, \$7 to \$8; bologna, \$6.15 to Milkers and Springers.—Choice, \$80

to \$115; medium, \$60 to \$75; springers, \$60 to \$115. Stockers and Feeders.-Choice feed-

ers, 900 to 1,000 lbs., \$8 to \$9; best stockers, 800 to 900 lbs., \$7.75 to \$8.50; good, \$7.50 to \$8; lighter, \$6.75 to \$7.50, and down to \$5.50.

Cutters.—Best, \$5 to \$5.75. Veal Calves.—Best, \$9.50 to \$12, a few at \$12.50; medium, \$7.50 to \$9.50; common, \$6.50 to \$7; grass, \$4.75 to \$6.25; bobs, \$3 to \$7.50.

Sheep and Lambs.—Lambs, \$9 to \$12 per cwt.; spring lambs, each, \$6 to \$11.50; light ewes, \$8.50 to \$10; heavy ewes and bucks, \$7.50 to \$8.50;

culls, \$5 to \$6. Hogs.—Selects, fed and watered, \$11.75 to \$11.90; weighed off cars,

JUNE 1, 1916

strength.

How to ame

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war, became, ea his career, a qu of deep interest Dunant. With purpose in vie followed the F Italian army campaign of 185 was at the ba Solferino. This one of the mos guinary confli modern times. thousand dead left upon the fie the wounded as many more the want of i and material many of the were left to die they had falle Dunant did hi Aided by people countryside and charitable tra he improvised h in which a goo ber of the w found relief.

The horrible tacle he had w moved him, close of the begin an acti vass for secur organization, countries, of tions of volu nurses, wearindistinctive bad would follow a succor, withou wounded. This of pamphlets a a time when the appeal st throughout E The result w

in October, 18 exception, all representatives culminated in famous Red C banner all civil As a complir because the cr tianity, a red

THE ROYAL BANK OF CANADA

Capital Authorized - - \$ 25,000,000 Capital Paid up - - -11,785,000 13,236,000 Reserve Funds Total Assets - - - 214,000,000

HEAD OFFICE: MONTREAL

Branches throughout every Province of the Dominion of Canada.

> **Accounts of Farmers** Invited

Sale Notes Collected

Savings Department at all **Branches**

\$11 to \$11.15; f. o. b. country points, \$10.25 to \$10.35.

Breadstuffs.

Wheat.—Ontario, No. 1 commercial, \$1 to \$1.01; No. 2 commercial, 98c. to 99c.; No. 3 commercial, 94c. to 95c.; feed wheat, 90c. to 91c. Manitoba (track, bay ports)—No. 1 northern, \$1.18; No. 2 northern, \$1.17½: No. northern, \$1.171/4; No. 3 northern, \$1.12½. Oats.—Ontario, No. 3 white 47c. to

48c. Manitoba oats (track, bay ports), No. 2 C. W., 51c.; No. 3 C. W., 50c.; extra No. 1 feed, 50c.; No. 1 feed, 49c. Peas.—According to freights outside,

No. 2, \$1.70; according to sample, \$1.25 to \$1.50. Barley.—According to freights outside, malting barley, 66c. to 67c.; feed

barley, 63c. to 64c.

Buckwheat.—According to freights outside, nominal, 70c. to 71c.

Rye.—According to freights outside, No. 1 commercial, 94c. to 95c.

Corn.—American (track Toronto), No.

3 yellow, $80\frac{1}{2}$ c. Flour.—Manitoba first patents, in jute bags, \$6.70; second patents, in jute bags, \$6.20; strong bakers', in jute bags, \$6. Ontario, winter, according to sample, \$4.30 to \$4.40, track, Toronto; \$4.35 to \$4.45, bulk, seaboard.

Hay and Millseed.

Hay.—No. 1, per ton, best grade, \$19 to \$21; No. 2, per ton, low grade, \$16

Straw.-Car lots, per ton, \$7 to \$8,

track, Toronto. Bran.—Per ton, \$23

\$1.75.

Shorts.—Per ton, \$25. Middlings.—Per ton, \$25 to \$26. Good Feed Flour.—Per bag, \$1.70 to

Country Produce.

Butter.-Butter declined again on the wholesales during the week. Creamery fresh-made lb. squares, 29c. to 31c. per lb.; creamery solids, 28c. to 30c.; separator dairy, 25c. to 28c.; dairy, 23c. to 25c.

Eggs.- New-laid eggs remained stationary, the case lots selling at 26c per dozen, wholesale; cartons bringing 28c. to 29c. per dozen. Cheese. Old, 21c. to 211₂c. per lb.

new, 19c. to 20c.

Poultry.- Live weight-Spring chick ens, 35c. to 40c. per lb.; ducks, 18c. turkeys, young, 20c.; fowl, 16c. to 18c

Squabs. -\$3.50 to \$1 per dozen

Hides and Skins.

Lamb skins and pelts, \$1.20 to \$1.25 sheep skins, city, \$2 to \$3; sheep skins country, \$1.50 to \$2.50; city hides, flat 19e.; country hides, cured, 18e.; country hides, net cured, 17c.; country hides hides, per cuted, 17c.; courty lindes, green. Fig.; call skins, per lb., 26c.; kip skies, per lb., 24c.; borse hair, per lb., 44c to 44c.; borse hides. No. 1, \$5 to \$5.50; house hider. No. 2, \$4 50 to \$5; tallow. No. 1, 7c. to 8c; wool, washed, 40c. to 44c.; wed, steic tions, 33c. to 55; word, unwashed, 28c to

Wholesale halls and Voyetables.

at \$8 per bbl., and Louisianas at \$2 Ontarios, old ones, are per · bushel. just about off the market, but would bring about \$1.90 per bag. New beets and carrots are slightly firmer at \$1.40 to \$1.50 per hamper; while cabbage, which was so high two weeks ago (\$5 to \$5.50 per case) has materially declined, and now sells at \$2.50 to \$2.75 per crate.

Asparagus is coming in very freely, and now brings from 85c. to \$1.25 per 11-qt. basket, but it is very slow at the \$1.25-the bulk of the best only

bringing the \$1. Hot-house tomatoes are also coming in in larger quantities, and are a little lower in price; the No. 1's selling at 23c. per lb., and No. 2's at 15c. to 18c. per lb.;the imported tomatoes selling at

\$4.50 to \$5 per six-basket crate.

The Texas Bermuda onions have advanced, and are quite firm at \$2.75

per 50-lb. crate.

Lettuce is coming in freely once more—the leaf selling at 40c. to 60c. per dozen; the Canadian head at 75c. to \$1.25 per dozen, and Boston head at \$3 to \$3.25 per hamper.

Spinach is becoming difficult to dispose of, as the gardeners are supplying the retailers. It now sells at 50c. to 75c. per bushel; an odd one of extra choice quality bringing \$1.00.

Radishes will soon be a glut on the market, now selling at 121/2c. to 20c. per dozen.

The new fruits are beginning to arrive-California cantaloupes, apricots, peaches and plums having made their first appearance last Thursday; the cantaloupes selling at \$8 to \$9 per case; apricots at \$3.50 to \$4 per case of about 16 dozen; plums at \$4 per case of about 25 dozen, and peaches at \$3 per case of 10 dozen. California cherries remain about stationary at \$3 per box

The first Canadian cauliflower made its first appearance Thursday from the Erie Co-operative Co. They were trying to obtain \$1.25 per 11-qt. basket

Strawberries are now becoming plentiful. The best quality coming from Missouri, and bringing 15c. to 16c. per box. Poorer ones going at 13c. to 14c.

Montreal.

Offerings of cattle on the local market have shown a slight increase recently, but the quality of the stock was not strictly finest. Butchers notice also that a very considerable reduction is taking place in consumption, this being due not only to the warmer weather but also—and more especially perhaps—to the high prices which must now be paid. Consumers are constantly finding substitutes for fresh meat, and as fresh vegetables are now coming in, consumption is turning to these. As a consequence the tendency of prices is rather downwards just now. Choice steers were quoted at 9½c. to 9½c. per lb., good to fine being 8½c. to 9c., and lower grades ranging as low as 7c. and 634c. Butchers cows and bulls ranged from 61/4c. to 8c. per lb. for cows, and 14c. more than these figures for bulls. Spring lambs were in moderately good demand and the price ranged from \$5 to \$8 each, while old sheep brought 812c. to 9c. per lb. Hogs were in fairly good supply and the tendency of prices was downward. Purchases made at a decline of about 14c. and selected lots were quoted at 1114c to 111gc, per lb. for selects, weighed off care. Calves were purchased freely both for local consumption and for export across the border, and quotations were from 8½c to 9¼c. for the best and 71 gc. to 8c. for good.
Horses.—Dealers continued to report

a very dull market for horses of all kinds Demand, however, was no lighter than supply and, as a consequence, prices showed but little change, being as follows heavy draft horses, weighing 1,500 to 1,700 lbs., \$200 to \$250 each; light draft, 1,400 to 1,500 lbs., \$150 to \$200 each; small horses \$100 to \$125 each; culls, \$50 to \$75 each, with fine saddle and carriage horses quoted at \$200 to

was the falling off of consumption at the recent high prices. Sales of abattoir, fresh-killed hogs took place at 16c. to 16½c. per lb., which, although a reduction, was still an exceptionally high figure.

Poultry.—Cold storage stock was quoted nominally at 24c. to 27c. per lb. for turkeys, 22c. to 24c. for chickens, 17c. to 19c. for geese and fowl, and 19c. to 20c. for ducks.

Potatoes.—There was very little change in the market for potatoes last week. Supplies were not large and some American new stock was offered in the market. Green Mountain potatoes sold in car lots at \$1.75 per bag of 90 lbs., while Quebec potatoes are \$1.70, with smaller lots bringing 10c. to 15c. additional.

Honey and Maple Syrup. — Demand for these lines was light. Honey was quoted around 15½c. per lb. for white clover comb and 12½c. for extracted. Brown comb was 121/2c. and extracted 10½c. while Buckwheat honey was about 9½c. Maple syrup was unchanged at 85c. to 90c. for 8-lb. tins; \$1 to \$1.10 for 10-lb. tins and \$1.25 to \$1.30 for 13-lb. tins, with 15c. additional for extra choice syrup. Pure maple sugar sold at 12c. to 13c. per lb.

Eggs.—The market for eggs was practically unchanged and there was a good demand for everything offered. Straight gathered stock is 25c. to 26c. per doz., No. 1 being 24c. to 25c. and No. 23c. to 24c.

Butter.—The market for creamery was active and prices were firm at 301/2c to 31c. for finest new milk goods, and ½0 less for fine. Dairy butter sold at 23c

to 24c. per lb.

Cheese.—The tone of the market for cheese was easier, and finest Ontarios, were quoted at a wide range of prices. With country boards selling as they did it was no longer possible to get the figures quoted here the previous week, and it looked as though the market would be down to around 17½c. or 18c. at the very outside.

Grain. Dealers still quoted No. 1 commercial white wheat at around \$1.10 per bushel in car lots. The market for oats was on the easy side and quotations for No. 2 Canadian Western were 53½c. with No. 3 and extra No. 1 feed at 52c. No. 1 feed at 51c. and feed 50c. per bushel. Ontario and Quebec No. 2 white oats were quoted at 51c. and No. 3 at 50c., with No. 4 at 49c. per bushel, ex-store.

Flour.—Prices were unchanged last week at \$6.80 per barrel for Manitoba first patents; \$6.30 for seconds and \$6.10 for strong bakers per barrel, in bags. Ontario patents were \$6 to \$6.25 and straight rollers \$5.40 to \$5.60 per barrel, in wood, the latter being \$2.60

per bag.
Hay.—The market was unchanged at \$22 to \$22.50 for No. 1 hay; \$21.50 for extra good No. 2; \$20.50 to \$21 for No. 2; \$19.50 for No. 3 \$18.50 for clover mixed, ex-track.

Hides.—The market was unchanged Calf skins were 34c. per lb. for No. 1, and 32c. for No. 2. Lambskins were 40c. each; beef hides were 22c., 20c and 19c. for No's. 1, 2 and 3, respectively Horse hides were \$2.50 to \$3.50 each and rough tallow 112c, to 212c, per lb with rendered at 7c. to 712c.

Buffalo.

Cattle: While the extreme top range in steers was higher than ever before at Buffalo \$10.75 for a load of prime Ohio steers the general trade was 10c, to 15c, under the previous week, here the last week. In the neighborhood of sixty to seventy loads of shipping steers and fully thirty cars sold at ter cents and above. In the handy butcher ing steer line a general range of fron \$9.75 to \$10 was had, while strictly yearlings landed at \$10, as agains \$10.10 to \$10.15 for the previous week Altogether there were 175 loads of 4,375 head, Monday, and included a few scattering loads of Canadians. All grades of butchering cattle showed shade easier prices. Heavy, fat heifers ranged up to \$9 to \$9.50, and best heavy, fat cows sold from \$7.75 to \$8.25. On Old potatoes are broading scarce and have again advanced in price; the New Brunswick Delawares now selling at hogs showed quite a decline last week \$2.10 to \$2.15 per hap, and Behish stock all the way round, and more particle for the fair and medium kinds of cows, as well as the less desirable grades, trading was slower than for previous week. Some grass cattle were included among the receipts last week and these show the fair and medium kinds of cows, as

\$1.90 and \$2 per bag. The new ones remain unchanged; the Bermudas selling Once more, a leading factor in the decline of a dollar, under strictly dry fed kinds of and feeders were in good demand, best bringing up to \$8.25 to \$8.35, a load of common, trashy, light heifers averaging around 500, selling at \$6.50. Bulls sold steady, best heavies running up to \$8.25 to \$8.50. Milchers and springers found steady sale, fancy kinds bringing up to \$90 to \$100. At the close of the market on Monday a good clearance had been effected. Feeling among sellers is that on grass cattle, which are beginning to move now, prices will be lower, especially on the first crop, which is usually washy. Receipts last week were 5,125 head, as against 4,225 head for the previous week and 3,325 head for the corresponding week last year. Quota-

Shipping Steers.—Choice to prime natives, \$10.00 to \$10.75; fair to good, \$9.50 to \$9.85; plain, \$9.00 to \$9.25; very coarse and common, \$8.50 to \$8.75; best Canadians, \$9.50 to \$9.85; fair to good, \$9 to \$9.40; common and plain, \$8.50 to \$8.75.

Butchering Steers.—Choice heavy, \$9.50 to \$10.00; fair to good, \$8.50 to \$9.25; Steers.—Choice heavy, best handy, \$9.50 to \$10.00; common to good, \$8.60 to \$9.25; Light, thin \$8.00 to \$8.40; yearlings, prime \$9.75 to \$10.00; yearlings, common to good, \$8.25 to \$9.50.

Cows and Heifers.—Prime weighty heifers, \$8.50 to \$9.25; best handy butcher heifers, \$8.50 to \$8.75; common to good, \$7.00 to \$8.00; best heavy fat cows, \$7.75 to \$8.25; good butchering cows, \$7.00 to \$7.50; medium to fair, \$5.50 to \$6.50; cutters, \$4.75 to \$5.00; canners, \$3.25 to \$4.50.

Bulls.—Best heavy, \$8.00 to \$8.50; good butchering, \$7.75 to \$8.00.

Stockers and Feeders.—Best feeders, \$8.00 to \$8.35; common to good, \$7.00 to \$7.75; best stockers, \$7.75 to \$8.00; common to good, \$6.50 to \$7.50.

Milchers and Springers.—Good to best, in small lots, \$80.00 to \$100.00; in car loads, \$70.00 to \$75.00; medium to in small lots, \$60.00 to \$65.00.

Hogs.-Market last week was low and prices showed a downward tendency. Monday's top was \$10.00, few sold at \$9.95, bulk landed at \$9.90, and general price for pigs was \$8.75. Tuesday the trade on best grades was steady to a nickel lower and pigs were jumped a quarter; Wednesday's range on best grades was about like Monday, with pigs selling at \$9.00; Thursday bulk sold at \$9.90, with pigs at \$9.00, and Friday packers grades and good yorkers moved at \$9.85 and \$9.90, with pigs selling the same as Thursday. Roughs the past week ranged from \$8.65 to \$8.90, and stags \$7.25 down. Receipts last week reached approximately 28,200 head, as compared with 30,011 head for the week previous, and 34,800 head

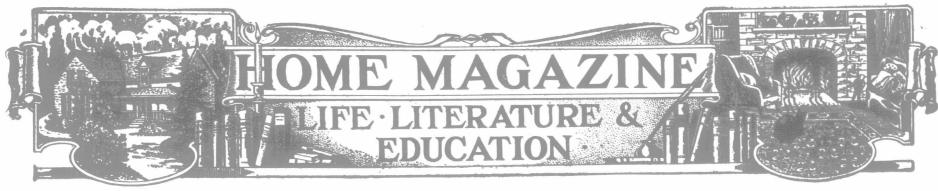
for the same week a year ago.
Sheep and Lambs.—Prices struck the lowest level of the year last week. Monday no full car lots of yearling lambs sold above \$10.00, and buyers landed several loads at \$9.65 and \$9.75. Tuesday's trade was quoted steady, Wednesday one load made \$10.00, with the balance selling from \$9.50 to \$9.75; Thursday nothing sold above \$9.75, and Friday sales on best dry-fed, handy lambs were made at \$9.75 and \$9.85. Cull lambs the past week sold mostly from \$8.50 down. Sheep also showed a big take-off, buyers getting good handy killing wethers, with a few ewes down to \$7.50 and \$7.75, and most of the ewes went from \$7.00 down. Receipts last week were 12,500 head, being against 24,305 head for the week before and 8,000

head for the same week a year ago.
Calves.—Last week started with top yeals selling generally at \$11.50 and culls \$10.00 down. Tuesday bulk of top sold at \$11.25; Wednesday the general market was \$11.00, and \$11.25, Thursday best lots sold up to \$11.75, and Friday best lots reached \$12.00.

('ull lambs were steady all week, bulk going from \$10.00 down. Receipts last week were 3,900 head, for the week previous there were 4,338 head, for the same week a year ago the run aggregated 3,550 head.

Sale Dates Claimed.

June 10.-Watt, Gardhouse, Miller, Elora, Ont.; Scotch Shorthorns.
June 14.—Francis Stauffer, R. 4 Bright, Ont.; Holsteins. June 21-A. E. Currie, R.R. I, Guelph, Ont.; Dual-purpose Shorthorns.



"Life is mostly froth and bubble, Two things stand like stone— Kindness in another's trouble, Courage in your own".

The Founder of the Red Cross Society.

BY J. HUGH MCKENNEY.

To Henri Dunant, a native of Switzerland, belongs the honor of having founded the Red Cross Society. While heros of the battle field are being lauded for their brave deeds we have in this friend of the soldier "a hero of peace" whose name deserves to be revived and his work made better known to the world. It would probably be impossible to find a home in the civilized world that is not familiar in a general way with the Red Cross Society or that is not actively engaged in its work. As recruiting goes steadily on and familiar "faces disappear, day by day it is felt that everything possible is being done for their comfort. We have unbounded faith in the magic words, "Red Cross".

They are the connecting links between home and the trenches, through which a nation unites its forces and multiplies its strength.

How to ameliorate the condition of the wounded in times of war, became, early in his career, a question of deep interest to M. Dunant. With this purpose in view, he followed the Franco-Italian army in the campaign of 1859, and was at the battle of Solferino. This was one of the most sanguinary conflicts of modern times. Forty thousand dead were left upon the field and the wounded totaled as many more. For the want of medical and material care many of the latter were left to die where they had fallen. M Dunant did his best. Aided by people of the countryside and a few charitable travellers, he improvised hospitals in which a good number of the wounded ound relief

The horrible spectacle he had witnessed moved him, at the close of the war, to begin an active canvass for securing the organization, in all countries, of associations of volunteer nurses, wearing one distinctive badge, who

would follow armies in action, and give succor, without discrimination, to all the wounded. This plan wasenforced by means of pamphlets and lectures. Put forth at a time when all hearts were sensitive, the appeal struck a responsive chord throughout Europe.

The result was a convention at Geneva, in October, 1864, to which the single exception, all the European states sent representatives. Four days' deliberations culminated in the organization of the famous Red Cross Society, under whose banner all civilized nations are marshaled. As a compliment to Switzerland and because the cross is the symbol of Christianity, a red cross on a white field.

the reverse of the Swiss flag, was adopted as the society's ensign. But one military hospital is recognized in the world to-day, —that of the Red Cross. It marks all the trappings, and is the badge of its nurses and followers. Turkey alone discards the cross, its crescent on the battle field having the same signification of the Christian symbol.

The commander who knows his own, knows his enemy. If knowingly, he allows his guns to be turned on the Red Cross, he breaks an international treaty. Convoys of prisoners, under escort bearing that sign, are safe. No officer can fire on that unarmed and defenseless body of men by mistake. No captured man can suffer lack of food. The world is pledged to supply the want, for friend and foe are alike to the Red Cross Society.

At the time of the Geneva Treaty the United States was engaged in the Civil War and was the last of the civilized nations to enlist under the Red Cross. This was finally effected by the efforts of Clara Barton, who had, in the meantime, made herself famous at home and honored abroad as a war nurse. In Switzerland, at the outbreak of the

reduced to penury, and in Paris, for a time, suffered many privations. Referring to this period he writes: "It has been my experience to breakfast upon the value of a penny found by chance in my pocket; to blacken my coat seams with ink, to whiten my collar with chalk, and to stuff my worn-out hat with paper in order to prevent it from slipping over my eyes". Like Abou Ben Adhem's his name will be written down as one "who loved his fellow men".

Roses.

BY WALTER M. WRIGHT.

No farm can afford to be without flowers and of all the flowers we can grow, the roses are the easiest to keep. Perennials by all means are the flowers for the farm, for they take less time and in the long run they make probably the best show for least effort. Roses are fairly hardy and by covering before hard frost in the fall, many tender ones can be brought to great size. What I may mention in the way of varieties

centre to almost maroon. It is prettiest when open and is a long lasting flower.

Juliet is a magnificent flower. It has with us five distinct colors at one time. In the bud it is a cream towards the stem end, deepening till at the edge of the outside petals it is shell pink. As it opens it changes in color and the stem ends of the petals gradually grow lighter from cream to white and the outer edge of the petal which first is shell pink deepening to maroon gradually tones down till, when the bloom is over, it has become a very light shade of pink. It is a wonderful rose both in bloom and perfume, and one not often seen. It is profuse in bloom and especially so in the hot weather.

For bouquet rose of cream there is nothing can equal the Kaiserin Augusta Victoria. The buds are a wonderful accomplishment of some florist. They are long, pointed, cream with a green tinge to the cream. Towards the base of the bud it gets almost white. It is not a full rose, which adds much to its beauty. The petals are few but each delicately curled. The perfume from this rose is exquisite. The rose is a very long

lasting one especially in the early and late parts of the season. It is an exceptionally fine bouquet rose because of the long clean strong stem which the bud is almost sure to come on. It is with us in constant bloom, very hardy and healthy.

