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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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Director General Exp. Farm
5 Dec 31.16

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

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Vol. LI.

LONDON, ONTARIO, MAY 11, 1916.

No. 1233

The
Bake-Day
Smile
of
Perfect
Satisfaction



PURITY FLOUR

More Bread and Better Bread

WINDMILL BRAND FLOUR MILLS COMPANY, LIMITED

Production and Thrift

CANADA'S CALL FOR SERVICE AT HOME

Produce More and Save More

The Empire needs food. If you are not in the fighting line you may be in the producing line. Labour is limited—all the more reason to do more than ever before. Grow food for the men who are fighting for you. The Allies need all the food that you can produce. Every little helps. You are responsible for your own work. If you cannot produce as much as you would like, produce all you can. Work with the right spirit. Put fighting energy into your effort and produce now when it counts. The more you produce the more you can save. Producing and saving are war-service.

Make Your Labour Efficient

In war-time do not waste time and energy on unimportant and unprofitable work. Economize labour. Put off unproductive work till after the war, and, if possible, help in producing something needed now. Let us not waste labour. Canada needs it all. If possible help to feed the Allies. Make your backyard a productive garden. Cultivate it with a will. Make your labour count for as much as possible.

Do Not Waste Materials

There should be no waste in war-time. Canada could pay the annual interest on her war expenditure out of what we waste on our farms, in our factories, in our homes. Every pound of food saved from waste is as good as a pound of increased production. The way for a nation to save is for every individual to save. France is strong to-day because of thrift in time of peace. The men and women of Great Britain are not only "doing" but are learning to "do without."

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Practise economy in the home by eliminating luxuries. Wasting our dollars here weakens our strength at the Front. Your savings will help Canada to finance the war. Save your money for the next Dominion War issue. There can be no better investment.

THE GOVERNMENT OF CANADA

THE DEPARTMENT OF AGRICULTURE

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Dominion Ammunition meets every requirement of the sportsman. It has speed, accuracy and reliability, the three factors necessary to perfect ammunition.

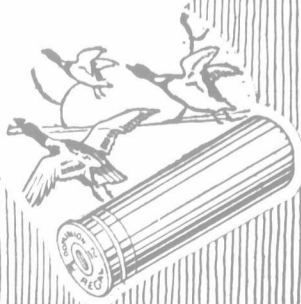
Dominion Ammunition

for small game or big, for target shooting or at the traps answers the ammunition question completely. Whether it's the powerful 303, a 22, one of the fast Shot Shells, or the other popular sizes, insist on the box with the big "D". It's the trade mark of Made-in-Canada ammunition that gives perfect shooting results.

Send for free colored hanger "A Chip of the old Block".

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Standardization means definite, proved quality, known manufacturing costs and reduced selling costs.

Of the million autos that will be sold in 1916, 75% will be standardized cars selling for less than \$1000.00 each. This remarkable American achievement is the direct result of standardization.

Finally the upholstery has been standardized by the almost universal adoption of



MOTOR QUALITY

40% of all 1915 cars sold were upholstered in this proved, guaranteed material and in 1916 the total will be at least 60%.

Fabrikoid is the only standardized automobile upholstery. It wears better than coated splits (commonly sold as "genuine leather") and has the artistic appearance and luxurious comfort of the best leather.

Raynite Fabrikoid for tops, single or double texture, is guaranteed one year against leaking, but made to last the life of the car.

To get the most for your money, buy a standardized car

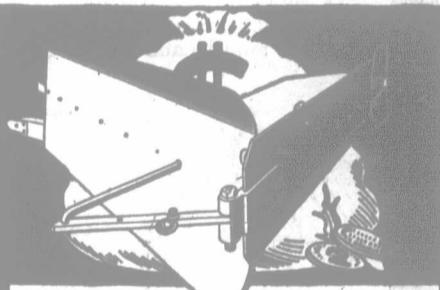
Du Pont Fabrikoid Co.

Toronto, Ont.



How Many Hides Has A Cow?

Craftsman Fabrikoid, the artistic upholstery material for furniture and home decoration is sold by leading department stores.



ONLY for this marvellous Ditcher and Grader. It will dig your ditches to a depth of 2 or 3 feet—grade your roads—clean out your old ditches—will do as much work in a day as 50 men with picks and shovels. Send to-day for catalogue.

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DITCHER
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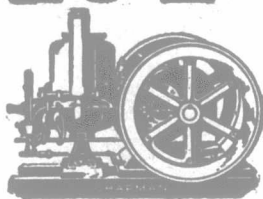
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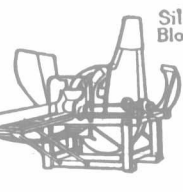
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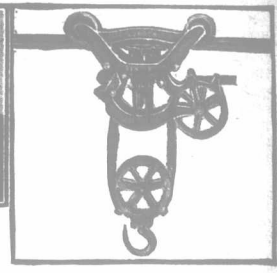
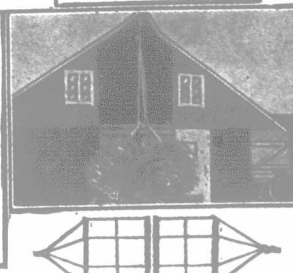
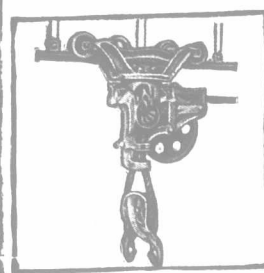
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IN HAY TIME & HARVEST

LOUDEN HAY TOOLS



LOUDEN HAY TOOLS



FOR QUICK WORK

The Louden Carry-All Sling Carrier is the heaviest and strongest Carrier made. It is constructed to work in any type or size of barn, and to carry large heavy loads.

Tested under loads weighing over 3,000 pounds, and with all kinds of power it made good. In hundreds of barns it has proved its efficiency and its strength.

Rope wheel in Carrier is 10 inches in diameter, and is roller bearing.

Track wheels on Tread 3 inches in diameter.

Bearing surface on Track 19 1/2 inches.

Carries Slings within 26 inches of the Track.

The Louden Senior Hay Fork Carrier meets the demand for a Carrier possessing that extra strength and power necessary for the safe handling of extra big loads. It is a Swivel carrier and will do excellent work, whether the hay is taken up from the end of the barn or from a centre driveway.

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Track wheels on tread 3 inches in diameter.

Bearing surface on Track 15 inches.

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VANCOUVER, B.C.

WINNIPEG, MAN.

ST. JOHN, N.B.

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I'll put on some life insurance and when I do I'll take it with you."

In these words last summer a young man declined to apply for an Imperial Life policy to protect his widowed mother against the contingency of his death.

Four weeks later he and a friend were drowned while bathing.

Supposing you should die suddenly—what would happen to your dependents? Would they be destined to a life of hardship? It is for you to say.

You can prevent it by means of an Imperial Home Protection policy. Let us tell you more about it? A postal will bring the information.

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The Imperial maintains for policyholders' protection stronger reserves than those of any other Canadian company.

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GURNEY-OXFORD SENIOR

Canada's biggest value - by far

70 years of stove success embodied in this splendid Steel Range.

The factory now sets new low prices.

No more dickering or uncertainty.

You know exactly what you have to pay for any Gurney-Oxford.

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At the New Low Price

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Freight paid to any point as far west as Fort William

You get more stove value than your money ever bought before.

You get 100 days

after buying to decide whether you'll keep it or get your money back.

Six 9" Covers, 20" Oven, right hand Reservoir and

Warming Closet as shown above. Shipping weight 450 lbs.

The "SENIOR" is a magnificent steel range

Here is a splendid, big Steel Range, decidedly one of the finest values our big foundries can turn out. It is built to last—to carry the famous Gurney-Oxford trademark and guarantee—to give absolute satisfaction to our customers.

The special, new low price quoted is only possible because we are the biggest makers of stoves, etc., in the British Empire and need only a small profit on each sale. This value is typical of all the low prices quoted in our new Catalogue, "The Stove Problem Solved."

A stove purchase is a serious matter in any house. We know that, and we are now fixing new low prices from the factory so you know exactly what you have to pay, and are sure of getting from Gurney's the utmost possible value for your money.

Not only that, but we give you double insurance by allowing you 100 days in which to try your Gurney-Oxford after buying, and if you are not perfectly satisfied, return the stove and get your money back. Could you be better protected?

Three generations of Gurney expert experience are built into every stove we sell. Nothing cheap, light or flashy—just built to last—is ever allowed to leave any of the big, responsible Gurney-Oxford foundries.

Good appearance is necessary, but the hidden, unseen parts of your Gurney-Oxford, on which long life, good baking and fuel economy depend, are our special care. Over one million satisfied customers for the past 70 years KNOW how successful we have been in this.

Put this big, capable range in your kitchen

and you have a hard-working, life-long kitchen friend, saving you many dollars a year in fuel, and always giving perfect baking results, because it is made by experts who know how to build a RIGHT fire-box and oven.

You have to depend on the factory a great deal for the lifelong quality of your stove, for most stoves look well at first. The famous Gurney-Oxford name and reputation are your safeguard.

The "Senior" has many more good features than you would expect to find in a steel range at this price. The specially designed fire-box takes wood up to 28 inches in length and includes our Gurney-Oxford grates, removable through the front. These grates are made differently for the different kinds of fuel used over Canada, so you always have a grate guaranteed to get the utmost heat out of the fuel you burn—a big saving.

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The "Senior" is built of heavy-weight blue steel, tastily ornamented and nickled; has large roll-door warming closet and extra efficient hot-water Reservoir. You'll not find a handsomer range anywhere.

You are bound to get satisfaction from your "Senior." Read more about it.

Get This: "The Stove Problem Solved" - It's New

This Catalogue should be earnestly studied in every home where a new stove is needed. It quotes new low prices on the famous, quality Gurney-Oxford line of stoves, ranges, heaters, gas stoves, combination gas or oil cook stoves, furnaces, boilers, etc. Send for a copy now, to-day; your name on a postal will do. Address:



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DEPT. 816 Also at MONTREAL, HAMILTON, WINNIPEG, CALGARY, VANCOUVER 38

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Preserves Roads
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Good roads at low cost—

Tarvia roads are not an experiment—they are well and favorably known in hundreds of towns in the Dominion.

Taxpayers in such communities are favorable to the use of Tarvia, because it relieves them from the dust nuisance and gives clean, easy-traction, automobile-proof highways.

The use of this material in road construction is also a real economy, because the reduction in maintenance expense more than offsets the original cost of the Tarvia.

Tarvia roads are an asset to the community. They invariably mean—increased property values, more accessible markets and reduced transportation expenses.

As more and more taxpayers realize that at practically no extra expense they can secure waterproof, dustless and automobile-proof roads, more and more towns will build most of their highways with Tarvia exclusively.

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 our nearest office for free illustrated booklet.

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MONTREAL TORONTO WINNIPEG VANCOUVER

THE CARRITTE-PATERSON MANUFACTURING CO., LIMITED
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Government Parkways, Ottawa, Canada. Treated with "Tarvia-B."

Close Skimming ALL the time



YOU do not have to be a mechanical engineer to put your "Superior" Bowl together after washing. The bugbear of other machines is keeping the bowl in perfect balance. The "Superior" is the only absolutely self-balancing separator on the market—you can

Replace the Discs With Your Eyes Shut

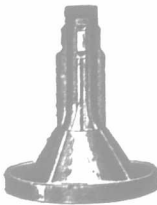
No notches and slots to bother about. Simply slip the discs on the improved split wing shaft in any order, tighten down outer shell and drop bowl on taper spindle—there is nothing to get out of balance. You ensure close skimming 780 times a year.

Every feature of the bowl has been carefully studied out and perfected, and is fully described in the book of "Superior" Separator facts. Write for your copy to-day.

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

The "SUPERIOR" SEPARATOR

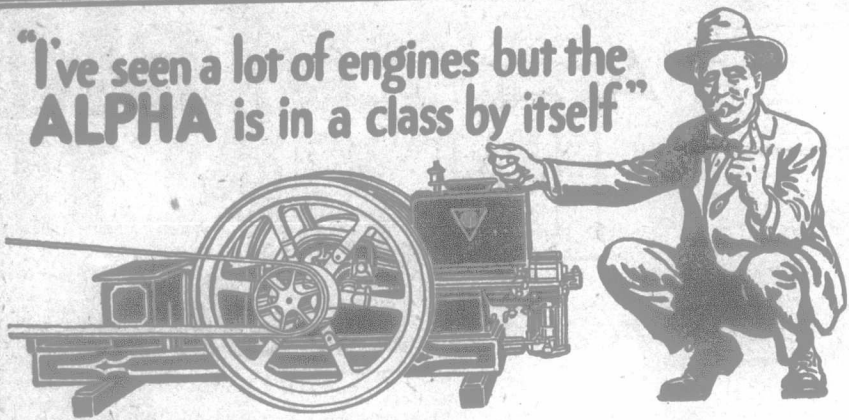
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The Bowl Apart

Please Mention "Farmer's Advocate"

"I've seen a lot of engines but the
ALPHA is in a class by itself"



THE more a man knows about gas engines the stronger is his recommendation of the Alpha. Users of the Alpha who have had lots of engine experience will tell you that the Alpha gives them the most power for the fuel consumed, is the least troublesome to keep in good working order, costs the least for repairs, and that they can always rely on it to give them plenty of steady power when needed.

The fact that the Alpha is not affected by cold weather is one of its good points that is especially appreciated by Canadian users. The speed and fuel consumption of the Alpha are accurately regulated to all loads by the quickest acting and most sensitive governor ever used on a gas engine. There is no waste of fuel and the engine runs steadily under all loads—light, heavy or varying.

The Alpha has no troublesome batteries. It starts and operates on a simple low speed magneto. The entire ignition system is remarkably simple and assures you of a hot, fat spark at all times. You can use either gasoline or kerosene for fuel.

The strong recommendation the Alpha gets from its users is the result of features that you can readily appreciate when you see the engine or the illustrations and descriptions in our large catalogue. Send for a copy of this catalogue at once. Read it carefully and you will agree with Alpha users that this engine is in a class by itself, and gives you the most for your money.

Alpha Engines are made in eleven sizes—2 to 28 H.P.
Each furnished in stationary, semi-portable, or portable style, with hopper or tank cooled cylinder.

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prove the easy
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**OK CANADIAN
ONE-MAN SPRAYER**
(Wheelbarrow Type)

is built entirely of metal. The pump is automatically operated by the wheel for field work. Can also be used to spray trees, etc. Write for literature.

CANADIAN POTATO MACHINERY CO., LTD.
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Average first year depreciation of the Ford car is \$125 as against \$250 to \$400 for practically any of the lower priced cars

It is difficult to set any definite figure for the depreciation of an automobile. So much depends on the condition of the individual car at the end of the season.

The average price paid for used cars in the \$1000-or-less class at any time during the first year is about \$250 to \$400 less than the first cost. But the average used Ford sells very quickly for \$125 less than the purchase price.

Compare the Ford depreciation cost of about \$10 a month with the probable \$30 or more a month that the other kind will cost you. Which is the better investment?

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OF CANADA, LIMITED.

Ford Runabout - \$490
Ford Touring - 530
Ford Coupelet - 730
Ford Sedan - 890
Ford Town Car - 780
I. e. b. Ford, Ontario

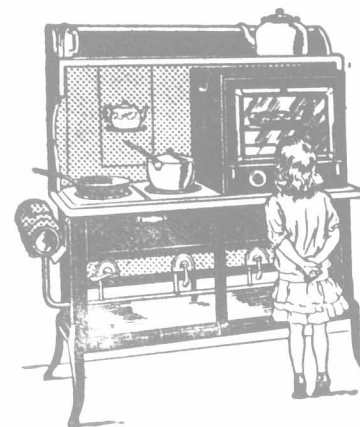
FORD, ONTARIO

All cars completely equipped, including electric headlights. Equipment does not include speedometer.

McClary's Blue Flame Oil Stoves make good "Goodies" quickly. No hot summer kitchens. No wicks to trim—no valves to leak—safe, simple, economical, reliable. Costs less than a cent per hour per burner.

**McClary's
FLORENCE**
OIL COOK STOVES *Wickless, Valveless,
Blue Flame, Automatic*

You can have a slow simmering fire on one burner and a quick hot



GOODY! GOODY!

fire on another and also two others regulated exactly to any heat you want. Just set the levers to exactly the heat you want—you can go away for hours and find all the burners giving exactly the same heat when you come back. That is because the oil supply is automatically kept constant.

A glass bull's-eye always shows you how much oil is in the tank. The upper reservoir holds a gallon.

Ask your dealer to show you the Florence—if he cannot, write to our nearest branch.

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ST. JOHN, N.B. CALGARY EDMONTON SASKATOON 826

The Farmer's Advocate and Home Magazine

PERSEVERE
AND
SUCCEED

ESTABLISHED
1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LI.

LONDON, ONTARIO, MAY 11, 1916.

1233

EDITORIAL.

Selling the best does not tend to improve the herd.

What have they done? Is the test for cows as well as for men.

They have "gopher" days out West. Why not a "ground-hog day" in Ontario?

It is nearly time to plant tested corn. It is never time to plant untested seed.

A late seeding does not necessarily mean a late harvest, but it does mean speeding up the farm work.

You do not know how good or how bad your cow is, until you systematically weigh the milk and test her.

The split-log drag was used to good advantage on many roads this year. Many more needed it but did not get it.

Alfalfa, where it will grow well, makes good farms and good cattle. Sweet clover may do the same where alfalfa is a failure.

Buy "Made-in-Canada" goods seems to be a slogan for the Canadian people and not for those who handle the fuse contracts.

The man who does not watch his mare and so loses his colt generally resolves to be on hand next time. Rather an expensive lesson.

We saw many cattle on pasture as early as April 25 this year. There was no grass then, and there will be little on the fields on which these cattle graze at any time this summer.

Some say: "a wet seeding a dry harvest." We hope it is some drier than that of 1915, but no one will complain much if he has as much to harvest as he had last year, even though no men are available.

At time of writing, the Shell Committee does not seem to have been very complimentary to Canadian manufacturers. Canadians have more confidence in the ability of their own firms to turn out good goods at fair prices than had the said Committee.

A Canadian farmer recently said to us: "Is it not strange that while Canadian farmers were recently cautioned against buying and selling outside their own country, the Government lets its contracts in another country?" Politicians should remember that farmers are alive and awake.

The Kaiser wanted a birthday present for the Crown Prince. He promised him Verdun, but the walking wasn't good between his headquarters in the woods and the French fortress, so the Crown Prince had to do without his present and many of his people will have to do without their nearest and dearest relatives for all time.

Dragged Roads Are Better Roads.

In the course of an extended drive through a county composed largely of clay, and where the roads are for the most part clay roads, we recently encountered some very bad holes and some exceedingly rough driving, due to the roads having been cut up by vehicular traffic and not smoothed down as they began to dry out. It was a relief however to come upon a strip of three or four miles of road which had been dragged by either a split-log drag or smoothed off with a scraper, right in the midst of these, generally described, bad roads. For the most part where the road was not dragged we were only able to drive our horses at a walk and it was difficult for them to travel at all. The buggy was in and out of deep ruts, making it hard on both rig and beast as well as unpleasant for those called upon to travel. In time past "The Farmer's Advocate" has spoken strongly in favor of a universal use of the split-log drag on clay roads in the spring. We never saw a better demonstration than the one mentioned, which was in Haldimand county, of what can be done to a road by dragging at the proper time. When we struck the piece of dragged road, we were able to trot along at a fair rate of speed on a comparatively smooth road, easy on horse, rig and man. The dragged road will be the best road all summer, and there is no estimating the value of the drag when it comes to preparing roads for the traffic which must be carried on over their surface. For speed in smoothing up, rounding off and filling in, the drag is a wonder, aids in drying out the surface and hardening it making a passable road out of a quagmire. No doubt there are many roads in the country which would be the better of more dragging this spring and which, after heavy rains during the summer, would be more rapidly dried, improved and repaired by the use of the drag. We wish that every pathmaster and every road worker could see a demonstration of the use of the drag at the right time, and we venture to say that the number of drags in use would be multiplied many times. Try a home-made one on your own wet lane sometime and see how it works out, then drag it from the lane to the road and show the neighbors what can be done.

Do You Grow These Varieties?

Some interesting facts are brought out by the report of the results of Standing Field Crop Competitions in Ontario in 1915. We wonder if the relative number of tests made in each crop bears any relation to the relative popularity or general adoption of these crops. There were 152 competitions in oats, 9 in spring wheat, 15 in fall wheat, 16 in barley, 4 in peas, 45 in corn, nearly 50 in potatoes, 10 in turnips, 7 in mangels and 1 in beans.

Undoubtedly oats are the big crop in Ontario, and it is interesting to note the winning varieties. In 1913 there was only one entry of O. A. C., No. 72 oats in these competitions in Ontario and it took first place. In 1914 this variety received twenty first prizes and in 1915 it secured 48 first prizes. In 1915 O. A. C. 72 oats were entered in 99 of the 152 competitions and so took first place in nearly 50 per cent. of the contests where entered. It is interesting to note that the Banner variety secured 45 first prizes and stood high up in most competitions where entered. These two varieties are undoubtedly leaders in Ontario. Abundance, Siberian and Sensation stood well up in the lists in some places.

In the sixteen barley competitions, first place in every instance went to O. A. C. No. 21. In most competitions it was the only variety entered. A few entries of Mandscheuri got in the money but the growers of the best barley grew No. 21.

A small acreage of spring wheat is grown in Ontario, but Marquis, a variety originated at the C. E. F.,

Ottawa, led in each of six out of the nine competitions. White Fife and Red Fife were the other common winners, but in York county every entry was Wild Goose, a macaroni variety which does well on heavy, strong land.

Dawson's Golden Chaff led in ten of the fifteen competitions in fall wheat. This heavy yielder seems hard to beat.

Peas, once a staple crop in Ontario, but now not relied upon, were in competition in only four societies, two in Renfrew, one in Bruce and one in Huron. This is indicative of the trend. The crop does not prove valuable in the southern counties and is now grown only in the north.