Grace Darling is another splendid bouquet rose almost identical with the Kaiserin Augusta Victoria, but this one is a light pink the same long shaped, curled petal bud.

curled petal bud.

The American Wonder is a nice rose for those who want a pink blossom. It is an even shade of pink all over the petals and the petals are not so numerous as to make the flower a cabbage head. The buds are often extra fine in the early season and the rose has a good strong perfume, though nothing to equal the ones first mentioned.

Blanche Moreau, a

Blanche Moreau, a moss rose, the pride of the ladies, has a b one can be proud to present. The moss formation at the base of a deep rich red bud makes this rose most attractive.

Auldrich Brunner is a splendid showy deep red rose, on a fine large growing shrub. It is not an inside rose but makes up well in

bouquets where other varieties supply the perfume. It is a very heavy bearing bush and keeps right at it all season long. It would take a great deal of persuasion to get us to exchange it

even for a deep red rose with perfume.

We have 40 other roses mostly in experimental stage but the ones mentioned have proven themselves worthy of the care we can give them. The biggest trouble we have is the rose beetle. These little beggars destroyed nearly every bud on the Juliet last summer and also on the Soliel D'or but we know now how to handle them; tap the bush with a stick and they will fall to the ground. Wrap a bunch of cotton batting around the



Roses.

Franco-Prussian War, she joined the Red Cross Society, and, becoming personal ly cognizant of its power for good, she succeeded, in 1882, in enlisting the United States. Her plans for organized effort to alleviate suffering in catastrophies outside of war are now embodied in the work of the society throughout the world. These are known as the "American Amendment".

The establishment of the Geneva compact was the crowning glory of Henri Dunant's life, but it was achieved at a heavy sacrifice. He had spent his money with an open hand in the preliminary work and as old age approached he found his fortune gone. He was

will be those that have stood a winter that goes only to about 10 below zero.

The prettiest, most delicate of roses we have is a single, very heavily scented, deep cream rose called Peggy. In the bud it is very, very fine and a richer cream than when open. When I showed it to "a rose fiend" here he made the remark it was too fine to pick. The only fault is that it is not one that lasts well after picking, especially if picked in warm weather.

The Soliel D'or is a rose of fine scent almost like the aroma from an orange. The outside petals of the open bloom are cream deepening in color towards the

trunk of the bush near the ground and they can't crawl back. They are red in color, with a long sharp beak with which they pierce right through the bud and when the bud opens it is all brown spots around the holes they have made.

the holes they have made.

Mildew is starting and its cure is cut off and burn badly affected twigs and dust bush with flowers of sulphur.

If you want the extra pleasure of sending some roses to your friends in town, it is easy to do. After sunset is the best time to pick them or early in the morning before they are warmed. Pick buds pretty well started but nothing long opened. Take stems as long as you can and submerge the whole stem bud and all in cool water for a couple of hours. This gives the flower a chance to absorb water enough to last it some time and besides it lowers its temperature. Line a paste-board box with paper, lay the flowers in and cover with paper loosly crumpled, folding the paper that was used as a lining over the top and down the side of the box. To accomplish this use paper the width of which is the same as the length of the box. Place one end of your paper away from you the other end hold against the edge of the box, place your roses, on the paper and they will fall into the box taking the paper down with them, the end away from you can then be folded towards you and over them and the paper you place right on top of the bundle of

West Summerland, B. C.

Hope's Quiet Hour.

Visiting God.

LORD, in trouble have they visited Thee, they poured out a prayer when Thy chastening was upon them.—Isa., 26:16.

"Of what an easy, quick access, My Blessed Lord, art Thou! how suddenly

May our requests Thine ear invade!
If I but lift mine eyes, my suit is made;
Thou canst no more not hear than
Thou canst die."

The prophet Isaiah, in our text draws attention to the habit which is common in all ages—the habit of "visiting" God when trouble is heavily pressing. In the day of His chastening we pour out our prayers like a rushing river, though we may forget Him entirely when life is easy and smooth. In the margin of our Bibles the word "prayer" is "secret speech," and in the R. V. it is "whisper." Not long ago I received a letter from a mother whose son is in the trenches. She writes: "a prayer for his safety is always on my lips and in my heart," and yet she is busy all day in a public institution and has no time to go away and kneel down before God. She finds it possible to visit Him in the midst of crowds, to whisper her secret speech in His listening ear unheard by those who work at his side.

In the days of Hezekiah there was great joy in Jerusalem, and when the priests blessed the people "their voice was heard, and their prayer came up to His holy dwelling place, even unto heaven." In these days a great volume of prayer is being poured out; let us take courage, remembering that prayers are far swifter than the "wireless" messages which are flying through space straight to their mark. So many troubled hearts are being lifted up to God! Is the weight of trouble always lifted? Or do many suppliants come away from their visit with God, carrying their crushing burden of anxiety

away with them?
This is a practical, every-day matter, which we do well to look into; for continuous anxiety is a short road to nervous and physical breakdown. We must land our way out of the nerve-

racking anxiety if there is a way.

If you read the chapter from which our text is taken you will find that it begins with a song. It is a song of jubilant confidence because the city is mightily walled about by him who is "a strength to the needs in his distress, a refuge from the steem, a shedow rom the heart, when the blast of the

terrible ones is as a storm against the wall." The prophet announces the marvellous truth that one whose mind is stayed on God is kept by Him in perfect peace. This is not the easy peace which men enjoy when all is going well around them, it is the peace of one who finds God his mighty fortress in the midst of storm and war. It is the peace of one who is not afraid though a thousand may fall at his side, and ten thousand at his right hand. Is not that a peace worth having? Is it possible to obtain this priceless treasure?

We have the testimony of a multitude which no man can number—a multitude gathered from all nations and from all ages of man's history—that those who really place themselves and all their possessions in God's hand find this peace which passeth all understanding. Their aim in life is not to have an easy time, but to do their Master's will. No matter how rough or painful life's road may be, they do not question His orders nor despair when clouds hide the sunshine. They know that the Most High ruleth in the kingdom of men, and they do not question the justice or power of the Judge of all the earth.

"For right is right, since God is God;
And right the day must win;
To doubt would be disloyalty;
To falter would be sin."

The issues are in the hand of God—but we may possibly have to wait until after death before we understand His dealings with the world.

Many are seeking after God in that almost despairing fashion. Their old, easy-going religion is not enough for them now; they want to be SURE that the God of Love hears, and will answer, their broken-hearted prayers. In the days of prosperity, trifling cares, work or pleasures crowded out the thought of God; but now the gates of heaven are besieged by a multitude of frantic suppliants.

The wise men travelled far to seek the King. Why? Because they want to lay their best treasures at His feet. They went away in gladness of heart—they had found Him whom they sought.

The multitudes crowded after our Lord on one occasion; and yet He was disappointed at their zeal. They were not seeking Him—attracted by His beauty of Holiness—but cared only for His power of satisfying their earthly needs. If He would fill their out-

enemy is on the soil of France. The French are fighting for their homes, for their children, for their country. And in this great struggle France daily, hourly, on its knees asks for help."

That was a year ago, and other nations are driven to their knees now.

nations are driven to their knees now. Are we only "visiting God" in our desperate need, or have we made up our minds to abide in His holy dwelling place when the present distress is over? David cried unto God for a refuge from the enemy when great danger threatened him, but he also said: "I will abide in Thy tabernacle forever.

will abide in Thy tabernacle forever.
. . . I remember Thee upon my bed, and meditate on Thee in the night watches. . . . my soul followeth hard after Thee."

Those who seek God for Himself will soon find that in His presence they are always near their earthly friends. In Him there is no more sea, nor death, to separate those who love each other. They can say confidently:

"So we must keep apart,
You there, I here,
With just the door ajar
That oceans are,
And prayer."

DORA FARNCOMB.

For the Needy.

Another gift of \$5.00 has been sent to me by one of our readers, to pass on to the needy. This will give pleasure and comfort to several sick people. One dollar of it has already gone to a young man who has been in bed more than two years, and who is entirely dependent on charity. He asked me to give his very hearty thanks to his unknown friend.

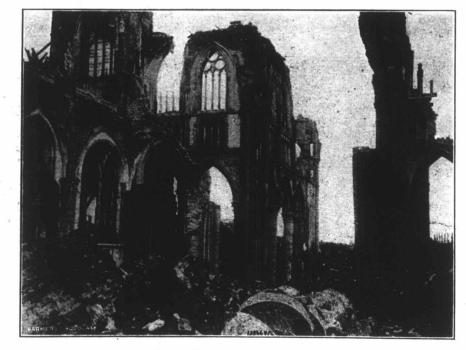
Sympathy.

"Kindly accept enclosed to be used in your work among the poor and needy."

SYMPATHY.

I received the above letter this morning. There was an enclosure of ten dollars, but no clue to let me know the name of the generous giver—except the Woodstock postmark. If my unknown friend could have seen the face of a sick woman this afternoon!—a sick woman who has already been cheered and helped by part of the money. I wish "Sympathy" would let me know her address, and then I can explain more fully than I like to do in the public print, and can also tell her particulars about the rest of her donation and how it has been spent.

DORA FARNCOMB, 52 Victor Ave., Toronto.



Ruined Church at Ypres.

Some people think that the effect of prayer in giving peace to the soul is "subjective." Let me illustrate. A man was suffering from neuritis. The pain was intense, and he could only sleep after morphine had been injected. One night the injection was given as usual, and the patient slept peacefully as a result. Afterwards he discovered that he had been cheated, the "morphine" was really a spoonful of water only. Probably most doctors and nurses have found out that the value of a dose of medicine often depends on the faith (or credulity) of the patient

the patient.

If prayer were only valuable in this subjective fashion, what a mockery of our highest aspirations it would be! In that case we might as well pray to an idol, if only we could convince ourselves of its power to hear and help. Our God is not a creation of our own imagination, but a very present help in trouble. There was great joy in Jerusalem because the voice of prayer "was heard" by God, for it "came up to His holy dwelling place, even unto heaven."

It would be a mockery of a mother's prayers for her boy—or boys—at the front, if the only effect of her intercession were the calming of her own troubled spirit. It is not peace of mind for herself that she wants, but the blessing of God on those she loves

of God on those she loves.
In these days of world-wide sorrow many are ready to echo the complaint of Job, who said:

stretched hands with loaves and fishes they would turn their backs on Him until they were in trouble again. Their souls were not athirst for God, all they desired was relief from earthly discomfort. It is possible that we may pray in that selfish fashion, visiting God in trouble and then hurrying away from His presence as soon as He has relieved the intolerable pain which has driven us to seek Him. Bishop Coxe has described how the worshippers poured out of a church, one Easter Day, as if it had been a prison from which they were escaping. Before the Lord's Supper was celebrated the crowds rushed out:

—"The famishing went crowding From the Bread of Life away: They were bidden, they were bidden To their Father's festal board; But they all, with gleeful faces, Turned their back upon the LORD."

Mrs. Rinehart, in her book about the war, says that she was one day seeking General Foch in a little town near the front. She found the great general in the little stone church. He was kneeling there alone—alone with God. She slipped out again, in silent reverence, feeling that his attitude was typical of the attitude of France. She says:

"It is a totally different attitude from the English—not more heroic, not braver, not more resolute to an end. But it is pecufiarly reverential. The

The Ingle Nook.

[Rules for correspondence 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. (4) Allow one month in this Department for answers to questions to appear.]

The Canning Season.

Among the questions of real importance that come up for the consideration of the housekeeper, is the one that concerns the "doing up" of fruit and vegetables. Both of these, in one form or another, are necessary to the health of the body, and, it scarcely needs to be said, health of body is almost invariably necessary to real efficiency in work. Both fruit and vegetables contain valuable salts and other mineral compounds, besides helping to provide the bulk required in the progression of food through the body. Jams and marmalades are, in addition, very nutritive because of the sugar used in their preparation, while, at the same time, the cooking of the sugar with the fruit-acids tends to make them digestible.

The Reason Why.

The reason why canned fruits or vegetables ever spoil, is because certain organisms—bacteria, yeast, or mould "germs"—have gained admittance, and, in their usual fashion, when moisture and warmth are present, begin to

multiply themsel causing fermenta or heavy mould o may be. The air is to kill these and then seal th no new ones can deal of sugar is a with the exception work readily, he rich preserves and well without seal sary being to cov with melted paradipped in brandy It must be un ning everything us

It must be un ning everything us jars, glass tops, the jars must be with the boiling screwed down as providing a lurk must be left at no bacteria must on the top or s this reason the just as soon as plization is comp

The Can

For canning best way will be to the sealers: close lid and a the bottom; a new rubber ring permit of a close for lowering to into hot then in peeling; a colar fruit; a long-no and funnel for fisharp knife for potato masher is jam or marmalad these will do, bu will expedite m

Two methods stew the fruit fip pan, then fill the When doing this, jars on folds of boiling water. The vent breakage fruit in the jar To do this a gen in mind. Fill the fruit. Place boiler. Pour wa fill jars with loosely, with ri in hot water. Cook the fruit each jar to ov down the tops left in the water.

Spring-top set those which screrack for the boi laths, but if t substitute may clean, white co hay for packing the jars are like and break.

When peeling apples, the piec at once into cold lemon juice has will keep them to be just ripe or berries and curr before stems at Plums should places to prevent

A syrup gene canning by the by boiling 1 cursugar. If liked part or all of really necessary, sugar at all who sterilization is keep as well with its more consadded just before

Some Recon

Strawberries, berries, then to pound of berries and 1/4 cup water Put the berries syrup has cooled filling the jars the rubbers and a little. Place in the boiler (he rack) and water. Bring so and boil 10 covers and let the Keep in a cool, Canned Cherries.

multiply themselves by the million, causing fermentation or putrefaction, or heavy mould on the top, as the case may be. The aim in all canning, then, may be. The aim in all canning, then, is to kill these germs to begin with and then seal the jars so tightly that no new ones can enter. When a great deal of sugar is added, these organisms, with the exception of moulds, do not work readily, hence it is that jams, rich preserves and jellies "keep" fairly well without sealing, all that is necessary being to cover the top, when cold, with melted paraffin or circles of paper

dipped in brandy, to keep off mould.

It must be understood that in canning everything used must be sterilizedjars, glass tops, rims, etc.,—and that the jars must be filled to overflowing with the boiling hot contents, then screwed down at once. No air-space providing a lurking place for bacteria must be left at the top of the jars; no bacteria must be permitted to loiter on the top or sides of the jars. For this reason the jars should be filled just as soon as possible after the steri-lization is completed.

The Canning Process.

For canning in the quickest and best way will be needed, in addition to the sealers: a wash-boiler with a close lid and a wooden rack to fit at the bottom; a large double-boiler; new rubber rings, preferably soft, to permit of a closer joint; a wire basket for lowering tomatoes and peaches into hot then into cold water, before peeling; a colander for washing the fruit; a long-nosed pitcher or ladle and funnel for filling jars; and a small sharp knife for paring. A wooden potato masher is useful when making jam or marmalade. Fewer utensils than these will do, but the possession of all will expedite matters.

Two methods are common. 1. To stew the fruit first in a granite saucepan, then fill the sterilized jars and seal when doing this, place the hot, sterilized jars on folds of cloth wrung out of boiling water. This will help to prevent breakage. 2. To put the raw fruit in the jars, and cook it there. To do this a general rule may be borne in mind. Fill the sterilized jars with the fruit. Place on the rack in the the fruit. Place on the rack in the boiler. Pour warm water around and fill jars with syrup. Put on tops loosely, with rings previously dipped in hot water. Put on lid of boiler Cook the fruit until done, then fill each jar to overflowing and tighten down the tops. The jars may be left in the water until it cools.

Spring-top sealers are better than those which screw down. The wooden rack for the boiler may be made with laths, but if this is not possible a substitute may be found in folds of clean, white cotton or even clean hay for packing. If nothing is used the jars are likely to knock together and break.

When peeling white fruit, such as apples, the pieces should be dropped at once into cold water into which some lemon juice has been squeezed. This will keep them white. All fruits should be just ripe or slightly underripe, and be just ripe or slightly underripe, and berries and currants should be washed before stems and hulls are removed. Plums should be pricked in several places to prevent the skins from bursting.

A syrup generally recommended for canning by the boiler method is made by hoiling 1 cup water to 2 or 3 cups sugar If liked, honey may replace part or all of the sugar. It is not really necessary, however, to use any sugar at all when canning fruit; if the sterilization is complete the fruit will keep as well without it. If, therefore, it is more convenient, sugar may be added just before serving at the table.

Some Recommended Methods.

Strawberries, Canned. — Hull the berries, then weigh them. To each pound of berries allow 10 ounces sugar and 1/4 cup water, boiling it to a syrup. Put the berries into jars, and when the syrup has cooled a little pour it over, filling the jars to overflowing. Adjust the rubbers and screw the covers down a little. Place the jars on the rack in the boiler (have folds of cloth over the rack) and surround with warm water. Bring slowly to boiling point and boil 10 minutes. Tighten the covers and let the jars cool in the boller.
Keep in a cool, dark, dry place.
Canned Cherries.—Wash the cherries

and remove stems and stones. Fill the jars with the cherries and juice, then put them in a boiler of water and heat until the fruit is soft. Fill the jars to overflowing with hot syrup, let cook about 10 minutes longer, then tighten down the covers. Allow about a cup of sugar and 1/4 cup water to each quart of cherries when making the syrup. For cherries that are to be used for pies add no sugar; simply fill up the jars to overflowing with boil-

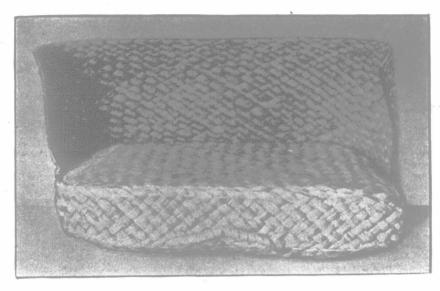
ing water.
Delicious Canned Raspberries.—Take 6 quarts raspberries and 4 cups sugar. Heat 1 quart of the berries in a double boiler, crush and squeeze out the juice through a cheeseloth bag. Add the sugar to the berries, heat to boiling point and skim. Put the rest of the berries

Halve the peaches and put into jars, adding the meat from the stones. Put in the boiler as usual, filling the jars with hot syrup. Cook about 20 minutes.

Canned Pears.—Pare and halve, then cook gently until tender in boiling water. Pack in jars. Make a syrup with the juice in which the pears were boiled, fill up the jars and finish cooking in the boiler. If a sharper flavor is liked add lemon juice to the syrup.

Canned Plums.—Prick the plums.

Make a syrup, using 1 cup sugar to each quart of plums, and 1 cup water to every 4 quarts of plums. Drop the plums in a few at a time, and when done skim out into jars. When filled fill up with the boiling syrup and seal. Plums are nice when peeled, but the process is rather troublesome



Kneeling Basket.

Useful for cleaning floors and working in the garden. May be made of any old sacking.

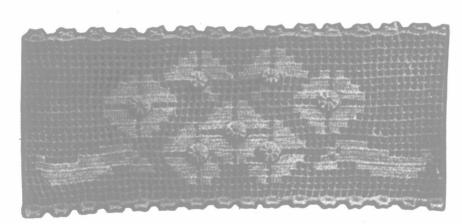
in 4-quart jars, set them into a boiler with water and gradually heat. Pour in the boiling syrup, dividing it equally Put on rings and covers and let cook 6 minutes. Add boiling water to over-flowing and fasten down the covers. Blackberries may be canned the same way. Red currant juice added to raspberries is a great improvement both to color and flavoring. Two or three tablespoonfuls to each jar will be

enough. Canned Tomatoes.—Either stew the tomatoes in a saucepan and fill the jars, putting a teaspoonful of salt on top of each, or can the tomatoes whole. One way of doing this is as follows: Peel small, whole tomatoes and pack into sterilized jars, then put in the rack in the boiler on folds of cloth wet Lower them into boiling water for a moment, then into cold water, and use a sharp knife.

To Can Blueberries.—Fill sterilized jars with berries and cover with a syrup made in proportion of 1 cup sugar to ½ cup water. Put in boiler on a rack and surround with warm water. Cook 15 minutes. Adjust rings, add syrup to overflowing, put on covers and tighten down. If preferred the berries may be canned without sugar. Fill up with boiling water.

Candied Marmalade.

L. S. Nova Scotia asks why orange marmalade candies in the jars, and what to do to remedy it. When marmalade is boiled down too much the syrup



Crochet Pattern for Nightgown, Yoke, Corset Cover, Etc. The little "buttons" are made separately and sewn on.

in boiling water. Fill the jars with boiling water and pour boiling water Cover the boiler and cook until done, then fill up the jars with more boiling water and screw down the tops. Leave the cans in the water until cold.

Canned Apples -- Pare and core the apples, cutting them into quarters or eighths and dropping them into water with lemon juice added to keep them white. Put into boiler with warm water, fill up with syrup and cook. Fill to overflowing when done and screw down as usual.

Canned Peaches.—To take the skins off the peaches, lower them first in a wire basket, into boiling water and leave for 5 minutes, then lower them into cold water and leave for 2 minutes. The skins should come off quite easily

is likely to candy. The only thing to be done is to boil it over, adding a little more water. Put into glasses and when cold cover with melted paraffin or paper dipped in brandy.

Washing New Lace Curtains.

Dear Junia,-There was a query recently re washing new lace curtains to get gum or starch out. The best thing I know is to soak them in lots of water to which has been added from half a cupful to three-fourths of baking soda, rinse well and wash in the usual way. New blankets can also be treated in the same way.

—Kindly contributed by "M. B."

Making a "Comforter." Constant Reader" wishes to know

what quantity of goose or duck feathers should be used to make a good comforter. Also what should be used for interlining to keep the feathers from working through. Will someone who has had experience please answer? It is always well to make the outside cover as a slip that can be easily removed whenever washing is necessary.

The Knitting Brigade.

Mrs. Walter Buchanan, Ravenna, Ont., contributes the following word to the knitters:

Women now are knitting Socks subdued and grey, For our soldier laddies Who have gone away.

In the cause of justice Freedom's Flag's unfurled, Soon its folds expanding Will cover all the world.

And by way of helping Each must make a start; For all have got a place to fill And all must play a part.

All can't go to battle
All can't face the foe;
But they can put heartening
Into those who go.

So as our brave soldiers Cross the sea in flocks, Each is well protected Wearing home-made socks.

Those who fight for freedom Ought to be well shod; Ought to have some comfort As through mud they plod.

So our women are knitting, Knitting all the time, And their needles clicking With their thoughts keep rhyme.

Old, old women knitting In their easy chair, Younger women knitting When they've time to spare.

Each intent on keeping Soldiers fair and fit; Each one with a niche to fill, And keen to do their "bit."

Man for sake of women Fights, as best he can; But the weaker vessel, Too, protects the man.