The number of corn competitions indicates the growing importance of this crop in Ontario. Forty-five competitions as compared with the numbers in other crops puts corn next to oats. In different districts, different varieties led, but on the whole the standbys such as Compton's Early, Salzer's North Dakota, and Longfellow, and White Cap, Leaming, Bailey, Wisconsin and Golden Glow did well.

The outstanding feature of the potato contest report is the number of varieties, altogether too many. Potato growers would do well to settle down to a few good early and late varieties and put an end to the everlasting hustle for new sorts.

One is surprised at there being more turnip competitions than mangel trials. They number eleven to seven and yet mangels are growing in favor rapidly.

These competitions carried on in all parts of the Province are valuable and the results should be a lesson to those looking for new varieties especially in oats, barley, spring and fall wheat. It is a pity these reports could not be in the hands of farmers a few weeks before seeding so that in selecting varieties they could benefit from the experience of others. Too many reports turned out are too long in the making and reach the public at an unseasonable time.

Money Is Not Everything.

Money is not everything. The foregoing sentence is one that should receive the consideration of every farmer, as well as of every citizen. We recently spent an interesting hour with a young bookkeeper, who, tiring of office work, has purchased a few good dual-purpose Shorthorn cows and on five acres in a town in Haldimand county, Ontario, is enjoying farming on a small scale with good, pure-bred cows and choice pure-bred chickens. The feature which is drawing him and his wife to the work is not altogether the money that is in it, but, as he puts it, "money is not everything". They like the work. It is interesting to them, they enjoy it and every day they are learning something new and something more interesting about the cows and the hens. Would that thousands of others, among them many now on the farm and others who have left farms and are living in towns and cities, could see farming as these people see it. The work of milking cows is not drudgery to these people. Feeding them is a pleasure. The average farmer—the average man in any walk of life, is too ready to measure the occupation by the money there is in it. The twentieth-century human being places the dollar sign on everything, and it is a pleasing relief to find a few people who do things not altogether for the money there is in it but for the pleasure, the information, the education, and the real life which their occupation holds in store for them. There should be satisfaction for the farmer in the growing and development of crops, and in the breeding and feeding of better live stock, there should be some satisfaction other than the money returns which are not everything in life. As a general thing we believe farmers do not make the amount of money to which they are entitled in comparison with other business, but there should be no

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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JOHN WELD, Manager.

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drudgery in work which is interesting, and farm work will be more interesting and will generally prove more remunerative when the farmer makes a study of his business and thoroughly enjoys the development of better strains of crops and stock. Experimentation on a small scale, the growing of pure seed, the breeding of a selected strain of pure-bred stock, studying the science of feeding, weighing milk and testing milk and cream—these things make farming worth while.

The Transformation of a Township.

There is a township in a certain county in Ontario which a few years ago was known as "the God-forsaken township of —". At the present time the said township is one of the most fertile and most productive in the county, due to what causes? Alfalfa, one of the best crops for soil and stock has made the change. We would not have our readers believe that alfalfa can be successfully grown on all soils, because it can not. Climate and soil seem to have a great deal to do with the success or failure of this plant, and on flat, heavy, poorly-drained, cold-bottomed soil it will not thrive. On some rolling land it does not do well, while on other rolling land, such as some of that in the Grand River Valley, it thrives and produces abundantly. It has been so successful in certain parts of the Valley, in the township referred to that it has built up the land, built up the stock and improved the farms until now this land will grow almost any kind of a crop and grow it well. This only serves to illustrate the fact that most land can be made good for something if properly handled. Red clover has transformed many a farm from poor land to good land, and we believe that sweet clover, which to all appearances will grow on any soil, may yet be found very useful as a soil builder, particularly on land which will not grow red clover or alfalfa successfully. It will alike improve heavy clay and light sand. Undoubtedly there is a suitable crop for all soil and once we find out what that crop is much more forsaken land may be made to flow with milk and honey.

To Dairy Fame or to Canned Beef?

Some years ago, at the time Shorthorn cattle were a drug on the market, a certain breeder sold a calf to an Indian for a small price. No pedigree was furnished with the animal, and years later the cow drifted into the hands of a progressive young man who undertook to weigh her milk and keep some record of what she might do. We have not the figures for a year's production from this cow, but she was known to be a heavy milker and she produced some choice heifer stock, which, of course, was pure-bred but could not be registered. This cow gave as high as 66 pounds a day when at her best and was one of the most valuable animals in the herd. Weighing the milk demonstrated to her owner the real value of the cow. The scales proved what had been surmised, that she was a good cow. Scales will likewise show the owner which are the unprofitable cows in his stable. They should be used in every dairy herd, regardless of breed or class, to take the guesswork out of the milk business. No man can afford to do so much guessing about his cows and their production that it keeps him "guessing" to make a living. Facts are the only sure foundation to work upon and the milk scales are the best means to get at the facts. If the scales and the tester could be used on all the cows producing milk for dairy purposes in Canada there would be many surprises. Some cows, thought very ordinary, would become famous and many others would become canned beef.

What Some Inspectors Say of Consolidation.

The last three issues of "The Farmer's Advocate" have contained articles dealing with the need of some change in our educational system in Ontario, and the advantages of consolidation in rural districts. It might please some of our readers who are taking an interest in the subject to know what some of the inspectors of rural schools in Manitoba think of consolidation as a means of improving the chances of the rural boy and girl to get a public and high school education on a level with the city boy and girl, or even better. Consolidation started in Manitoba in 1906 and has made rapid strides. So it would in Ontario if placed on the proper basis and pushed. How many people leave the farms so as to be able to keep their children at home while giving them the advantages of an education! How many more send their children away to school at considerable expense! It is necessary, for commercial and industrial progress have developed so fast that children are greatly handicapped unless they have the advantages of advanced and thorough education. If money now spent by fathers and mothers in rural Ontario to pay board and tuition fees for their children at town and city schools could be turned toward consolidation of schools nearer home, it would go a long way toward meeting the extra expense of transportation to and consolidation of the country schools, and the boys and girls would get the right kind of public and high school education while living at home on the farm. Read what these inspectors say in their annual reports to the Minister of Education in Manitoba:

"These schools (nine consolidated) continue to do excellent work, and the foresight of the Department in encouraging consolidation has been amply vindicated. The superior efficiency of the graded school over the ungraded is everywhere acknowledged. Gratifying progress has been made and will continue, as the ratepayers become convinced of the advantages of this method."

J. BOYD MORRISON,
Inspector Division No. 3.

"I had the pleasure of meeting both boards of trustees (two consolidated school boards) in the latter part of May this year, and found that there did not appear to be a single complaint to make. The attendance from the country has been remarkable, and the rural ratepayers are perfectly satisfied with the change."

A. J. HATCHER,
Inspector Division No. 4.

"These schools give better educational facilities, and, although, in one or two cases, the cost may be slightly higher than of the one-roomed rural schools displaced, yet much greater value is received for the money expended. In these schools there is the possibility of arranging the pupils in classes large enough so that the children in recitation meet with other children to 'measure against' in the friendly rivalry

and inspiration that come from a properly conducted class work."

GEORGE HUNTER,
Inspector Division No. 5.

"I am of the opinion that the consolidated school plan is growing in favor. In almost every case where an opponent of this plan has been persuaded to attend consolidation day session at the Trustees' Convention, he has returned home a strong supporter of the idea."

D. J. WRIGHT,
Inspector Division No. 7.

"The principle of consolidation is gaining wider favor each year."

A. A. HERRIOT,
Inspector Division No. 9.

"The policy of consolidation is steadily growing in favor."

J. E. S. DUNLOP,
Inspector Division No. 10.

We may say that in 1915 there were 58 consolidated schools in operation in Manitoba, and in his report R. Fletcher, Deputy Minister of Education in that Province, says: "Wherever the plan has been put into intelligent operation the results have been good."

Register Promptly.

In travelling over the country, it is a surprise to find such a large number of animals, pure-bred as far as blood lines are concerned, but without pedigree. In most cases this is due to carelessness on the part of breeder or owner in not having the eligible stock recorded early in life, when sire and dam are known and no difficulty is met in getting the papers put through. In some cases it occurs that purchasers have trouble in getting pedigrees of stock bought which has been represented to them as pure-bred and which is, in most cases, as represented, but the owner has not had them recorded, and, through carelessness, neglects after the sale has been made to get the papers. We would advise all breeders of pure-bred stock to be prompt in registering their animals whether kept in the herd or sold. Thousands of dollars have been lost through this carelessness, because neglecting to register an animal throws all the future progeny out of the books. Register promptly.

Studies in Political Economy—X.

Last week it was shown how, and to what extent, our system of taxation through custom's duties discriminated against Canadian agriculture. I propose now to trace out the consequences of substituting a direct tax on "land values" for the indirect tariff tax from two points of view. First, how would such a change affect agriculture; and secondly, what revenue would it provide? Both questions will be answered by the same investigation, which we shall apply for simplicity's sake, to the Province of Ontario.

The Census of 1911 estimates the value of Ontario farm lands as \$612,000,000, and that of Ontario farm buildings as \$314,000,000. Municipal Bulletin No. 9, gives the 1914 assessment in Ontario townships as \$687,000,000, compared with an assessment of \$669,000,000 in 1913. The latter figures indicate a slight increase in the value of farm property, probably due in part to the general rise in prices. Therefore, we may assume that a value of 612 plus 314, or \$926,000,000, in 1911 has averaged about 1,000 millions (one billion dollars) during the last few years.

The essential accuracy of this estimate is confirmed by the following conditions. In 1912 the Dominion Grange sent out a circular letter of inquiry to Ontario rural municipalities asking them how near the assessed values came to the actual values. Replies were received from 128 townships, showing an average assessment of 73 per cent. of actual values. With a rural assessment of \$687,000,000 in 1914, the actual value of the property assessed was therefore approximately one billion dollars, as already otherwise determined.

The proportion between "land" and "buildings" will not be appreciably different now from what it was in 1911, viz., two-thirds land and one-third buildings. We may therefore conclude that the present value of Ontario farm lands is about \$660,000,000. But this is not the "land value" of Ontario farm lands. Improved farm land is cleared, fenced and drained, and such improvements are identical in their nature with buildings and should logically be so assessed. While no figures are available, I doubt if the value of unimproved land is more than half that of improved. Let us be on the safe side however, and assume that the "land value" of Ontario farm lands is \$400,000,000.

The assessment for municipal purposes in Ontario towns, villages and cities in 1914 was \$1,202,000,000, somewhat less than half of which is that for "land". The total assessment is also much less than the selling value. In 1912 an investigation into the sales of 458 pieces of property in Toronto revealed the fact that the selling value was on the average about 60 per cent. above the assessed value. Assuming that this proportion holds good throughout Ontario urban munici-

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cipalities, the value of taxable urban property was \$1,923,000,000 in 1914,—let us say a round two billion dollars, nearly or quite half of which is due to "land values."

Now it is different with urban lands from what it is with farm lands, in respect to clearing, fencing and draining. City lands are valuable for building sites and for practically no other purposes. Therefore the same deduction does not have to be made in the case of urban lands as must be made in the case of farm lands. We may, therefore, put the "land values" of Ontario urban municipalities as a round billion dollars (1,000 millions).

But we must add to these values, already partly taxed for municipal purposes, the value of various public franchises (steam and electric railways, light, gas, power, telephone and telegraph companies); the value of mineral rights and lands, which are enormous in Ontario, and, further, the value of timber limits, water privileges, quarries, etc.

No reliable estimates of such "land values" are available. I shall, however, make the following provisional estimates:

The capitalization of Canadian steam railways in 1914 was approximately \$1,500,000,000, about one-third the capitalization of agriculture in 1911. Dividing this railway capitalization on the basis of mileage, Ontario claims \$570,000,000 of it. What proportion of this is the value of the franchise? We have allowed that the "land value" of Ontario farm lands is over one-quarter of the total value of assessed farm property. Railway franchises are surely as valuable as agricultural to say nothing of the various subsidies and grants which Canadian railways have had. We shall therefore allow \$150,000,000 "land value" to Ontario steam railways.

The capitalization of electric railways is about one-tenth that of Canadian steam railways. On this basis we must allow \$15,000,000 "land value" to Ontario electric railways.

I have not been able to secure information concerning light, gas, power, telegraph and telephone companies, but feel safe in placing the value of all such public franchises (including railways) in Ontario at \$250,000,000.

The value of mineral rights and lands is very difficult to estimate. The Provincial Treasurer, in his last Budget Speech, included in his statement of assets some \$75,000,000 for mining lands, etc. What proportion of the discovered mineral resources are now in private hands I have been unable to ascertain, but there is evidently a very large percentage. Judging from the estimates recently made in the press that 90 per cent. of the public resources of British Columbia have been alienated, and from common knowledge of the value and present ownership of part of Ontario's rich mineral deposits, it would be conservative to place the value of Ontario mineral lands at \$200,000,000.

The Provincial Treasurer estimates the timber resources of the Province at about \$350,000,000. I presume that a large proportion of this is still in the possession of the Crown, and therefore not now taxable. We should be safe, however, in assuming a taxable timber value of at least \$100,000,000. Add to this a further \$50,000,000 for quarries, water privileges, etc., and the situation stands thus:

Ontario "Land Values."

Farm Lands.....	\$ 400,000,000
City and town lands.....	1,000,000,000
Public Franchises.....	250,000,000
Mineral rights and lands.....	200,000,000
Timber limits, water privileges.....	150,000,000
Total "Land Value".....	\$2,000,000,000

Now it was shown in Study IX. that the total tariff tax amounts to about \$350 per annum per rural family, one-quarter of which (about \$90) goes into the Federal Treasury. In 1911 there were, in Ontario, 226,000 farm occupiers. There cannot be appreciably more at the present. Assuming the same number the farmers of Ontario are contributing \$20,000,000 to the Federal treasury through custom's duties, and about \$60,000,000 to the tariff beneficiaries. Out of a total customs revenue of \$92,000,000 the whole of Ontario is certainly contributing less than \$40,000,000. However, let us assume that this is Ontario's share, and let us find out how much of it the Ontario farmers would pay if a direct tax on "land values" were substituted for the indirect tariff tax. The proportion of total "land values" which is allotted to farm lands is one fifth (see Table). Therefore under this system Ontario farmers would pay one-fifth of \$40,000,000, or \$8,000,000. The situation therefore stands thus:

- (1). Under the direct tax on "land values" Ontario farmers pay \$8,000,000, all of which goes into the Federal treasury, whereas
- (2). Under the indirect tariff tax Ontario farmers pay \$80,000,000, \$60,000,000 of which goes into the pockets of tariff beneficiaries.

The first question is therefore answered, now for the second question: Will a direct tax on "Land Values" supply sufficient revenue? So far as the farmers are concerned Canada could raise \$900,000,000 a year, instead of \$90,000,000, by the direct tax without hitting them any harder than they are hit now by the indirect tax.

Let us, however, take the country as a whole. Ontario "land values," already estimated, figure out to approximately \$800 per capita. Assuming this figure throughout the Dominion we have total "land values"

of \$6,000,000,000, (six billion dollars), which, at 4 per cent. (one per cent. for municipal and 3 per cent. for provincial and federal) will yield a revenue of \$240,000,000. This answers the second question.
Brant Co., Ont. W. C. GOOD

Nature's Diary.

A. R. KLUGH, M. A.

The Trillium season is now at its height, and the woods of Eastern Canada are now decked with these beautiful blossoms which convert the forest floor into a star-spangled carpet.

The trilliums have three leaves, three sepals and three petals, hence the name which is derived from "triplum," meaning three. All the species are perennial, the underground portion being a fleshy corm.



Wood Thrush.

The Large White Trillium (Trillium grandiflorum) is a stately plant which ranges from Western Quebec to Georgian Bay. The petals which are snowy white when young and at maturity turn pink in old age, and when in this condition lead many people to regard such plants as belonging to a different species. A good deal of variation is exhibited by this species, as some plants have petals with a green stripe down the centre, and I have found some plants in which the petals were entirely green. Still more remarkable was a plant of this species which I found, in which not only were the petals green but the stamens were represented by little green leaves, and inside the ovary, instead of ovules, were tiny leaves folded up tightly.



Large White Trillium.
(T. grandiflorum.)

A very pretty species which is common in the Maritime Provinces and Eastern Quebec, and is recorded from some localities in Ontario, is the Painted Trillium (Trillium undulatum). In this species the petals are smaller than in T. grandiflorum, pointed and wavy and white with crimson stripes towards the base.

The Nodding Trillium (Trillium cernuum) is found from Newfoundland to Western Ontario. In this species the flower-stalk is recurved so as to bring the small, white flower under the leaves.

In the Purple Trillium (Trillium erectum) the petals are nearly always of a dark-brown-purple color, though occasionally they are white, in which case the species may be known by its broadly rhombic leaves and reddish fruit. The flowers of the other Trilliums have no scent, but those of this species have a decidedly disagreeable odor, and while the other species

are pollinated by bees and butterflies, this species is visited by beetles and flies, attracted undoubtedly by the rather rank smell.

The range of the Purple Trillium is from Nova Scotia to the Western shores of Lake Superior. This species comes into bloom a little earlier than the Large, White Trillium.

One of the most beautiful songsters among our birds is the Wood Thrush. Its song is not sent forth with the strength of the bold and vigorous lay of the Robin, or the loud and intermittent carol of the Brown Thrush. Its tones are tender, solemn and serene. They seem to harmonize with the sounds of the forest, the whispering breeze, the purling water, or the falling of rain drops in the summer woods. As with most birds there is a good deal of difference in the excellence of individual performers. At evening, the bird usually mounts to the higher branches of the taller trees, often upon the edge of the woods, where nothing intervenes to confine his music. There, sitting erect, he emits his wonderful notes in the most leisurely fashion, and apparently with little effort. "Ah-ah-olee" he sings and rests, "Ah-ah-olee" and another pause, and thus he unhurriedly utters the beautiful phrases of his intermittent song, the notes being powerful, rich, and metallic, with the vibratory tones of a bell. The song rises and falls, swells and dies away, until the darkness of night having fallen, the musician ceases. The call-note of this species is a sharp "Quit-quit," and sometimes a softer cluck.

The Wood Thrush arrives in Ontario about the middle of May, and, like some of the other Thrushes, it does not make its presence known by its song for some few days. Then for a few days it sings a sort of a "ghost song"—a very faint rendition of its full song, and finally it bursts into full song.

The nest of this species is usually placed in a small tree from six to ten feet from the ground. In the fork of an upright limb or where the main stem of a sapling divides is the site often chosen. Dead leaves, and twigs form the bottom and sides of the nest, which is then plastered with mud and finally lined with fine rootlets. The eggs are usually four in number and are greenish-blue in color, just a shade lighter than those of the Robin.

The main food of the Wood Thrush consists of insects, and when feeding, this species hops about on the ground. It also eats many kinds of wild berries.

The Wood Thrush leaves Ontario in September, and winters in Mexico and Central America.

THE HORSE.

Lameness in Horses—XXI.

Quittor.

A condition known as "Quittor" consists in a fistulous wound on the coronet, usually upon the quarters or heels. A tube or pipe extends from this opening downwards to a greater or less distance, often extending to the sole, in other cases a variable distance down the wall to the seat of irritation. It is generally caused by treads, punctures, pricks, in shoeing, suppurating corns, or other injuries that cause a supuration within the foot or in the structures of the coronet. Pus is formed at the seat of irritation. If an opening be not made through the horny boundary to allow its escape, it will increase in quantity and burrow upwards between the sensitive and insensitive substances until it reaches the coronet, through which it will break. If existing for any considerable time a false tissue of a fibrous nature surrounding the passage forms, practically forming a tube or pipe extending from the seat of irritation to the external opening. One or more of these sinuses form. In most cases the sinus is practically straight, but in others it is more or less curved.

Symptoms.—The symptoms are readily recognized. There will be more or less lameness. In some cases the lameness is very marked, the horse being unwilling to put the foot to the ground, while in others it is slight. There is a swelling and hardening of a portion of the coronet, in which one or more small orifices are seen, discharging either a thin, limpid secretion, or a thick and sometimes somewhat curdled pus. From the external orifices sinuses are found, leading generally downwards beneath the coronary substance, lateral cartilage and into the foot.

A quittor differs from a wound, or a recent abscess in the coronet, by the condition of the parts which have taken on a peculiarly well-marked, unhealthy action, by the character of the surrounding swelling, which is hard to the touch, and by the presence of one or more sinuses.

Treatment will depend upon the cause. If it be a suppurating corn, puncture, prick, bruise or other cause that sets up an irritation followed by the formation of pus, between the sensitive and insensitive soles, a free opening must be made through the sole to allow escape of pus. The seat of tenderness in the sole can usually be readily located by tapping gently with a hammer, or pressing with a pincers. When the seat of trouble is tapped or pinched the animal will evince pain. After the pus has been liberated treatment should be the same as recommended in a former article for punctures. In addition to this, local treatment of the coronet should be given. If the condition is of recent occurrence all that is required is to keep the opening clean and dress two or three times daily with an antiseptic, as a 5 per cent. solution of carbolic acid or one of the coal-tar antiseptics, but if the condition has been in existence for some time, it is wise to inject the

sinus once or twice daily for a few days with a strong antiseptic, as 8 grains of corrosive sublimate to 8 ounces boiled or distilled water. The fluid will escape at the sole, having first passed the whole length of the sinus, and tending to destroy any fibrous growth that may have formed.

In cases where no communication exists between the exit and the sole of the foot, it is necessary to locate the seat of irritation, and either make an opening through the wall to allow escape of pus, or extend the passage down to the sole and make an inferior exit there. This is an operation that presents difficulties in most cases. In the first place it is necessary to determine the direction and depth of the sinus. This is done by carefully introducing a probe. When the operator has satisfied himself on this point, he must decide whether he will make the lower exit through the wall or the sole. When the seat of irritation is near the lower border of the wall the sole is usually selected. In many cases the long continuance of quittor is due to the imprisonment of a piece of decayed bone, dead cartilage, or other foreign body, and it will be necessary to remove this before a cure can be effected. In cases of this kind the condition will usually be disclosed during the probing operation, the end of the probe coming in contact with the offending body reveals the condition to the manipulator. This also locates the seat of trouble. In such cases it is necessary to pare through wall or sole and remove the foreign body. When it is decided to extend the sinus down to the sole, either a bistury or a red hot iron is introduced at the top and forced down, cutting or burning a passage to the sole, which is then pared down to make a free opening. Most practitioners object to the use of the iron except in cases where no other means will suffice. After the sinus has been continued to the inferior opening, it is good practice to inject into it a strong solution of corrosive sublimate, say 20 grains to an ounce of water. One, or at most, two injections will be sufficient to cause the whole surface of the sinus to cast off a thin slough and leave a normal granulating surface, requiring no further treatment beyond being kept clean by flushing out once or twice daily with an ordinary antiseptic solution.

To sum up, the principles of treatment are: To make a depending orifice by incision or cautery, remove all foreign bodies, destroy proud flesh or fibrous growths, keep clean and stimulate reparative processes. When fistulous openings are situated upon or near the anterior surface of the coronet, great care must be observed in treatment, as the articulation of the bone of the foot with the small pastern bone is superficially sealed and thinly covered by soft structures, hence care must be taken not to cut or cause a sloughing into the joint.

During treatment it is necessary to give complete rest, as exercise or work causes great suffering, and renders recovery very difficult. W.H.P.

Shying Horses.

Horses often have what is called the vice of shying—that is, of starting suddenly at the rustle of a leaf or a piece of paper, or at the approach of any object to which they are not accustomed.

Clearly that is the remnant of an instinct inherited from their wild progenitors in the steppes or prairies, where the sudden rustling of a leaf might indicate the presence of a wolf, and where everything that was strange was, therefore, suspicious.

It is idle as well as cruel to beat a horse for shying. That only increases his alarm, and may easily reduce him to the state of terror in which he loses his head entirely.

Horses in that state seem to lose not only their heads, but their perceptive senses, and a horse in that condition may dash headlong against a stone wall.

The habit of shying when once formed is difficult to cure, but it may almost always be prevented by such consistent kindness of treatment as to overpower the inherited instinct of instant flight from possible danger in which the habit originates.

A good way of curing a horse from shying is to lead it up quietly to the object it has just shied at, and let it see that it is nothing very material. Some horses will constantly shy at one place or spot in a road because they have got something in their heads that ought to be got out.

B.—in The Live Stock Journal.

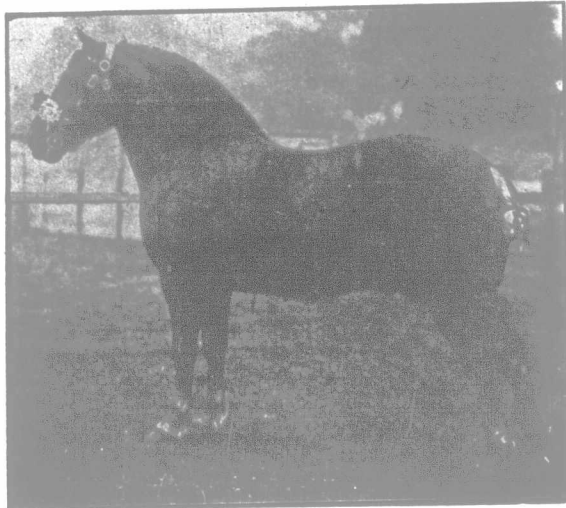
Attendant Not There—Colt Dead.

We visited a stable a short time ago and saw a mare which had a few days previously lost a foal. This mare was apparently all right at nine o'clock in the evening, but at five in the morning a dead foal was found in her box stall. To all appearances the foal was normal in every way, and had been foaled without difficulty. It is more than likely that the foetus was alive at presentation, and that if anyone had been on hand it might have been saved. The foal is delicate and must be carefully handled. What happened in this case serves to illustrate the importance of being on hand when the mare foals. A certain amount of the usefulness of the mare is lost while pregnant. She cannot work for from a week to two weeks after foaling. When the foal dies, all this time is a direct loss, and then there is the heavier loss of the life of the youngster, which, if bred right, would grow into a valuable animal. It would pay the attendant of the mare about to foal to make his bed in the stable for a few nights rather than lose a foal.

How a British Army Horse is Fed.

Readers may be interested to know just what an army horse on active service is fed. The following is a scale of ration equivalents recently announced in a British army order:

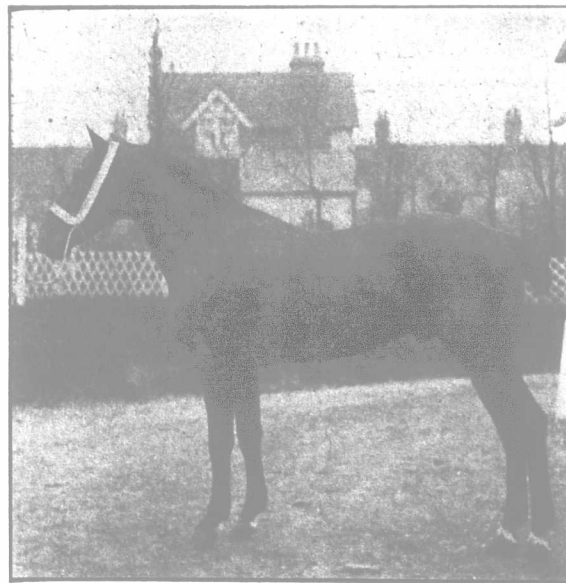
Maize, 1 lb.; oats, 1 lb.; barley, 1 lb.; bran, 1½ lb.; linseed, ½ lb.; oatmeal, ½ lb.; malt, ¾ lb.; chaff, 1¼ lb. Other equivalents such as linseed cake, peas, beans, rocksalt, carrots, etc., may be issued in lieu of oats, chaff, or bedding. The order says it is not intended that troop horses in stables should be deprived of bedding, though straw is no longer available for this purpose. Wherever possible, therefore, bedding, other than straw, should be obtained by the troops



A Champion Suffolk.

themselves, free of cost. Bean straw should not be issued if any other bedding can be obtained, as, if eaten by horses, it is liable to cause colic.

According to a recent census made under the direction of the Quarter Master General of the United States Army, of the 24,000,000 horses in that country, less than 250,000 are fit for military purposes. With a view to improvement in the supplies two bills have lately been introduced in Congress, one appropriating \$200,000 for the purchase, by the government, of pure-bred stallions which would be loaned to the owners of sound and suitable mares.



A Polo Pony Stallion.

LIVE STOCK.

Ranching Sheep on a Small Scale.

The possibilities of sheep raising in the southwestern part of Ontario are well exemplified by the practice in vogue on the 200-acre pasture farm of Henry Buchanan V.S., in Kent County. The land is slightly rolling, and well watered, making a very suitable grazing area for sheep. No buildings of any consequence, however, are available as stables on the farm, and the cattle pastured there in summer are boarded during the winter months by the farmers in the neighborhood. A flock of sheep, now numbering eighty ewes, are retained the year round on the farm and are provided only with an improvised shelter. They are fed hay only, but this is given them on a clean place in the pasture field and they eat it with considerable relish. The remainder of their sustenance they procure from their range over the field. The flock is allowed the run of the entire 200 acres and this insures ample exercise. The result is that no trouble is experienced at lambing time, for the ewes are strong and thrifty and give birth to vigorous, healthy offspring. The lambs start to come about May 10, when the weather is usually warm, and the flock has had considerable green grass. Under this system about

one lamb per ewe is reared which Dr. Buchanan considers a fair record for a large flock. With a small number of breeding ewes he states it would be possible to average 1½ lambs or more per ewe.

While the feed allowance might be improved by a few roots, or a little grain, the principle herein set forth is correct. Breeding ewes, or sheep of any kind, require exercise and outdoor conditions. It is well enough to have a nice, comfortable building for sheep, but they will not stand confinement and pampering. Without exercise and plenty of fresh air the lambs are not strong, and the dam frequently experiences difficulty in yearning. Although Dr. Buchanan's methods of managing the flock may at first sight appear radical, the outcome is proof enough that the principle is right. Furthermore it reveals the possibility of sheep raising on a more extensive scale in Southwestern Ontario. If shepherds there would adopt the practice of allowing plenty of range, over which the sheep might roam and graze in winter, and feeding the breeding ewes a little grain and roots, there would be some handsome profits derived from sheep raising.

English Live-stock Happenings.

EDITOR "THE FARMER'S ADVOCATE":

There is very little for the faithful recorder of things "live stock" to report upon at the moment. We are waiting for the coming of the summer shows, a few of the good ones of which will be held, but the majority of which have been cancelled. Stallion owners are feeling the want of assistance, for the boys have gone and flocked to the colors. The Shire stallion shows that have been held, have had as winners some of our best horses, to wit in one case, Gaer Conqueror, twice London champion, which now won at the Bedfordshire Show. In the "eighties" and the "nineties" it would have been impossible to have found so valuable a stallion being sent to an ordinary country show, which is very little better than a parade. This speaks volumes for the good work done in improving the quality of the local mares which these stallions are practically asked to come and serve. Local Shire Horse Societies are giving large sums for horses to travel their districts, and in some cases the retaining fees have been \$2,500. A few of the better-known horses have been let at higher figures, notably Babingley Nulli Secundus, now owned by R. L. Mond, and which the Melton Mowbray Society have taken for 1917 at \$5,500; a record letting fee for England. They paid \$5,000 for him this year—1916, and he will earn every dollar of it.

The Suffolk Horse Society has decided upon an advertising campaign, and it will be done on your side of the water. It's never too late to mend.

There are great expectations in England that the pig industry will boom after the war. The figures and trade returns in U. S. A. are being watched closely, and if any sign is showing that there is a shortage there, English breeders will keep more of their young sows and sell fewer numbers for porkers.

Pedigree pig breeding is in a very flourishing state in the Old Country. At a sale of large, white Yorkshires, on Thursday, April 13, held by John Thornton & Co., on behalf of J. I. Major, at Dawson's Farm, Ramsey, Hants, 81 head sold averaged £15 6s. 7d. apiece, or £1,241 12s. 6d., all told. One gilt, 15 months old, full of Worsley Turk blood, made \$200, to the bid of R. E. W. Stephenson, a Liverpool expert. The sow, Ramsey Primrose 16th, a four-year-old, fetched \$195, and others reached \$125 and \$100 apiece quite readily. The Major herd of Large Whites always combines the good characteristic head with length of body, shoulders well laid on, and large hind quarters, with limbs and feet well developed by exercise.

Some folk, who ought to know better, are trying to put obstacles in the way of holding this year's Royal Agricultural Society's Show, at Manchester. They are declaring that the railways are too congested to deal with the extra traffic that the greatest exhibition in the world causes.

It is estimated that \$5,000,000 are invested by Britishers in their Hereford herds. At a sale on April 12, \$1,025 was made by L. M. Garbutt's Leen General, sold to P. & G. Hughes, who buy for South America. This bull possessed much quality, but could only get second in the class he was judged in. The boost that came from U. S. A. as to the alleged superiority of their stock to that to be found in England, has been met with a little bit of an advertising campaign on this side. The pity of it all is there is nobody in England who can write intellectually about any breed; I mean nobody officially connected with any of the breed societies. They are all paid officials and work as such, sans enthusiasm or fire.

Holsteins are selling better in England—I mean Holsteins of just useful quality, judged on appearance. At the break up of the late Sir Peter Walker's herd \$325 was highest price paid for a cow, and at W. Mason's sale, at Chester, \$305 was paid for Golf Fairy.

There is a row going on between eleven South American exporters who have refused to buy cattle unless they will pass the tuberculin test, and the British breeders, the majority of whom have decided to only sell their cattle on no test guarantee at all! There is a growing impression in England that the tuberculin test is unreliable, and that its uses have been subject to many abuses. ALBION.

£400,000,000 pounds of binder twine are used in the world yearly.

It is gen and reared dairy of all conditions t Some autho number rear ance, by-pro ers raise tw this small n way in giv them thro and butter rations for thousands o know not t of it. In t as a distinct steads. Still but are not bers warran with those fi oversight is and profitab and care req sows and re calves. The hog business result, the pi The sight of Henry Buch prompted a those farmer for a comp kind of farr hogs are dep farm. They selves, not c of any kind.

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Making Pork on Grain, Roots and Pasture.

It is generally considered that hogs should be bred and reared on farms where there is considerable dairy offal to be disposed of, and that under such conditions the production of pork is most profitable. Some authorities advocate hog raising only when the number reared consume, as a part of their feed allowance, by-products of the home or dairy. Often farmers raise two litters each year from one dam, and with this small number the offal from the dairy goes a long way in giving the pigs a start and in nourishing them throughout the growing period. Skim-milk and buttermilk are almost always mentioned when rations for pigs are being discussed, yet there are thousands of hogs produced in Western Ontario that know not the taste of cow's milk or any product of it. In that district hogs are grown and handled as a distinct line, not as a sideline, on many home-steads. Still there are farms where hogs roam in herds, but are not given the attention and study the numbers warrant. In such cases the earnings compared with those from a well-regulated farm where particular oversight is given to swine, would be interesting and profitable to many. There is as much intelligence and care required to profitably handle a herd of brood sows and their offspring as a herd of cows and their calves. There is not so much capital tied up in the hog business as in the case with cattle, and, as a result, the pigs are frequently neglected or mismanaged. The sight of a splendid herd of swine on the farm of Henry Buchanan & Sons, in Kent County, Ontario, prompted a representative of this paper to secure from those farmers their methods of breeding and caring for a comparatively large number of pigs. This kind of farming is distinctive in character, for the hogs are dependent only on the feed produced on the farm. They are a branch of live stock unto themselves, not depending upon the dairy or by-products of any kind.

Care of the Breeding Stock.

Eight is the number of brood sows usually maintained to produce the feeders, and it is evident that the care accorded the breeding stock is responsible in part for good, averaged-sized litters of healthy pigs. In winter the sows have the run of the barnyard, and the privilege of choosing any side of a large straw stack. The cattle are fed considerable corn, and the breeding swine subsist mainly on what they can glean from the droppings. Sometimes this is not sufficient. Roots and meal are then supplied in sufficient quantities to keep them in a good, healthy, thrifty condition, but not fat. However, circumstances have arisen when the brood sows were getting more from following the cattle than was required and young stock was turned in. The amount of feed is judged not by pounds or quarts but by the appearance and condition of the stock.

The treatment of the sows in summer is also conducive to strength and thrift. A large pasture field is available, and on to this the swine, young and old, are turned. The pigs and feeders have access to pens where they are fed, but the sows subsist almost altogether on grass throughout the summer. At least one week before farrowing the dam is brought to her pen at the buildings, and allowed to become accustomed to the surroundings. Roots then take the place of grass in the daily allowance, for it is realized that some succulent feed is necessary to supply those properties conveyed to the animal system through green vegetation. Charcoal, ashes, sulphur, etc., are also placed within reach of all confined stock, but Messrs. Buchanan state that the effect of the substances gathered from the soil itself can hardly be duplicated by feeding such materials as have been mentioned. Exercise and "roughing it" are considered essential, but at no time is the breeding stock allowed to get too thin on account of lack of feed.

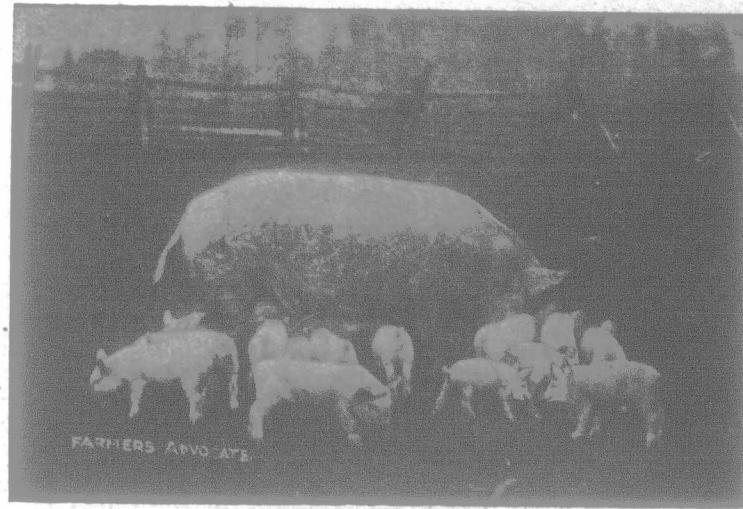
The sows are selected both for conformation and producing ability. This process of selection goes on year after year, and at present the average per sow per litter is about eight pigs. This is obtained generally twice a year, and from 125 to 130 hogs are disposed of every twelve months.

Care of Young Pigs.

The young pigs are allowed to remain on the dam for about two months, and during this time they are permitted to run into an adjoining pen from which the sow is excluded. Here they are given, not milk and specially prepared mixtures, but simply dry chop and roots. It is while still running with the mother that they become accustomed to their meal. This consists of $\frac{1}{2}$ oats with the remainder made up of about equal parts of barley and corn. If the sow farrows on a cement floor they are put, as soon as convenient, into a pen with an earth or wooden floor, for considerable difficulty has been experienced in raising young pigs on cement. After two months the trouble ceases and the litter is returned to the piggery, or let out to pasture.

During the growing period, the stock is fed meal and roots only twice a day. This method of feeding was suggested some years ago when a bunch of pigs were allowed to hog down some corn. Early in the morning and again in the afternoon they betook themselves to the corn field, but after each visit they spent their time rooting in the ground, or resting in a comfortable place. It appeared that sufficient was acquired on these two occasions, and the system has been adhered to in the pens. Water of course is supplied at noon, but the meal only morning and evening.

The number of hogs turned off at six months of age is not large. Usually they are fed to weigh between 220 and 240 pounds, and this means an eight or nine-months-old animal. Often the best two or three in each bunch will be ready before the others, but the majority of the lot are eight or nine months



A Healthy Family.

sows subsist chiefly on grass. After haying and harvest the stock have the run of some fields. Without pasture Messrs. Buchanan fear they would not have very good success with pigs.

In the fall a field of corn is usually hogged down, and this is a time-and-labor saver.

Not much difficulty is experienced with regard to fencing. When the young fellows are well yarded at the start, and do not become accustomed to looking for holes through which they may escape they go to pasture and give little trouble. However, if a litter of pigs gets the habit of finding holes and learning that escape is possible, they will find any weak place in the fence, and probably give trouble in adjacent crops. It depends largely on how they are reared from the first, for their early training governs their actions during their period in the pasture.

Finishing Hogs.

Chop and roots are the main feeds. Two proportions for combining the different grains are considered good. One ration consisting of $\frac{1}{2}$ oats and $\frac{1}{2}$ corn gives good results, while another mixture of $\frac{1}{2}$ corn and $\frac{1}{2}$ oats and barley is equally good or better. From beginning to end an effort is made to keep the pigs thriving and in good condition. They are not forced at any time, but runts or stunted pigs are guarded against so far as possible. Often one or two in a bunch of pigs will not do so well as the others, but when the larger pigs are sold off the smaller ones make satisfactory gains and profitable pork.

Making Pork Largely in Summer.

From seven hundred to a thousand dollars worth of hogs are turned off annually by Bodkin Bros., also of Kent County. Finishing is done mainly in the summer, for under their conditions with grass and the warm weather it is believed that one-half more growth can be obtained in summer than in winter on the same amount of feed. The young pigs are fed well on the sow for about seven weeks and then weaned. Bodkin Bros. purchase shorts for the young swine, and have considerable skim-milk and buttermilk from the number of cows they milk to supply the home. In the spring the litters arrive during the latter part of March and the first two weeks in April, and those are finished off during the autumn. The fall litters are not forced, but kept growing throughout the winter. About the first of May all the pigs are rung and turned to grass. The practice is made of sowing small fields of clover and rape for the hogs, and alternating between the different fields so they are not grazed too closely. Red clover is found best, and alfalfa it is believed would be good if it would stay in the land. The rape is sometimes sown broadcast. During the last cultivation of the corn field rape is sown. The success of this seeding depends much upon the season. Sometimes it does not produce much pasture, while in other cases it grows well and produces a stand ten or twelve inches high. This has been found to be a good fall run for the cattle, sheep and hogs. The winter-farrowed pigs are ready to go in June, July and August, and the spring litter later in the season.

The winter feeding of the young pigs consists of a good supply of roots. Furthermore, they receive shorts, chop, milk and buttermilk. The feeding of meal continues on grass, but they are shut up about three weeks to a month with extra feed before being turned off at 220 to 240 pounds in weight. The finishing ration is made up of oats and barley and wheat or corn. Corn is considered a little better for finishing than wheat. Bodkin Bros. prefer to feed their wheat, rather than sell it for less than \$1.00 per bushel. Chop made up of one-third corn or wheat and two-thirds oats and barley, which are grown together, gives excellent results.

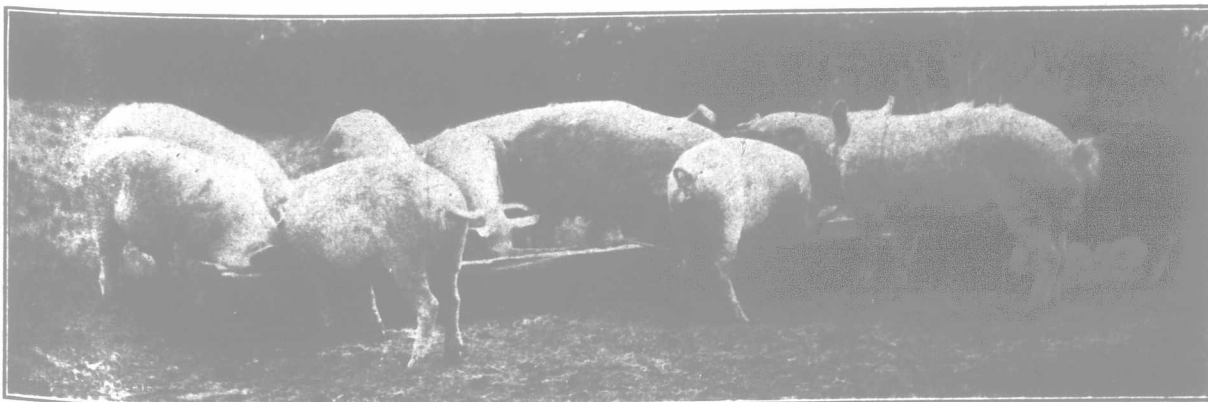


An Even Bunch of Sows on Grass.

old before they are ready to go. The objection these hog raisers have to selling at around 200 pounds in weight is that to make the same number of tons of pork, more pigs must be reared. This would necessitate the keeping of more brood sows, and as the number of breeding stock increases, the average number of each litter would decrease. The cheaper gains made by young pigs, it is thought, would be more than counterbalanced by the expense of the extra sows it would be necessary to maintain. Furthermore, there is the matter of pens and room which the larger number of small pigs would require. The price is also a factor, for often in waiting for a more satisfactory bid, the finished hogs increase in weight until they sometimes become quite heavy. These were the reasons advanced for carrying the hogs until finished between 220 and 240 pounds or even more.