Think of cold, wet trenches; Think of feet near bare; Think of dire pneumonia Often lurking there.

Women, still keep knitting
For the lads afar,
That with meed of comfort They may win this war.

Keep on knitting, knitting, Different shades of grey; And for final victory Ever hope and pray.

On, Canadian soldiers,
Bravely take your knocks;
Think of nimble fingers Busy knitting socks.

Exterminating the Fly.

It is now recognized everywhere that the house fly is one of the dirtiest and most dangerous pests with which we have to deal-dangerous in that it carries the germs of all sorts of diseases on its feet, transferring them to food at every opportunity. It has been definitely proved that cases of tuber-culosis, cholera morbus, tapeworm, typhoid fever and summer diarrhoea are very commonly transmitted by the

agency of flies. It is, therefore, very necessary that ies be exterminated—not only "swatflies be exterminated—not only "swatted," but prevented. A swatter is a great help in getting rid of the few flies that may get into the best-ordered house; screen windows and doors are a still greater help, in keeping them out; sticky paper formaldehyde in water (kept out of reach of children); fly poisons; the burning of pyrethrum powder;—all of these are effective, but should only be united with, not given the place of, prevention. To prevent flies it is absolutely necessary that no moist filth in which they

can lay their eggs be left about. Manure should be covered until hauled out, or, still better, hauled out to the fields every week if possible. All garbage should be quickly disposed of, and garbage cans kept perfectly clean. Also food of every kind should be kept covered at all times; for foods that require air wire covers or mosquito

require air wire covers or mosquito netting may be used. Absolute care and cleanliness about all these things

will do more than swatting can ever

For the formalin or formaldehyde

mixture use 1 teaspoon to a cup of

it to be moulded into cones. After

drying, put each cone on a deep flat

dish and light with a match at the top.

Vacate the room, closing all doors and windows. The fumes will stupefy

the flies and make them fall to the

floor, when they can be swept up and burned.

Chapped Hands, Etc.

"High School Pupil," asks a remedy

For the hands apply a mixture of

glycerine and rosewater or a good

cold cream every night, first washing the hands well with a mild soap and warm water. Cold cream or a healing

salve is sometimes effective for cracked lips; sometimes it is more effective

to rub on pure alcohol once or twice a day. . . . Nothing will help the voice except good hard work under a

saved over for another year. Some kinds of flowers have a tendency to "revert" if sown in this way for a few

years; for instance, double asters may go back to single—and so on.

Seasonable Cookery.

salmon, 1 cup chopped English walnuts,

4 or 5 sweet pickled cucumbers chopped

fine, 1 cup chopped celery or a little celery seed. Mix well with mayon-

naise dressing.
Salmon in Mould.—One can salmon;

3 eggs beaten light; ½ cup fine bread-crumbs; salt, cayenne and parsley; 4 tablespoons melted butter. Remove

oil, bones and skin from the fish and

mince fine. Rub in the butter and season. Add the crumbs to the beaten

egg and mix all together. Put in a buttered mould and steam for one hour.

thirds cup butter, 2/8 cup boiling

Drop Molasses Cookies. - Two-

Salmon Salad.—One large can of red

Seeds may be

for chapped hands and lips. Also "what will make the voice good for singing?" and if seeds may be kept

over for another year's planting?

first-class teacher. . .

The pyrethrum powder should be moistened with enough water to enable

water. Put this in the stables also.

pint molasses; 1 teaspoon

(rather large) of soda; 1 tablespoon ginger (level); ½ tablespoon (level) of cinnamon; ½ teaspoon salt. Flour for batter. Melt the butter in the

boiling water and add the molasses

and other ingredients sifted together.

Drop from a spoon on to a buttered

baking tin, having the cakes some dis-

flour; 1 level teaspoon baking powder; 1 tablespoon milk; 4 egg-whites. Mix in the usual manner. Do not beat the eggs much or the cake will be dry,

and a pound cake should always be moist. Covering a cake with frosting

helps to keep it moist. If the cake is

to be kept some time, store it in an

earthern jar covered close; then put on warm frosting a short time before

using.

tance apart. Bake in a slow oven. Pound Cake.—Two-thirds cup butter; cup sugar; 4 egg-yolks; 1½ cups cream cheese and wafers.
Rhubarb Marmalade.—One lb. fine

and let stand, covered with cold water, over night. Cook in the same water until tender. Cut the prunes in 4 or more lengthwise strips. Soften half a package, or one ounce, of gelatine in ½ cup cold water and dissolve in the hot prune juice. Add ½ cup sugar and stir, then add ½ cup orange marmalade, the juice of one lemon, the slices of prunes and enough water to make 1 quart. Decorate a mould with some nuts-blanched almonds are best-and some bits of the prunes. When the prune mixture is cold and beginning to thicken put it carefully into the mould and leave over night to stiffen, Serve with whipped cream or boiled custard.

slices and at once squeeze over them the juice of half a lemon to keep them white. Pour boiling water over a pound of choice dates; stir and separate the dates, then remove them to an agate plate and set in the oven to heat. Now cut each in 4 lengthwise pieces, discarding the stones. Over the dates pour a tablespoonful of lemon juice. Serve, mixed or with the bananas around the dates, on lettuce leaves, with a good salad dressing, preferably

one pineapple, cover with clear water and boil until very tender. Dissolve by heat one pound sugar in one pint of water, pour over the chopped pineapple and cook till the consistency of honey.

> The Scrap Bag. To Lessen Laundering.

If your thin, muslin dress has become flimsy but not soiled, wring out a piece of cheesecloth in cold water, starch and roll the dress up in it. Let stand a while, then press on the wrong side.

To Clean Windows.

An ordinary dish mop will be found a great convenience in washing windows. Keep two, one to wash, the other dry to polish. Never use soap on windows as it makes then streaky. Use one of the preparations made for the purpose, or else a little kerosene in warm water.

rhubarb. Make a syrup of 3 cups sugar to 3 cups of mixed fruit. Boil syrup until thick and clear, then add rhubarb diced and strawberies firm and large. Cook carefully. Eat with

cut rhubarb, 1 orange fine cut, rind and all, %-1b. of white sugar, ½ cup water. Boil gently ¾ of an hour.

Jellied Prunes.—Wash ¾ 1b. prunes

Date and Banana Salad.-Peel and scrape 4 bananas, cut them in thin

oil dressing.
Pineapple Honey.—Pare and cut fine

Lemon Cheese Cake.—Put ½ cup butter, 2 cups sugar, grated rind and juice of 3 lemons, 4 whole eggs and the yolks of 2 more, and ½ teaspoon salt into a double boiler, and stir and cook until the mixture becomes smooth and honey-like. Store in jelly tumblers or use at once for filling tartshells. To use reheat over hot water and add fine macaroon or cake crumbs Fruit Salad Dressing.—Beat 2 eggs until light, and add gradually while

beating constantly, 3 tablespoons melted butter, 3 tablespoons lemon juice and 2 teaspoon salt. Cook over hot water, stirring constantly, until the mixture thickens. Add I cup heavy cream beaten stiff, ¼ cup powdered sugar, ½ teaspoon each celery, salt and vanilla, teaspoon paprika and 3 drops onion ce. Chill thoroughly. The celery

salt and onion may be omitted.

Saratoga Corn Cake.—Sift together

2 cups pastry flour, 1½ cups corn meal,

½ cup sugar, ½ teaspoon salt, 1 teaspoon soda. Beat 2 eggs; add 2 cups
thick, sour milk and stir into the dry

to make of a thicker consistency.

ingredients, then stir in 3 tablespoons melted butter. Bake in a large, shallow pan about 25 minutes. Rhubarb Conserve.—Four lbs. red

rhubarb, do not peel, cut in pieces. Cook with just a little water. Slice two lemons very fine and dice, add to rhubarb and cook till tender, then add 4½ lbs. granulated sugar, 1 lb. pecan nuts, chopped coarsely, cook till thick. Pour in glasses when cool, cover with paraffin.

Fig and Rhubarb Jam.—Two lbs. rhubarb, two lbs. cooking figs cut in small pieces and cooked in a little water until tender. Add 2 lbs. granulated sugar, simmer until thick and

Rhubarb and Strawberry Jam.-Prepare 1 cup of strawberries to 2 cups To Remove Plasters.

remove adhesive plasters from the skin without discomfort, spread the plaster with oil of wintergreen. In a few minutes it will come off easily. Only a little oil is necessary. 0 0

An Emergency Chest.

Every house should have an emergency chest in which is packed clean nightshirts, sheets, pillow-cases, clean rags roll of prepared gauze and some absorbent cotton. In one compartment should be some castile soap and bottles of peroxide, castor oil and carbolic acid. Accidents or sudden illness may occur in any family, and it is well to be prepared.

The Fly Nuisance.

The best time to swat the fiy is before he is hatched. Flies breed more in horse manure than any other place, not even excepting the neglected garbage can. To neglect these breedng places in May and buy fly traps in August is paying the price for a certain kind of unpreparedness. The price paid is not simply the "filthy lucre" that is spent for screens and fly traps, but we positively know that thousands die every summer from disease carried by flies. In spite of this fact we still look upon the fly as a necessary evil, an annoyance to be tolerated, instead of a death-dealer to be exterminated.

Flies do not travel very far, so the fly problem is purely municipal, and there is no danger of invasion from the country. If all of the manure could be cleaned out of all the stables in a town, this month, and kept thereafter in tight manure boxes, and all garbage cans emptied twice a week, there would be so few flies this summer that we would need no screens, fly paper, fly traps or fly poison. Baldheaded men and nervous women would have the vacation of their lives—"a consummation devoutly to be wished."— Geo. H. Glover, Colorado Agricultural College, Fort Collins, Ohio.

Smiles.

Obliging-Long-suffering Employer-

Obliging—Long-suffering Employer—
"Good gracious, girl, I sent you to get
me fifty post-cards nearly an hour ago!
What's kept you?"

New "Office Girl" (war-substitute)—
"Well, sir, I had to pick 'em out. I
wasn't very sure which you'd like best,
so I got half actresses and half comics."
—London Opinion. -London Opinion.

His Generosity.—A "Tommy," lying in hospital, beside him a watch of curious and foreign design. The attending doctor was interested.

"Where did your watch come from?" he asked.

'A German giv it me," he answered. A little piqued, the doctor inquired how the foe had come to convey his token of esteem and affection.
"'E 'ad to," was the laconic reply.—

London Nation.

And there seemed to be some ground for complaint when a Scotch minister from a large town once visited and preached in a rural parish and was asked to pray for rain. He did so, and the rain came in floods and destroyed some of the crops; whereupon one elder remarked to another. comes o' trusting sic a request to a meenister who isna' acquentit wi' agriculture."

Considerable entertainment (says the "Athenæum," in a review of Mr. T. H. Sanders' "My Japanese Year") is to be found in some of the chapters, particularly in chap. v., entitled "About Languages." As the author says, nearly every foreigner in Japan has a collection of the Japanized English shop signs, which are often deliciously funny; but we have not seen the following excelled. A sign over a dairy read "Fresh and pure milk squeezed out by Okata's daring maids"; a laundry advertisement said—"We cleanly and thoroughly wash our customers with cheap prices. Ladies four shillings per hundred; men three shillings per hundred"; while a business correspondent concluded a letter to a customer by saying "We are waiting for your answer with



"Fighting Fifth"--British Heroes at St. Eloi Return from Battle with War Trophies.

The men, in jovial mood, are trying on helmets, caps, gas masks and other trophies taken from the Germans. They are the Northumberland Fusiliers, and were the heroes of the battle of St. Eloi, south of Ypres. At times they fought in mud up to their arm-pits. The victory of the British was due to the stubborn fighting and endurance and the example set by the gallant "Fighting Fifth."

JUNE 8, 1916

Fashion

How to Ord Order by numb measurement as rec at least ten days.
Also state in which peared. Price fiftee TERN. If two no the one suit, one for skirt, thirty cer Address Fashion Farmer's Advocate zine," London, Or your name when Many forget to do t When ordering, pl Send the following

Name..... Post Office..... Country.....

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8901-Empire Com 36; medium,



8725 Gown with Three-34 to 42 bust.

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Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign
your name when ordering, patterns.
Many forget to do this."

When ordering, please use this form:— Send the following pattern to:

Post Office.... Country... Province... Number of Pattern.... Age (if child or misses' pattern)..... Measurement—Waist.....Bust..... Date of issue in which pattern appeared...

8964

8964 (With Basting Line and Added Seam Allowance) Night Gown for Misses and Small Women, 16 and 18



8901—Empire Combination: Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust.



8725 Gown with Three-Piece Skirt. 34 to 42 bust.





34 to 42 bust.



with or without Belt or Straps. Perforated for Pockets, 24 to 34 walst.





8876 Child's Dress, I, 2, 4 and 6 years.



Current Events.

There is a probability that Home Rule will be given at once to Ireland, with the option to Ulster to withdraw at the end of the war.

Central kitchens are being established in Germany to solve the problem of distribution of the food supply.

At time of going to press the news topic of absorbing interest is still the Battle of Skagerrack, which took place off the Jutland Peninsula on the afternoon of May 31st and the following night. It now appears that the engagement, first declared to be a rebuff for the British, was a decided victory. Details that have come back from the fleet state that the German High Seas Fleet, consisting of one hundred vessels came out for some purpose unknown, but was held up and definitely checked by Sir David Beatty's squadron until the British Grand Fleet came up, when the German vessels at once turned and put off full speed to cover. In the and put off full speed to cover. In the engagement Great Britain suffered the loss of the battle cruisers Queen Mary, Indefatigable and Invincible, the cruisers Black Prince and Warrior, and eight destroyers. The Warspite was crippled, but reached port under her own steam. The British loss in men is estimated at 4.000. The Germans, on the other hand, are now reported to have lost more heavily than the British, the loss being placed at two battleships, two battle cruisers, four light cruisers, nine destroyers and one submarine. British seamen state that they saw "eight vessels go down like tin cans." The Invincible, lost to the British, was Admiral Sturdee's vessel, which won renown last year in defeating German warships off the Falkland Islands. . Elsewhere the war news is also encouraging. After considerably over one hundred days' fighting, with trenches lost and won again, the French still hold Verdun, where during the last days of May the fiercest fighting of the war is reported to have taken place. Near Ypres heavy fighting has again taken place, and the Canadians have again covered themselves with glory in retaking much of the section taken by the Germans between Hooge and the Ypres-Menin Railway.

The Greek problem remains unsolved, the suspicion still remaining that King Constantine has concluded a secret agreement with the Bulgars, by which the Bulgars are promised the port of Kavala in return for a slice of Albania. However that may be, it is believed that numbers of the Greek people remain true to Venizelos and the Allies.

Kitchener and His Staff Perish.

Since the above was written, by the sinking of the cruiser Hampshire off the Orkney Islands, Lord Kitchener and his staff lost their lives.



T is hard to break the chains of habit. It took one man six months to stop saying "Gee Whiz."

It is astonishing how habit will keep a person asking for "the same as usual" tea long rine same as usual" tea long after she has intended to try Red Rose Tea. Why let habit prevent you enjoying this richly flavored Indian-Ceylon blend? Order a sealed package to-day.





emon Tart

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Yours very truly.

Yours very truly, W. J. BOURNE

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When Writing Please Mention Advocate

The Windrow

Charlie Chaplin, the moving-picture actor, receives a salary of \$650,000 per annum.

The following, showing how two dreams came true, is taken from the Literary Digest. Cy Warman, who died a few years ago, was a Canadian, and lived for some time in London, Ont.

How seldom do any of our day-dreams come true; in fact, how few of them, even our most coherent and sensible ones, come to anything at all! Yet the story is told of two apparently unimportant persons who had the wit to dream intelligently, and the courage, or perhaps the good-fortune, to make those dreams bear fruit. Because they did so, they became famous. We may have admired each of them as great in his own line; but the genesis of that greatness is in the story of ambition's first daring flight with fancy, years ago. It is told briefly by the Kansas City Star:

In the mountains of Colorado some thirty years ago a freight-train waited on a siding for another train to come and pass, and, as it waited, the locomotive engineer leaned out of his cab-window gazing at the far-off mountain tops and dreaming. The fireman sat upon the tender, gazing into the purple haze and he, too, was dreaming.

What you dreaming about, John?" asked the fireman.

"I'm dreaming that I'm going to have a million dollars some day. And what's your dream, Cy?''

"That I'll write a real book some day and have it printed", answered the fire-

Cy Warman, the fireman of the locomotive, became a poet and author, a writer of many books, and a singer of songs that touched the hearts of a whole continent He died two years ago.

John A. Hill, the engineer, made his million as founder and publisher of the trade-papers: Power, The American Machinist, Locomotive Engineer, Engineering and Mining Journal, Engineering News, and The Coal Age. He put up a great building in New York, and was one of America's captains of industry. He died in January.

The dreams of both came true. Each saw the fulfilment of his wish. Each served in his own way the needs of his age.

A well-known American novelist, Mr. Booth Tarkington, has written in the "Metropolitan" a transcription of the international exchanges which preceded the war. He claims to have disentangled meanings", and released them from "diplomatic usage", and certainly no dialogue could more accurately reflect what really passed:

Austria (to Serbia). You scoundrel. get down on your knees and eat ten mouthfuls of dirt! Do it in one minute, or I'll shoot!

Russia (to Austria). I'll shoot if you do. (Fo Serbia). -Eat all the dirt you possibly can; do your best to keep him rom shooting. I don't want to have to

England, France, and Italy (to Austria). Please wait a minute. (To Germany . Austria is your brother; he does exactly what you tell him to do Ask him to wait just a minute longer refere he shoots. We can arrange this to satisfy Vastria it you'll get him not Germany.

sorbia on his knees, and swallowing). There: I've eaten nine mouthfuls, and will cat the tenth if you'll give me just a as seconds for digestion.

Austra. No your minute is up, and I

Fighand and France timploring farmans. Please stop him! You are the only one who can. Won't you say a word to stop him?

Susside the ginning to load his old-tashioned shot-game. I hope you'll stop had see here. Austria, can't we talk thouse over and see if there isn't a better

Assess. Perhaps we would if the valve interrupting. Russia, quit seller, dhat gun!
Kessia | can't while things are in this

have, but I will quit loading at once it Vistoria will, promise not to shoot Serbia. Cornains interrupting . - Hove peace, and France done-inore than mortal may to

preserve it. The sword is forced into my hands, evidently by God, and I defend myself. (Draws two well-oiled and loaded pump-guns of a magnificent new model. and begins to shoot, while France and

England run home to get their guns.)
Search as we might (adds Mr. Tarkington), we could find no true substitute for this dialogue. We have read and listened eagerly-yes, anxiously and hopefully —to everything the Germans had to say; we wanted to see the case of their Government in a happier light; but nothing altered the substance of the Governmental conversation just given.

The Dollar Chain

A fund maintained by readers of "The Farmer's Advocate and Home Magazine for (1) Red Cross Supplies. (2) Soldiers' Comforts. (3) Belgian Relief. (4) Serbian Relief.

Contributions for the week from May 26 to June 2:

Arthur Richardson, R. 4, Embro, \$5; A Friend, \$1; "Country Chick," 25 cents; John Lee, Galt, Ont., \$2; Country Club Members, Ekfrid, Ont., \$6.

Amount previously acknowledged. \$2,452.45

Total to June 2.... \$2,466.70

Kindly address contributions to "The Farmer's Advocate and Home Magazine," London, Ont.

The Beaver Circle

Our Senior Beavers.

[For all Beavers from Senior Third to Continuation Classes, inclusive.]

Bobolink Chimes.

A whir of wings o'er clovered meadows, The gleam of a harness and crown And low on the swaying maple A bobolink settles down.

A chime as if from bells of silver Over the clover soft doth float, Ere yet the rapturous song-burst Outpours from the feathered throat.

A whir of wings, a gleam of yellow, Faint-hearted notes, and into the throng Of clover heads gently nodding Drop softly the bird and song

As Wordsworth saw, in dreamy wakings, Daffodils nodding in seas of gold, For me the hills and meadows will ever The chime of bobolinks hold.

Funnigrams.

Faultless Logic.—"Ma", remonstrated Bobby, "when I was at grandma's she let me have fruit-tart twice".
"Well, she ought not to have done so,

Bobby", said his mother. "I think once is quite enough for little boys. The older you grow, Bobby, the more wisdom will gain. VOU

Bobby was silent, but only for a "Well, ma," he said, "grandma is a

good deal older than you are".-Tit-Bits. Observant Child.—Teacher—"What is

Willie-"A colorless fluid that turns black when you wash your hands.

Senior Beavers' Letter Box.

Dear Puck and Beavers.—This is my third letter to the "Farmer's Advocate", but my last letter was not in print. I like reading the Beavers Circle very much.

I have two sisters. My eldest sister is teaching school and my other sister goes to High School. My brother is tour years old.

four years old.

I could read nearly all the time. I have read a number of books, some of them are.—"Little Women", "Little Women Wedded", "Little Men", "Dora Deane", "Lena Rivers", "Freekles", "The Girl of the Limberlost." I have just finished reading "Laddie". I think it is lovely.

I would like to correspond with any of the Beavers that would care to write to me.

FLORENCE SCHELL, age 13. Sunnydale Cor's., Ont.

June 8, 1916

Caustic

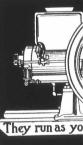


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Dear Puck and Beavers - This is my first letter to your Circle. I enjoy reading your letters very much. My eldest brother takes the Farmer's Advocate, and gets many good ideas from it. For pets I have one kitten. I had a big Collie dog, but he died last winter I guess he must have caught the grippe from the rest of us. I go to school and am in fourth book. Our teacher's name s Miss Garvin. There are about twenty five going to our school. This is certain y a terrible war. We have a Junior Red Cross League here. We meet every two weeks and knit, sew, make bandages, pads, wipes, etc. My letter is getting pretty long. I will close with a riddle: What washes its face in exactly one minute?

Ans.—The second hand of a watch. Hoping the W. P. B. will have lots of food on hand when this letter arrives MILDRED HOWE, (age 12). Addison, Ont.

Our Junior Beavers.

For Beavers up to Junior Third, in-

The Golden-Winged Woods.

One lovely day in June Peepapeep, who had been flying over a great waving field of grass, sat down to rest on a oig stone in the middle of the field The sun shone down, very bright and hot, and Peepapeep crept as near as she could to the tall timothy, trying to get into its shade. She did not go down among the stems of the grass, for they stood so close together that it seemed as though she were surrounded by a great jungle, and she feared that she might get lost.

"Dear me, what strange noises!" she said to herself, as she sat there, for all about her was the chirr-rr-rr of crickets, and the Katydid of the Katydids, and the click of grasshoppers wings, while somewhere away off at the edge of the field was the sharp sound of a mowing-machine. "Go on!"
—"Whoa!"—"Get up now!" shouted the driver to the horses.