Pasturing the Swine.

Some of the cows, sheep and all the swine have the run of a pasture field on the home place. As previously stated the growing pigs are fed meal, but the



Fresh Air Whets the Appetite.

The custom on this farm is to bring the pigs through the winter as cheaply as possible, yet in good heart and growing. Roots, it has been found, are a very important factor in maintaining health and thrift. The grass and summer weather are then taken advantage of in producing pork at the least expense.

THE FARM.

The Early Days of Silage.

EDITOR "THE FARMER'S ADVOCATE":

I noticed in the pages of "The Farmer's Advocate" that silage is referred to as "canned sunshine." It is within easy memory when the product of the silo was called "sourkrot" by those who were not in sympathy with the new way of preparing feed for dairy cattle. Whether the change in the general attitude of the people is because of a better understanding of the product, or because of a better product, is the reason that your articles on the growing of corn for silage purposes has been of more than passing interest to me. Your present claim that the mature stalk that did not produce an ear has practically an equal amount of nutriment with the stalk that produced an ear, weight for weight, is, I think, correct. I claimed, as far back as 1882, when I first filled a silo, that in producing an ear you depleted the stalk, in other words, in the case of the stalk that produced the ear, the nutriment was concentrated; in the other it was distributed. I remember discussing this question, and the answer was that nature made a special provision for the production of an ear. However,

there is a reliable test, and that is the animal to which the product is fed, and any one who has had any experience with feeding corn with and without ears will know that in one case the whole stalk is eaten; in the other the ear is eaten, and a large portion of the stalk refused.

I may say that I awaited with keen anticipation, and read with considerable interest the article in the Half Century Number on the development of dairying during the last fifty years. I anticipated that silage would be quite largely featured as one reason for the economic development, but very little was said. Probably the reason is that official agriculture, if not opposed to silage, was indifferent in the early days of silage in this province.

While it would be of no practical benefit, you will permit me to refer to the silage we made in 1882, and the manner of growing the corn. I had four acres. After the ground was prepared, furrows were made, as some people now make for potatoes, three feet apart. The corn was sown by hand, strewn along the bottom of the furrows, then covered by cross harrowing. The silo was filled about September 10th.

By weighing a cubic foot of silage we calculated the yield of corn per acre was fifteen tons. I might say that while at present I am not using silage I afterwards put up a high wooden silo, and then grew the Robinson combination of sunflowers, horsebeans and white flint, and I am free to say that the success obtained from the first year's silage was not subsequently improved upon, and I am glad to realize that under like conditions, the corn that produced the "sourkrot" of the early days produced the "canned sunshine" of to-day.

Oxford Co., Ont.

J. N. CHAMBERS.

Preparing for a Full Stand of Corn.

Corn is king of fodder plants. This fact is generally recognized in all sections where corn can be successfully grown. By seed selection and acclimatization, corn, a native of the South, is now grown for fodder purposes farther north than was a few years ago dreamed possible

by the most optimistic corn enthusiast. No other crop yields so much feed per acre and few crops can be utilized in so many ways. When mature it supplies a concentrate that is valuable for fattening stock, and whether mature or not it furnishes roughage, that is prized highly by stockmen. The area for growing corn for husking is limited to a small acreage in Canada, but corn for silage purposes can be grown in most parts of the country if the proper varieties are selected and the ground carefully prepared. The acreage devoted to corn has greatly increased during the past few years, but even a greater number of acres could be profitably grown on most farms. The crop is taking an important place in the economy of feed production. It may be cured in the field and fed dry, or stored in a silo to furnish a succulent feed during the winter. By its heavy yield of nutritious fodder it has demonstrated that it is worthy of consideration on every farm when the season's crops are being planned for. The yield of fodder or shelled corn varies with the quality of seed, soil preparation, and the season.

A Good Ear of Flint Corn.

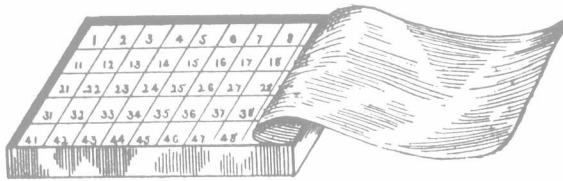
Too often poor seed and careless planting are responsible for low yields. It costs very little more to grow a good crop than it does a poor one, and an endeavor should be made to overcome the obstacles that stand in the way of a good crop of corn.

Preparing the Soil.

The corn crop is rather particular about the bed that is prepared for it. Of whatever kind of soil it is made, there should be sufficient cultivation given to have it in fine tilth and warmed up before the seed is sown. Corn revels in a soil supplying a large amount of nitrogen, and where there is decaying vegetable matter. On river flats or muck land, where cereal crops would produce an excessive amount of straw, probably lodging and giving a poor yield of grain, corn flourishes. It appears to be able to make use of fertility furnished through the decaying of organic matter, as manure or sod. This may be one reason why corn thrives on spring-plowed sod. Grass roots and manure gradually decay during the summer and furnish the plant food

desired by the growing crop, besides keeping the soil somewhat open, which permits the rootlets to penetrate easily.

The field for corn this summer has been, or should have been, decided upon long ere this. As to which gives the better results, spring or fall plowing of sod, must be decided by the individual on his own farm. Some prefer one method, some the other. Soil conditions vary and treatment that gives best results on one farm may have detrimental effects on the adjoining farm. Clover is a good crop to precede corn, but old sod is quite suitable provided it is not infested with white grubs or wire worms. Corn is frequently grown on stubble land and responds very well. Where the field was plowed last fall, it is a good plan to give it a stroke with the harrow as soon as the soil is firm enough to carry the horses this spring. This treatment forms a mulch and prevents loss of moisture. After the excessive amount of rain this spring some may think that this is foolish advice, as the ground is full of water. However, the moisture may all be required before the crop is matured. From twelve to fifteen tons of manure is a fairly good application for clover sod. This may be applied during the winter whether the sod is plowed or not. On fall-plowed land some prefer cultivating the manure in, while others plow it under. Either method proves satisfactory, provided the manure becomes well incorporated with the soil so that it will not bother seeding or summer cultivation. On stubble land the broad-shared cultivator and drag harrow prove effective in making a seed bed and destroying weeds. On sod the use of the disk and drag harrow is preferable as there



A Handy Corn Tester.

is less danger of tearing up the sods. If the soil is lumpy the roller should be used, as a fine seed bed is essential. Sod that is manured during the winter and left until spring to be broken up may be plowed early in the season, before other work is rushing, many prefer leaving the grass grow up through the manure and delay plowing until about the middle of May. This gives more organic matter to decay and increases the supply of plant food. Whenever the spring plowing is done the final preparation of the seed bed will be made easier if each day's plowing is harrowed or disked the same day it is plowed. This is especially true in case of heavy clay where one day's hot sun will bake the soil if it is at all wet, so that extra work is entailed in pulverizing it. Cultivation soon after plowing prevents the soil baking in large lumps. It is not advisable to plow too deeply in the spring as manure or decaying vegetable matter should be where the tiny roots can easily reach it. Plowing four inches deep has proved very satisfactory on many farms. At this depth the disk cuts the sod up pretty well and aids

in causing the capillary tubes of the soil to connect up so there will be a supply of water drawn from the sub-soil to the plowed surface. Instances have been known where a heavy application of strawy manure plowed under in the spring and the soil not thoroughly worked, caused the soil to dry out to the depth of the plowing, thus hindering germination of the seed. Evidently the coarse manure prevented moisture rising from the great soil reservoir. It is claimed that when sod is plowed in the spring the heat generated by the decaying of organic matter materially aids in warming the soil and makes growth of the corn more rapid.

Testing the Seed.

While the seed bed is being prepared some attention should be paid to the seed supply. No doubt but that the variety, or varieties, best adapted to the particular locality or conditions have been selected, and if the corn is purchased on the ear so much the better. Taking one year with another, corn shelled from the ear just before planting and the poor tips, butts or whole ears discarded results in an even and more uniform crop than is secured from bulk corn. There is inheritance in corn and the grower should know the kind of ear and better still the kind of stalk that produces his supply of seed. Seed selection has been the means of doubling the yield of shelled corn in some cases, and at the same time increases the quality of fodder. The vitality of the kernels should also be ascertained before planting. It is a satisfaction to know what percentage of seed will germinate, so that the rate of seeding may be regulated to ensure a full stand. No matter how well matured the corn was when cut, or how thoroughly it was selected and dried last fall, the germination may have become injured during the winter. There may be surprises in store for many who test their seed this spring, or disappointments for those who do not. Testing is not difficult when the corn is on the cob. Take a box about two inches deep and two or three feet square and fill it nearly full of moist sand or sawdust. Divide it off into one-inch or inch-and-a-half squares by driving nails along the edge of the box and stretching strings across. From each ear take six kernels, two from near the butt, tip and center, (three from each side,) and put them in one square in the tester. Arrange or number the ears and squares to correspond, so that the ear that shows poor germination may be discarded. When the squares are filled, cover with a cloth, then put moist sand or sawdust on top and place in a room where the temperature is comfortable. In a few days growth will start and only ears that show 100 per cent. germination should be saved for seed. Testing seed in this way is not a laborious task. From 15 to 20 good ears is sufficient to plant an acre in hills three-and-a-half feet apart each way, and four kernels to a hill. If planted in drills about twice this amount is required. If the germination is not quite what it ought to be, the amount of seed should be increased accordingly, in order to secure the proper number of stalks per hill. Corn purchased in bulk should be tested as well as corn on the ear, in order to determine the quantity to sow per acre. If possible avoid purchasing bulk seed. Time may be at a premium this spring, but it would be a case of "penny wise and pound foolish" not to test the seed corn.

Planting the Corn.

Success or failure of a corn crop depends a good deal on the start it gets. With the soil in fine tilth and good seed on hand, the grower should be in no particular hurry about planting unless all danger of frost is past and the soil has become quite warm. Corn requires heat to produce quick germination and rapid growth. There is no set date for planting, it depends on weather and soil conditions. Some years the soil is sufficiently warmed by the middle of May, while other years better results are obtained by delaying planting until on in June. There is danger of the kernel rotting if placed in cold soil when germination is slow. Have the soil prepared early and any extra cultivation will do no harm.

The amount of seed per acre will depend on the method of seeding. Planting in hills forty-two inches apart each way and about four kernels to a hill, one bushel will plant six acres, although it is safer to put in a little more to make allowance for any plants destroyed by crows or white grubs. It is an easy matter to cut out a stalk or two should there be too many. By use of a check-row planter the seed is planted uniformly and rows may be kept straight. The hand planter is still in use on some farms, but it is more difficult to plant at a uniform depth than it is with the machine. Care must also be taken in marking the rows both lengthwise and crosswise of the field, in order to have them an even distance apart. The seed is planted where the rows cross. Having corn in hills permits of cultivating the field two ways which lessens the hoeing. More thorough cultivation can be given than when working only one way and it is claimed that the yield is improved. Undoubtedly it is for husking purposes, but even larger crops of fodder have been secured from drill planting. The mechanism of the check-row planter may be changed so that it will sow rather than plant. The ordinary grain drill also proves quite satisfactory for sowing corn. It may be arranged to have the rows thirty-six or forty-two inches apart. Thirty or more pounds of seed per acre are required when sowing in drills. This is considerably more seed than is required for hills, but there are many prominent feeders who prefer drill-sown corn for silage. Having a warm, mellow, moist seed bed with the soil finely pulverized to a depth of three or four inches, and the corn planted from one-and-a-half to two inches deep should give the

crop a good should be The harrow inches high with heavy there is as the put to work of the cro summer. Someti crows, espe

To mal in the field is such as every year income will if some cap home and have their receipts can money well the building invested in health, ple becoming n happens in from town electric light only with a vantages, w urban home to equip hi a modern automobile, and good, u sider that o he takes st some other pvements ditions, but little thing t a visit of a John Bucha may be of i accomplish gestions. S describe as good advice source. In suggested th

The mo the farm of system. Th 20 barrels of floor of the the system stance in O than in the to the stable and 5 feet in by local ma approach to working equ and a two-g attached. It pulley 2½ h per hour. the tank an obtained at new no effor water is lift

crop a good start. After planting, a light harrow should be used to keep a fine mulch and destroy weeds. The harrow may be used until the corn is three or four inches high, especially if the ground has become firmed with heavy rains. On loose soil care must be taken as there is danger of pulling out many plants. As soon as the rows can be followed the cultivator should be put to work, and kept going every week. Corn is one of the crops that responds to cultivation during the summer.

Sometimes considerable corn is destroyed by the crows, especially if it is a little slow in coming up. Coal-

tar applied to the seed before planting is claimed to prove effective in preventing loss from this source. Paper or bright tin strung across the field will also frighten the crows away. Poisoned grain may be used to destroy these robbers but there is danger of killing many innocent and beneficial birds. When conditions are favorable to rapid growth the corn soon passes the stage where it is subject to injury by crows. Every grower should know the vitality of the seed he sows, and then put the soil in a condition to lessen the danger of a poor stand of corn. Why grow half a crop when the soil is capable of supporting a perfect stand?

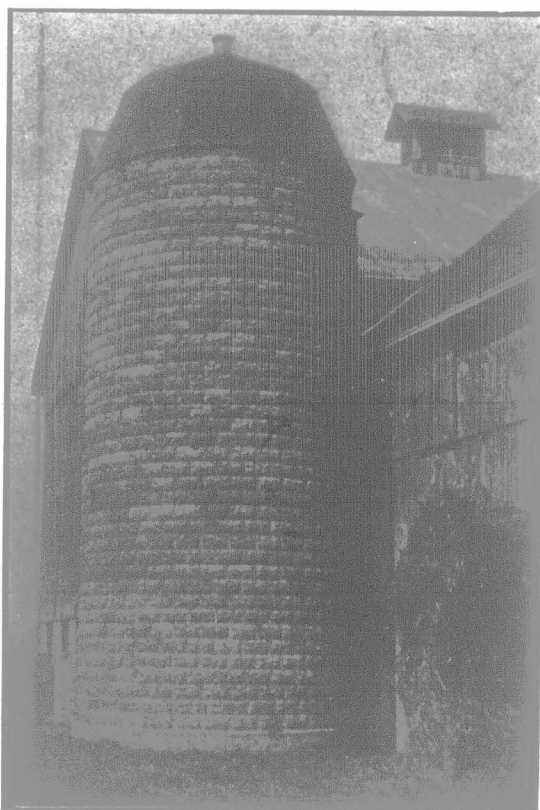
Conveniences and Equipment on a Kent County Farm.

To make farming congenial, both in the home and in the fields, one should look to it that the management is such as will conduce to a good revenue and profit every year. This is only the first step, for a large income will not insure a pleasant life in the country, if some capital is not expended on conveniences in the home and in the stables where the women and men have their duties to perform. If a portion of each year's receipts can be expended in "fixing up" it would be money well spent. The outlay on the farm and around the buildings will be returned in cold cash while that invested in the home will come back manifold in the health, pleasure and contentment of the family. It is becoming more and more common every year that one happens into country dwellings, often some distance from town or village, and finds them equipped with electric light, modern conveniences that can be installed only with an efficient water supply, and all the advantages, without the disadvantages, of a strictly modern urban home. The average agriculturist cannot expect to equip his dwelling and stables with electric light, a modern water supply and conveniences, with an automobile, silos, all kinds of labor-saving machinery and good, up-to-date buildings. A farmer may consider that one of these will make life more pleasant and he takes steps to procure it. Another man may desire some other form of equipment and he installs it. Improvements must be made gradually under farm conditions, but there is always the opportunity to add some little thing that will help. A few ideas were gleaned by a visit of a representative of this paper to the farm of John Buchanan, of Kent County, Ontario. These may be of interest to many, for we find that those who accomplish most in farm life are open to receive suggestions. Some they act upon, while others they describe as unsuitable for their conditions. All the good advice one receives seldom comes from the same source. In the following paragraphs something may be suggested that will be found applicable.

The Farm Water Supply.

The most outstanding convenience observed on the farm of Mr. Buchanan was the pressure water system. This supplies the stock at the stables with 20 barrels of water daily and forces water to the second floor of the dwelling. When taking steps to install the system Mr. Buchanan could not learn of any instance in Ontario where it is used on a larger scale than in the home. He desired to extend the service to the stables and nearby fields. A tank 12 feet long and 5 feet in diameter was made of $\frac{1}{4}$ inch rolled steel by local manufacturers. This was placed under the approach to the barn and made frost proof. The working equipment consists of a $2\frac{1}{2}$ horse-power engine and a two-gear bull-dozer pump with an air pump attached. It has a 3 by 5-inch cylinder, a tight and loose pulley $2\frac{1}{2}$ by 14 inches and a capacity of 900 gallons per hour. The pump and engine cost \$200 and the tank another \$200. All of these could have been obtained at much less expense but as it was something new no effort was spared to make it a success. The water is lifted 8 feet and brought through a $1\frac{1}{2}$ inch

pipe from a well 92 feet from the tank. From there it is forced to the house a distance of 350 feet, and to the top of the hot-water tank in the bath room, a lift of 25 feet. The pipes are attached to the furnace and the kitchen range, so hot water, as well as cold, is available at all times. A septic tank outside the house takes care of all the effluent from the bath room and kitchen and discharges it into a large soil drain running near the dwelling. In the stable are taps and hydrants that supply water to the stock where and when it is required. The mains are $1\frac{1}{4}$ -inch pipe and the laterals



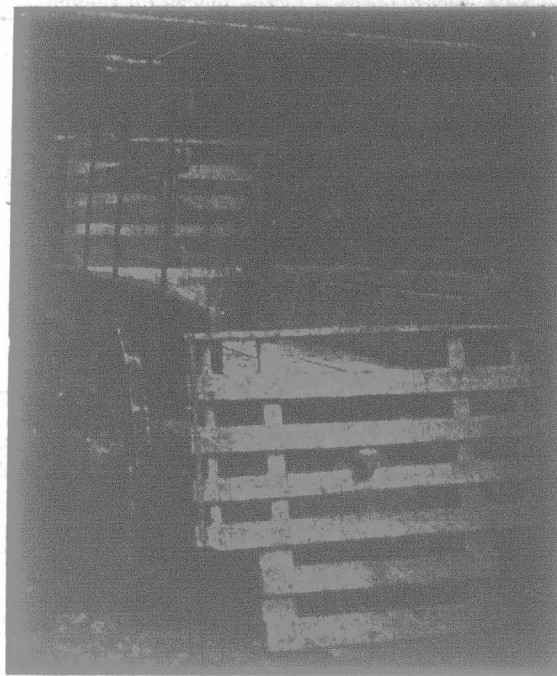
A Good Cement-block Silo.

1-inch pipe. Provision is also made to supply water to the different fields lying adjacent to the barn, to water the lawn, wash wagons or the automobile and in fact to be anywhere and everywhere it is needed about the buildings. In winter over 20 barrels are used daily but the tank has a capacity of 1,760 gallons. The engine is only run for 30 to 45 minutes each day and uses about one gallon of gasoline per week. By having a pump and engine of greater capacity than is required, it is thought that the work it has to do



Combining Two Teams.

One disc harrow fastened behind another in use on the farm of John Buchanan in Kent County, Ont. The discs on the front harrow throw in while those behind throw out.



A Serviceable Stock Rack.

A type of rack used by John Buchanan, of Kent County, Ont., for moving hogs.

is so light that less gasoline is needed. Fifteen pounds is considered a good working pressure in the tank, for this easily raises the water to the bath room. The taps also deliver the water more satisfactorily when the pressure is not high. A pump, tank and engine could be purchased at much less expense than is recorded here and Mr. Buchanan states that a system might be installed for \$500 or less. This depends considerably upon the length of pipe required and the size used. The water problem is apparently solved on this farm for the outfit is satisfactory.

Silo Fixtures.

Many different types and styles of silos are built every year, and it is hard to say which is the best. Mr. Buchanan has a cement-block silo, with a 13-foot inside diameter, which gives excellent satisfaction. The method of construction and the continuous door are worthy of consideration. A two-foot space was left for the door. Up and down each side, a little to the outside of the middle of the block, was placed a piece of $1\frac{1}{2}$ -inch by $1\frac{1}{2}$ -inch angle iron, similar to the material in a windmill, with the open part to the exterior. Holes were drilled 2 feet apart in the side of the iron, which was placed against the cement block. These were made use of when reinforcing the structure. The ends of $\frac{1}{2}$ -inch iron rods were placed through the holes drilled in the angle iron and secured there with nuts. This was done on each side of the door and they were met and hooked together with No. 9 wire at the other side of the silo. Some difficulty was experienced in getting the right curve on these iron rods. It was finally solved by placing them over a block and hitting them about every six inches with a small sledge hammer. These were imbedded in a groove in the upper surface of the block and coated in and around with cement, so they were really welded into the layer of blocks. Mr. Buchanan says that if he were doing it again he would make the reinforcing rods into three pieces instead of two. They could be more easily bent and laid, and they would be just as efficient when properly hooked together with wire. These rods were laid on every third course, which brought them two feet apart. The angle iron used as the upright in the door would be better if one side were 2 inches wide and the other side $1\frac{1}{2}$ inches. The 2-inch side, through which the holes would be drilled, would make it more convenient for screwing on the nuts. Through the sides of the uprights, which stood at right angles to the cement blocks, holes were bored every two feet, and pieces of angle iron 1 inch by 1 inch and two feet long were riveted on. These are used as a ladder by which one can get in or out of the silo. The door itself is made of 1-inch lumber, with a small block nailed at right angles to each end, both on the same side. These blocks should be of such dimensions as will make the door come flush with the inside wall of the silo, otherwise air will get in around the opening and result in considerable spoiled silage. It is a continuous door and the different pieces are taken off, or put on, as the silo is being emptied or filled. Whether the doors are in place or removed and hung away there are always the iron cross pieces by which one can climb in or out of the silo. There is also distance enough between the crossbars and the door to allow anyone climbing up the ladder to place the foot safely on the iron cross pieces. The doors lap together after the ship-lap principle. The silo itself is made of about 1,350 cement blocks, 8x8x16 inches. These were made of river gravel and cement mixed in the proportion of five to one. It cost eight cents apiece to make and lay the blocks, the contractors being provided with cement and gravel. Outside of the work performed by Mr. Buchanan, the silo cost \$217 without the roof. About $4\frac{1}{2}$ feet at the bottom of the structure is slop cement. About $2\frac{1}{2}$ feet of this is in the ground and two feet above. The hip-roof which may be seen in the accompanying illustration allows the silo to be filled several feet above the top layer blocks, for the hip is

five feet above them and twenty inches in. Several horseshoes were imbedded in the blocks on the outside as the silo was being built. These have been found very convenient as stays for ladders, and for other purposes.

A Hog Rack.

Where it is necessary to deliver any number of hogs to the shipping point, it becomes necessary to have some form of stock-rack. The one illustrated in these columns was built and is used by Mr. Buchanan with considerable satisfaction. The illustration largely explains how it was made. The sides and ends are separate and are fastened together when placed on the type of wagon box common on many farms. The board at the bottom of the rack is 6 inches wide and is given an offset of 5 inches with a rise of 3 inches. This and the four narrow boards above it are bolted to four uprights, which are made of 1/2-inch by 1 3/4-inch bar iron. The two centre uprights fit into only one clasp each, secured to the wagon box, while the two end uprights fit into a clasp both at the top and bottom of the wagon box. This prevents the sides from falling either in or out. The rack itself is 30 inches high.

The chief advantage in this rack, is the offset or the width. The hogs stand across the rack and are much more comfortable than when the rack is the same width as the wagon box. This equipment will also carry more hogs than the rack straight up and down. When starting for the shipping point a quantity of green stuff is put in the bottom of the rack. This tends to keep the hogs cool. If it is necessary, cold water is thrown on them en route to the station.

"As a Man Thinketh"

Editor "The Farmer's Advocate":

I have been warkin' pretty steady lately an' havena' had over muckle time for talkin' or writin', but a chap can keep on thinkin' wi'oot it interferin' wi' his wark tae any great extent, an' among ither things that I hae been wunnerin' about, these fine spring days, is the fact that we are in the habit o' makin' oor guid resolutions an' promises tae reform in the cauld an' maist depressing time o' the year. I'm beginnin' tae understand noo why there are sae many broken pledges among those that dae their "swearin' aff" at the new year. They get na' help frae their environment, an' ye ken that when a mon is surrounded by discouraging circumstances he hasna' muckle heart to pit up a vera guid fight against his bad habits. Everything is dead an' cauld at the beginnin' o' the year, an' it's na time for any special activity in the mather o' turnin' over a new leaf, unless ye happen tae be in the habit o' doin' that ilka day anyway. But when the spring comes roond, as it has the noo, it mak's a mon think o' some things that are na' likely tae occupy his thoughts at any ither time. Ilka thing in Nature seems tae be comin' tae life an' gettin' ready for another attempt tae feenish oot the term o' existence that must be lived in some way or ither. They hae had their nicht's rest, sae to speak, an' noo they're beginnin' the wark o' their day. Sae I wad like tae ken why we shouldna' take the spring o' the year as a time tae patch up oor guid resolutions o' the past, an' mak' a few new ones maybe, an' sae get a' the inspiration that can be had frae outward condeitions as weel as frae the inward knowledge that we are makin' an honest attempt tae be a wee bit mair o' a credit tae oorselves an' oor country than we hae been in the past. There's one thing about makin' this fresh start along wi the trees an' the plants, an' that is that ye can get a reminder noo an' again a simmer tae tak' note o' what progress ye are makin', for ye will see that, no mather how slow the growth o' the flower or the tree may be, it never staps, but ilka day it is a wee bit ahead o' what it was the day before. Gin we can follow this example we will hae na reason tae be discouraged. The trouble wi' maist o' us is that this style o' progress doesna' agree wi' oor twentieth century nature, an' we are in sic a hurry for results that first thing we ken we tak' a tumble an' then maybe get discouraged an' quit. But gin ye gang tae Nature for advice she willna' teach ye anything like that. I mind a few years back o' plantin' a wee spruce tree that I pulled up by the roots one day late in the spring. I wis no' to say very carefu' about it, an' some o' the roots got broken, but I stuck it in the ground anyway an' let it tak' its chances. Weel, for three or four years I couldna' tell whether the wee tree was gaein' tae live or not. It didna' seem able tae mak' any growth, but it wouldna' dee. But at last it made a start an' it's a braw tree the noo, wi' guid prospects o' livin' for the next hundred years or mair. A' the time I wis thinkin' it wis gaein' tae dee it wis gettin' its roots doon into the soil an' when it got a guid hold it started tae show what it could dae. Sae it might chance tae be somethin' like that wi' oorselves. The breakin' awa' frae auld habits nicht be mair o' a jolt tae oor systems than we thought for, an' what progress we made for a while nicht no' be visible tae the naked eye, but sae long as we're tryin' we're growin', an' the time will come when we'll begin tae see a difference, an' frae that on each year is likely tae be an improvement on the last, just as a tree will show mair growth ilka season than it did the ane before. But in comparin' oorselves tae trees in the matter o' growth we maun tak' intae conseederation the fact that the tree's growth is o' a physical nature, while ours is mental to a large extent. Sae it happens that we hae some deeficulties that sometimes haul us back that dinna' come tae the lower forms o' life. Mankind has the ability tae think an' reason, an' the worst setback he ever gets tae his upward progress is through bad thinking. It leads him intae no

end o' trouble. It's at the bottom o' maist o' his sickness, an' we hae all heard the sayin' that "a sick mon is a rascal." For when he's sick his wrang thinking gets mair control over his actions than ever, an' mair aften than not he gets discouraged an' gies up tryin' tae get weel or onything else. Mony's the mon, an' wumman has committed suicide juist by allowin' their thochts tae dwell on the idea till it forced them tae action. There's no' mony that gang this far, but ilka ane o' us, I'm thinkin' dae mair wrang thinkin' than is guid for us, an' there's no tellin' where it will land us gin we dinna cut it oot. It will keep pullin' us frae "pillar tae post" till we are clean wore oot an' ready tae drap intae the grave. I hae in mind a preacher that I wis acquainted wi' at one time, that wis a guid example o' what wrang thinkin' can dae for a mon. He could get up a guid sermon, the same chap, an' mony's the hard crack he used tae gie the sinners in his congregation. But he got it in his heid that he wisna' daein' muckle guid an' that he could live a better life on the farm, tae say naething o' makin' mair money an' not haein' tae wark on Sundays. Sae he rented a wee farm an' bought a couple o' coos an' a team o' horses, alang wi' what machinery he thought he'd need, an' for a week or twa he wis happy eneuch. But he got tae thinkin' after a while that the farm wis over small tae keep a family on, tae say naething o' pittin' ony money by, sae he hunted roond till he found a farm o' the size he wanted that wis for sale, an' he bought it. But he never moved on to it, for he got thinkin' again that he wouldna' be able tae mak' the payments wi' interest an' a', sae he got a chance an' sauld it wi'oot losin' over muckle on the transaction. His next move wis oot West on to a quarter section that he got for little or naething, an' we a' thoct he wis settled at last. But he must hae got tae thinkin' again for first thing we heard he wis back East once mair an' layin' doon the law tae the congregation in a church no' far from the one he had before he went tae farmin'. He's moved twa or three times since that, but I hae kind o' lost track o' him lately. Sae ye see what a certain kind o' thinkin' will dae tae a mon. An' there's worse lines o' thoct than this yet, as we a' ken tae oor sorrow, na doot. This is ane o' the things that we ought tae include in oor list o' resolutions that I hae been talkin' about. An' we canna' find a better time in the year tae mak' the start. Tae substitute thochts that we ken are sound an' healthy for those that are wrang an' likely tae mak' shipwreck o' oor lives, will mean all the difference between success an' failure an' between happiness an' misery. "As a man thinketh in his heart, so is he." Yon is as true a thing as ever was written. Tak' my word for it. Gin we could realize what it means tae us in the course o' a life-time on this earth we wouldna' hae sae muckle deeficulty in livin' up tae oor guid resolutions, whether we made them in the spring or at any ither time. But I'm still o' the mind that spring is a bonnie time tae mak' the start on the new road o' richt thinkin'. What's mair, it's now, an' ye'll never be younger tae try it.

SANDY FRASER.

There is More than Money in Co-operation.

EDITOR "THE FARMER'S ADVOCATE":

A rather notable letter from one signing himself J. L. appears in your issue of April 27; notable, indeed, not for depth of insight or cogency of argument, but rather for a sort of shallow and callous materialism. "The introduction of co-operation gives the brainy man no advantage over the stupid and inefficient," says J. L. This is true only in so far as altruism bids the brainy man consecrate his powers to the common weal. "It is more blessed to give than to receive"; "he that loseth his life shall save it"; "the strong ought to bear the infirmities of the weak." Predatory braininess, and efficiency regulated by selfishness, lead but to misery and death, as witness the situation in Europe to-day; whereas the spirit of co-operation, even if it does involve the sharing by the inefficient of the results of the brain power of the efficient, leads to life, health and happiness. Without the soul of individual consecration to a common cause the co-operative movement is a hollow mockery. This is why the movement in Great Britain has been so successful, and why the movement on the American continent has been relatively so unsuccessful. The spirit of the British movement is well suggested by J. Ramsay Macdonald, M.P., speaking at the last British Co-operative Congress: "You should take care that your cash does not lose you your soul. The co-operative movement is not a money-making concern. Money making with co-operation is a means to an end, and that end is the uplifting of the people of the country; to put them on a strong, firm, unassailable foundation of personal and individual liberty." Professor Alfred Marshall, of Cambridge, England, writes as follows: "The true co-operator combines a keen business intellect with a spirit full of earnest faith. Co-operative societies are served excellently by men of great genius, both mentally and morally; men who, for the sake of the co-operative faith that is in them, have worked with great ability and energy, and with perfect uprightness, being all the time content with lower pay than they could have got as business managers on their own account or for a private firm." In America, unfortunately, another and far lower ideal has prevailed. The brainy man has taken full advantage of his superior powers, or cunning, to

exploit and oppress. Consequently, we have a state of public corruption and malfeasance that beggars description, together with general poverty in all essential things.

Therefore, the brainy man who seeks but to use his powers to take advantage of his less brainy neighbor, loses far more than he gains, and will ultimately lose everything—including his possessions.

But there is another respect wherein the brainy man does not sacrifice himself, and lose the results of his exceptional powers. He can grow more and better crops and stock than his less efficient neighbor, and no system of co-operation ignores quantity and quality. His example in this case will have more influence for good if he is a member of a co-operative society than if he is not, and will thus tend to raise the average quantity and quality of production.

"The regeneration of agriculture lies deeper than the marketing of produce," says J. L. Most certainly. And co-operation means far more than the marketing of produce. It means better men, more intelligent and more efficient men, and greater and better production. What sort of a fight could the British people put up against the Central Powers if they did not co-operate, if the individual did not lay his life upon the national altar? What a situation we should have if every individual claimed accurate compensation for his braininess? Too bad that the most capable and efficient officer should be shot down while leading his men in the attack! But these are compensations.

Moreover, there is another warfare which will claim our devotion when this present frenzy is over—the warfare against ignorance, disease and sin. In this perennially great warfare the spirit of co-operation is essential—absolutely so.

Further, let J. L. figure out what chance unorganized agriculturists have for securing economic fair play in the modern world. What was the condition of Ontario fruit growing prior to the general adoption of co-operative methods of marketing? Individualism in agriculture is done.

Brant Co., Ont.

W. C. GOOD.

Millet—A Catch Crop.

Millets are among the oldest and most widely grown of agricultural plants. The seed in one form or another is used for food by the inhabitants of many parts of the globe, and both the fodder and seed are used for feeding stock. There are many varieties and species, each varying from the other in habit of growth, productiveness and quality of fodder. Millet is a hot-weather crop and should not be sown until the ground is warm, consequently in this country it is considered largely as a supplementary or catch crop, and if the seed-bed is properly prepared it may be sown with success as late as the latter part of July. The acreage devoted to the crop is comparatively small in this country. Seldom is a field set aside for millet alone, but, if, owing to unfavorable conditions, it is impossible to sow the regular crop at the proper time, the soil might profitably be sown to millet to be grown for grain, hay, soiling crop, or pasture. If a field of clover becomes winter killed, or the hay crop promises to be below normal, land may be broken up and sown to millet to furnish hay. Some of the varieties under favorable conditions produce large yields.

Soils naturally warm and friable and filled with vegetable matter which furnishes plant-food in readily available form, are best adapted to the growing of millet. Immense crops are grown on muck soils from drained swamps, and also on well-tilled, clay land. Light or hungry, sandy soils, or unduly moist and cold soils are not adapted to growing this crop. It is very seldom that a rotation is planned that takes in millet, as it is usually grown in this country as a catch crop. Where some other crop fails, the soil can be prepared and sown to millet. As seeding can be delayed until the latter part of June or July, the soil may be given a partial summer fallow to destroy weeds before the crop is sown. Thorough cultivation during June is hard on most of the noxious weeds. Under favorable conditions the land may be plowed and sown to millet after an early crop of red clover has been harvested. Fall wheat has been sown after an early crop of millet, but the practice is not to be recommended as millet is generally considered to be a heavy feeder on the fertility of the soil, and also leaves it much depleted in moisture which is not conducive to giving the wheat crop a good start. The soil should be in good tilth before sowing the seed, as it is labor lost sowing millet in a rough soil in a dry time. The seed loses its vitality very quickly in the ground and unless conditions are favorable for quick germination, the seed may be lost. It is not usual to apply manure or fertilizers but if such were used they should be incorporated with the top soil, as the millet plant is a surface feeder.

Among the many varieties that have been tested out on the experimental plots at Guelph, the Japanese Panicle stands at the head of the list. Sown on June 16 and cut September 15, the average yield of green fodder for five years was 9.58 tons, and of hay 4.05 tons. In the three months between seeding and harvesting, it attained a height of three feet. Holy Terror Gold Mine, Siberian, Steele Trust, Early Foxtail, Japanese Barnyard, and Hungarian Grass were varieties next in yield of green fodder and hay. The Japanese Panicle produces plants of an upright growth, a spreading head, and large leaf development. The seed is smooth, shiny and of a dark-brownish color. In purchasing seed this variety should not be confused with the Japanese Barnyard, which is not a particularly heavy yielder. Millet may be sown any time from the middle

of May to the end of June 20. For early seed, Barnyard variety for late seed, same family, shorter season, pounds per acre, better results, sown at a normal cold for some almost sure to and weather. Cutting for heads have is ready to be the period of. By the time, cially advanced millet is cut weight and the stems be.

According to fodder rations constituents, two percent in protein content, digestible nutrients higher in the early-cured. When fed in other roughage satisfactory prizes the end that it causes, ness and sweet texture of the be exercised it has a more to be no danger.

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of May to the middle of July, but seeding from June 1 to June 20 gives the highest yield of green fodder. For early seedings, the Japanese Panic and Japanese Barnyard varieties are usually the most suitable, but for late seeding Hungarian Grass which belongs to the same family of plants, is preferable as it requires a shorter season for growth. From twenty-five to thirty pounds per acre is the usual seeding. Drilling gives better results than broadcasting, as the seed is then sown at a more uniform depth. If the weather turns cold for some time after sowing, the germination is almost sure to be imperfect, for that reason the ground and weather should be warm before attempting to sow.

Cutting for green feed may begin as soon as a number of heads have appeared, and may continue until the crop is ready to be cut for hay. By seeding at several dates the period of feeding as a soiling crop may be prolonged. By the time the heads are all fully out the crop is sufficiently advanced to be cut and cured for hay. If the millet is cut for hay before it reaches this stage, it lacks weight and nutrition when cured. If left too long, the stems become woody and are not palatable.

According to chemical analysis, millet, as green fodder ranks very favorably with red clover in all constituents, except protein, in which clover is about two per cent. higher. As hay, clover is much superior in protein content, although millet has the preference in percentage of fat and carbohydrates. The total digestible nutrients in one hundred pounds is a little higher in the millets than in clover. Thickly-seeded, early-cured, millet hay is useful for feeding cattle. When fed in moderation, good millet hay along with other roughage and some concentrates should prove satisfactory for feeding horses. Where millet comprises the entire ration for a long period, it is claimed that it causes an increased action of the kidneys, lameness and swelling of the joints, and destruction of the texture of the bones. For all classes of stock care must be exercised when feeding millet hay. As green feed it has a more favorable reputation, as there is claimed to be no danger in feeding it at that stage.

The seed somewhat resembles oats in composition, but very little experimental work has been done to determine its feed value. When finely ground it has been fed to colts and young stock, with fairly good results. The seed is frequently used as part of a poultry ration.

Millet proves fairly satisfactory as a catch crop, but it is doubtful if it would ever be advisable to introduce it into the regular rotation in this country.

THE DAIRY.

An Incentive to Improve the Herd.

When the Dairy Act, relating to paying for milk by test at cheese factories, comes into force there will be an incentive for patrons to select and breed their herds for butter-fat production. Under the old method of paying according to quantity, the patron with the low-testing herd was being paid more than his milk was really worth for making cheese, while the high-testing milk was sold below value. Numerous tests have been made which prove beyond a doubt that there is nothing fair in paying for milk, according to quantity, for cheese-making purposes. A difference of one-half per cent. in the test makes a difference of twelve cents in the value of cheese made, from 100 pounds of milk when cheese is selling at fifteen cents a pound.

No dairyman wants to profit at the expense of his neighbor, and yet in many factory sections this is exactly what has been taking place. Evidently low-testing herds are in the majority or paying on a quality basis would have been universally adopted long ago, and there would have been no need of legislation in order that justice might be meted out to all patrons of factories.

The new Act is in the interests of the dairy industry, and instead of there being only a few high-testing herds in a factory district as at present, it will tend to raise the average test and incidentally the returns from the dairy herds. Dairymen and cheese makers should co-operate and do all in their power to promote paying for milk according to quality. If the herd gives a low average test, there is a way of improving it. True, the test of the present herd cannot be raised, but by using a bull from high-testing ancestors the offspring usually prove to be better than their dams. The easiest and most satisfactory way of obtaining a high-testing, high-producing herd is to weigh and test the milk from each cow regularly, then save the heifers from the best. Attention must be paid to the breeding of the herd sire. He is considered to be half the herd, and if his ancestors were only average, the offspring cannot be much better. By paying attention to breeding, the average yield and quality of milk per cow will be much higher ten years from now than it is at the present time. If the average is raised by 1,000 pounds of milk per cow per year, it will increase the profit by at least ten dollars without additional expense, unless it is in the cost of the sire. The average milk and butter-fat yield can be increased, and we believe it will be done. When the dairyman with milk testing 3 per cent. receives twelve cents per hundred pounds less than his neighbor who sells 3.5 per cent. milk, he will soon begin to apply the ways and means of bringing his herd up to the 3.5 per cent. or even higher test. It isn't a matter of improved stabling or specially-prepared feed that makes the difference. It is the breeding that counts.

Value of Pasteurizing Dairy By-products.

From a "safety-first" standpoint it is generally conceded that milk or cream for human consumption should be pasteurized in order to prevent danger of consumers contracting disease or intestinal troubles, due to germs that cause or accompany milk fermentation. Milk and its products provide an excellent medium for the growth and development of bacteria, some of which may be diseased organisms. By heating the milk to a certain temperature germs are destroyed, and if the milk is cooled immediately to 50 or 60 degrees its period of palatability is prolonged. From both a health and a financial viewpoint it pays to pasteurize milk and cream.

But, what of the by-products? In bulletin No. 412 of the New York Agricultural Experiment Station, Geneva, which discusses why and how to pasteurize dairy by-products, it is clearly pointed out by W. D. Dotterer and R. S. Breed that patrons of cheese factories and creameries who have unpasteurized whey or skim milk returned to their farms are running a risk of their stock becoming affected with disease which might cause serious loss. It is also claimed that the feeding value of pasteurized milk is greater than that of unpasteurized, and permits of a more even distribution of the valuable whey compounds to the patron. While skim-milk and whey are rarely used as a food for man, they are valuable products for feeding calves and pigs. The unpasteurized by-products sent back to the farms from skimming stations, butter and cheese factories, may carry germs of disease from any herd in the community to any or all others. Instances are known where this has occurred. Thus disease organisms are spread, new animals become infected, and in this way the danger of spreading disease to humans is increased. The advent of any communicable disease to the herd also means a direct financial loss to the owner. Pasteurization is found to effectively guard one of the avenues through which disease comes to both man and beast.

It is claimed that by pasteurizing these by-products the palatability and food value are preserved, unaltered for a considerable time. In unpasteurized whey, lactic acid and other fermentations take place, due to the unchecked activities of bacteria and yeast. These fermentations are found to lead to changes in the food compounds that lower the energy-producing power provided. It has been noticed that in unpasteurized whey the fat soon rises to the top of the whey tank and forms a layer, so that the first few patrons who dip the whey procure a large percentage of the fat, while, if the whey is drawn from the bottom, the last man to secure it may get the fat. In case a pump is used the fat remains in the tank and gradually forms an ill-smelling mass, which is the home of countless millions of germs, and the patrons lose practically all the food value of the fat in the whey. Pasteurization is found to retard the rising of the fat and keeps it evenly distributed, so that it is fairly evenly divided among the patrons. Many cheese factories have adopted the system, and are well pleased with the improvement in the quality of the whey due to pasteurization.