"Yet it seems quite lonely, too" went on Peepapeep to herself. "I am not used to these fields. I hope those big horses and that shouting man do not come rear for a while, for really I am very tired. I wish Fairy Pat would come

"He-he-he! Ho-ho-ho!" laughed someone right beside her, and, looking around, Peepapeep saw the green-coated, red-capped clf, whom she knew as the

"Why I was just wishing you were here, Fairy Pat!" she exclaimed.
"I know", said the elf. "But you mustn't call me Fairy Pat. I'm Fairy

Comewhenyouwish' "Oh that's much too long", replied Peepapeep, "I prefer to call you Fairy

"So be it, then", said the elf, "and I'll call you Peep for short. Peep and Pat! That will be fine.

There was a little maiden, Whose name was Peep! Peep! So busy a-peeping She never could sleep".

"Oh, what were you doing who you saw the Luna Moth? laughed

Peepapeep.
"Well, we'll not quarrel about it. I see you have your wings to-day "Yes. It's fine to have wings" said Peepapeep.

"How would you like to fly to the Golden-Winged Woods?" asked the elf. "To the wha-at?"

"The Golden-Winged Woods" "And, pray, what may that be?" asked Peepapeep, for she had never heard of such a thing as Golden-winged

Woods in all her life.

The elf laughed. "Come and see" he said, standing up and beginning to he said, standing up awings. "Come, spread out his green wings. "Come, shake your wings out. What a pretty blue they are! Almost as dainty as the wings of the Luna".

With that they both spread out their wings and floated away, the Irish fairy leading. Right over the heads of the man and the horses they flew, but the man never saw them, although he wondered why his horses were pricking up their ears and looking up towards the



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London, Ontario



Mother—ask Father

to do the washing—do it over the rubboard, or with the clumsy, watersoaked wooden washing machine, if he expects you or your help to do it with such crude implements; not for his regular job, but just long enough to know how hard it is, and how destructive to fabric, to do washing without the best equipment—and how much you need an need an

EASY VACUUM WASHER

to despatch the work and save your energy. There is that gasoline engine doing all kinds of work for the man, but leaving that dreaded washing for the woman to waste her strength on. Why not order the one thing lacking the "EASY" Vacuum Washer with countershaft attachment, if you have the engine, or the "EASY" Model "B" hand power, if you have no mechanical or electrical power.

Why not have a washer made on the right principle—Air pressure and vacuum suction that will force such torrents of water through the clothes that they can't help coming clean; and do it without the slightest injury to the most delicate fabric?

Instead of these unsanitary, side soaked, wooden devices you have been using, why not have the real washer, made of indestructible, rust proof metal, one that is made of indestructible, rust proof metal, one that is

EASY WASHER CO. 42 Clinton Place, Toronto, Ont.

"No.

"Is it because that waving willow-

tree shines in the sunlight as though

"No."
"Is it—oh, I can never guess", said Peepapeep. "Tell me, Fairy Pat".
The elf crossed his legs and looked very wise. "Watch that tangle of vines below, close to the ground", he said, "and perhaps you will find out."

Peepapeep watched and watched, listening, as she did so, to a pretty warbling

After a while, just as she was beginning

to think nothing would happen, she saw

a little bird dash into the vines with

something in his mouth. A streak of gold went with him, as though he were

carrying a fleck of sunshine into the

shadows, so Peepapeep watched very

She and Fairy Pat sat still (for if

you want to see the woods birds well you must not move at all, or they will

not come near) and presently, as if in answer to their wish, the little bird came out again and sat on a branch quite

near. Peepapeep then saw that it was

a very pretty creature, gray above and

on its throat and across its ears, and, prettiest of all a splash of yellow on top of its head and bars of the same across its

'Ah, the golden-wings!" exclaimed

their nests low down, in the tangled

"How I should like to see the nest!"

"When the bird goes we'll fly down" responded the elf. And so they did, as soon as the bird had gone. There,

indeed, were five little birdlings that opened their mouths very wide indeed, as though they would swallow Peepapeep

Peepapeep laughed, "I declare", she said, "They think we're the parent birds laden with worms!"

"You see, Peep", explained the elf, "Their eyes are not opened yet, and they can't see. Come away now, and

we'll count golden-wings for the rest of

Away they flew to a mossy log, and

began to watch for golden-wings, keeping very still and talking in very low tones.

"Did you name these woods the Golden-winged Woods?" asked Peep-

"No. It was Ethel and her father, —why, there they are now! 'Talk of

Sure enough there were the two of

them—the little golden-curled girl and her tall, kind-looking father,—coming

slowly down a path through the woods. "Truly this is the Golden-winged

Woods", said Peepapeep. Ethel looks as though she had golden wings on her

shoulders. . . How they look into the trees! And what is that black thing

which they put to their eyes?"
"Those are field-glasses", replied Fairy
Pat. "They are looking for the golden-

wings. They can see the birds much

"What a lovely way to hunt!" Fairy Pat smiled. "All kind people

who love birds hunt them in that way nowadays", said he, "and Ethel and

her father are among the kindest".
"Yes," replied Peepapeep, "This is truly the Golden-winged Woods, all

better through those'

sweet and bright.

vines and weeds'

and Pat "all up"

the afternoon

angels.

said Peepapeep.

beneath, with patches of black

anxiously to see him come out.

touched with gossamer of gold?

bird-song somewhere near.

I go to school every day. My teacher's name is Miss Beckton. I like her very much. For a pet I have a dog, His name is Scottie. We have an incubator We set it and got 41 little chickens, We put them in a brooder and they all lived. I have a wren-house in our apple tree. I milk 3 cows every night and morning. As my letter is getting long I will close with a riddle. Why is a soldier like a lady? Ans.—One faces the powder and the other powders the

getting long I will close hoping the

Hoping this will escape the W. P. B. RALPH H. BAKER, (age 8). R. R. 4, London, Ont.

Beaver Circle Notes.

Letters written by Helen Baker and others are not published because written on both sides of the paper. Honor Roll.—Albert Weber, Charlie

Thompsett, May Weston, Irene Clark.

Our Serial Story

Peepapeep. "Yes, the golden-winged warbler", said the elf."There are numbers of them about these woods. They make The Road of Living Men.

BY WILL LEVINGTON COMFORT.

Author of "Down Among Men," "Fate Knocks at the Door," "Red Fleece," "Routledge Rides Alone," "Midstream," "Child and Country," etc.

Serial Rights Reserved.

II.

The breeze came in buoyantly. I did not expect nor desire to sleep. Enough revelations of a woman's heart had come to me, meanings infinitely dear; the late hours, indeed, were so thrillingly pictured with tones and gestures, that the thought of lying awake for a synthesis of numberless adorable gifts of her heart and mind, was pure entrancement.

And then, I wished to meditate upon that which she meant to ask me—that which would fulfil her dream.

Tobacco had a rare excellence, and there was a sense of ease and well-being generally that I had long forgotten. speak of it, because that moment of grateful rest was all that I knew, after lying down. I awoke in the broad, yellow, bird-songed day; arm trailing out, and held lightly in the fork of my fingers, the cigar of the night before, still in its virgin ash. One after another, the rarest realizations that ever crowded upon the mind of man after a deep dreamless sleep. . . until I sprang forth with a laugh. Then a "Goodmorning" trailed in from the other room, a softly measured whisper that reached my ears, but seemingly would not have travelled a foot farther. At last, I called to ask if she were ready. "Yes, this long time. Would you

like to come in for a moment? . She was standing by the east window, smiling, her hands held out; that dawn-like delicacy upon her, exquisite like a memory of orchards; and, yet splendid, too, in a deeper way, because of discoveries of mine in what a woman may be. And I found in her with the morning, the art of the great

love-women, for she was just as animate and tender, as at the moment of the last kiss. There was never a task to do nor any demand of the day, so important as to obtrude upon her realization of happiness, nor to dim the beauty and privilege of her heart's expression.

. . . Did it come to me from my own vitality? Was some deep conception of hours of darkness suddenly loosed, at this instant of crossing the room—something of the morning, that I had not see in the night-something that gave me a new vision of the woman, and a new meaning to her words, "We are masters—"? Mary Romany seemed the very blood of my heart that instant; and this new mystery in her lips and eyes—the red earth flame.

What did I know of all this when I worshipped Mary Romany as a boy in Oporto? Was the essence of this houin that strange bewitching which widened my heart and mind from her mother's embrace—that ineffable thing that called

MORE CREAM THAN YOU EVER GOTBEFORE

The Magnet Will Give You This Service for 50

Years

A Clean Skimmer

The Magnet today is the closest skimming separator on the market. More than that. Twenty, thirty, even fifty years from now it will skim milk, hot or cold, of any degree of butter-fat jost as cleanly and perfectly as it does today. The skimmer and bowl of the Magnet are different in design, better for skimming and easier to clean than any other design ever used.

Really Lasting Construction 50 Years Service

Cheep machines are made of cheap materials to sell at a low price. The Magnet is built of tested materials to give service for a lifetime. Best of castings, sound steel parts and bronze gearings make the Magnet the sturdiest and streagest separator ever built. Just ordinary handling (not special handling) will keep the machine operating right through your lifetime and into the next generation.

Great Exclusive Features

Look at the many features which are found only in the Magnet. Solid square gears, perfectly balanced, which run true without oiling, without effort and never wear away like cheap worm gears. They have the heft to carry the weight of milk so that there is no check-up in speed when the tank is filled. Skimmer is one piece and open—it can't clog with dirt while separating and is easily cleaned by hand and a cloth. Double support to the bowl which spins on bronze cushion bearings at top and bottom. No wobbling, so skims clean even when on rough ground. Weight of machine is low down. No need to screw down to levelled up floor.

Enthusiastic Owners

Each week we receive letters from farmers in every province of Canada telling us of the great astisfaction their "Magnets" are giving. George Telfer of Paris, Ont. has run his Magnet twice a day for seventeen years paying only a few cents for repairs. Every owner is proud and enthusiastic because the Magnet never gives the least bit of trouble. They like the easy rouning and appreciate the perfect ekimming of this honestly built separator. They're glad of the time it saves, because it's so convenient for cleaning. And they know it's a lifetime investment that's paying returns now and will pay them years from now,

CREAM SEPARATORS

Lowest Repair Cost of Any Machine
Farmers who own a Magnet are insured against repair costs. The square gears never run down. The spindle runs freely on ball bearings without pressure and so cannot snap like spindles de in cheap worm-geared machines. No wobling, no cimpley parts. One toolthe Magnet wrench—is all you need for adjustment.

The more you use the Magnet the easier it is to run. It will save dollars of your dairying expense. The Magnet is soundly built and very seldom needs repairs. Every ounce of butterfat in the milk will be delivered by the perfect-akimming Magnet. No giving valuable cream to the pige with a Magnet in your dairy. And it will pay for itself in the time and labor it saves you. Five minutes—no more—is all you need to spend in cleaning the Magnet. None of those awkward diacs in the Magnet akimmer. It's one piece and open so even a child can skim it.

Big Dairying Books and Demonstration

You'll be interested in our books on dairying and in the catalog which gives you photographs of every part of the Magnet. Hundreds of farmers will tell you in our catalog what the Magnet has done fer them. Maybe, toe, you would like to see a Magnet at work. Write now and tell us so, and we will bring a Magnet to your own dairy. We will operate it for you on your own farm, free from any cost or obligation whatsoever to you. Write now while it is in your mind.

SEND A POSTCARD TODAY

The Petrie Mfg. Co.

HAMILTON, WINNIPEG, REGINA, CALGARY EDMONTON, VANCOUVER.

WRITE TO-DAY

FREE Demonstration OWN DAIRY

ST. JOHN

"Oh, there's nothing up there that'll bite you", he said "Get along!"

"He-he-he! Ho-ho-ho!" Fairy Pat. Presently the two came to the edge

of a woods with bushes and vines and great tall plants all about it like a border.

"Here we are!" said Fairy P.a., settling down to rest on the top of a stump all covered with cleantis.

"Dear, dear! How glad Lam to rest"! panted Peepapeep. "But now will you tell me why this is called the Goldenwinged Woods, Fairy Par?"

"Guess". was the reply:

"Guess", was the reply.
"Is it—is it—is it because the sun light strikes through it in shafts like great golden wings?"



Special Prices Now. Diamond Steel

C. Wilson & Son

45 Esplanade St. E., Toronto, Can.

Want the Right Thresher?

THEN it's a Moody you require for individual use. We sell about 400 yearly and sales increasing. We have small machines requiring 2 h.-p. up to 12 h.-p. gasoline engine power. Write to day for catalogue

The Matthew Moody & Sons Company Terrebonne, Que., Can.

Junior Beavers' Letter Box.

Dear Puck and Beavers.—This is my first letter to your Circle. We have taken the Farmer's Advocate for a long time and like it fine.

I go to school every day I can. Our teacher's name is Miss Anderson. There was burnt last July 17.

I will close with a riddle: When is beef the highest? Ans.—When the

cow jumps over the moon.

MARY HEROD, (Jr. III). Caledonia, Ontario.

Dear Unck and Beavers.-My brother takes the Farmer's Advocate and I read the letters and riddles and enjoy them very much. I have read several of the Elsie bocks and want to get all the set. I have four cats and one dog. I haven't very far to go to school. As my letter is

Seed

June 8, 1916

Guara in excelle \$3.00 per

Rennie Toro

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11/4 mile from Ele
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Decelle Ave, Ville S TWO MILKERS wanted—Wages \$
Apply Erindale Familes west of Toron
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Pure Early Ohio **Seed Potatoes**

Guaranteed stock in excellent condition, \$3.00 per bag (90 lbs.).

Rennie's Seeds

Toronto, Ont.



Condensed advertisements will be inserted Condensed advertisements will be inserted under this heading at 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 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 advertisements inserted for less than 50 cents.

ARE YOU INTERESTED? - EGGS FROM winners at Panama-Pacific Exposition, Madison Square Gardens, Guelph, Ottawa. Brahmas, Spanish, Patridge Rocks, White Leghorns, Barred Rocks (Ontario Agricultural College strain), Indian Runner Ducks, War prices. John Annesser, Tilbury, Ont.

Tilbury, Ont.

ORDER YOUR DAY-OLD CHICKS NOW from the best strain of bred-to-lay S.-C. White Leghorns in Canada. Utility Poultry Farm, Stratford, Ont. Thos. G. Delamere, Prop.

RINGLET BARRED ROCKS — HEAVY winter layers. Send for photos of flock and further particulars. Settings \$1.50, \$1.00 guaranteed. Baby Chicks, 15 cts. Coldham, Barriefield, Ont.

S.-C.WHITE LEGHORNS BRED FROM PEDI-greed stock with heavy laying records. Eggs \$1.00 per fifteen, a hatch guaranteed, \$4.50 per hundred. Geo. D. Fletcher, R. R. 1, Erin, Ont. SINGLE - COMB. RHODE ISLAND REDS—

TABLE-EGG DUCKS ARE FULL-GROWN IN ten weeks. You can hatch in June, July or August and have eggs by February. Write for information on this sure-prefit fowl. W. A. Staebler, Drawer 625, Gananoque, Ont.

WHITE WYANDOTTE EGGS FROM SPEcially selected, vigorous stock. Laying strain, \$2.00 per setting. Weldwood Farm, Farmer's Advocate, London. Ont.

ONE DOLLAR PER FIFTEEN EGGS. C. A. C. Plymouth Rock laying strain. Mrs. Berry, Queen St., Guelph.



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FARM FOR SALE— A choice Farm on Lot 26, Con. 14, and part of Lot 16, South West Boundary, Fullarton, containing 113 and 14 acres in a splendid state of cultivation. Farm is well fenced and splendid state of cultivation. Farm is well fenced and well drained. Crop will be all in for 1916, Buildings are all in A1 condition. The barn is new and upto-date in every particular. A good frame house. If not sold on or before the 27th day of June, the farm will be sold with a dispersion sale of purebred stock. For further particulars apply to R. I. Dawson. Science Hill. R. R.1, Fullarton Township, County Perth, Ont.

FARM FOR SALE. A VERY GOOD FARM of 97 arpents, rich soil, all under cultivation, with good house, barn and other buildings in perfect order. Well situated on the Automobile Highway at St. Hubert, Que., 9 miles from Montreal, 1½ mile from Electric Railway. For price and particulars please write to H. E. Trudeau, 34 Decelle Ave, Ville St. Laurent, Que.

TWO MILKERS AND TWO FARM HANDS wanted—Wages \$32.00 per month and board. Apply Erindale Farms Ltd., Erindale, Ont. (18 miles west of Toronto).

WANTED—INTELLIGENT YOUNG MEN TO learn shipbuilding at good wages. Many ships needed in future. Apply Collingwood, Ont.

WANTED—YOUNG GIRL FROM TWELVE to sixteen years old as mother's help on farm;

WANTED—YOUNG GIRL FROM TWELVE to sixteen years old as mother's help on farm; cne of family; good home for bright young girl. Apply, stating wages, to Mrs. F. Griesbach, Collingwood, Ont.

PATENTS AND LEGAL
FETHERSTONHAUGH & CO., PATENTS
Solicitors—The Old Established Firm, Head
Office Royal Bank Building, Toronto, and 5
Elgin St., Ottawa, and other principal cities. Beaver Hill Aberdeen-Angus—Males and females, all ages. Also one Ayrshire bull, 2 months old, for sale. Prices reasonable. ALEX. McKINNEY, R.R. No. 1, Erin, Ont. Erin C.P.R., Cheltenham, G.T.R.

and challenged me from her race? Was that the beginning of my realizing now a lovelady past all dreams? . . . The woman at the window—her every glance was radiance to the wanderer who had loved her so long from afar.

I wonder if men whose lives are less lonely than mine had been, can ever know this instantaneous and full-length revelation of the force of the sun and the yielding of the earth?. . dred sweet tokens of her affection had come to me in the evening, but the starry depth of eye, the strange red of the parted lips, the swift lifting of the breast, these and all the mighty con-jectures of which is here but a figment -these, came in the time that it take an eager man to cross a room. as they had come to me, so had they come to her. We stood for a moment in silence. . . Do you think, as I did for a instant, that there would be no words of this? Mary Romany was not one to answer a silence between us, with a cilence

with a silence. "One would think," she said, still looking down, "that there would be a river or a mountain, at least a wall, to cross into this country. But it isn't so. It's just a step like the others— and you cannot tell which step. . . We are like a boy and girl finding ourselves in the land of strange Southern Gods
—where the earth is redder and redder—

and we are not old enough to stay."
"Last night, even last night," I told her unsteadily, "I did not know how beautiful you were.

We had turned from an east window to another that overlooked the Sound.
"Do you know what I was thinking -just before you crossed the room?'

Tell me. "That I should like to get your breakfast, every bit of it—even to making the bread-

But you are to play for me-that is better-

"It is not better," she said, "not to a woman. And that will come. . . . You think there is silence here, and solitude. This is but the edge of that silence and solitude I desire,—when our day comes. I think I am your attentions day comes. I think I am very strange and terrible, but I want to meet you in some land where the giants have left -some vast and mighty wilderness -that I can make glad for you.'

It was then the inspiration came to me that I should go away; not that I could ever be great enough to mate with this woman; but that I should go away for a month —for a year—and meditate upon her in some still remote place, that my coming again might be strengthened and purified.

"And won't you tell me what you are thinking?" she whispered.
"Yes, but it is very new and uncommon for me. I'd like to think of it a little more—before I tell you—

"With all my heart. We met for breakfast.

There could be no sweeter task than to make individual each day of my stay in Covent-each episode, each moment almost. There is not a morning nor evening, a breakfast, dinner, walk nor talk, that is not colored with a peculiar. attraction of its own for my mind. Mary Romany was a new creature with each new day. To be with her was a continual passing beyond. I sometimes think I could ask no better country than her companionship—but there is peril in that degree of happiness—at least one's inner life warns that there is. The moments crowd back now, tempting the chronicler, but I am dismayed by thought of the matters still to put down. There is an anxiety to be on, in the midst of the mountains and movements that stood between us and fulfillment; and as the Covent days drew on, the same anxiety came to us, the sense that shortening now prolonged the ultimate blessedness.

And yet with all this sizable paragraph, I can skip only that first breakfast; for directly afterward Mary Romany announced that we must be about the day's business. . . We walked along the Sound path to the east. After ten minutes I saw a little weather-beaten house, with the woods behind and bebeyond, and just a stone's throw from the edge of the Bluffs. Mary stopped

and produced a key.
"They say an old scientist, named Bee, used to come here to study and write," she explained. "When I decided on

FROM THE ORIENT TO YOUR TABLE Every sealed packet of SALADA TEA is filled with fresh, young leaves of surpassing fragrance.

SEALED PACKETS ONLY.

BLACK, MIXED OR GREEN.

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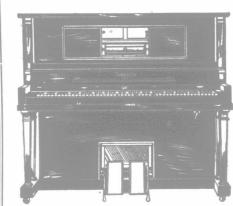


This davenport has selected quartered oak, upholstered in best leatherette. Choice of sizes 7 ft, long or 5 ft. long; either opens to a full-size bed, with separate spring and felt mattress.

One of the many splendid values in our illustrated

Catalogue No. 7

which contains hundreds of photographic pic-tures of the best selected home things. All priced freight paid to any station in Ontario. The Adams Furniture Co., Limited, Toronto



Here is a Small Ideal Player-Piano for the Farm Home

At last!!

What the farm home needs—Music

Here's just the instrument that you have been waiting for, neat, attractive, compact, and a convenient size. How many times have you wished that you could purchase an instrument that would not look too large for your home, that would harmonize with the furnishings and appearance of the room.

Just think of having a player-piano possessing all the requirements of a full-sized instrument but measuring only 4 feet 3 inches high.

This sweet-toned Ennis Player-Piano is a brand new model, equipped with all the latest improvements and absolutely trouble-proof.

This beautiful player-piano will bring into your home new joy, love and life. You will never know the joy of being able to personally produce music until you have seated yourself at this responsive player and brought forth thought would be forever silent to you—Music as the great musicians would play. Whether popular, sacred, opera or dance music your home can have all the music ever written.

Your children will appreciate this wonderful instrument, because it will give to them the greatest joy in their life and assist to give them a musical education and create an ear for good music. Make no mistake about the value of this instrument—the price is well within your reach.

The price is only \$450! Small, indeed, when you consider the value and amusement it will be to your wife and family. You'll be delighted when you see it. And when you experience the joy of producing music you'll know that it is the ideal instrument at a moderate price.

Simply tear off the coupon at right while you sit there reading this now, and fill in and mail for our descriptive booklet and easy-payment plan. It will cost you nothing. No trouble, just sign and mail to-night.

The Williams Piano Company Limited

Oshawa, Ontario



The World's Champion Endurance Car

Reputation

"What Car Shall I Buy?"

LET us give you a suggestion. Buy the car that has the best reputation for service in your city or town or county.

You should see that for your investment you secure—not merely a motor car—but motoring. We are less anxious to make you a Maxwell owner than to make you and keep you a satisfied motorist.

By service we do not mean merely the serviceability of the car you buy—the soundness of design, the excellence of materials and workmanship, the sturdiness and willingness and dependability of the car. True, these are vastly important things.

But still more important is the Company back of the car. Still more important are the company's local representatives who sell you the car and whom the company must hold responsible to fulfill its just obligations and keep its pledge with you.

Buy the car, then, which embodies Character as well as Reputation. For reputation is what people think of you, while character is what you really are.

Buy that car which carries with it an actual guarantee of continuous, care-free, economical motoring. In fact, select your company before you select your car. Buy motoring.

And in just so far as The Maxwell Motor Company, after you have made such an investigation, comes up to these standards and survives these tests, we shall urge you to buy a Maxwell Motor Car.

Brief Specifications—Four cylinder motor; cone clutch running in oil; unit transmission (3 speeds) bolted to engine, ¾ floating rear axle; left-hand steering, center control; 56" tread, 103" wheelbase; 30 x 3½" tires; weight 1,960 pounds. Equipment—Electric Head-lights (with dimmer) and tail-light; storage battery; electric horn; one-man mohair top with envelope and quick-adjustable storm curtains; clear vision, double-ventilating windshield; speedometer; spare tire carrier; demountable rims; pump, jack, wrenches and tools. Service—16 complete service stations, 54 district branches, over 2,500 dealers and agents—so arranged and organized that service can be secured anywhere within 12 hours. Prices—2-Passenger Roadster, \$830; 5-Passenger Touring Car, \$850. Three other body styles.

Motor Company of Canada, Ltd.
Windsor, Ontario



Send for our new booklet, "The Maxwell and the Family"

Covent, I knew that my lord would ask a certain question as soon as he arrived And so I had to arrange—"

She went before me into the single large room, and stood laughing as I turned from the diminutive hall and beheld a grand piano "Mine," she declared. "It has been in storage for years in New York. Father got it for me when we lived there for several months—a third of the way back to Oporto.

There wasn't a good piano in Covent and so I took the house and had this brought. You see I have had nothing

There wasn't a good piano in Covent and so I took the house and had this brought. You see I have had nothing to do but prepare for your coming. The place is for sale with some land here and in the woods I think I shall take it—if you like me here."

Of course, I was thinking of the music-room, if you recall how it came first. I was crossing the river from Liu chuan, and looking down at the water. It was before I had taken the journey to Hsi tin lin—the day Yuan showed me the yellow rose—and the sentence that seem to come from her, as I watched the swift water—"Sometime we shall work together here." These windows did not reach from floor to ceiling as in that imaged room; the walls were not hung with soft misty white, nor were the woods of the house softly shining and lark. It did not occur to me at once that the walls might be hung as I had een them first, and that the woods were rich from age, and needed only finish for that subdued shining. This occurred after I had realized the two main features: that the windows were shaded by great whispering trees, and through their branches could be seen the sea. Desire of the place began to mount. It had the beauty of age-the imbers were thick as those of a deep-sea ship. For fifty years it had stood in the teeth of the wrathful north. . . . I do not recall what I said, except:

". . . What a place for us to work together—"

She whirled from the bench. "What made you say that?"

I told her how the music-room had come to me—and many times afterward, and the thoughts of working with her. "Always I have felt, you know," I added, "that I haven't done my work

properly."

She was pale. "I don't see how you you could know about the music-room—"

"I have always said, 'When I know Mary Romany well, I shall do my work.'

It's all been preparing—"
"Every minute together—there is less for me to say. . . But I—have you not thought of my self—what I have needed to prepare?. . . Oh, tell me, what do you want most for the coming years?"
"Always to be four there."

"Always to be finer than you thought—"

thought—"
She turned back to the keys. I stood waiting for her to play, but she arose again, her eyelids wet, and came to me, taking both hands. With a sweetness that thrills me now to write,

she said:

"That is all there is—that is the secret. That is what I want to be to you always—finer than you thought.

. Why, dear love, that is the way. Happiness is so close to that road—that

you can hear wings."

. . . And then she played the splendid Scherzo in B Flat Minor of Chopin's—a rollicking of the children of

supermen, and one part repeated, was beguilingly sweet, as if they were remembering the lovely sadness of Earth.

"Four years ago in Brussels, waiting for Father," Mary Romany was saying,
"I found a great teacher who was a

friend and pupil of the Little Master who wrote this one I am to play now.

Of course, I have been away from it for a long time—away from the piano, as you know. But here in Covent before you came I loved to think in the long forenoons of getting it ready for you—though I need months."

And she played the Grieg Concerto—a half-hour of rich pictures. Always I love the slow movements best in the first hearing. The Grieg Adagio was almost as beautiful to me as the Larghetto of Chopin's—a more subdued and rippling loveliness, though not so hot from the breast of man. Indeed, it had come from a far cooler breast; and the fierceness of the marcato, its high pitch of terror, like tumbril-teams lashed to the guillotine, was the fierceness of a watcher. Chopin would have been in the vehicle, not in the crowd. . . I was lifted with thoughts and pictures—of the little girl around the world, waiting for her

father and studyin—to the end of phere by the sea pictures I saw talked—of the picthe great moment identified with my father, boatmen on the VRhine and Danu

and certain odors darker galleries.

JUNE 8, 1916

she said, happily.

Now I can and our Hong Kon "But I shall opeated trenchant! "Of course," s I have frightened was—it was—"

I watched raptu

for the word.

"An impertine
"Oh, that can't
"That is just then—in Hong Ko
"But I did—I of

"But I did—I of clearly—as this may ou want things of and must have at to give you—"
"But don't you bring these realiz—there is no need."

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whom one lov
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"And only one

derstand—"
"Yes."
right hand, from
been released by

father and studying with different masters—to the end of playing my soul awake here by the sea. . . I told of the here by the sea. . . I told of the pictures I saw when Yuan Kang Su talked-of the pictures when she played; the great moments of my days, so often identified with music,—of wonderful talks with my father, as we listened to the boatmen on the Volga, and lovers on the Rhine and Danube—how certain tones and certain odors swung wide open the darker galleries.

"You're a dreamer, Ryerson Boy," she said, happily. 'A dreamer of dreams. Now I can understand your Tibet

and our Hong Kong better—"
"But I shall do my work," I repeated trenchantly.
"Of course," she laughed. "I think

I have frightened you about that. It was-it was-

I watched rapturously while she groped for the word.

for the word.

"An impertinence," she finished.

"Oh, that can't be the right one—"

"That is just the word I was hunting for—because I felt you needed managing then—in Hong Kong—"

"But I did—I do. I never saw it so clearly—as this morning. It is less that you want things of me than that I need

you want things of me, than that I need and must have at any cost-better things

to give you—"
"But don't you see,—now that you bring these realizations of yours to me -there is no need of my managing?

Covent was not properly a village. At least, I never found any center to it, unless it was the shop of a delicate woman on the way from the Inn to the Train where letters could be mailed and had, if there were any, also a rigid line of necessities to life-sugar, tea, thread, and chewing tobacco. Covent seemed to be in suspense for New York to come out and buy. There were farms back from the Bluffs. On one of these we found the man who owned the Sound Frontage containing the Bee place. (What a hive of memories to me in the year that followed.) . . I did not disturb Mary Romany's negotiations, though I was granted permission to purchase a dozen acres of woodland beyond. I'm sure the farmer-folk considered may be be below until a certified sidered me a bit balmy, until a certified check came back from New York on the second day following. There was small chance of that piano-grand escaping. .

Though there was no village for the living, I recall the sorry little settlement of graves on the Bluffs far beyond the Inn. The grass about was dry and drained, like the farmer's wives in the back country—from the terrible energies of plain living. The winds licked up the moisture and blew away the soil itself from the roots; and there was too much salt in the air for grasses. The few stones were low and scoured by the rain and the gales. . . Knowing Mary Romany had altered my previous thoughts of death I tried to express to her the

I used to think the body had nothing to do with the love one might hold for one who had died. I used to scorn all ceremony, and all those who had a ceremony, and all those who had a cemetery sentiment. Rigidly I enforced this when my father died. I gave no thought to the body that had travelled so far —leading a little boy. 'The grave,' I would say, 'what have I to do with graves? My father is not there.' And when I would see a woman in black among the mounds—" in black among the mounds-

"Yes. But I would think it morbid. And the scent of certain flowers I came to hate, because they brought back the bereft flesh in a state of waiting. 'You should take it away,' I thought. 'Those strangers who make it their business should take it away quickly. They alone, and not the lovers, have to do with the house of the dead. . . And yet, if you died, I should not be the pitiless modern that I thought. could lift the veil of the woman in black and we should understand -if you were near-

"Women who love are like that," she answered. "It is a woman's way to love the body, too. It must be because she brings the body into the world. It's her art like another's painting or statue—but there is more to one whom one loves—whom one has

"And only one who loves can un-

derstand—'' . She reached for my right hand, from which the pistol had been released by her father's bullet,

and regarded the scar. Some mysterious feminine formality was being enacted. She asked about the other wounds. crossed my arms touching either

"Yes, but there is one more—the -terrible one-

I changed the point a little. It was near the heart, and she was suffering. But she was not to be misled. . . . She touched her fingers to her lips and then to my hand and the three points on my coat. . . It was as if someon my coat. . . It was as if something I had said had made this possible. The west and the north-west formed a heavenly chamber. That perfect day was dying like a God.

To be continued.

Ouestions and Answers.

1st—Questions asked by bona-fide subscribers "The Farmer's Advocate" are answered in

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.

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

Miscellaneous.

Sowing Flax-Roaring.

What are the roars in horses? Will they turn to heaves? If sire has roars would it be in-

herited by a colt? 4. Father died leaving sole estate to one son. Could the daughter who had for years worked as hard as the son,

but is now married, claim a share? Is June 1 too late to sow flaxseed? How many lbs. should I sow to the acre? 6. I had to kill a Leghorn pullet the other day. First she seemed to lose the use of her legs and after a day or so it seemed difficult for her to swallow even bread soaked. What was the matter and how should I have treated

Ans.—1. Roaring is due to a lessening of the muscles on the left side of the larynx and frequently occurs as a sequel to laryngitis, influenza or distemper. The nature of the feed has no effect

in these cases.

2. No. They are considered to be entirely different diseases.
3. Not necessarily so.
4. We think not, if the will was properly made out leaving the entire estate to the son.

5. Good crops have been harvested when seeding was delayed to the first week in June. For fibre about 2 bushels of seed is sown per acre. For seed about one bushel.

The symptoms given are not sufficient to state specifically what disease the bird was affected with. As only one bird in the flock appears to have been affected it is possible that the trouble was due to some local derangement of the system and treatment would be difficult.

Gossip.

Don't Forget the Big Sale.

June 10th is the date. Elora is the A Shorthorn sale is the event A. Watt, J. M. Gardhouse and Robert Miller are the contributors of 25 head each, all choice cattle. Col. Carey M. Jones and Capt. T. E. Robson will sell you these cattle. See the large advertise. ment in last issue. The cattle are the best the country grows. Bulls and heifers to suit all. Attend the sale. Elora is 12 miles north of Guelph.

On looking over the list of sale dates observe that on June 14 Francis Stauffer, Bright, Ontario, will sell by auction 30 head of registered Holstein cattle. The herd is strong in the blood of Paladin Ormsby, Brookbank Butter Baron, Prince Posch Calamity, and Francy 3rd. every case the young stock offered in the catalogue are in good shape, while the cows are of the kind that are profitable to the owner. There are young heifers in calf to, or sired by Woodland Jongste Pride, whose pedigree is given in the catalogue and is worth looking at. The sale will be held at the farm, five miles north of Drumbo Junction, C. P. R. and G. T. R., where morning trains will be met. Send for a catalogue to Francis Stauffer, Bright, Ont., R. R. 4.





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M^cClary's

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purposes of all along that particular water course. It is doubtful if a man can be forced to use the enlarged outlet, but he can be assessed for his share of the original cost and expense of upkeep.

Game Laws.

When is the open season for rabbit, pheasant, grey squirrel, etc?
2. Is there a law forbidding shooting on Sundays?

3. Can those who are supposed to enforce the law take a man's gun away from him if he is caught shooting on

Sunday or breaking the law?

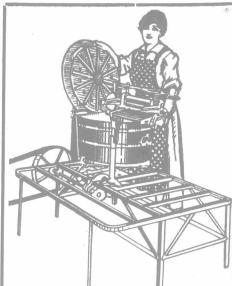
4. What is the best way to castrate a pig that is ruptured? Ans.-1. Open season for hares is from October 1 to December 15, both days inclusive. Except between December 15 and December 31 in any year the wood-hare or cotton tail rabbit may be taken, killed or destroyed by means of snares, ferrets or any other means than shooting. For grouse pheasants, prairie fowl or partridge between October 15 and November 15 both days inclusive. No person shall take or kill more than 10 partridge in one day. For black and grey squirrels, quail or wild turkey, November 15 to December 1, both days inclusive.

2 and 3. Yes. The method frequently is to hold the pig with his head down while the testicle is being removed. This prevents the intestines from escaping through the opening. It is well to apply carbolized oil to the wound and then close it with several stitches.

Repairs for Separator.

Near the middle of April I sent part of a cream separator to port Huron for It was shipped from the factory card from the express company, acknowledging the receipt of same part and its being placed in bond, also in struction to give their agent here invoices for same. I took him the settlement for the repairs I had from the factory also the card. The part of separator has not reached here yet, though the agent said yesterday he had written about it six times. A week ago he had word it was coming on the night train, but has heard nothing of it since. I think the customs officials receive a good wage and should execute their work, to give you give me a remedy for the trouble Is a person to bear loss of time and mone through the delay or whatever it is whoever is the cause of it. T. A.
Ans. It will be necessary to find

out definitely who is responsible for the delay in delivery. Sometimes delays are unavoidable and no one person or company is responsible. Under these circumstances it is difficult to claim compensation for any loss sustained while waiting for repairs to be returned



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Mention this Paper

JUNE 8, 1916

Questions

Gam I should be mu tell me through the name of the p for Copetown dis would find him? Ans.—Write, Openation of the Department, To

Bats Ar

Bats are nume between clapboa are very annoying know the best them.

Ans.-The pro owing to the alr where the bats are not easily Sometimes frequ these timid cre place of abode. way of keeping tween the clap! would be to care where they gain

Opening Ditch

1. What is t a neighbor noti before calling en What are Is formaling treating grain fo

Ans.—Notice than twelve clea set for a meeting endeavor to agr

ditch.
2. They are Russia and Polar irregular cavalry The weak

value. Hatchir

Will you advis ducklings under be moistened electric storms a should a hen ren

Ans.—Many practice of mo or twice a few to hatch. Duc satisfactorily w but if the nest i safer to apply the opinion that about the time will kill birds we have known after having storms. Some h longer than oth along without time they are are given comf

Tuberc

I had severa opening them I black color and had lumps the every few inche to have diarrho was twice its na green spots, also Some had a w of a pea at the but, in some the all right. Som moped around died. They see dition and mos We feed oats ar also a good san feeding musty What is the macontagious? W

Ans.—Many point to the bir However when they usually be advisable to teriological De cultural College diagnose the c will eat enough affect them. with tuberculos All birds showi should be dest house and yard disinfected.

Questions and Answers. Miscellaneous.

Game Warden.

I should be much obliged if you would tell me through your valuable paper, the name of the present chief game warden for Copetown district, also what address would find him?

Ans.—Write, Game and Department, Toronto, Ontario. Fisheries

Bats Around a House.

Bats are numerous in my house wall between clapboards and plaster. They are very annoying and I would like to know the best method of destroying

Ans.—The problem is a difficult one owing to the almost inaccessible place where the bats have located. They are not easily trapped or poisoned. Sometimes frequent disturbance causes these timid creatures to change their place of abode. The only practicable way of keeping them from lodging between the clapbords and the place. tween the clapboards and the plaster would be to carefully stop up the places where they gain entrance.

Opening Ditch-Use of Formalin.

1. What is the proper time to give a neighbor notice to open his ditch, before calling engineer?

2. What are Russian Gossacks?
3. Is formalin, that is left over after treating grain for smut of any value?

Ans.-Notice must be served not less than twelve clear days before the date set for a meeting of parties interested to endeavor to agree on constructing the

2. They are natives of southern Russia and Poland and comprise the light irregular cavalry of the Russian army. 3. The weak solution is of very little

Hatching Duck Eggs.

Will you advise me as to hatching out ducklings under a hen; should the eggs be moistened and how often? Will electric storms affect eggs and how long should a hen remain with ducklings?

Ans.—Many poultrymen make practice of moistening the eggs once or twice a few days before they are due to hatch. Duck eggs have hatched satisfactorily without being moistened but if the nest is not on the ground it is safer to apply moisture. Many are of the opinion that a heavy electrical storm about the time eggs once about the time eggs are due to hatch will kill birds in the shell. However, we have known of eggs hatching well after having endured several severe storms. Some hens mother their family longer than others. Ducklings will get along without the hen right from the time they are hatched provided they are given comfortable quarters.

Tuberculosis in Fowl.

I had several hens die lately. On opening them I find their bowels a blue black color and hard in places. One had lumps the size of a small marble every few inches and yet they seemed to have diarrhoea. In some, the liver was twice its natural size with yellowish green spots, also the bowels were spotted. Some had a white hard spot the size of a pea at the small end of the heart but, in some the heart and liver seemed all right. Some had weak legs and moped around a few days before they died. They seem fat and in good con-dition and most of them are laying We feed oats and they have a large run, also a good sanitary hen house. Would feeding musty grain cause the trouble? What is the matter with them and is it contagious? What is the cure?

Ans.-Many of the symptoms given point to the birds dying of tuberculosis. However when effected with this disease they usually lose in flesh. It would be advisable to ship a bird to the Bacteriological Department, Ontario Agricultural College, Guelph, and have them diagnose the case. We doubt if fowl will eat enough musty grain to seriously affect them. If the birds are affected with tuberculosis there is no remedy All birds showing symptoms of disease should be destroyed and the poultryhouse and yards thoroughly cleaned and THE FARMER'S ADVOCATE.





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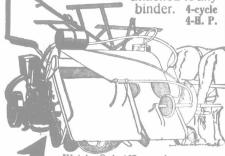
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Questions and Answers. Miscellaneous.

Legal Holidays.

1. What are the duties of a man, hired for a term of months to do general farm, work?

2. What holidays is he legally entitled to take?

3. Does he have to help with the necessary chores on these days and on

Sundays? G. C. L.

Ans.—1. The duties should be stipulated in an agreement at time of hiring. If not he is supposed to work a reasonable number of hours at the

a reasonable number of hours at the work on the farm which will depend on the kind of farming. He is supposed to assist with the chores and obey his employer.

2. New Year's Day, Good Friday, Easter Monday, Victoria Day, Dominion Day, Labor Day, Thanksgiving Day, Christmas and any day proclaimed by the Governor-General or Lieutenant-Governor as a public holiday.

Killing Wild Mustard.

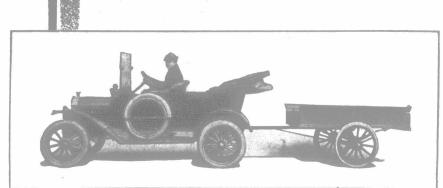
I have a lot of wild mustard on my farm which started from seed being carried by the threshing machine. I have done everything I could to get rid of it, but it is still very thick. What would you advise doing to eradicate this pest?

J. M. C.

Ans.—The seed of the mustard plant may lie dormant in the ground for a number of years, and when brought to the surface will germinate, grow, and if the plant is not destroyed, will produce an enormous number of seeds. Spraying the crop with blue-stone or with iron sulphate has proven effective in destroying the plants and preventing them from producing seed. Of course seeds that are in the ground may come to life the next year or probably several years hence, but the number of mustard plants will be getting fewer each year if spraying is followed up. The solution is made by dissolving 10 pounds of blue-stone in 40 gallons of water. It can be applied to the crop with a special outfit or with an ordinary spray pump to which is attached a 6-row sprayer. Forty gallons attached a 6-row sprayer. Forty gallons of the solution will be sufficient for one acre. Spraying should be done when the plants are coming into bloom. The solution does not seriously affect the wheat, oat, barley or clover crop. Iron sulphate is also effective. Eighty pounds of this material is required for 40 gallons of water. In time, the number of mustard plants will be reduced so that pulling is practicable. We have known of mustard being eradicated by thorough cultivation. Care was taken not to allow any plants to produce seeds in the root field, and the following year another cultivated crop was sown. Someanother cultivated crop was sown. Sometimes it would be rape sown in rows. Other years it would be beans and frequent ly barley was drilled in rows far enough apart to permit of cultivation. On account of the possibility of seeds remaining in the soil it requires a good deal of persistence and patience to clean a farm, but it can be done

Another Record Hereford Sale.

Another record of high prices for Herefords at public auction was established at the sale of Warren T. McCray of Kentland, Ind., on May 17, when 75 individuals of the breed averaged \$1,287. Perfection Fairfax was the bull which influenced the sale most, for his progeny alone sold for \$57,000. It is said that this amount would eclipse that for the progeny of any other sire of any beef breed. Fourteen of his sons averaged \$2,485 and 18 daughters averaged \$1,255. The star lot offered was Superior Fairfax which went to . L. Dana, Wyo., for \$10,000. Letham fairfax, another young sire which had leaten the former bull at shows in bast, went to a Kansas buyer for \$4,100. Another sold for \$3,800 and still another for \$2,500. The highest priced female, Winnifted Fairfax, we are glad to report, came to Canada. She was purchased by L. O. Clifford, Oshawa, Ont., for \$1,000. Lovely Fairfax went to Nebraska in exchange for \$2,200 while several others ranged from \$1,000 up



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JUNE 8, 1916

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Question

Killing

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Ans.— The termine the pthe size of tpipe from 1½ not make the all, in fact it harder, becaugo faster in the little more

Sydney Basic Slag

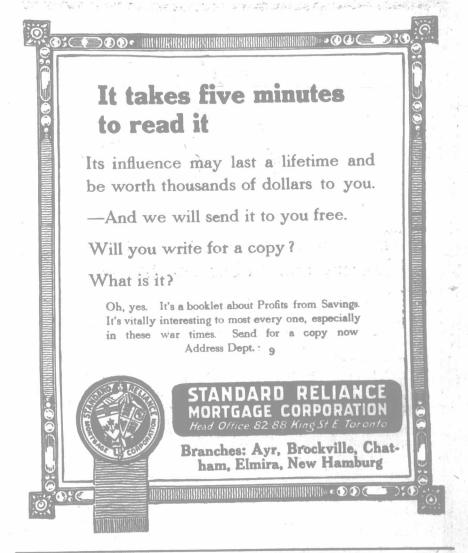
The Fertilizer that grows the biggest crops of Fall Wheat at the lowest cost

THIS advertisement is intended for Ontario farmers. If we could call on each one of you nothing would give us greater pleasure, but as this is impossible, we want you to regard this advertisement as a personal message. If you use fertilizer we are sure you find same profitable, and we ask you to give SYDNEY BASIC SLAG a trial this year against what you have hitherto been using. If you won't do this there must be a reason, and we would like to know it. So important do we consider this that we will send our representative to see you if you let us have your name and address.