Heating the whey to 180 or 185 degrees Fahrenheit by the "flash" system, or by holding at 145 degrees for thirty minutes, will destroy most bacteria and many known disease-causing organisms which might appear in the milk. Whey so treated has a clean, sweet smell, very different from that which is unpasteurized, and very good results have been reported from feeding it to calves. Pigs appear to do better on it than on the untreated product. In one factory where the results of pasteurization have been studied there was a reduction in the bacterial count from over fifty million to two thousand, and the fat remained well suspended. After making observations and securing figures in a number of factories, it was found that heating the whey in a tank by direct steam was the most convenient, most reliable and most effective method of pasteurizing, as well as the least expensive. Results point to the fact that it is to the interest of the patrons of all cheese factories to have the whey pasteurized before it is returned to the farm. The same would hold true in case skim-milk was being returned. It is one way of preventing the transmission of disease organisms, besides adding to the value of the product.

Cost of Marketing Milk.

In bulletin 364 of Cornell University, A. L. Thompson, Ph. D., gives figures which show the actual cost of hauling milk various distances to factory or market. When each dairyman hauled the milk from his herd, the average cost per 100 pounds of milk for 38 farms was 7 cents, when the distance was one mile or less; 16 cents from one to two miles, and 21 cents from 3 to 4 miles. Where the dairyman co-operated with one or more of the neighbors in hauling the milk, the cost per 100 pounds of milk was 12.4 cents for an average distance of two miles, 14.1 cents when the distance was 3.5 miles, and 9.5 cents for 5.6 miles. It will be noticed that the cost does not increase proportionately with the distance. As the distance from the factory increased the number of dairymen working together increased, which resulted in more economical hauling, as the number of trips were decreased, while the size of loads increased. Where it was possible for a number of dairymen to hire the milk hauled, the cost was again reduced. For an average of 1.7 miles milk was hauled for 5.6 cents per 100 pounds. It cost 8 cents to haul a similar

quantity 3.6 miles, and 10.5 cents to haul it 5.8 miles. Labor was charged at 15 cents per hour for man labor, 10 cents for boy labor, and 12 cents per hour for horse labor. Milk was hired hauled for 11 cents less per 100 pounds than the individual could draw his own supply, that is, if his time was given any value. The time spent on the road is considerable, and to this must be added the time of hitching and unhitching a team, and the time frequently lost at the factory. In all it makes the cost of marketing rather high for the individual. The cheapest way is for a number of dairymen to hire a man to haul the milk for the season. If this cannot be done, two or three dairymen taking turns in hauling the supply considerably reduces the expense of marketing milk below that of the individual method. Co-operation along this line might be worked to advantage in many dairy sections.

HORTICULTURE.

A Stone Fruit Spray.

Considerable difficulty is experienced by peach growers in any attempt to control brown rot or scab on the fruit. There are plenty of preparations that will prevent these ills, but they either burn the foliage or stain the fruit to such an extent as to practically prohibit their use. Lime-sulphur and Bordeaux mixture are among the number of such preparations. The self-boiled lime-sulphur spray is the only one that can be recommended for application to peach trees that are in leaf and fruiting. This, however, has some faults, which G. C. Starcher, of the Virginia Agricultural Experiment Station, enumerates as follows: "It is not easy to make or to apply, and, moreover, it is never constant in strength. Its variability is due to the quality of the lime used, the amount of slaking that has taken place, manner of handling the lime, the temperature of the water used, and the amount made up at one time." Some effort has been made at the Virginia Station to discover some preparation that will take the place of self-boiled lime-sulphur and prove superior to it. Hydrated lime was used in place of stone lime during 1915, and the results of the field work were favorable to this mixture. The results were published recently by the Station in bulletin form, and describe the preparation of this new spray somewhat as follows: "Take 8 pounds of hydrated lime, 8 pounds of sulphur and 8 gallons boiling water. The lime and sulphur are first mixed dry and put through a sieve to remove all the lumps. The 8 gallons of water are added by mixing the lime and sulphur to a paste as quickly as possible with two gallons boiling water, then adding the other 6 gallons and stirring the mixture for 5 minutes. This material is then cooled quickly by the addition of an equal amount of cold water and then diluting to 50 gallons. In Canadian or Imperial measure the total of about 41 gallons would be equivalent to the measure of the United States. When paste arsenate of lead is also used 2 gallons is kept out to mix with the paste after which it is combined with the larger quantity making up the total.

No further remarks than are to be found in the summing up of the author are required, and they are included in the following paragraphs:

"While this fungicide has been tested for only one season, the results secured have been very gratifying, and as the preparation seems to possess several important advantages over those sprays now employed it is recommended to peach growers for trial. The directions for making the spray should be carefully followed, and its use should be limited to only a few trees until fruit growers have demonstrated that there is no danger of injury to the fruit and foliage.

"If growers wish to try the hydrated-lime and sulphur spray they should be sure to secure fresh hydrated lime at the beginning of the season, and keep it in a close package away from the air. It will thus keep for several weeks without material deterioration. It should be remembered, however, that neither hydrated nor stone lime should be purchased for use in making up spray materials without a guarantee of purity. Stone lime should contain ninety-five per cent. calcium oxide and hydrated-lime nearly as high percentage of calcium hydrate.

"In making up the spray the sulphur and hydrated lime should be sieved after mixing them and before adding the boiling water. Do not allow the mixture to stand more than five minutes after adding the boiling water before cooling by adding cold water. Use 8 pounds of sulphur, 8 pounds hydrated lime and 8 gallons boiling water and stir for 5 minutes, then add cold water at once. This spray must be kept thoroughly agitated while spraying".

The wastage of woollen clothing in the war has accelerated the demand and prices of wool, the available supplies of which have been reduced further by the havoc of German submarines and mines which in one fortnight lately sent over 32,000 bales of this greatly-needed article to the bottom of the sea.

The paper famine has become so serious in the United States that influential newspapers are now appealing to the Canadian provinces which restrict the export of wood pulp, especially from the crown lands, to relax the impediment, at least, temporarily.

POULTRY.

Favors Pekin Ducks.

EDITOR "THE FARMER'S ADVOCATE":

A short time ago there appeared in these columns an article praising the new "Table Egg" or Indian Runner ducks, which, by the way, is not so very much "newer" than are the other varieties which have been imported into America. When I read this article, I could not resist replying in defence of the ever popular Pekins.

The point emphasized in the article regarding the Runner ducks was their heavy laying qualities. It is true that they lay a large number of eggs in a year, but I have a bred-to-lay strain of Pekins that lay as many eggs as do the Indian Runners. At present I have a pair of yearling ducks that began to lay about the first week in March and have laid their egg a day since, with one morning off about every two weeks. A point in favor of the Pekins is that the eggs they lay are very large in comparison with the Runner eggs. Even if the Pekins do not lay as many eggs as the Runners do in a year, yet if the weight of all the eggs were taken I do not doubt but what the decision would be in favor of the former, and where the eggs are used for home consumption, as they generally are when not used to set, one obtains the same quantity after all.

Pekin ducks can be kept in close confinement and still lay as well as when given their liberty. Indian Runners can also be confined in a small yard, but they are such active birds that they cannot seem to endure their imprisonment, and do not lay as they otherwise would.

In regard to raising the young ducks and selling at ten weeks of age as green ducks, here also the Pekins show their superiority over the lighter breeds. This breed of ducks are very fast growers, and if properly fed and cared for, will, at the age of ten weeks, weigh from five to seven pounds each, and it does not take much more feed to raise and fatten them than it does the Runners which weigh, as green ducks, two and a half to three pounds each.

Pekins have been the leading ducks in popularity ever since they were introduced to America from China by way of England in the year 1875. Since then they have been introduced into this country, the breed has been greatly improved, until now, breeding stock are being taken back to Japan and China to improve the ducks there.

The fact that the Pekins are the only breed of ducks raised on the majority of the large duck farms in the United States and Canada goes to prove their superior qualities when raised in large flocks.

From the standpoint of eggs the Indian Runner ducks are, on the whole, undoubtedly superior to the other breeds, but for those who desire a general-purpose duck for the farm, I advise the Mammoth Pekin ducks every time.

Middlesex Co., Ont.

PEKIN.

FARM BULLETIN.

Opinions and Opportunities.

BY PETER MCARTHUR.

May 3rd. This week I feel like issuing a warning against forming opinions on public questions.

I wanted very much to form some opinions for use in this column, but after an earnest attempt gave up in despair. It was impossible for me to get a verbatim report of the proceedings of the Merdith-Duff Commission, which at this writing is investigating the Kyte charges in Ottawa, so each morning I got a leading Conservative paper and a leading Liberal paper, and read the reports which they gave. Each morning I found that these papers gave reports that flatly contradicted each other. To add to my confusion the editors of these papers are personal friends whom I have known for years—men whose word I would take on any subject—except politics. The correspondents who forwarded the news from Ottawa are also personal friends whom I esteem highly, and never hesitate to believe when they talk about the weather or some similar non-controversial subject. But it will never do to jump to the conclusion that either group of correspondents and editors were lying. They were simply selecting from the proceedings such points and incidents as seemed to favor their party, and that would be likely to please the multitude of readers who were looking to them with unquestioning faith for the truth about the unwholesome mess. As I pointed out some weeks ago the mess is unwholesome whether the charges are proven or not. If they are proven there has been disgusting greed and unfaithfulness to duty. On the other hand, if they are not proven there has been disgusting suspicion, and petty politics. About the only illuminating point so far has been the defection of Dr. Michael Clark from the Liberal ranks. But on the other hand the investigation was largely forced by the defection of the Hon. Andrew Broder from the Conservative ranks. So, as the old saying goes—"you pays your money and you takes your choice." Perhaps if you are wise you will not choose either. This is a time for the Canadian citizen to adopt President Wilson's policy of "watchful waiting." And while waiting it might be a good idea to put a rod in pickle for some unknown person or party who must be dealt with when the light finally shows the truth.

Talking about affairs in Ottawa reminds me that a few days ago we cleaned out the cement cellar which we put in a side hill near the house. Charges had been brought against it by everyone who had gone after apples or potatoes for the past month. At last I headed an investigating committee and started to clean things out. It was not hard to locate the chief source of offence. There was part of a barrel of sauerkraut that smelled like a Hun gas attack. After we had stopped using the stuff sometime in the winter it either saured too much or *krawled* too much, I don't know which, but we almost had to put clothes pins on our noses while carrying out that barrel. When we reached fresh air it certainly seemed good, but we realized at once that we must get that sauerkraut buried or expect a visit from the officer for public health who would not hesitate to have us committed for maintaining a public nuisance. After getting rid of the sauerkraut a few spoiled squashes and some rotten apples and potatoes seemed like the "perfumes of Araby" by comparison. Of course, I know that the cellar should not have been allowed to get into such a state, but one can't do everything, and when the habit of procrastination has been formed in youth it is hard to overcome. But in spite of the trouble we found in the cellar we got one surprise. Half a barrel of Pewaukee apples that the children could not be induced to touch while the Kings and Spys lasted was found to be in as good condition as

when put in the cellar last fall. I always understood that the chief charge against Peewaukees has been that they do not keep. I understood that they are fall apples and must be used before Christmas, but we are at present enjoying sound apples of this variety in the first weeks of May. What is the answer?

If I were going into the hen business at the present time I would work along new lines. The country is at present suffering a grave crisis in the hen industry, and to the alert man a crisis is always an opportunity. As other occupations made it impossible for me to go in for hens I want to pass along a quiet tip to some ambitious reader of "The Farmer's Advocate." There is a modest fortune awaiting the man or woman who will carefully develop a strain of "clucking" hens. People who raise hens on a small scale are not so fond of incubators as they were a few years ago, but the hens they have are all of the non-sitting egg-machine types; and for some springs past I have noticed an increasing demand for good reliable cluckers. This year the scarcity has almost reached the point of a public calamity. The hens we have may show symptoms of sitting, but before the eggs given them are half hatched they "go off the cluck." At the present time everybody who meets anybody else in the country asks, "Do you know where I can get some clucking hens?" But alas, nobody seems to know. The old-fashioned sedentary, ever-clucking Brahmas and Cochins of my earliest recollection seem to have disappeared from the land. As I remember them our great difficulty was to get them to lay enough eggs to hatch on, and kind-hearted people used to buy china eggs at the store to make them enjoy life. In spite of all that may be said in favor of incubators and non-sitting hens, I wouldn't be afraid to wager that if anyone were to advertise a breed of permanent cluckers there would be a great demand from March until May next spring. I know where scores of them could be sold at this present minute.

An Ambulance from Potatoes Grown by Children.

In the spring of 1915 the Ontario Department of Agriculture offered to supply children taking part in the Rural School Fairs with sufficient potatoes to plant a plot 1 by 2 rods if they would agree to dispose of the crop and contribute the money to some patriotic cause. Applications were received through the District Representatives and the children showed great interest in the work. Thirty-four counties taking part in the work reported sales from over 2,500 children's plots, and the Department has received up to date \$1,843.18.

Before deciding upon the disposition of the money received from the children, the officers of the Canadian Red Cross Society were consulted, with the result that a McLaughlin Motor Ambulance was purchased and formally presented to the Red Cross by the Hon. Jas. S. Duff.

All children in the Province who contributed will be interested to know that Col. Noel Marshall, in his reply to the Hon. Minister of Agriculture, expressed his gratitude to the children, and added, "The knowledge of each of these children that they have contributed to the comfort of the brave fellows who are serving us at the front will, I am sure, amply repay them for their efforts."

Toronto, Montreal, Buffalo and Other Leading Markets.

Toronto.

From Saturday morning to Monday, May 8, receipts at the Union Stock Yards, West Toronto, were 161 cars, 3,125 cattle, 1,617 hogs, 51 sheep, 39 calves. All classes of steers and heifers steady; cows 15 cents higher; bulls firm; several loads of heavy cattle sold \$925; sheep, lambs, calves firm at unchanged value; hogs, packers bidding 40 cents less, only 78 on sale, all the rest going direct to packing house. \$11.80 was paid for small lot.

The total receipts of live stock at the City and Union Stock Yards for the past week were:

	City	Union	Total
Cars.....	35	410	445
Cattle.....	449	4,941	5,390
Hogs.....	577	11,148	11,725
Sheep.....	147	245	392
Calves.....	552	1,975	2,527
Horses.....	57	423	480

The total receipts at the two markets for the corresponding week of 1915 were:

	City	Union	Total
Cars.....	36	477	513
Cattle.....	354	5,277	5,631
Hogs.....	179	7,388	7,567
Sheep.....	75	210	285
Calves.....	234	1,261	1,495
Horses.....	127	2,339	2,466

The total receipts at the two markets for the past week show a decrease of 68 carloads, 241 cattle, and 1,986 horses,

and an increase of 4,158 hogs, 107 sheep, and 1,032 calves, compared with the corresponding week of 1915.

Receipts of live stock were moderately liberal in cattle, calves and hogs. On Monday the receipts of heavy steers, many of which were not more than half finished, had the effect of reducing values from 10 to 15 cents, which was fully regained. Choice butchers steers and heifers, weighing 1,050 to 1,100 lbs., were in active demand, and at no time during the season did they sell for more money; the best load of this class, all dehorned steers, sold at \$9.10 per cwt. One load of choice 900 lb. steers sold at \$8.90; several lots of 5 and 10 cattle, of the heavy weight steers sold at \$9.25. Cows, and bulls, sold at firm values all week, bulls sold as high as \$8 and choice cows up to \$7.75. All classes of fat cattle bring high prices, quality considered.

Stockers and feeders.—There was a moderate demand for these classes at firm price. Short-keep feeders 1000 to 1100 lbs., sold at \$8.50; feeders, 800 to 870 lbs. sold at \$7.75 to \$8.15. Common off colors, 600 to 650 lbs. sold at \$6.50 to \$7.25.

Milkers and Springers.—There was an active demand for choice cows, at firm values. About 6 choice cows reached the \$100 mark, 2 sold at \$110 each. Not enough cows came forward to fill the many orders.

Veal Calves.—There were larger deliveries but prices were still firm.

Sheep and Lambs.—Light receipts kept prices very firm. Light sheep sold up to \$10.50, and yearling lambs, \$11 to \$13.50, with spring lambs at \$7 to \$10 each.

Hogs.—Packers again tried to get prices down but failed. The bulk of the hogs sold at \$11.90 to \$11.95 weighed off cars.

Butchers' Cattle.—Choice heavy steers, at \$9.00 to \$9.25; choice butchers, \$8.75 to \$9.00; good butchers, \$8.50 to \$8.75; medium butchers, \$8.00 to \$8.25; common butchers, \$7.50 to \$7.75; choice cows at \$7.50 to \$7.75; good cows, \$7.00 to \$7.25; medium cows \$6.50 to \$6.75; common cows \$6 to \$6.40; choice bulls, \$7.75 to \$8.00; good bulls, \$7.25 to \$7.50; common and medium bulls, \$6.25 to \$6.75.

Stockers and Feeders.—Short-keep feeders, 900 to 1,000 lbs., \$8 to \$8.25; steers 750 to 850 lbs., \$7.75 to \$8.00; common off colors, \$6.25 to \$7.00.

Milkers and Springers.—Choice milkers and springers, \$9 to \$10; and a few of extra choice quality at \$105 to \$110; good cows, \$75 to \$85; medium, \$65 to \$70; common, light, \$15 to \$55.

Veal Calves.—Choice calves, \$10 to \$10.50; good calves, \$8.50 to \$9.50; medium at \$7 to \$8.00; common, \$5 to \$6.50; heavy, fat calves, 400 to 450 lbs., \$7.50 to \$7.75.

Sheep and Lambs.—Light sheep sold at \$9 to \$10.50; heavy sheep at \$7.50 to \$8.50; yearling lambs sold at \$11.50 to \$13.50; spring lambs, \$7 to \$10 each.

Hogs.—Selects, weighed off cars, \$11.90 to \$11.95; selects fed and watered, \$11.65, and f. o. b. cars about \$11.20. For sows \$2.50, and stags \$4.00 less than prices paid for selects.

Toronto Horse Market.

On Thursday the Hon. Adam Beck assisted by Robert Graham, commenced purchasing horses at the City Cattle Market, for the Canadian Government. They bought 31 on that day, suitable for artillery purposes, at good prices ranging from \$190 to \$200 and over. They purpose being at the City Yards on Tuesday and Thursday of each week.

Country Produce.

Butter.—Butter declined again on the wholesales during the week. Creamery, fresh made lb. squares, 31c. to 34c.; creamery, solids, 30c.; separator dairy, 29c. to 30c.

Eggs.—New-laid eggs remained stationary, and were quoted at 24c. to 25c. per dozen.

Cheese.—19c. to 19½c. per lb. Poultry.—Live-weight: Chickens, 18c. to 20c. per lb.; ducks, 18c.; turkeys young, 20c.; fowl, 20c. per lb.; Squabs.—\$3.50 to \$4 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, 18c.; country hides, cured, 16c. to 17c.; country hides, part cured, 15c. to 16c.;

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country hides, per lb. 18c.; horse skins, per lb. 18c.; horse hides, No. 2, \$3 to 7½c.; wool, rejected, unwashed, 2½c. Red clover, \$27.50; red, \$25.50; alsike, \$22; alsike, alfalfa, No. 1, No. 2, cwt., 1, cwt., \$12 to \$10.50 to \$1

Wheat.—C \$1.03 to \$1.0 to \$1.03; No feed wheat, (Track, Bay \$1.27; No. 2 northern, \$1 Oats.—Ont 46½c; com Manitoba oa 2 C. W., 54 No. 1 feed, 1 Peas.—Acc No. 2, \$1.60 to \$1.50. Barley.—A malting barley 60c. to 63c. Buckwheat outside, nomi Rye.—Acc No. 1 comm according to Corn.—Am No. 3 yellow Toronto), fe Flour.—Ma jute bags, \$6 bags, \$6; bags, \$5.80. ing to samp Toronto; \$4.4

Hay.—No to \$22; No. to \$18. Straw.—Ca track, Toron Bran.—Per Shorts.—Pe Middlings.— Good Feed \$1.70.

Wholesale Canadian appearance, f sold at from \$ The Californi \$5 per dozen New vegeta in quite freely Thursday, se at \$1 to \$1. \$2.25; carrot \$1.25; radish hamper). New cabl is likely to g selling at \$3. Canadian of poor quali 50c. per dozen Potatoes h New Brunswi to \$1.85 per per bag, (car bag lower).

THE ROYAL BANK OF CANADA

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

country hides, green, 14c. to 15c.; calf skins, per lb., 20c.; kip skins, per lb., 18c.; horse hair, per lb., 37c. to 40c. horse hides, No. 1, \$4 to \$5; horse hides, No. 2, \$3 to \$4; tallow, No. 1, 6 1/2c. to 7 1/2c.; wool, washed, 40c. to 44c.; wool, rejections, 33c. to 35c.; wool, unwashed, 28c. to 32c.

Wholesale Seeds.

Red clover, No. 1, cwt., \$25.75 to \$27.50; red clover, No. 2, cwt., \$25 to \$25.50; alsike, No. 1, cwt., \$19.50 to \$22; alsike, No. 2, cwt., \$17.50 to \$18; alfalfa, No. 1, cwt., \$24.50 to \$27; alfalfa, No. 2, cwt., \$22 to \$22.50; timothy, No. 1, cwt., \$12 to \$14; timothy, No. 2, cwt., \$10.50 to \$11.

Breadstuffs.

Wheat.—Ontario, No. 1 commercial, \$1.03 to \$1.05; No. 2, commercial, \$1.01 to \$1.03; No. 3 commercial, 98c. to \$1.00; feed wheat, 86c. to 88c. Manitoba (Track, Bay Ports)—No. 1 northern, \$1.27; No. 2 northern, \$1.24 1/2; No. 3 northern, \$1.20 1/4.

Oats.—Ontario, No. 3 white, 45 1/2c. to 46 1/2c.; commercial, 44 1/2c. to 45 1/2c. Manitoba oats (Track, Bay Ports), No. 2 C. W., 54c.; No. 3 C. W., 52c.; extra No. 1 feed, 52c.; No. 1 feed, 51c.