SYDNEY BASIC SLAG costs \$20 per ton, and will give you better results than other fertilizers costing much more money. SYDNEY BASIC SLAG was first introduced into Ontario in 1913, when 230 tons were sold. The consumption in 1916 was 3,108 tons. The best farmers in Ontario are using SYDNEY BASIC SLAG.

Interesting descriptive literature will be sent on application.

The Cross Fertilizer Co., Limited NOVA SCOTIA



Men's Clothing For Sale CHURCH

Get your new suit from Catesby's, London, England, for half what you pay local tailor. Best materials, style, fit guaranteed, or money back. Write for free catalogue, self-measurement form and patterns. Address:

CATESBYS LIMITED, Canadian Offic 119 West Wellington Street, Toronto Mention "Farmer's Advocate"

CHURCH BELLS CHIMES AND PEALS

MEMORIAL BELLS A SPECIALTY FULLY WARRANTED MCSHAME BELL FOUNDRY CO., DALTIMORE, Ma., U. S., A. Chlosp Office: Room 04, 154, Mindolph St., Stab Nighed, 1864

Questions and Answers. Miscellaneous

Killing Lilac Bushes.

In "The Farmer's Advocate" of May 18 there was a query re killing old lilac bushes. I would cut them down close to the ground, and heap all the wood ashes on to them for one year. If the hot ashes do not kill the roots, the lye that is washed on to them by the rains will. I think plenty of hot ashes a good thing to kill old roots or weeds.

M. B.

Barn Paint.

What would be a good paint for a barn with rough lumber for siding? We would prefer red for the color.

Ans.—Venetian red, lead and linseed oil is the mixture commonly used. The materials could be purchased separately and mixed to the proper consistency, or a ready mixed paint of the desired color could be secured. White lead and oil make a white paint for use on window and door casings, or other places where a little trimming adds to the appearance of the building.

Size of Pump Pipe.

An artesian well 200 feet deep, water stands in casing 70 feet from bottom, about 160 feet pump pipe and 16 feet pipe below cylinder, pump pipe is 1½ inches. This pump drives hard on account of the large body of water to be raised at each stroke of pump. Would it not be an advantage to use 1 inch pipe and lighten the water pressure against the stroke of pump upward? What would the pressure in 1½ inch pipe be compared with 1 inch pipe?

Ans.— The size of pipe does not determine the pressure. That depends on the size of the sucker. Changing the pipe from 1½ inches to 1 inch would not make the pump work any easier at all, in fact it might work the least shade harder, because the water would have to go faster in the pipe and there would be a little more friction. The pressure

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Prepare now to get your share of an assured higher market.

Breed Every Good Mare in 1916

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Douglas' Egyptian Liniment

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Douglas & Co., Napanee, Ont.

Clydesdales We have still left some exceptionally good drafty stallions, ranging in age from one to eight years, prizewinners, including champions; also in-foal mares and fillies. There is a horse boom coming. Buy now.

SMITH & RICHARDSON, Columbus, Ont.

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WOODLANDS BROWN 5W155 AND FUNTES
We have no Clydes. left for sale.
testing and big producing dams.

R. BALLAGH & SON

Our special offering is Brown Swiss
Strictly high-class. Also Shetland and Welsh ponies.

GUELPH. ONTARIO

ORCHARD GROVE HEREFORDS

Have several young bulls and heifers for sale. Satisfaction guaranteed;
O. CLIFFORD,
OSHAWA, ONT

on the sucker of the pump would be the same whether you use a 1 inch or 1½ inch pipe. The only way to make the pump work easier is to use a smaller cylinder.

W. H. D.

A Sub lessee—A Fixture.

1. A sold his farm to B, and B lets it to C. C has the renting of pasture so let it to D. A then got half-share in pasture and is letting it to E. Is it a lawful transaction? A having colts he cannot keep in has them in also.

2. Can a windmill be taken from a farm after owner sells his farm if not spoken of till bargain is closed?
Ontario. H. V. S.

Ans.—1. Yes.

2. No. That is the general rule, but there might be special circumstances such as to take the case out of that rule. The vendor certainly cannot remove the windmill after having given up possession of the farm to the purchaser.

Son not Legatee—Endorsed.

1. A made his will and did not give his oldest son anything. Can he break the will at A's death on that ground, and if so is there any legal amount to state?

2. A buys a horse and gets B to back his note. The note is 3 years over due. Can C hold B responsible for the said note? B never was notified whether it was paid or not.

Ontario. D. G

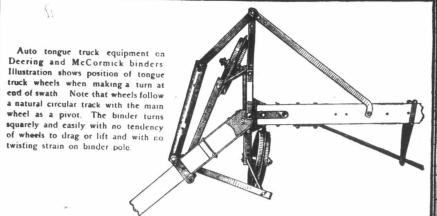
Ans.—1. No.

· 2. No, that is to say, he cannot do so if B was really an endorser merely and not a joint maker along with A. If the former his signature would be on the back of the note—not on its face.

Hotel Clerk—"Is this \$1,000 bill the smallest thing you have about you?"

Departing Guest—"I am afraid it

Clerk (to bell-boy)—"Here, take this bill to one of the waiters, and ask him to change it."—Judge.



The New Auto Tongue Truck on Deering and McCormick Binders

THE announcement of a new auto tongue truck on Deering and McCormick grain binders this year is great news for Canadian farmers. It means less work and less expense for them at harvest time.

With this new auto tongue truck the binder pole is held in line with the truck pole. An 8-foot binder enters the grain and continues to cut as squarely as a 6-foot

Equipped with this auto tongue truck, the binder cuts a full 8-foot swath without crowding the horses into the grain — a gain in the width of every swath, with far less work for the driver.

Auto tongue truck wheels are fitted with removable dust proof bushings, equipped with hard oil cups. When a bushing wears out, you put in a new one instead of throwing the whole wheel

This new tongue truck is one of the most important improvements made on binders in the last ten years. Do not fail to see it at the local agent's place of business next time you are in town, or write us at the nearest branch house for details.





Ouestions and Answers. Miscellaneous.

Barley and Oat Silage Compared With Corn.

We made silage from oats and barley last year and enclose analysis of same to you. How does it compare in feeding value with corn silage? What should we feed with it to make a balanced ration? Our cattle eat it greedily: as well as they do corn silage. The actual weight over the scales from the field was 4,000 pounds per acre. Following is the analysis:

27.1	L,G	cen
Moisture		7.37
Fat		6 6
Total Protein		77
(Albuminoids		6.0
(Amides		1.7
Crude Fibre		10.5
Carbohydrates		37.83
		11.

Ans.—The analysis of this silage was probably made after it was air-dried. Consequently, we cannot figure accurately what should be fed with it, and the amounts to make a balanced ration. This would differ in moisture content from the material as it comes from the silo, and we would not know how many pounds of protein, carbohydrates or fats there would be contained in the fresh silage. It is difficult also to compare this with the analyses of corn silage as sub-mitted by our experiment station, for in most cases the analyses reported are for fresh silage. However, we have the analysis of some corn silage which was taken from our silo at Weldwood last winter and which is perhaps typical of silage in general. For the air-dried material the analysis was as follows:

	Per Cent
Moisture.	6.19
rat	5,01
lotal Protein	8.50
(Albuminoids	
(Amides	3.86
Crude Fibre	19.82
Carbohydrates	50 00

It will be seen from these two tables that the corn silege is almost one per cent, higher in total protein, considerably higher in carbohydratus, and lower in



Every owner of Poultry or Livo Stock is constantly fighting against those pesky parasite pests, lice, mites, fleas and ticks, that torment his cows, horses, pigs, sheep and poultry. Zenoleum kills these pests. Zenoleum is harmless, will not burn, is not greasy or dirty, and will not poison. It is the cheapest and most powerful Germicide; it is used at the Dominion Experimental Farms at Ottawa, at Guelph and by 50 Agricultural Colleges in Canada and U.S.A. A \$1.50 tin makes 80 gallons of Disinfectant dip. Write for Booklet. Ask your dealer or send 25 cents for a tin containing enough for 5 gallons of dip, carriage prepaid.

Write for Booklet—"How to Cure Sick Livestock."

DISINFECTANT CO., Sandwich St., Windsor. Ozic.

ZENNER DISINFECTANT CO., Sandwich St., Windsor. Ozt.

Canada's Grand Champion Shorthorns of 1914-1915

are headed by the great "Gainford Marquis," Imp. Write your wants.
Γ, ELORA, ONT.

GLENGOW SHORTHORNS AND COTSWOLDS Pure Scotch in breeding, we have an exceptionally choice lot of bulls for this season's trade, ranging in age from 8 to 15 months, big mellow fellows and bred in the purple. Also ram and ewe lambs of first quality.

Wm.Smith & Son, Columbus, Ont. Myrtle, C.P.R., Brooklin, G.T.R., Oshawa, C.N.R. Blairgowrie Shorthorns

Are always for sale at reasonable prices. Cows with calves in calf. Four bulls which should be heading good herds. Heifers in calf. Four bulls which should be heading good herds.

JOHN MILLER, ASHBURN, ONT. Myrtle Sta., C.P.R. & G.T.R Pleasant Valley Farm Shorthorns We can interest you in a real good bull at a right price, for herd headers or use on grade herds. Some sired by (Imp.) Loyal Scot; also females. Write us before buying. GEO, AMOS & SONS, MOFFAT, ONT., STA., C.P.R. 11 miles east of Guelph.

OAKLAND-48 SHORTHORNS

at foot and bred again, and some fine heifers bred. All registered and priced to live and let live.

Fletcher's Shorthorns Our herd of pure Scotch Shorthorns(imp.) and from imp. stock is headed by the show bull Victor Stanford = 95959 = a winner in the standard of Morning (imp.) = 32070 = . Present offering, 3 choice young Scotch bred bulls, an "Orange Blossom", a Roan Lady"and a "Mysie"; 3 choice breeding cows and some yearling heifers.

Geo. D. Fletcher, P. R. 1. Erin, Ont.

L.-D. Phone, Erin Station, C. P. R. The above bulls are choicely bred, of good quality, and bred bulls from 10 to 18 months old. We invite inspection of our stock and will give correspondence our most careful attention.

"Phone Burlington,
Burlington Jct., G. T. R. half mile from farm.

When in want of Shorthorns

Spruce Glen Shorthorns When in want of Shorthorns Visit our herd, head to select head to select head to select thing. His Ramsden's, Florences, Emilys, etc. Many of them one and two-year-old heifers. Also several young bulls of breeding age—level, thick, mellow fellows and breed just right.

JAMES MCPHERSON & SONS, DUNDALK, ONT.

Maple Shade Farm Shorthorns—The products of this herd have been in very supply a good young bull at a price which will make him well worth the money. Oan always females for sale, but can show a few which should interest you. Brooklin, G.T.R., C.N.R.; Myrtle, C.P.R. W. A. DRYDEN, Maple Shade Farm, Brooklin, Ont.

crude fibre, all of which are good features in favor of the corn silage. Nevertheless, the oat and barley silage appears to be a good feed. Plenty of wheat and corn in the chop fed would improve the oat and barley silage so far as carbohydrates are concerned.

Eligibility for Office.

Can a person be reeve of a township or hold a Government office after being prosecuted by the Crown and found

Ontario. Ans.—Yes. W. J. G.

A Water Course.

Can a corporation be compelled by one of the ratepayers to open or cause to be opened a water course below high water mark in the Province of Quebec? ENOUIRER.

Ans.-We do not think so. There may possibly be such special circum-stances as would warrant proceedings being taken against the with the object mentioned, but certainly none such are indicated in the statement of the question.

Gum Disease of Peach Trees.

Our peach trees have a kind of a gummy juice all over the trunks. One died last year from it, and now the other trees are covered with it. They are young trees.
What can I do for them?

S. W. What can I do for them?

Ans.—This is probably what is known as the "gum disease", the cause of which is not definitely known. It occurs only in certain localities in the Niagara District and is not common throughout the country. Frequently the gum exudes from a branch or trunk affected by canker, or it will appear where borers have been operating. It is easy to determine whether or not borers have been active. On account of the lack of information concerning this it is difficult to prescribe treatment. If canker is in evidence it would be wise to cut out the diseased area, disinfect with formalin, diluted with about 5 parts of water and cover well with a paint made of white lead and oil. Paints for trees should be free from turpentine. Gum will appear on the trunk of the tree near and at the ground, when the peach borer is at work, but not all over the trunk as indicated in this query.

Farmers' Cemen

Swollen 7

Muscles o Side Bone used. \$2 a be your case and Book 2 K Free

ABSORBINE, JR., to mankind. Reduces S ments, Enlarged Gla Heals Cuts, Sores, U \$1.00 a bottle at dealers of de W. F. YOUNG, P.D.F. 258 E

Dr. Page's Engl Cures the lameness fr Bones, Ringbones, Cu



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Angus, South

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ROBT. McEWEN, TWEEDHILL--

Choice young bulls of ser If you want anything James Sharp, R. R. 1 Cheltenham, C.

Burnfoot Stock F purpose Shorthorns. We roan bull, calved Aug. Lassie, the champion 2-ye sire as good. S.A. Moore.

The Glengore couple of nice yearling Brook Prince 3rd, for Particulars on application GEO. DAVIS & SONS

Fairbank Aberdeer stock is si 4177. Our heifers are worthy son of Prince Bra 1914. Bulls and females prices.

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Hand or Power.

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Will reduce Inflamed, Strained, Swollen Tendons, Ligaments, Muscles or Bruises. Stops the lameness and pain from a Splint, Side Bone or Bone Spavin. No blister, no hair gone. Horse can be used. \$2 a bottle delivered. Describe your case for special instructions and Book 2 K Free.

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Dr. Page's English Spavin Cure

Cures the lameness from Bone-Spavins, Side-Bones, Ringbones, Curbs, Splints, etc., and ab



bunches does not kill the hair, ab-sorbs Capp-ed Hocks, Bog-spavins thick past-ern joints; cures lameness in tendons

most power-full absorbent known, guaranteed, or money refunded. Mailed to any address, price \$1 00. Canadian Agents: J. A. JOHNSTON&CO., Druggists, 171 King St. East, Toronto, Ont.

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Special this month:

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TWEEDHILL--Aberdeen-Angus Choice young bulls of serviceable age; also females. If you want anything in this line, write:— James Sharp, R. R. 1, Terra Cotta, Ontario Cheltenham, C.P.R. and G.T.R.

Burnfoot Stock Farm, Caledonia, Ont.
purpose Shorthorns. We offer now a handsome
roan bull, calved Aug. 13, 1915, out of Jean's
Lassie, the champion 2-year-old in the R.O.P., and
size as good. S.A. Mary and S.A. Lassie, the champion 2-year-old in the R.O.P., and sire as good. S.A. Moore, Prop., Caledonia, Ont.

The Glengore Angus We have still left a couple of nice yearling males, sired by Middle Brook Prince 3rd, for sale at reasonable prices. Particulars on application. GEO. DAVIS & SONS, R.R. No. 1, Erin, Ont

Fairbank Aberdeen-Angus — Our young stock is sired by Elm Park Rival 4177. Our heifers are bred to Hector 9080, a worthy son of Prince Bravo, champion at Toronto, 1914. Bulls and females for sale at reasonable prices

JAMES W. BONE Belgrave, R.R. No. 1

Ouestions and Answers. Miscellaneous.

Registering Stock.

Where should I apply to get Clyde. orses registered? SUBSCRIBER. horses registered? Ans.-Write J. W. Brant, Accountant National Live Stock Records. Ottawa,

Cement and Gravel for Silo.

How much cement and gravel will it take to build silo 10 by 14 by 21 feet. Walls average 8 inches thick?

Ans.— It will require about 30 cubic yards of gravel and 25 barrels of cement A few stone might be used in the wall but care would have to be taken not to allow them to come close to either face of the wall. We would advise reinforcing coners of a square silo.

Pruning Evergreens—Polishing Floors

1. An evergreen hedge, (spruce and cedar) is of a desirable shape and height, but is uneven. To make it grow thick and even how should it be pruned? How often during the year and at what

A floor is made of black ash. How might the border around the rug be finished? Could it be waxed? Explain method of polishing. Part of the border is varnished with mahogany varnish stain. How could it be removed? The boards are separated a little how could cracks be filled?

Ans.—By cutting back the top and sides of the hedge, the desired shape can be maintained and it will have a tendency to make it grow more thickly. However, it is a slow process. Pruning in June is recommended. Once a year is sufficient.

2. The floor might be oiled and the

grain of the wood would possibly give a good effect. Some prefer to grain the floor to match the room furnishings. We know of no reason why it could not be waxed. The wax should be rubbed on thinly and then polished. Soft cloth wrapped around a brick is frequently used to do the polishing. In order to secure the best results a good deal of rubbing is necessary. A long handle could be fastened to a heavy block in order to make the work easier on the back. Material specially prepared to remove varnish can usually be secured from the hardware stores. Putty is frequently used to fill cracks in the

Silo Queries.

1 How much gravel and cement will it take to build a silo 30 feet high and 14 feet in diameter?

2. How much gravel and cement will it take to build a silo 30 feet high and 12 feet in diameter?

3. Would you advise building stone in with the cement? 4. How much stone would be built

in a silo? 5. How many acres of corn will it take to fill a silo the size of the above

mentioned? 6. Which would you prefer a wood

or a cement silo? 7. Does a cement silo have to be plastered to prevent it from leaking?

Ans.—Using one part cement to 8 parts gravel, about 35 cubic yards of gravel and 30 barrels of cement will be quired for an 8 inch wall.

For a silo 12 feet in diameter with a wall the same thickness as previously mentioned about 30 cubic yards of grave and 251/2 barrels of cement will be re-

3. A certain amount of small stone might safely be used but care would have to be taken not to have stone near either face of the wall.

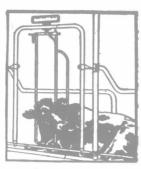
4. We would not advise using many stone in an 8 inch wall. Possibly five or six loads could be safely worked in These estimates are all based on an 8-inch wall. The foundation should be 18 or 20 inches thick and an extra load of gravel and one barrel more cement would be required than is given.

5. It depends altogether on the crop with 10 tons to the acre 8 acres should about fill the larger silo and about 6

acres for the 12 foot silo. 6. Both kinds give good results. Local circumstances would largely be the

deciding factor.
7. Not to prevent it from leaking but to give it a smooth surface so that the Ontario silage will settle evenly.







MODEY tings, silage, ground grain feed, etc., are supplied.

There are certain essentials in the care of stock that the up-to-date dairyman will not overlook. Stock must be comfortable, contented, and kept in sanitary surroundings to have them do their best. Positive increases in production are invariably noted where plenty of water, sanitary stable fit-

You cannot keep cattie plentifully watered by the old hand Windmills. windmills. For cannot keep cattle plentitully watered by the old hand they have enough. WINDMILLS furnish the cheapest POWER and, with a wood or steel tank as a reservoir, will keep your cattle abundantly supplied in all weathers and enable you to care for a larger number. The TORONTO Windmills run easily in light airs, and are regulated for high winds. Quality of material and exclusive principles of construction make TORONTO Windmills decidedly superior. Prices on application.

Stable Fittings. We have one fixed idea in our TORDNTO Stable Equipment, i.e., to make it GOOD without making it COSTLY. We can compete with any in price, but we do not resort to certain "make-believe" methods in finishing which reduce the cost and reduce the real value. We charge low prices for high quality. Simplicity is one advantage, strength and endurance are others, found in our line. Sold in genuine Galvanized (not merely aluminum slushed) or in black paint finish. Get our prices and specifications.

Litter Carriers. A good litter carrier, like the "TORONTO," with its easy hoist, smooth running track and trouble-free switches, is not only a manure saver, but a work saver and a money maker. Made of steel and galvanized iron, substantial and durable. Tested by time and proved "just right." Ask for catalogue and prices.

Silos. Wood is the best material. We make ours out of selected 2-inch spruce, creosoted to preserve from decay. Staves double-tongued and grooved, with steel splines at ends, hoops of steel bent to fit; frost-proof malleable lugs; panamoid roof. The Toronto Economy Silo is air-tight. Shipped ready to put up. Our price will interest you; write us.

Water Systems. To properly water cattle on a stock or dairy farm, there should be a well-piped system leading from tank in barn loft or attic, with water basin in every stall. The acknowledged BEST in Water Basins is the TORONTO Water Basin; always full, but never overflows, cannot clog with chaff or dirt. We will gladly suggest plans and prices for installing complete water system for bouse and barn, with gravity or air pressure tanks and windmill or gasoline engine power. Write us about it.

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Engines. Chapman Engines are extra strong and heavily constructed. They generate great power on light fuel consumption. The Chapman is the highest type engine of its kind on the market. Our TORONTO Engine, slightly lighter in build, is a very capable and economical engine at a lower price. Get full partic

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Dual - Purpose Shorthorns

Two young bulls, Weldwood Roan Revelation, a dark roan out of Mina Gem, a big, strong cow with an official record of 10,340 lbs. of milk, 388 lbs. butter-fat, and Weldwood Red Victor, out of Lena of Northlynd, with an official record of 7,501 lbs. milk and 328 lbs. butter-fat. These bulls are both sired by College Duke = 85912 =. Also a few cows and heifers.

WELDWOOD FARM, The Farmer's Advocate, London, Ont.

Escana Farm Shorthorns

FOR SALE: Two imported bulls, proven valuable sires; 12 bulls, 10 to 20 months old, all by imp. sires and from high-class dams; also for sale, 20 heifers and young cows, several with calves at foot, all of very choicest breeding, and especially suitable for foundation purposes.

Mail orders a specialty. Satisfaction guaranteed.

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Robert Miller Still Pays the Freight—And he is offering in Shorthorns some of the best young bulls and heiters that can be produced. Young bulls fit for service, some younger still: heiters ready to breed and younger, and some in calf. They are of the best Scotch families, and some of them from great milking families. They are in good condition and made right, just what you want to make a proper foundation for a good herd, and suitable to improve any herd in the land. They will be priced so that you can afford to buy, if you will tell me what you want. Our business has been established 79 years and still it grows. There is a reason, ROBERT MILLER, Stouffville, Ontarie

Females SHORTHORNS Females

I can supply females of the most popular Scotch families, Crimson Nonpareil, Butterflys, Amines, Athas, Miss Ramsdens, Marr Emmas, Marr Missies and Clarets. A few bulls. A. J. HOWDEN, COLUMBUS, ONT. Myrtle, C.P.R. and G.T.R. Oshawa, C.N.R. I can supply females of the most

Herd headed by the two great breeding bulls, Spring Valley Shorthorns Herd headed by the two great breeding bulls, (imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex.