Peas.—According to freights outside, No. 2, \$1.60; according to sample, \$1.20 to \$1.50.

Barley.—According to freights outside, malting barley, 64c. to 65c.; feed barley, 60c. to 63c.

Buckwheat.—According to freights outside, nominal, 69c. to 70c.

Rye.—According to freights outside, No. 1 commercial, 91c. to 92c.; rejected, according to sample, 87c. to 89c.

Corn.—American (track, Toronto), No. 3 yellow, 87c.; Canadian (track, Toronto), feed, nominal, 75c. to 77c.

Flour.—Manitoba first patents, in jute bags, \$6.50; second patents, in jute bags, \$6; strong bakers', in jute bags, \$5.80. Ontario, winter according to sample, \$4.30 to \$4.40, track, Toronto; \$4.35 to \$4.45, bulk, seaboard.

Hay and Millfeed.

Hay.—No. 1, per ton, best grade, \$20 to \$22; No. 2, per ton, low grade, \$15 to \$18.

Straw.—Car lots, per ton, \$6.50 to \$7, track, Toronto.

Bran.—Per ton, \$24.

Shorts.—Per ton, \$26.

Middlings.—Per ton, \$26 to \$27.

Good Feed Flour.—Per bag, \$1.60 to \$1.70.

Wholesale Fruits and Vegetables.

Canadian asparagus made its first appearance, for this season this week, and sold at from \$1.50 to \$2 per dozen bunches. The California variety bringing \$4.50 to \$5 per dozen large bunches.

New vegetables (imported) are coming in quite freely; four car loads arriving on Thursday, selling as follows: Spinach at \$1 to \$1.35 per bushel; beets, \$2 to \$2.25; carrots \$2; green onions, \$1 to \$1.25; radishes, \$2; turnips, \$1.75 (per hamper).

New cabbage has advanced, and is likely to go still higher; and is now selling at \$3.75 per case.

Canadian outside grown Rhubarb is of poor quality as yet, selling at 25c. to 50c. per dozen bunches.

Potatoes have again declined, the New Brunswick Delawares bringing \$1.80 to \$1.85 per bag, the Ontarios \$1.90 per bag, (car lots are generally 15c. per bag lower).

Pineapples are beginning to come in freely, the Porto Ricos selling at \$3.50 per case.

Strawberries are not of extra good quality selling at 18c. to 20c. per box.

Montreal.

Supplies of cattle on the local market continue limited and prices are gradually creeping higher. The quality of the stock offered is seldom choicest, but best steers and heifers brought as high as 9c. per lb. Even the lower grades brought 6 3/4c. while medium grades ranged all the way from 7 1/2c. to 8 1/2c. per lb. Butchers' cows sold from 6 1/4c. to 8c. and bulls from 7c. to 8 1/2c., according to quality. There were liberal offerings of calves and these were taken by local butchers and for export to American markets. Choicest animals sold at 7 1/2c. to 8c. and lower grades at 5c. to 6 1/2c. per lb. Spring lambs were traded in more freely and the price ranged from \$5 to \$8 each, according to size and quality. Yearlings continued in good demand and sold freely around 11 1/2c. to 12c. per lb., while sheep were firm at 7 1/2c. to 8 1/2c. Hogs were even higher than a week ago and sold at 12c. to 12 1/2c. per lb., weighed off cars.

Horses.—There has been no demand whatever for horses recently, this being attributed in part to the strike among the drivers of some of the larger cartage companies. Occasional sales were made for shipment to the country. Prices were generally steady, as follows: heavy draft horses, weighing 1,500 to 1,700 lbs., \$200 to \$250 each; light draft horses, weighing 1,400 to 1,500 lbs., \$150 to \$200 each; small horses, \$100 to \$125 each, and culls, \$50 to \$75 each. Fine saddle and carriage animals were quoted at \$200 to \$250 each.

Dressed Hogs.—The supply of dressed hogs continued on the light side and shippers were able to demand advancing prices. The price last week for abattoir-dressed, fresh-killed stock, was 16 1/2c. to 16 3/4c. per lb.

Poultry.—Dealers quoted 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.—Receipts were moderately large and the quality was fair. Prices were steady at \$1.70 to \$1.72 1/2 per bag of 90 lbs. ex-track, in car loads, and 15c. to 20c. more in a smaller way.

Honey and Maple Syrup.—Demand for new syrup was good and prices 85c. to 90c. for 8 lb. tins; \$1 to \$1.10 for 10 lb. tins, and \$1.25 for 13 lb. tins, with 20c. extra for extra choice. Sugar ranges from 12c. to 14c. Honey was fractionally firmer at 15c. for white clover comb, and 12c. to 13c. for extracted. Brown comb was about 12c. per lb. and extracted 10c. Buckwheat honey was 9c. to 10c.

Eggs.—Packers are putting away all the stock they can get their hands on around present prices so that there is unlikely to be any further lowering of price for some time to come. Select fresh laid were 27c. and straight gathered 25c., with No. 1 and No. 2, ranging from 24c. to 23c. Consumption is large.

Butter.—Supplies are constantly increasing and the quality of the fresh offerings is better. Choicest new milk creamery was 29 1/2c. to 30c., with a discount of 1/2c. for fine. Held creamery could be had at 26c. to 26 1/2c. for the finest and dairy butter was 22c. to 23c.

Cheese.—The tone of the market was slightly firmer and finest Western was quoted at 19 1/2c. to 20c. per lb., fine goods being about 1/4c. under this figure. Finest Eastern cheese sold at 18 1/2c. to 18 3/4c.

Grain.—The market for wheat has been showing quite a strong tone but later experienced somewhat of a decline. Dealers quoted No. 1 commercial white winter wheat, in car lots, at \$1.05 to \$1.10 per bushel. Oats were firm. No. 2 Canadian Western sold, in car lots, at 55c.; No. 3, at 53 1/2c. and extra No. 1 feed at 53 1/2c.; No. 1 feed at 53c. and No. 2 feed at 52c. Ontario and Quebec No. 2 white oats sold at 52c.; No. 3 at 51c. and No. 4, at 50c. per bushel, ex-store.

Flour.—The market was very steady and there was very little going on. Manitoba first patents spring wheat flour was \$6.60 per barrel, in bags; seconds, \$6.10, and strong bakers' \$5.90. Ontario winter wheat patents were \$6 and straight rollers \$5.30 to \$5.40 per barrel, in wood, the latter being \$2.50 per bag.

Hay.—Baled hay was unchanged in

price at \$21.50 to \$22 for car lots of No. 1 hay, ex-track; \$21 for No. 2 extra good; \$20.50 for No. 2 hay; \$19 to \$20 for No. 3 and \$18 for clover mixed.

Seeds.—The market was active and about steady at \$10 to \$15 per 100 lbs. for timothy; \$22 to \$27 for red clover and \$17 to \$24 for alsike, Montreal.

Hides.—Calf skins advanced 2c. per lb., to 32c. for No. 1, and 30c. for No. 2. Beef hides, steady, at 21c., 20c. and 19c. for No's. 1, 2 and 3 respectively. Sheep skins were \$2.50 each and horse hides \$2.50 to \$3.50 each. Rough tallow was 1 1/2c. to 2 1/2c. per lb., and rendered 7c. to 7 1/2c.

Buffalo.

Cattle.—Supply of cattle at Buffalo last week was liberal, resulting in shipping steers, of which there were around forty cars, selling a dime to fifteen cents lower, while choice, tippy yearlings and handy butchering steers brought steady prices, some fairish and medium kinds of butchering steers, running from \$8 to \$8.50, sold a dime to fifteen cents, and in some cases as much as a quarter lower. Canada supplied the best load of yearlings ever offered from the Dominion. They were blacks, including some rather weighty heifers, but the load averaged up to 952 lbs., and sold at \$9.10, considered a good price. They were bought by a local packer. Canadians could do no better than to get more extensively into the finishing of "baby beves." They are always saleable at a good price, and the demand appears broader than for the heavier steers, taking the entire year into consideration. Of late years young cattle and especially yearlings have become very popular, for the reason that the cuts are family size, handy, and retail butchers have no trouble in selling them. Native yearlings the past week sold from \$9.40 to \$9.50, being of harder finish than the Canadians. Best weighty steers sold at \$9.60, and the eastern killers were able to locate very few steers under \$9.15. Mixed lots, cows and heifers with light steers in, sold at about steady prices, and bulls brought firm prices. Stockers and feeders are in light supply these days and more are wanted, especially the good, roan kinds, such as Canada raises. These tippy feeders are selling at \$8, and real fancy kinds might bring more. Milchers and springers are about like they have been for the past two or three weeks, but not enough of the real good kinds are coming. Receipts figured 4,700 head last week, as against 3,800 for the previous week, and 3,100 for the corresponding week last year.

Shipping Steers.—Choice to prime natives, \$9.40 to \$9.60; fair to good, \$8.75 to \$9.15; plain, \$8.40 to \$8.60; very coarse and common, \$8 to \$8.25; best Canadians, \$8.75 to \$9.25; fair to good, \$8.25 to \$8.50; common and plain, \$7.75 to \$8.10.

Butchering Steers.—Choice heavy, \$8.75 to \$9; fair to good, \$8 to \$8.50; best handy, \$8.85 to \$9.25; common to good, \$8 to \$8.75; light, thin, \$7.50 to \$7.85; yearlings, prime, \$8.75 to \$9.40; yearlings, common to good, \$8.25 to \$8.65.

Cows and Heifers.—Prime weighty heifers, \$7.50 to \$8.50; best handy butcher heifers, \$7.75 to \$8.25; common to good, \$6.50 to \$7.50; best heavy, fat cows, \$6.50 to \$7.50; good butchering cows, \$6 to \$6.50; medium to fair, \$5 to \$5.75; cutters, \$4.25 to \$4.75; canners, \$3.25 to \$4.

Bulls.—Best heavy, \$7.25 to \$7.75; good butchering, \$6.50 to \$6.75.

Stockers and Feeders.—Best feeders, \$7.25 to \$7.75; common to good, \$6.50 to \$6.75; best stockers, \$6.50 to \$6.75; common to good, \$5.75 to \$6.25.

Milchers and Springers.—Good to best, in small lots, \$75 to \$90; in carloads, \$60 to \$70; medium to fair, in small lots, \$45 to \$55; in carloads, \$45 to \$50; common, \$30 to \$40.

Hogs.—Last week started with lower prices, but after Tuesday the market reacted, and before the week was out Monday's and Tuesday's decline was fully regained. On the opening day of the week the bulk sold at \$10.15, few \$10.20 and \$10.25, and pigs landed mostly at \$9, and Tuesday prices dropped to \$10.10 and \$10.15. Wednesday values were up five to ten cents; Thursday's market was strong to five higher, and Friday sellers witnessed another jump of a nickel, bulk

of the sales being made at \$10.25, with a few selling at \$10.30, and pigs reached up to \$9.25 and \$9.35. Roughs, \$9 to \$9.25, and stags \$7.50 down. Receipts last week were 24,400 head, being against 28,072 head for the week previous, and 29,100 head for the same week a year ago.

Sheep and Lambs.—Market got a good start last week and closed weaker. Monday top lambs sold at \$10.25, with some reaching \$10.40. Tuesday bulk went at \$10.40, Wednesday one deck reached \$10.50; Tuesday the tops sold from \$10.25 to \$10.50, and Friday buyers got the most desirable ones at \$10.25 and \$10.35. Weighty lambs were again neglected, kinds weighing around 95 pounds and better ranging from \$8.50 to \$9, and they were slow at that. Cull lambs sold from \$9 down. Sheep were strong all week, wethers selling up to \$8.25, with ewes \$7.50 down. Receipts last week were 21,800, as against 22,531 head for the week before, and 16,000 head for the same week a year ago.

Calves.—Market last week opened with top veals selling generally at \$9.50. Tuesday's and Wednesday's trade was steady, Thursday tops brought up to \$10.00, and Friday, under a red-hot demand, best veals were jumped to \$11. Culls the fore part of the week sold mostly from \$8 down, and before the week was out best desirable culls reached up to \$9.50. Receipts last week were 4,625 head, as compared with 4,495 head for the week previous, and 4,250 head for the same week a year ago.

Chicago.

Cattle.—Beeves, \$7.90 to \$9.95; stockers and feeders, \$5.75 to \$8.50; cows and heifers, \$4.25 to \$9.40; calves, \$6.25 to \$9.50.

Hogs.—Light, \$9.35 to \$9.90; mixed, \$9.50 to \$9.90; heavy, \$9.40 to \$9.90; rough, \$9.40 to \$9.55; pigs, \$7.25 to \$9.

Sheep.—Native, \$6.90 to \$9.30; lambs, native, \$7.75 to \$11.85.

Gossip.

Craigie-Wood Stock Farm has for sale about forty head of Berkshire swine all ages, of both sexes, from imported stock, also an Ayrshire cow and a bull calf three weeks old. For full particulars write R. I. Dawson, Science Hill, Ont.

Shorthorns and Tamworths.

Attention is directed to the advertisement in this issue of Tamworths and Shorthorns, the property of Chas. Currie, Morriston, Ont. In the Tamworth herd there are 150 from which anyone should be able to make a suitable choice. For sale from the Shorthorn herd are three choice bull calves, and some of the deep-milking cows and heifers. If interested in good stock of these breeds look up the advertisement and get in touch with Mr. Currie.

Real Dual-Purpose Shorthorns.

S. A. Moore, the well-known breeder of dual-purpose Shorthorns, Caledonia Ont., recently sold to the Wm. Weld Company, for Weldwood Farm, the four-months-old red bull calf Dominator. This calf is out of the heavy milking cow Burnfoot Lady with an official record of 10,689 lbs. of milk in one year, testing 3.88 per cent. fat. His sire is the two-year-old son of Dairymaid, the cow which holds the Canadian record for milk production in the Shorthorn breed with 13,535 lbs. of milk in one year, testing 3.99 per cent. fat. Dairymaid is a good individual herself but her calf Burnfoot Chieftain, sire of Dominator, is a wonder. He is straight, smooth and thick and with his conformation backed by such official records he is one of the best sires in Canada. Dominator has milk behind him on both sides of his pedigree and is a big, sappy calf. He would be hard to duplicate in Canada and is to be developed for herd header at Weldwood to take the place of College Duke the present herd sire which was bred at Macdonald College and whose heifers are now coming to breeding age. Mr. Moore may well feel proud of his herd which combines meat and milk to a remarkable degree and the Wm. Weld Company feel sure that they have the calf which will do a great deal of good at Weldwood.

Hope's Quiet Hour.

Is the Door Open?

Behold, I stand at the door, and knock: if any man hear my voice, and open the door, I will come in to him, and will sup with him, and he with me. —Rev. iii: 20.

George MacDonald has said: "The Spirit of God lies all about the spirit of man like a mighty sea, ready to rush in at the smallest chink in the walls that shut Him out from His own." Think of the way God respects the personality of each of us. Although we are made by Him there is no attempt to force an entrance into our souls. He stands outside and knocks gently until we open the door to admit Him.

The words of our text are taken from the message to the Church of the Laodiceans. If you read carefully the messages sent to the seven churches of Asia, you will notice that two of the churches are praised, four of them are rebuked for some things and rebuked for others, and only one—this Church of Laodicea—is sternly condemned. There is no hint given of anything praiseworthy. The people who feel themselves so prosperous, who are not coldly indifferent to religion, but satisfied that their spiritual condition is most satisfactory, are to be rebuked to the awful fact that in God's sight they are wretched, and miserable, and poor, and blind, and naked.

Is there any hope for self-righteous, self-satisfied members of the Church of Christ? At first it seems as if Christ had shut the door on them, for He says: "Because thou art lukewarm, and neither cold nor hot, I will spue thee out of my mouth."

But look more closely at the message, and you will find the judge is the Lover of the unlovely soul. He is offering refined gold, white robes of shining purity, and medicine for the earth-dulled vision. He is explaining that stern rebukes and painful chastening only prove His love—He will not permit one of His children to stray unchecked from the right way. The stern words of awful warning melt into tenderest pleading. It is this self-satisfied congregation of Laodicea that first receives the gracious message of our text: "Behold, I stand at the door and knock." It is the King of kings offering Himself as the Guest of the soul and inviting the soul to be His

guest and to sit beside Him on the throne (iii: 21.) It is not He who has shut the door that forms the barrier between them. If you look at Holman Hunt's famous picture—"The Light of the World"—you will see no handle on the outside of the door. Admission comes from within, and the Royal Guest will not force His way into a heart.

A missionary, talking with some lepers in India about the second coming of Christ, asked: "Do you think He will come to-day?"

The earnest answer came quickly: "We don't know, but we hope so."

Is it true that we "don't know?" Why, He is even now saying to each of us: "To-day I must abide at thy house." Unless we have opened the door and welcomed Him as the Master of our hearts He is even now standing outside and seeking admission.

Though there was no spiritual beauty in the Church of the Laodiceans His love for it did not die out. Though we are unworthy to have Him come under our roof, He wants to abide with us.

In an old wood-cut Christ is represented as the Bridegroom appearing to the Bride. He is holding a mask before His face, and the Bride shrinks back in fear because she does not recognize her Lord. Instead of welcoming Him she is trying to escape, for the beauty of the face behind the frowning mask is hidden from her sight. Is it not often so? Christ appears to us sometimes in all His wonderful beauty, and our souls are enthralled by that glorious Vision. But sometimes He comes in a dark and terrible disguise. Pain, sorrow, poverty, death force their unwelcome presence upon us, and we try to escape instead of accepting them bravely. Instead of looking for the love which is hidden behind the mask, we shrink away in fear. We can only find "joy in tribulation" if we are clear-sighted enough to recognize the Bridegroom through His strange disguise. If we do recognize Him we can be trustful enough to accept His gift, even though it may be a heavy and painful cross. If we are to grow in the likeness of the Perfect Man, we must be willing to enter into the fellowship of His sufferings.

One of our readers in the West sent me some papers lately, in one of them, I discovered the following gem—by Amos R. Wells:

"God laid upon my back a grievous load, A heavy cross to bear along the road, I staggered on, and lo! one weary day An angry lion sprang across my way.

I prayed to God, and swift at His command

The cross became a weapon in my hand. It slew my raging enemy, and then, Became a cross upon my back again. I reached a desert. O'er the burning track

I persevered, the cross upon my back. No shade was there, and in the cruel sun I sank at last, and thought my days were done.

But lo! the Lord works many a blest surprise—

The cross became a tree before my eyes. I slept, I woke, to feel the strength of ten; I found the cross upon my back again. And thus through all my days, from that to this,

The cross, my burden, has become my bliss; Nor ever shall I lay the burden down, For God some day will make this cross a crown."

What was the outcome of that great message of startling condemnation and wonderful love which the Lord of the churches sent to Laodicea? We may be sure that the aged apostle delivered it faithfully. Did it open the eyes of those self-deluded people? Probably some of them went on as before, trying to do the impossible thing—serve God and Mammon—while others were roused from their dangerous dream, and opened the door of their hearts to admit their waiting Saviour.

How is it with us? The comfortable easy going religion of the Laodiceans is a commonplace, to-day. It is possible to go regularly to church, and show many outward signs of Christianity, and yet bar the heart's door against Christ. Have you welcomed Him as the Master of your heart and life? Is His word your law? Is His "Well done!" the highest conceivable reward for a life of service? Or is God crowded out of your busy life—your rush of work or pleasure? In our Lord's parable of the Sower, He warns us that "cares" as well as "pleasures" may choke the seed sown, and cause it to die in unfruitfulness. There is an atheism that ventures to deny the existence of God. That is very rare. Then there is a very common "practical atheism" which ignores the existence of God, six days out of every seven, at least. There are many homes in this "Christian land" where the children are not taught to pray or read the Bible, where there is no family prayer and no "grace" at meals. The children get a little Christian teaching in Sunday School, but it is plain to them that the

things of God are not vitally important (in the opinion of their parents) as compared with earthly and temporal matters. Christ is not the Head of the house, He is not the honored Guest at any meal—though He is the unseen Listener to every conversation.

The messages sent to the seven churches of Asia show an intimate knowledge of the thoughts and actions of each member of the churches. Even in Sardis—a church that had sunk down into death, though it had still the appearance of life—there were a few who had not defiled their garments. These were not lost in the crowd. He, whose eyes are as a flame of fire, was watching them and sent them this cheering word: "They shall walk with me in white, for they are worthy."

It is not possible for us to judge another soul. The one we look down upon may be climbing daily nearer to God—and his garments may be less defiled than ours. The one we admire may be like the Laodiceans—outwardly prosperous but lacking spiritual beauty and vision. We are sure of making mistakes if we get up on the judgment-seat. But there is one person we ought to judge. St. Paul says: "If we would judge ourselves, we should not be judged—" 1 Cor. XI:31. In the R. V. it is translated "discern ourselves."

Let us try—prayerfully and honestly—to see ourselves as God sees us. From man's standpoint the Laodicean church was rich, and increased with goods and had need of nothing—but Christ's look was one of pity for its miserable condition. A crowded church and big collections do not always prove spiritual prosperity, and a church apparently poor may be rich (Rev. ii: 9).

We are living in a rush of "secular" business or of "religious" work. Let us remember that life is one. If we have opened the door to Christ He is the Captain of our life. Then nothing can be "secular", even eating and drinking are done to the glory of God. Our Lord was doing His Father's will as the village Carpenter, and that work was as religious as the years of preaching and healing which followed.

The kingdom of God is "within you"—it cannot be seen by a casual observer. Heaven is where God is—and He is either outside your door or abiding with you.

I look up and—He is here!

"So read I this—and as I try To write it clear again I find a second finger lie Above mine on the pen."

DORA FARNCOMB.

Easter Gifts.

Your Easter donations gave happiness to many. Two dollars went to the Convalescent Fund of the Toronto General Hospital; and more than 20 sick and lonely people were cheered and helped by the rest of the money you entrusted to me. I was asked to convey their thanks to their good friends in the country. HOPE.
52 Victor Ave., Toronto.