KYLE BROS., Drumbo, Ont. Phone and telegraph via Ayr.

Shorthorns and Shropshires—T. L. MERCER, Markdale, Ontario-young cows in calf, heifers from calves up, and young bulls rom 9 to 18 months of age, richly bred and well fleshed. In Shropshires we have a large number of ram and ewe lambs by a Toronto 1st-prize ram; high-class lot.

A Dominion Hand Trap enables you to enjoy the all-year-round sport of trap-shooting. Don't let your shotgun get rusty or your aim go bad between seasons. Get a Dominion Hand Trap and keep your eye and trigger finger in form. With a hand trap you have your own gun club wherever and whenever you want it, for fun and to settle a shooting Try this fascinating sport. A Dominion Hand Trap costs only \$4.85, is light, convenient and throws the target as well as the larger set traps. Dominion Cartridge Transportation Building, Company, Limited, today for illustrated ooklet.

DISPERSION SALE OF

Dual - Purpose Shorthorns

ON WEDNESDAY, JUNE 21st, 1916

At the farm, 5 miles from Erin Sta., C. P. R., where conveyances will meet all morning trains, I will sell by auction my entire herd of 20 Dual - purpose Shorthorns, 15 females, all of breeding age will be in calf to the famous, officially backed, O. A. C. bull, Imp. Barrington Record, also 5 young bulls from 7 to 15 mos. of age, bred on heavy milking lines. These cows are heavy milkers and a most desirable lot. I will also sell a few registered Yorkshires and a number of high-class saddle horses.

Terms cash or 6 mos. on Bankable paper with 5%.

Geo. McAllister, Shelburne, Auctioneer, For catalogue write—

A. E. CURRIE R. R. No. 1, GUELPH

Louden Barn Equipments

SAVE Time Save Labor Save Expense Our new catalogue describes every kind of device for money making and labor-saving on 1 tms. Write to:

Louden Machinery Company

SHORTHORNS

tren by Red Subt in others just as good,
preing them low, as it is getting late if
the season. A few leaters and
young cows to ofter, some milk
ing families. Freight paid.

Stewart M. Graham, Lindsay, Ont.

SHORTHORNS

A few choice bull calves for sale. Would price a few females. Inspection solicited.

J. T. GIBSON, Denfield, Ont. Shorthorns "Pail Fillers" On Short

P. Christie & Son. Marchester, Out Shorthorns and Swins that service also care and before additional solutions and before additional solutions and the walk calves at the Northead Control of the State of the Walk Control of the State of

ANDREW GROFF, R.R. No. 1, FLORA, ONT. Northbaid B O P Sporthorns and Jerseys.

were s to A Justson Powerview, Out

10 years. Come Kerner Common the wall to a

THOMAS GRAHAM, R.R. J. Port Petry 1 no.

Questions and Answers. Miscellaneous.

Indian Runner Ducks.

Are Indian Runner ducks hardy? Will they do well where the thermometer occasionally drops to from 30 to 50 degrees below zero?

2. Are they big eaters? Do they require more than hens, on the average, to feed them? Do they require a pond or creek or would a small drinking trough be sufficient for them?

3. Do they require warmer quarters than hens?

Ans.—Ducks are a hardy fowl and will stand cold so long as they have a dry pen which shelters them from the wind and storms.

2. They are no bigger eaters than other breeds of ducks, although they will probably eat a little more than hens. A pond is not necessary. Indian runners are more of a land fowl than other ducks and forage for their living. A small drinking trough is all that is necessary.

3. No, but the litter in the pen must be kept dry.

Syphon Water System.

A correspondent in April 27 Advocate asks for syphon water system. As I have one giving entire satisfaction I will describe it. It had to be changed two or three times before it was perfect. I have water in the kitchen, cellar and stables. It is on tap, never runs only when you want it. My well is 17 feet deep. There is a perpendicular pipe within three inches of the bottom of the well, and 18 inches above the connecting pipe that carries the water from the well. This 18 inches is an air chamber which gives room to hold the air that comes out of the water from six to twelve months without affecting the water supply. In the top of this 18 inches you put a reducer and a small stop-cock fitting tightly in the reducer. Now all is ready for the water. By attaching a small eistern pump on the lower end of delivery pipe you can fill the pipe with water, let it run a short time then shut the lower end of water pipe and get into the top of the well and put your mouth over the stop-cock, then turn the tap and suck the air all out. Whenever the water begins to run slowly suck the air out of the air chamber, you cannot pump it out. This air chamber is what gives the power to the whole system Keep every part air tight and the system is all right.

W. J. B. Peterboro, Co.

Killing Horse Radish Sweeny.

Will you give me a remedy to kill norse radish? I have a lot in the garden hat I would like to get rid of if possible. I have tried putting salt on it and bave tried not to let it go to seed, all of which cens to be of no use.

2. I have a valuable Clydesdale mare that I sweenied. I blistered it. Was hat right or what is a good treatment tor it? Is it advisable to work her until it is better? What caused it, as I only worked her on the plow and harrow and a little on the disc harrow? Kindly give

Ans. Horse radish is a perennial plant which is difficult to eradicate Digging it out is the only practical method. If sufficient salt is used it would likely succumb. However, the salt would prevent any other vegetation from growing for several years.

2. Sweeny is sometimes caused by the horse working on uneven o soft ground. It occurs at times without any apparent cause, Walling in the turtow may be sufficient to tapt the trouble on a young horse. Blistering s the proper treatment. I se 2 dram ach of biniodide of mercury and continuedes, and mix with 2 ounces of the part the so she cannot bite them, then in med and the blister once dark as the turn her loose in a hox still and Then her boose in a case of the first of X is sent its 150 or 150 ony to work but, area.



The Better the Roads The Better for You—

Taxpavers are too often uninterested in the question of economical road building and maintenance of their roads in spite of the taxes they pay annually to support the work of their town authorities. The experience with Tarvia of scores of progressive Canadian cities, towns and villages conclusively proves that its use is a big investment in economy, satisfaction and comfort to every taxpayer.

Perhaps you would like to know how Tarvia roads are made.

The old way in building macadam was to use water as a binder.

But a water-bound macadam wears out quickly under the prying strain of the automobile driving wheels and the horses' hoofs. You know how that strain loosens the surface, grinds it into clouds of dust, makes heavy mud, and leaves the road full of holes.

"Tarvia-X," in the place of water, makes a surpassing binder, penetrating, plastic, and waterproof.

The first cost of making a tarvia-macadam costs but a little more than the old-fashioned macadam, but the saving in maintenance more than pays this difference. So Tarvia costs you nothing!

"Tarvia-X," is practically a thin "Tarvia-X," used for recoating the surface of a macadam road already built. It is applied, hot and adds greatly to the life of

the road. It keeps the road dustless, smooth, and inviting to traffic.

"Tarvia-B" is a much more widely applicable preservative. It is applied cold. It is thin enough to sink quickly into the road, and yet strong enough to bind the surface particles together into a mudless, dustless, durable surface.

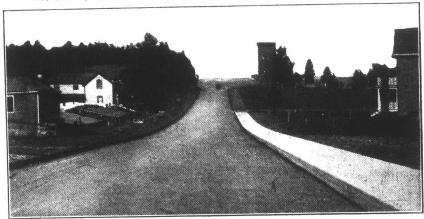
"Tarvia-B" offers the lowest cost of road maintenance yet invented. It can be used effectively for repairing and preserving macdam roads under varying conditions of traffic and situation. It may even be used effectively on certain classes of gravel, shell and adobe roads.

If you want better roads and lower taxes, our Special Service Department can greatly assist you. Write to nearest office regarding road conditions or problems in your vicinity, and the matter will have the prompt attention of experienced engineers. This service is free.

Write nearest office for free illustrated booklet.

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THE CARRITTE-PATERSON MANUFACTURING CO., LIMITED SYDNEY, N. S. ST. JOHN, N. B. HALIFAX, N. S.



High St., Port Arthur, Ont. Treated with "Tarvia-B" in 1914

THE AULD HERD

Two good young bulls for sale, one fourteen and one seventeen months old, also a couple younger. Intending purchasers met at station on request.

A. F. & G. Auld, R. R. 2, Guelph, Ontario



Walnut-Grove Shorthorns

Sired by the great sire Trout Creek Wonder and out of Imp. cows and their 'daughters of pure Scotch a few heifers. Let us know your wants.

DUNCAN BROWN & SONS, R.M.D. Sheddon, Ont., P.M., & M.C.R.

SHORTHORNS

SHROPSHIRES

CLYDESDALES

Have still on hand one bull fit for service by Newton Sort = 93019 = . Some good young things coming along. A few young cows and heifers. Come and see them. R. R. No. 3, OSHAWA, ONTARIO 21/2 miles from Brooklin, G.T.R. 4 miles from Myrtle, C.P.R. 4 miles from Brooklin, C.N.R

Willowbank Stock Farm Shorthorn Herd Established 1855 This large and oldestablished herd has at the head the two great bulls: Imported Roan Chief =60865 =, a Butterfly, and the prize-winning ball. Browndale =80112 =, a Mina. An extra good lot of young stock to offer of either sex. Splendid condition. Good JAMES DOUGLAS, Caledonia, Ont.

Meadow Lawn Shorthorns We are offering a choice lot of bulls at very smed by Clan Alpane 2nd, No. 88387, G. D. Donside Mexandra (imp.) No. 59513, and any one wanting a right good head header would do well to secure this bull, as he is a smooth, well propor-G. T. R. and C. P. R. R. R. No. 1 F. W. EWING.

Maple Grange Shorthorns

Pure Scotch and Scotch-topped.

Breeding unsurpresed. A nice selection in young bulls, and a limited number of thick, mossy heifers. R. J. DOYLE, Owen Sound, Ontario



Shorthorns

Pure Scotch and Scotch topped—Booth. Also five 457 young bulls from ten to twenty months old, of the low down, thick kind, good colors—reds and roans. Prices reasonable.

G. E. MORDEN & SON, Oakville, Ontario

JUNE 8, 1916



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Quickly and Easil CAN BE LAID OVE

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We challenge compete mills in our barn for a serious fanning Mill. We well in no other way is it ponstrate the superport Mill on all kinds of good, Kline' in operation, nfor you. It is absolute wild oats, chess, light seeds. Has many feat ning mill. Write for furterms. Agents wanted terms. Agents wanted

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HEAVIER GRADES AT EQUALLY FAVORABLE PRICES READY TO LAY-PURE ASPHALT

ROOFING

Quickly and Easily Laid without previous experience and requiring no expert help CAN BE LAID OVER OLD SHINGLES

DURABLE, WEATHERPROOF FIRE-RESISTING WRITE FOR FREE SAMPLE

The Halliday Company Limited

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\$6.00 a year protects your new Ford Touring Car from loss by fire to the extent of \$500, including loss from explosion and self-ignition.

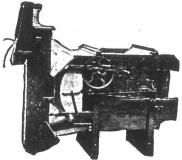
Covers fire loss while car is in any building—or on the road lower rates and more liberal terms than any other policy you can procure.

Write for rates on Ford Cars up to three years old. Similar rates and conditions are granted to cwners of Chevrolet cars.



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KLINE FANNING MILL



We challenge competitors to put their fanning We challenge competitors to put their fanning mills in our barn for a trial test with the "Kline" Fanning Mill. We welcome such a test, because in no other way is it possible to so decisively demonstrate the superiority of the "Kline" Fanning Mill on all kinds of grain. Once you see the 'Kline' in operation, no other fanning mill will do for you. It is absolutely unequalled for separating wild oats, chess, light and small grain, smut and seeds. Has many features found on no other fanning mill. Write for further particulars, prices and terms. Agents wanted in unrepresented territory.

KLINE MANUFACTURING CO. Beeton, Ontario



Questions and Answers. Miscellaneous.

Line Fence.

A and B own farms and the blind line fence belongs to A. B claims the fence is not in the right place. The line has never been run. Can B move the fence without having the line run; or if A has a crop in can B take the

Ans.—If the line has never been run we do not see that B has any power to move the fence or to take any of A's crop without A's consent.

Leg Wash.

What is the best lotion with which to bathe horse's legs after driving, before applying bandages? H. M. D.

Ans.—If you ask a dozen trainers this question it is probable you will get a dozen different answers. The following is generally considered good: Tincture of iodine, tincture of arnica and oil of turpertine, of each 2 oz. Gum camphor, 1 oz., extract witch hazel 6 oz., and alcohol to make a quart. Of this add about a tablespoonful to a pint of water, and use.

Sweeny.

I have a three-year-old mare that is sweenied. What would be the best W. K. treatment?

Ans.—Recovery is very often quite slow. Make a blister with 2 drams each of biniodide of mercury and cantharides mixed in 2 ounces of vaseline. Clip the hair off the parts. Tie so she cannot bite them, then rub well with the blister once daily, for two days. On the third day apply sweet oil. Turn her loose in a box stall and oil every day. As soon as the scales come off blister again, and after this once every month until cured. It is best not to work her until the muscles regain their normal size. Avoid turning her on soft or uneven ground.

Probably Bog Spavin.

Have a horse 7 years old, that has ouffs on inside of the knee on hind legs. Have been thinking perhaps they might be bog spavin. What can I do to take them off? Think I have seen some remedy advised in your veterinary columns but cannot find the issue Have you had any experience with spavin remedies advertised that you could recommend? C. A.

Ans.—The description of the trouble indicates bog spavin or thoroughpin. Clip the hair off the parts. Tie so he cannot bite them. Apply a blister of 2 drams each of biniodide of mercury and cantharides mixed with 2 ounces of vaseline once daily for two days. Rub well in. On the third day let loose, wash off and apply sweet oil. Oil daily till the scale comes off. It may be necessary to blister a second or third time. Some sweat blisters and absorbent liniments advertised have proven valu-

Spinal Trouble.

Two-year-old colt was well fed and had regular out-door exercise all winter It was in good condition when turned out on pasture this spring. After being out a week it was found very badly knuckled on both hind legs and we had much trouble in getting it to the stable called my veterinarian and he gave it a ball and left some powders. colt has a good appetite but has failed in flesh, and exertion causes profuse perspiration.

Ans.—The spine is diseased, causing a condition sometimes called loco-motor ataxia (not similar to a disease of the same name in man). The causes of this trouble in horses are not well under stood. It is probable that the cold wet weather, without shelter, acted a an exciting cause. In most cases re covery is very slow and some case do not improve. It is probable that your veterinarian is doing all that can be done, and it would be wise to allow him to continue treatment, as he would be able to detect any complication or changes in condition and treat accord ingly. The usual treatment is to keep the patient as quiet and comfortable a possible. Keep the bowels acting freely and give nux vomica three times daily. For an ordinary two-year-old, 117 dram doses would be given. Feed on laxative, easily digested food.

Upportunity Is Knocking

Opportunity knocks at the door, but if you don't open she will pass on. This advertisement calls attention but can't do more unless you respond.

The chance is right before every cow owner to make more profit from the cows he now ownsout of the milk his cows now produce. A clean,

extra profit, "velvet." Thousands of carefully made observations

by Government investigators, scientific men of prominence, prove that 19 out of every 20 dairymen turn their separators too slow much of the time and every one turns too slow some of the time. These investigators estimate the losses in cream or butter-fat from this cause in millions of dollars annually from each dairy State. You are surely one of the losers and the chances are 19 out of 20 that you are a heavy loser. You can stop this loss and put this new profit—this 'velvet"—into your pocket.

THE NEW SUCTION-FEED

Separator skims absolutely clean all the time. Whether turned fast or slow, the skimming is equally clean and the cream is of even thickness. Both features mean a lot more cream value-more and better butter.

No other separator in existence has these valuable features. All others have a fixed inflow but a varying speed. The Sharples Suction-feed Separator alone has the wonderful automatic feed, which always draws milk into the bowl in exact proportion to the separating force. This marvelous though simple invention-

Insures an absolutely clean skim at widely varying

Insures smooth, high quality cream of an even richness.

Insures easy, slow turning for women and greatly increased capacity for strong men.

The slender, hollow, tubular bowl is easy to handle and easy to clean. There are no discs to wash. The bowl contains just a single, small cone no bigger than a napkin ring.

You can tilt a forty-quart milk can and empty it into the large, low supply tank. No hard lifting. Think how much easier that makes your dairy work!

Opportunity is knocking but you must open the door. You need our free book, "Velvet" for Dairymen. It tells all about this cream-saving machine. A day's delay is a day's loss. Open the door now-write today. Address Department 78.



The Sharples Separator Co. Toronto

Dumfries Farm Holsteins "Think this over the hard 175 head of Holsteins, 50 heifers, from valves up to 2 years, as well as a dozen yearing to he and anothing you may select is for sale. Breeding and individuality the very best.

S. G. & ERLE KITCHEN, St. George, Ontario

The average cost of Nitrogen in 600 samples of "complete" fertilizers was 66% higher than the cost of Nitrogen in

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Are you one of many paying high prices for low-grade goods?

Send Post Card for Attractive, Money-saving Books

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HAVE YOU TRIED Dr. Lawrason's Mexican Liniment FOR COW ITCH

252., 50c. or \$1.00. Sent promptly prepaid on receipt of price if your druggist cannot supply. Dept.E. DR. LAWRASON MEDICINE CO.

Bulls—Holsteins

From 18 months down, Grandsons of "King Favne Segis," "King Segis Profile," "Rug Apple Koundyke 8th, the best of the breed. Write us giving par-

R. M. HOLTBY V Port Perry Ont

Walnut Grove Holsteins

Berd he select by May February hampoon, full breaker of May technologies, who made at this, butter receives along hermales for same trops one year of a special constant. Proceedings of the same trops one year of a special constant safe.

C.R. JAMES, Langstaff P. O., Ontario

Bulls, Bulls We like the ready for service. Seed the story gives the mest Segis Pontiae Daphicate, and acre are the rivillation Pontiae Hengerveld Fieters, and standard mester engages. Prices low for the specific. Write and give them Manchester, G.T.R., ste. Martie, C.P.R., stations. Bell Phone.

R. W. Walker & Sons, R.P. 4 Cert Perry, One. Hogs and Sheep.

EDITOR "THE FARMER'S ADVOCATE": As is well known, hogs have reached an unprecedentedly high level—\$11.65 per cwt. being paid for fed and watered, on the Toronto market. The fact that, even with live hogs at this figure, shipments of bacon are regularly going forward to England, will serve to illus-trate very clearly the demand for that product on the British market. Without doubt, Canada stands in a better position to-day to develop a permanent bacon trade with Great Britain than has ever been the case before. To do this, however, there must be a volume of supply. There is very good reason to believe that although prices cannot be expected to remain at the present high level, the demand for bacon, in the face of the supply that can be obtained, will be such as to hold the market in a very firm condition, both during and for a considerable period following the war.

Great Britain's imports of bacon in 1915 amounted to £25,441,460. Canada she obtained only £3,324,511 The fact that Canadian bacon has been selling at an advance of from 10 to 12s. per cwt. above American, and at not more than 12s. under the nominal quotation for Danish, illustrates very clearly to what extent Canada could increase her export trade, had she a sufficient quantity of hogs to make this possible. The English merchant and the British consumer will buy Canadian bacon today, quality being equal, in preference to that from any other country in the world, with the possible exception of Ireland. Not only so, but an enormous market exists also for hams, frozen pork and pork cuts of various descriptions. This market is as remunerative as the bacon trade, although it is not likely to prove as constant. The West is producing a great quantity of rough grain this year. As compared with wheat, it will probably be relatively low in price. It should therefore, be a sound business proposition to breed as many sows this spring as would provide each farm next fall, with such a number of feeding hogs as can be conveniently handled and suitably finished. They should, however, be so selected and mated as to maintain the approved bacon type. Unless this be done, we cannot compete with Ireland and Denmark, and will lose status on the British market. The development of our bacon trade is a purely commercial undertaking and we must early recognize hat we cannot sell to the British merchant unless we give him what he wants This granted, theifty management and good feeding should yield a return this year which will more than compensate for all the labor involved.

Lamb and mutton are dear all the world over. Scotch mutton is now selling on the Smithfield market at 22 to 22^3 (c. per lb. and English at 21 to 22c. per lb. Both Australian and New ealand frozen lamb on the same market are selling at 1716c. Yearling lambs in anada have reached the record price of \$14.00 per cwt., while in the United States they have been bringing as high as \$11.80. By way of comparison, these prices considerably exceed the advance in values for other live stock but no appreciable reduction need be expected except through a rapid and general expansion in production.

The wool situation needs little comment While it is probably true that the mills in Canada bave, at the present moment sufficient stocks of Canadian grown woo to meet their requirements for the current months, such is only a temporary condi-tion and is not similarly the fact a regards their requirements for wool not grown in Canada. The position of the world wool market is very firm indeed held in London on the 11th April "Conervily in Great Britain, while United car-tional ly, are in a very strong

The maintenance of present prices can have only one result. Already renewed interest is being evidenced by farmers who have not kept sheep fo

DISPERSION SALE

30 Head HOLSTEINS 30 Head

WEDNESDAY, JUNE 14th, 1916

Keep this date for the sale of mature cows and young stock. This is your chance to buy daughters, granddaughters and great granddaughters of Paladin Ormsby, Brookbank Butter Baron, Sir Creamelle and Francy 3rd. Cows never tested but are of the profitable kind. Young heifers in calf to or sired by "Woodland Jongste Pride" whose pedigree in Catalogue is worth looking at. If you want a young sire, bred in the purple, come.

Farm, 5 miles north of Drumbo Junction, C.P.R. and G.T.R., where morning trains will be met. Send for a catalogue to—

T. M. MOORE Auctioneer, Springfield

Francis Stauffer, Prop. Bright, No. 4, Ont.

UNSPRAYED. Bugs destroy leaves that carry food to the tubers. Blight robs the plants of strength. The result is small, unprofitable potatoes and small and worthless crops.

OKCANADIAN POTATO MACHINERY CO Limited GALT, ONT.

SPRAYED

Fully developed tubers grow on healthy plants. Keeping them healthy is done quickly and thoroughly. Twenty minutes will do an acre with a

4-Row Sprayer

Let us send you a 48-page book on potato growing. FREE if you mention this paper.





THE PRICE OF THE Hinman Milker

at present is \$50.00 Per Unit.

Under existing conditions the price will soon go up Write for Booklet II.

H. F. Bailey & Son, Galt, Ont. Sole Manufacturers for Canada

Under HINMAN Patents

D. C. FLATT & SON,

R. R. 2,

Hamilton, Ont.

King Segis Pontiac Paul 15940

 $W^{\rm E}$ have for sale a few sons of the above bull, ready for service, and whose dams are large, heavy-producing cows. Here is an opportunity to get the blood of KING SEGIS and KING OF THE PONTIACS at reasonable prices. Correspondence solicited.

Also Berkshire Yorkshire Swine

Larkin Farms

Queenston

From high-testing daughters of Pontiac Korndyke. Photo and pedigree sent on application.

A. A. FAREWELL

Rattler's 28,20 lbs., the latest Canadian champion 30 day butter cow 8 months after calving, and is half brother to L. D. Artis, 34,66-lb. Canadian champion senior 3-yr-old. Terms to suit purchaser. MAJOR E. F. OSLER, Prop. T. A. DAWSON, Mgr.

Pioneer Farm Holstein Herd

Has only one ready for service son of Canary Hartog, whose three near dams, one of these at ten years old, average 30 lbs. butter in 7 days and 108 lbs. milk in one day. This fellow, 34 white, is a handsome son of Calamity Snow Mechthilde 2nd, a 22.86 lb. jr. 3-year-old daughter of Prince Aaggie Mechthilde, who has 7 ir. 2-year-old daughters averaging 14.800 lbs. milk in R.O.P.

WALBURN RIVERS, R. R. No. 5, INGERSOLL, ONT Phone 343 L, Ingersoll Independent.

Clover Bar Holsteins A splendid 14 mos, old son of Minnie Paladin Wayne, who malk in 7 days. Her 2 year-old record was 22.33 lbs. For type and color he is second to none. Also her 3 weeks-old buff calf and a few others from good R.O.M. dams.

PETER SMITH

R. R. No. 3, STRATFORD, ONT.

Evergreen Stock Farm High Class Registered Holsteins. We keep nothing but the attractive, profitable and producing kind. Just now we are sire's dam average 25 lbs, butter in 7 days and 85 lbs, of milk per day. Moreover he is a show bull with ust a little more white than black at HULET.

For Sale

Only three bull calves from our senior herd sire and a few from the junior herd sire left. In these is combined some of the richest testing blood of the breed. Also females of all ages, 75 cr 80 head

M. L. HALEY, & M. H. HALEY, Springford, Ont.

HOSPITAL FOR INSANE, Hamilton, Ont. For Sale—HOLSTEIN BULLS, months, from Record of Performance or Record of Merit dams, and the grand bulls, Sir Korndyke Wayne Dekol, grandson of Pontiac Korndyke, or Lakeview Dutchland Le Strange, a grandson of Count Hengerveld Fayne Dekol. Prices right. APPLY TO SUPERINTENDENT.

June 8, 1916

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THE CANADIAN S

FORTNIGHT By Twin-Screw

SPECIAL PACILITIE Next Sailing fr

The Royal Mail St 57-69, Cranville Stre LOCAL TICKET

Alderley Edg Two yearling bulls sired (Morton Mains Planet). J. R. KENNEI

Jerseys for Sale—I a
Jersey bulls,
also heifer calves from in
dams. To prevent inbrebull, De La Rocke Duke (
CHAS, E. ROG



Eastlake Galvanized Shingles

They are a PROVEN roofing-not an experiment. Very easily laid, joints are snug and close fitting they simply cannot leak. They save labor in laying and improve your buildings. Reduce insurance rates. No danger from fire by lightning or sparks.

Write for interesting Booklet. Price lists and detailed information about "Metallic" building materials, Siding, Corrugated Iron, "Metallic" Ceilings, etc.

Metallic Roofing Co. Limited Toronto Winnipeg 164



Are You Using the Best Salt?

THE CANADIAN SALT CO. LIMITED



Alderley Edge Ayrshires Two yearling bulls sired by Lakeside Day Star (Morton Mains Planet). Write for description. J. R. KENNEDY, Knowlton, Que.

Jerseys for Sale—I am offering two very fine
Jersey bulls, age 10 and 12 months,
also heifer calves from imp, sire and high-testing
dams. To prevent inbreeding will sell my stock
bull, De La Rocke Duke (imp.). Prices right.
CHAS, E. ROGERS, Ingersoll, Ont.

Ram sales were particularly good last fall. More sheep are being bred in many of the provinces. We believe that this year will show a further ex-tension of the business. As a matter of fact, no farm animal can be made more profitable, at the present time, to its owner. The keeping of sheep for the sake of the wool alone may become an economic necessity. With grade lambs selling on the open market for more than pure breds brought two or three years ago, a revival of the sheep industry in Canada may confidently be anticipated.

IOHN BRIGHT. Live Stock Commissioner.

Gossip.

Milking Shorthorns by Auction.

On Wednesday, June 21, A. E. Currie, will sell at his farm, 5 miles from Erin Sta., C. P. R., where conveyances will meet all morning trains, 20 head of milking Shorthorns, a few registered Yorkshires and a number of high-class saddle horses. These Shorthorns on breeding lines, with the exception of two which are Marr Floras, all trace to Imp. Beauty by Snowball. For years they have been hand milked and developed for milk production. of them are closely related to Bonnie Doone which won the Shorthorn Dairy Test at Guelph for 4 years, 1891-92-93 and 94. Three of them are now running in the official test. The average yield o the herd under anything like favorable conditions is from 40 to 45 lbs. a day All the younger things are the get of the D. A. C. official backing bull, Imp. Barrington Record. Several are one-and two-year-old heifers, the get of Village Actor, 88052. There will be 15 females and 5 young bulls from 7 to 15 months of age. There will also be sold some registered Yorkshires and a number of high-class saddle horses. The farm is 7 miles from Acton Station, G. T. R., and 13 miles from Guelph on the Guelph-Erin gravel road. For catalogue write A. E. Currie, R. R. No. I. Guelph Out. No. 1, Guelph, Ont.

J. Lloyd Jones' Annual Sale.

J. Lloyd Jones of Burford, Ontario writes as follows regarding his 12th annual sale: "The bidding was brisk. Several Americans were on hand and some good bids from old customers were received. I think it was the most successful sale of its kind ever held in Canada, considering that it was not a closing-out sale. I have some of the best Shropshires and Southdowns on hand now fitting. There were altogether 95 sheep sold and about 50 little lambs went with their mothers. Altogether there were 17 cattle sold, 2 pigs and one imported pony. The total receipts for the sale amounted to \$3,250. The champion ram, three years old, was a great bargain, for I consider him one of the best stock rams in America. On account of having been shown, he did not look his best, but he weighed 260 pounds. William Bailey, Oak Park Farm, Brantford, secured him for \$105. Mr. Chandler, of Iowa, secured a splendid two-shear ram, grandson of our old Mansell ram, and another good two-shear ram. J. D. Larkin, Buffalo, also got one good twoshear ram and another went to Mr. Francis, Cathcart. The average for the five rams was \$08. Thirty breeding ewes brought \$28 each; 40 shearling ewes averaged over \$25 each. In Southdowns, one shearling ram sold for \$40, and a ewe for the same price; 15 breeding ewes bred by Drummond averaged \$24 each; 7 shearling ewes averaged \$18; 2 Oxford ewes averaged \$23. One Berkshire boar brought \$19, and a sow sold for \$40; one Welsh pony, imported, two years old, realized \$69. The cows averaged \$65 each, which was very cheap.

It is ten years since we got such prices for sheep at Chicago, and they are the best prices received in 20 years for Shropshires, and yet the sheep were good bargains for the buyers and I wish to thank my customers.'

Pat.—Why is my ankle placed between

my knee and my foot.
Mike.—Begorra, I don't know unless
it is to keep your calf from eating your

You get the proof at milking time

Silage fed cows produce about 25 per cent more milk than those on dry feed. Ask any farmer who has an Ideal Green Feed Silo what he knows about it. He gets positive proof

of the superior feeding value of good silage at every milking. Yet silage costs no more than other feed. In fact, it costs 15 to 20 per cent less. But remember this: the feeding value of silage is determined to a very great extent by the silo. Good silage can only be produced in a good silo.

IDEAL GREEN FEED SILOS

have proved their right to the confidence they enjoy among thousands of Canadian users by the service they have given for many years. At every milking time, the man who has an Ideal gets unquestionable proof of the wisdom of his silo choice.

A "cheap" silo or a silo erected from "cheap" material will prove the most costly you can buy. The few dollars you might save on the first cost by buying such a silo will be lost many times over in the poor quality of the silage, the trouble and expense you will be put to in keeping the silo in repair and in its short life.

An Ideal will pay for itself in one year and last many years. It will preserve the silage perfectly. It will return the biggest profit on the money you invest in it.

Get all the facts that prove that the Ideal gives you more for your money than any other. It costs nothing to get this information and doing so will be the means of insuring silo satisfaction for you and will save you many dollars. Write today for catalogues and complete information.

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Peerless Poultry Fencing A real fence, not netting. Strongly made and closely spaced, a complete barrier against animals of any kind. Keeps the small chicks confined. They can't get through. Does all and more than is required of a poultry fence. The heavy, hard steel top and bottom wires with intermediate laterals will hold a carelessly backed wagon or unruly animal and immediately spring back into shape. The wires are held together at each intersection by the Peerless Lock. Send for Catalogue and address of nearest agent. We make a complete line of farm and ornamental fencing. We now have agents nearly everywhere, but will appoint others in all un-THE BANWELL-HOXIE WIRE FENCE CO., Ltd., & WINNIPEG, MAN. HAMILTON, ONT.

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Five choice bulls for sale, 15 months old, from R. O. P. cows. One a third prize winner at Toronto. Priced to sell, send for photos. Also bullcalves and a fewfemales. AGINCOURT, ONT.

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Are a combination of show-yard and utility types at Dom Seen in any one herd. A few choice young males and females for sale.

Write or 'ohone your wants to Stonehouse before pure finsing elsewhere.

Brampton Jerseys We are busy. Sales were never more abundant. Our cows on yearly test never did better. We have some bulls for sale from Record of Performance cows. These bulls are fit for any show ring.

BRAMPTON, ONTARIO

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JERSEYS

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Canada's Most Beautiful Jersey Herd Half the herd imported from the Island of Jersey. Several cows in the Record of Merit and others now under official test. Some very choice stock for sale. When writing, state distinctly what you desire, or, better still, come and see them. Farm just outside city limits. We work our show cows and show our work cows.



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your farm buildings, because it is guaranteed for 5, 10 or 15 years, according to ply (1, 2, 3) by the world's largest manufacturer of building and roofing papers. And experience has proven that it outlasts this guarantee. CERTAIN-TEED is safer than wood shingles; looks better than galvanized iron or tin, is easier and quicker to lay and cheaper than either. It is weatherproof, smooth surfaced and durable.

smooth surfaced and durable.
It is made from the bestroofing felt, thoroughly saturated with the General's own blend of soft asphalts, and coated with a harder blend of asphalts, which prevents the soft saturation from drying out Get CERTAIN-TEED from your local dealer, whom you know and can rely upon. It is sold by good dealers all over Canada at reasonable prices.

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COTTON SEED MEAL CALF MEAL OIL CAKE MEAL FLAXSEED GLUTEN MEAL POULTRY FEEDS SEED POTATOES SEED GRAINS

Write for prices.

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Contains over 35% protein Contains over 33% carbohydrate.
Keeps all live stock healthy if fed daily fed daily.

CANADA

SELD DUM

WRITE TO DAY FOR FREE SAMPLE & PRICES PURE LINSEED

"I, Peter Arkell, hereby state that my flock of sheep is not part of the original flock established by the late Peter Arkell as alleged by some of the advertisements published by me over the name of Peter Arkell & Co.

Peter Arkell, Teeswater, Ont.

ORKSHIRES

Young pigs, both sexes, just weaned. A number of choice young sows recently bred. Also stock boar, Maple Grove Romeo 4th— 45054—.

WELDWOOD FARM London, Ontario Farmer's Advocate,

Morriston Tamworths and Shorthorns, Bred from the prize-winning herds of England, Choice from the prize-winning herds of England. Choice Tamworths, both sexes, for sale. Choice Shorthorns, males and females of the deep-milking strain; also stallion, 3-yr-old, a da Morriston, Ont.

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Young sows bred for September farrow and some nice young boars. Write— JOHN W. TODD, R.R. No.1, CORINTH, ONT.

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For many years my herd has won the highest
honors at Toronto, London, Ottawa and Guelph.
For sale are both sexes of any desired age, bred from winners and champions.
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Townline Tamworths We can supply worths of both sexes and any desired age of superior quality. Also Leis ster Ram and Lewe lambs, Pekin, ducks, Langshan cockerels, and pullets, Write us your whats. T. Readman & Son, Streetsville, Ont. R.M.D.

Pine Grove Bred from prize winning stock of Eagland and Canada. Have the first pairs not akin, to offer at reasonable prices. Guaranteed satisfaction. Guaranteed satisfaction.

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Lakeview Yorkshires If you want a brood sow, or a stock boar of the greatest strain of the breed (Cinderella), bred from prizewinner for generations back, write me. Yorng pigs of all ages.

JOHN DUCK, Port Credit, Ontario

Questions and Answers. Miscellaneous.

Annual Pasture Mixture.

How much sorghum, oats and clover do you sow per acre? Ans.—Sow oats 51 lbs., common red clover 7 lbs. and sorghum 30 lb. per

Colt With Injured Leg.

My ten-months-old colt got turned ound and thrown in the stall, with the ie chain between the hind legs, which bruised the inside of the leg, between the hip and the hock. It bealed and the skin came off, but is now healing. Would you please advise me what to put on to make the hair grow.

Ans.—We know of nothing better than the frequent application of some grease as lard or vaseline.

Knee Swollen.

Cow has swelled knee, seems full of water, had it 4 years ago but got all right without treatment, (has not calved yet) otherwise in good health and con-dition. Do you think it will disappear when she gets out on grass? J. J. F H.

Ans.—Probably. The injury is ikely due to lying on a hard floor such as cement. It may go away again. If cement. It may go away again. If it does not, try some absorbent liniment.

Switcher.

About four months ago I sta ted to oreak a three-yea-old mare and n he ast three weeks she has started switching; what remedy would you suggest using

Ans.—Switching is a bad fault, generally due to nervousness. Try being kind and quiet and take precautions o prevent her from getting her tail over the lines Switching is very often associated with kicking and it wil require great care in handling else the colt wil be spoiled.

Rotten Apples or Ringworm.

Last winter I saw where one asked a ure for ringworm. I just take rotter apples and rub on affected places a couple of times and cleanse the animal's blood with a blood purifier of any home remedies

We often hear from towns and cities for farmers to raise bumper crops o rop more. I wonder if they ever think: If the Lord wills so?'

Ans.—We simply pass this on to our readers for what it is worth. Eczema.

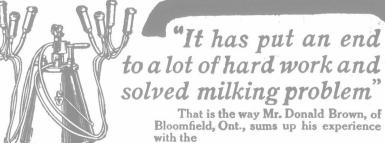
I have a fine colt rising two-years-old that has been fed on hay, oil cake and oat chop and is in fine condition and seems to feel well, but he itches terribly in his mane and down his back. The old hair is nearly all off and I can't see any thing wrong with his skin. I have washed him once with creolin and water 4 tablespoons of creolin in a pint of water but he doesn't seem any better He also has a small lump on the left side of his breast. I think he got kicked there a couple of weeks ago. The hair is off in a small spot. Can you give a remedy to reduce this lump or will it go away itself in time? It does not seem to be sore to handle and he has

never been lame on it. F. M. S.

Ans.—Evidently your horse is affected with a form of eczema. A method of treatment is to administer a purgative of 8 drams of aloes and 2 drams of ginger Follow up with 1½ ounces of Fowler solution of arsenic twice daily for a week. Wash the colt thoroughly with strong, warm soap suds. Apply a five per cent solution of creolin in water o a solution of corrosive sublimate. 2: grains to a quart of water. The lump will no doubt gradually disappear but it would be a good plan to bathe in frequently with hot water.

Jones, beautifully drunk, wig-wag ged his way up the street wherein h lived, with a dignified yet hostile glare in his eyes. As he approached his home he braced himself and his gait was becoming noticeably steadier. when all of a sudden he plunged houseward and fell, striking his nose against a barber's pole.

As they raised him off the ground he managed to articulate: "Whazzat woman with striped stockin's got



MECHANICAL MILKER

"Having purchased one of your Empire Mechanical Milkers, I feel that I can strongly recommend both its efficiency of milking and its ease of operation. The cows take to it well and prefer it to hand milking. Never had any symptoms of teat or udder trouble. I can milk my twenty cows with one double unit quite easily in an hour. I hope to increase my units this year, when I will be milking from 35 to 40 cows.

35 to 40 cows.
"It has put an end to a lot of hard work and solved the milking problem well." and want more information The EMPIRE Mechanical Milker is helping hundreds of dairymen to make more money. Why should not YOU be one of them? The first step is to mail about the EMPIRE Mechanical Milker.

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Largest and oldest importers and breeders of

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Also no grades handled except by order.

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Box 454, Teeswater, Ontario

We have at present several Yorkshires both sexes, all ages, for sale. Prices on application. Correspondence solicited.

Bell phone Brantford 1102 Oak Park Stock Farm,

W. G. BAILEY, Prop. R. R. No. 4, Paris, Ontario

YORKSHIRES Our offering never better. Champion hog winner of 12 firsts, 5 championships, 2 years showing, still at the head. Boars and sows, all ages, same breed was MANNING & SONG WM. MANNING & SONS WOODVILLE, ONTARIO

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Several extra choice young bull and heifer calves, recently dropped, grand milking strain; 2 bulls, six and seven months old, several extra choice young cows with calves at foot, also heifers all ages.

Prices reasonable.

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Cloverdale Large English Berkshires! Sows bred, others ready to breed; boars ready for service; younger stock, both sexes, pairs not akin. All breeding stock imp. or from imp. stock. Prices reasonable. C. J. Lang, Burketon, Ont. R.R. 3

Cherry Lane Berkshires and Tamworths In 1915 we made a clean sweep at and Tamworths; we have for sale both breeds of any desired age, winners in the West. First and the prize Berkshire boars at Guelph, first and champion Tamworth boar at Guelph. S. DOLSON & SON,

Craigielea Wood Stock Farm

Breeder and Importer of English Berkshire swine and Ayrshire cattle. Have for sale statio and a bull calf, three weeks old. For further particulars, write.

R. I. DAWSON

Craigielea Wood Stock Farm, ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer R.R. 1, Brantford, Ontario Langford Station on Brantford and Hamilton Radial,

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We are in a position to supply boars and sows of different ages. We have an established type of Yorkshires that has been produced through many years of careful breeding and selection. J. E. BRETHOUR & NEPHEWS Burford, Brant Co., Ontario

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MAIL CO

SEALED TENDERS, master General, will be noon, on Friday, the 2 for the conveyance of 1 a proposed Contract for week over Thorndale N the 1st of October next.

Printed notices contains to conditions of proseen, and blank forms of at the Post Offices of and London, and at the Inspector, London. G. C. ANDER
Post Office Department
Granch, Ottawa,

Travel from one to two years free in your Ford on your saving in one year's depreciation

Other cars in the \$1000 or less class, after one year of service, are worth from \$250 to \$400 less than their purchase price. That's their depreciation.

Ford cars, after a year's hard work, sell on an average for only \$125 less than they cost brand new. That's Ford depreciation.

The difference in depreciation of these year-old cars ranges from \$125 in the one case to \$275 in the other—both considerable savings for Ford owners.

Thousands of owners tell us that it costs .024 per mile on an average to drive a Ford—paying for gasoline, oil, tires and repairs.

So, if your saving in depreciation for a year is \$125 you pay all your expenses for 5,208 miles—while if it is \$275, you have kept enough money in your pocket to pay for driving your Ford 11,458 miles.

Buying a Ford in preference to other less than \$1,000 cars, lets you save in one year's time a difference in depreciation that pays all your motoring bills for from one to two years.

Think it over.



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Ford Touring - 530 Ford Coupelet - 730 Ford Sedan - 890 Ford Town Car 780 . o. b. Ford, Ontario



All cars completely equipped, including lectric headlights. Equipment does not include speedometer.



Better Trees-More Fruit

Get the most out of your orchard-make your trees earn a better profit. Plant your trees with C. X. L. Stumping Powder—they will grow faster, crop earlier and be healthier. Spade-planted trees have soil-bound roots.

C.X.L. Stumping Powder

breaks up the sub-soil and lets the tender roots get all the nourishment there is in the ground.

Use C. X. L. for ditching, sub-soiling and grading. C. X. L. Stumping Powder will make your farm give you a bigger income—and it's safe as gun powder.

There is big money in agricultural blasting-Write for proposition. Send for our free booklet "Farming with Dynamite".

Canadian Explosives, Limited, 808 Transportation Bldg., Montreal Western Office, . Victoria, B. C.



Six-year-old apple trees

Spade planted



Soil-bound trees



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EPOM TORONTO

	FROM TOROITIO
To	Winnipeg and Return \$35.0
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EVERY MONDAY TO OCTOBER 30TH Proportionate Fares from and to other Points.

ELECTRIC LIGHTED TOURIST CARS

For our Booklet, "Homeseekers' and Settlers' Guide", tickets and information, apply to nearest Canadian Northern Agent, or write to

R. L. Fairbairn, General Passenger Agent, 68 King Street, E., Toronto, Ont.

THE ROAD TO POPPORTUNITY



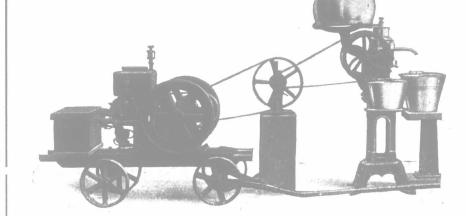
MAIL CONTRACT

SEALED TENDERS, addressed to the Post-SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 23rd day of June, 1916, for the conveyance of His Maiesty's Mails, on a proposed Contract for our years, six times per week over Thorndale No. 2 Rural Route, from the 1st of October next.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained at the Post Offices of Thorndale, St. Mary's and London, and at the office of the Post Office Inspector, London.

Inspector, London.

G. C. ANDERSON, Superintendent.
Post Office Department, Canada, Mail Service
Branch, Ottawa, 12th May, 1918.



SOLVING THE "HIRED HELP PROBLEM"

This MONARCH 1½ h.-p. Engine attached to our Intermediate Friction Clutch Pulley solves one of the problems for hired help. No counter shaft needed with this attachment.

The machine driven is always given its speed automatically, and needs no special attention from the operator. We also make special pulleys to fit separator.

Get our catalogue. It's free for asking.

We make all sizes of engines, from 1½ to 35 h.-p. Ensilage Cutters, Grain Grinders, Pump Jacks, Saw Frames, Friction Clutch Pulleys.

Canadian Engines, Limited

FROST & WOOD Smith's Falls, Ont. Selling Agents East of Peterboro



MAIL CONTRACT.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 16th day of June, 1916, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Thorndale No. 3 Rural Route, from 1st October next.

the 1st October next.

Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Offices of Thorndale, London and St. Mary's, and at the office of the Post Office Inspector, London.

G. C. ANDERSON, Superintendent.

Post Office Department, Canada, Mail Service Branch, Ottawa, 5th May, 1916.



WHITEWASH SPRAYER For \$5.50

Delivered anywhere in Ontario. Holds 4 gals. Will spray fine or coarse. Absolutely guaranteed. Write for catalogue.

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