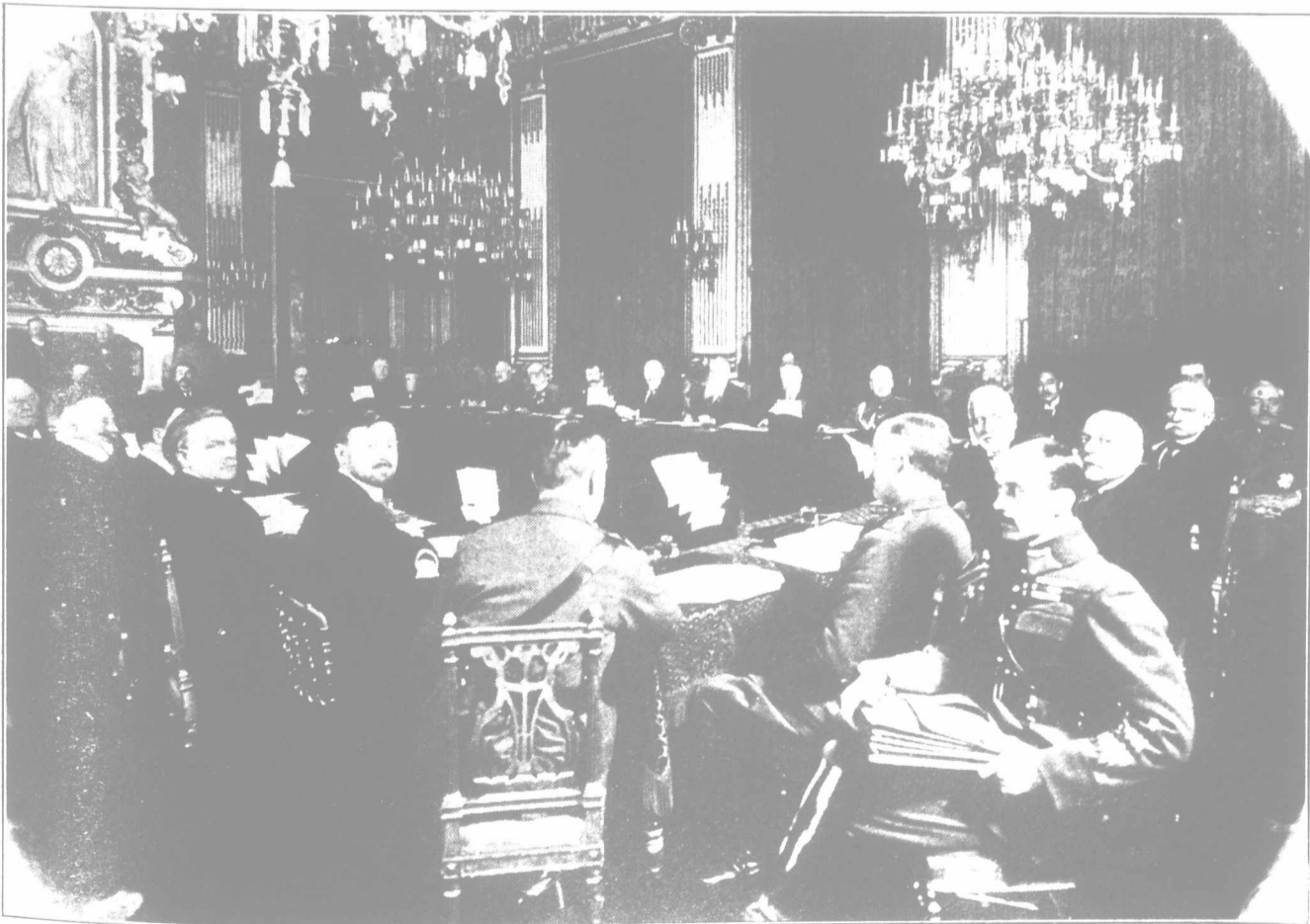
"Hullo."

When you see a man in woe, Walk right up and say "Hullo", Say "Hullo" and "How do ye do?" How's the world a-ning you?" Slap the fellow on his back, Bring your han' down with a smack. Waltz right in and don't go slow, Goin' and shake and say "Hullo."

Is he clothed in rags O, Sho! Walk right up and say "Hullo", Rags is but a cotton roll, Jest for wrappin' up a soul, An' a soul is worth a true. Hale an' hearty "How d'ye do", Don't you wait for the crowd to go Walk right up an' say "Hullo."

W'en ye leave yer house of clay, Wand'rin in the Faraway, W'en ye travel through the strange Country t' other side the range Then the souls you've cheered will know Who ye be, and say "Hullo".

"Papa, what do you call a man who runs an auto?" "It depends upon how near he comes to hitting me."



The Great Military Conference at Paris.

Starting on the extreme left and moving to the right around the table: Premier Assolth, Lord Balfour, Sir Edward Grey, Lloyd George, a Secretary, Lord Kitchener, English Military Aide, Sir William Robertson, Premier of Italy, Salandra, Ambassador Tittoni, Baron Scunino, Gen. Cadorna, an Italian Secretary, Mr. Matsui, Gen. Chagas, M. Isvolsky, Gen. Gillski, Premier Putschich, Gen. Vesnitch, Gen. Yovanovitch, Gen. Rochitch, Gen. Castlenau, Gen. Joffre, a French Secretary, Premier Briand, Gen. Roques standing, Gen. Bourgeois.

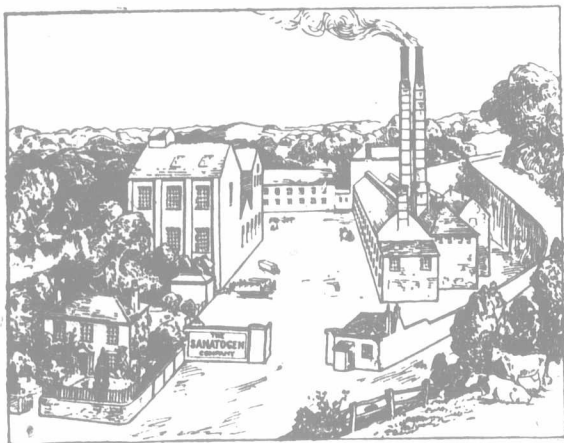


My Birthday Party To-morrow, Daddy!

Watch the extra sparkle in the eyes of children—the clapping of the hands and the delighted laughter when Maple Buds are served at the party. Let them eat plenty—they are not harmful in any way; in fact they contain the finest and most expensive cocoa beans, rich, creamy milk, and the best selected sugar blended skilfully. Grown-ups relish them too—you know that yourself.

COWAN'S MAPLE BUDS
A dainty Solid Chocolate

A-51 Name Reg.—Design Pat.



Where Sanatogen is Made

View of the Sanatogen Works in Cornwall, England

IN the mild sunshine of Penzance, standing four-square to the Atlantic breezes, there is an ideal factory which manufactures the whole supply of Sanatogen for Great Britain and the British possessions—a British factory, employing only British labor and materials.

Strict scientific control and scrupulous cleanliness mark every stage of the manufacture; the product is entirely untouched by hand, and has to pass severe laboratory tests before being placed on the market.

The casein which forms the basis of Sanatogen is highly refined and absolutely pure and sterile; it is derived from the richest milk in Cornwall. This body-building nutrient is organically united with a certain sort of phosphorus—identical with the phosphorus of

the human nerve cells—by a special process used exclusively by the Sanatogen Company.

The resultant compound owes its unique nourishing and invigorating properties entirely to this process; and no other product has the same composition or effects. There are not, and there never have been, any but British workmen in this factory since it was established seven years ago.

The Sanatogen Company, 12 Chenies Street, London, W. C., guarantee the foregoing facts.

Craigielea Wood Stock Farm Breeder and Importer of English Berkshire swine and Ayrshire cattle. Have for sale about 40 head of swine, all ages, both sexes. All from imported stock. Have also Mary Duchess 84616 and a bull calf, three weeks old. For further particulars, write. R. I. DAWSON, Craigielea Wood Stock Farm, Science Hill, Ont.

Fashions Dept.

How to Order Patterns.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price fifteen cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, thirty cents must be sent. Address Fashion Department, "The 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:

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

Owing to the fact that expenses on fashion cuts have been increased, we are obliged to raise the price of patterns to 15 cents per number.

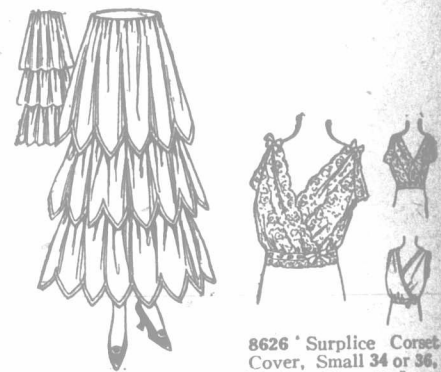


8625 Two-Piece Gath-ered Skirt, 24 to 32 waist.

8903 Girl's Dress, 8 to 14 years.



8484 Corset Cover, 34 to 42 bust.

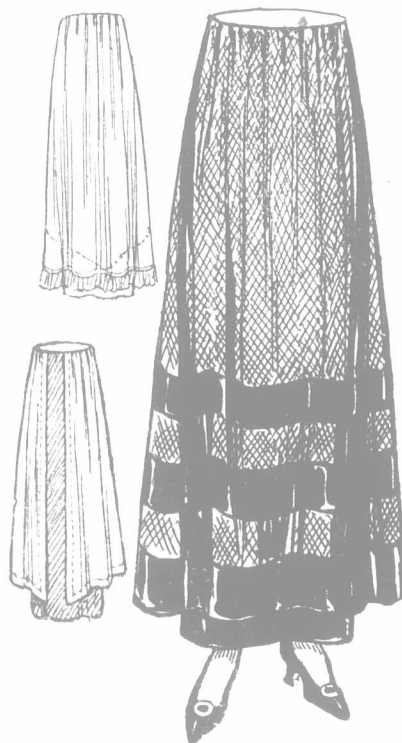


8718 Flounced Skirt, 24 to 30 waist.

8626 Surplice Corset Cover, Small 34 or 36, Medium 38 or 40, Large 42 or 44 bust.



8609—Fancy blouse, 34 to 42 bust.



8526—Two-piece tunic skirt, 24 to 30 waist.

The Windrow.

In an editorial in The Journal of the American Medical Association, it is pointed out that the effect of alcohol upon the human body is to hinder the action of the disease-fighting principle with which nature has supplied the blood, so rendering it much less fitted to fight disease than when alcohol in any form is not used.

In German East Africa there are "lakes" formed of solid soda, almost chemically pure. One of these is about 25 miles square in area, and soundings of the soda show a depth of from 9 feet to 18 feet or more.

Earl Curzon, Lord Privy Seal, stated in the British House of Lords recently that the Government is now administering the whole British mercantile marine, amounting to half the gross tonnage of the world. 43 per cent. has been requisitioned for naval and military purposes, 14 per cent. is occupied in carrying foodstuffs and raw material in behalf of the Government and its allies, and the remaining 43 per cent. is operated by British ship owners under State regulations. "Our ships," he said, "are carrying supplies of coal, grain, food, timber, munitions, and the raw material of munitions, on an unprecedented scale. But for these supplies to France, Russia and Italy they would be dependent upon their own totally inadequate resources. . . . Five hundred merchant vessels of all sorts are being built, and the number of small craft added to the mercantile marine has been more than 2500." He also announced that 450 enemy ships have been detained or captured since the beginning of the war.

Country Living in the Next Generation.

In an article recently published in The Independent, Prof. L. H. Bailey points out that one of the notable improvements in the next generation will be that the farmer will learn to "save

So Most dusty you l In ashes is ne lights even Suns Th the clean the g fire-p and k the f heat. pan. ashes

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Name T

Address

Kindly send (1) a picture for your suggestion how to order the best my bo

King pres

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353

Twice a Day for Half the Year

Someone has to attend to the furnace. Most people look on it as an irritating, dusty job. It need not be. It is not, if you have a Sunshine Furnace.

In shaking down the Sunshine, the fine ashes are drawn up the chimney; there is never that fine sprinkling of dust that lights on everything in the basement, and even floats up through the house. The Sunshine is as clean as a piece of furniture.

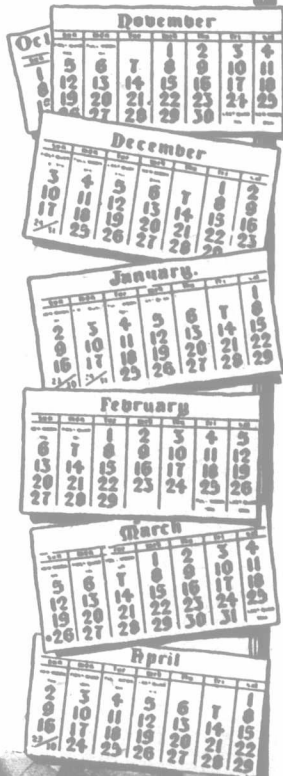
The extra sturdy grates crush with ease the hardest clinkers. A slight rocking cleans down the ashes. The ashes fall as the grates are shaken, for the sides of the fire-pot are straight. This saves bother—and heat; because if ashes bank up around the fire-pot they stop the radiation of heat. The ashes come out in a big ashpan. There is no shovelling or spilling ashes about.

McClary's Sunshine Furnace

Would you like to have definite information about the cost of installing a Sunshine Furnace in your home? Well, then write to our Heating Engineer—he will tell you. Simply address him at

McClary's
London, Toronto,
Montreal,
Winnipeg,
Hamilton,
Calgary,
Vancouver,
Saskatoon,
Edmonton,
St. John,
N. B.

812A



Name _____
Address _____
TEAR OFF THIS COUPON

Kindly send me without expense on my part: (1) Your booklet on the Sunshine Furnace. (2) Also forms how to order a system that will properly heat my home.

time" in order that he may have more time to use intellectually. In regard to local betterment he says: "Another generation should find us with few highways of the old kind; the highway advertising has already mostly gone and the remainder will go; a new building construction will develop, and it is to be hoped that house architecture will improve, and that the present hideous milk-station and creamery and similar constructions will perish; science and landscape effects will receive new attention; mechanical and physical aids to business will be extended. Inside the home, the developing of labor-saving devices and machines will necessarily be marked and we are to expect as radical a redirection of activities therein as has taken place in the past generation in the fields and barns. The woman of the farm, as well as the man, is to organize and economize her time; this is her most essential emancipation."

Europe's Greatest After-War Problem Woman Versus Man.

(BY EUGENE BRIEUX.)

What will happen to Europe's women after the war? I am afraid this is the most important question we will have to face once peace is declared. I am afraid we shall see a new sex. The war, with its economic struggle between men and women, is taking on such a violent character that this seems inevitable.

Before the war my apprehensions in this respect were sufficiently acute and were expressed in my play 'La Femme Seule'.

The man of the workshop, counter or office has already found a female competitor facing him and he has complained, sometimes without gallantry, generosity or justice. But what will happen after the war?

Once demobilized, and having received their well-deserved homage, the men will want to go back to the work they left when they were called to the colors. But often they will find their jobs occupied by women, who were called in a moment of necessity and will not quit by persuasion. The women will say: 'I am used now to earning my living. I have proved that I can do work you thought I was incapable of doing. I am used to salaried independence; I am here to stay—get out.'

The men will reply. 'The war is over. I have suffered for the defence of my Fatherland, my liberty and my home. I return covered with glory. Give me back my job.'

Both will be right, and when both sides in a dispute are right the struggle is bound to become most bitter. It would be wise to discuss this problem right now, so that the minds of the people may be prepared to accept the inevitable and so that attempts may be made to attenuate the evil. It is undeniable that woman's cause has made another giant stride in this war. Our French women have been admirable. Enemies of their cause will say that there are exceptions. An infinitely small number of women, indeed, have ceased work owing to the war allowances distributed, sometimes with more generosity than discernment, and in the dramshop some few have learned to behave like men.

But apart from these few exceptions, French women have behaved admirably in France's hour of need; in fact, women have done more than men ever could have expected of them. The French woman's devotion to the soil and to her children need not surprise anyone. What does astonish us is that she has shown herself so practical, careful, well-informed and wily in business, persevering without excitability, not as stubborn, but fully as prudent and courageous as the men.

Now that the women have proved their ability to conduct wisely their husbands' affairs in their absence, it will not do to scoff and jeer when they demand that they be allowed to help administer the public affairs through municipal elections. When told that only taxpayers can vote, the woman will reply that she has paid her tax in money and nature and that she has held the handles of the plough as well as the purse strings.

To prove that she also has paid the impost of blood, she will point to the empty chair where her son, flesh of her flesh, used to sit.

The comic sketch writers must not joke of these things. Most of the arguments against women's rights are bankrupt.

Women have displayed their abilities both in town and in the country. We see them as cafe waiters and street-car conductors. We see them doing the work which we used to think was too heavy for their 'weak organism.'

This weak organism has resisted the strain of the iron works. These frail hands have polished steel helmets, loaded shells and verified the keying up of the gun. I see now, as I write, two laundresses trying to move a heavy handcart loaded with linen. One of them pulling at the shafts and the other is, behind, pushing. Both are scarlet with their exertion, their disordered hair waving in the wind. I admire them as symbols of feminine efficiency.

Before the war only a small number of women refused to believe that men were necessary to their support. Now, let us men admit that they have proved that we need them more than they need us.

Near Morgantown, West Virginia, an old coal-mine has been made into a mushroom farm and is proving ideal for the purpose. The mushrooms are proving almost as profitable as the coal once was.

During the recent disturbances in Ireland, a woman, the Countess Markiewicz, "played the role of the Sinn Feiner's Joan of Arc," even taking active part in the fighting. Wearing the "republican" uniform, she made spirited speeches and urged the rebels on to fight. The countess is the daughter of one of the Sligo Unionists and the wife of a Polish painter. She has been known for years as a militant socialist.

A Kipling Story.

A good Kipling story is told in R. Thurston Hopkins' 'Rudyard Kipling: A Literary Appreciation: When Kipling lived at Rottingdean he was annoyed by the driver of the local 'bus, who often pointed his whip when he encountered the poet, and announced in a stentorian voice to his passengers, "Here we have Mr. Kipling, the soldier poet." Kipling suffered this in silence, but things came to a crisis when the Jehu came into collision with his favourite tree, doing much damage to it. He wrote at once a letter of complaint to the 'bus owner, who was landlord of the White Horse Inn. The landlord was advised to take no notice, and was offered ten shillings for the letter. Both cash and advice were accepted. A second and stronger letter followed, and the landlord carried the autograph to a bookseller and received a pound for it. The next day Kipling entered briskly and very wrathful. "Why don't I answer your letter, sir?" said the landlord. "Why, I was hoping you'd send me a fresh one every day. They pay a deal better than 'bus driving.'"

The Story of Ralph Blakelock.

One of the saddest life-histories in the annals of art, is that of Ralph Blakelock, now recognized as the foremost landscape painter of the United States, a man whose pictures are commanding the highest prices, while he himself is confined in an insane asylum at Middletown, and his family is living on the verge of want. Years ago Blakelock, unable to get prices for his pictures, and with a wife and ten children to support, became discouraged and went out of his mind. While he raved in captivity, the canvases that he had painted, exploited by the dealers, and appreciated at last by the public because of their marvellous beauty, went steadily up in price, until at last those for which the artist had been paid from twelve to thirty-five dollars were selling for thousands. When the finest of all, "The Brook by Moonlight," went for twenty thousand dollars, people began to enquire about its creator, and when an exhibit of Blakelock pictures was held, the "mad painter" was brought out of the asylum to see it. In the atmosphere of the beautiful things that he created, his faculties began to collect themselves. The story is thus told by the New York Evening Post.

The attendant opened the door. Blakelock stood still. Directly in front of him, in the room beyond, was the now famous "Moonlight," owned by the Toledo Museum of Art, and lent for this exhibition. In all the pictures which fronted this frail painter, this

For The Bride

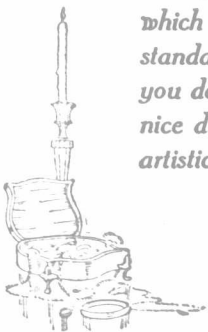
Will you allow the Silversmiths to His Majesty, King George V, to assist you in selecting suitable presents for the June Bride?

With the Mappin & Webb Catalogue from which to make selections, and the Mappin & Webb standard of quality to commend every piece on which you decide, Gifts for the bride may be chosen with nice discrimination and rare fidelity to service and artistic merit.

The Mappin & Webb Summer Catalogue—a treasure trove of Precious Stones, Jewellery and Silverware—will be sent postpaid on request. Write for it.

Mappin & Webb

CANADA LIMITED
353 ST. CATHERINE ST. WEST, MONTREAL.



Dumplings make the Stew Weight for weight, dumplings are over five times as nutritious as beef. The gluten in the flour is "the lean of the meat of the wheat"—it is the muscle-building, blood-forming element. Made from FIVE ROSES flour, your stew dumplings contain the energy-building elements so plentifully stored up in the best Manitoba wheat. Therefore, next stew day pop FIVE ROSES dumplings into the savoury mess. Besides jumping up its sustenance value *enormously*, your family will be gratefully sensible of a new deliciousness. Taste, economy, nutrition — all are served by using

Five Roses*
FLOUR for Breads-Cakes
Puddings-Pastries

How gratefully welcome are stew-days when FIVE ROSES makes the dumplings! Light and porous as the crumb of well-risen bread, airy fairy bits of toothsome nutrition.

Not for dumplings and puddings alone; but for bread, pies, biscuits, rolls and pastries, no other flour brings you that *constant* satisfaction so coveted by ambitious housewives.

It is so well-liked that almost a million mothers will use no lesser flour than FIVE ROSES for all their baking.

Packed in bags of 7, 14, 24, 49 and 98 lbs. Or barrels of 196 and 98 lbs.

Your dealer can easily get FIVE ROSES for you.

MAKING DUMPLINGS FOR STEWS

10 minutes before the stew is done, put ½ pint FIVE ROSES in a bowl, add ½ teaspoon salt and 1 teaspoon baking powder. Sift and add sufficient milk just to moisten. Drop by spoonfuls into stew. Cover and cook 10 minutes without lifting lid. Dish the dumplings around edge of platter, fill stew into centre and serve. Twice this quantity for large family.

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL.

All about DUMPLINGS and PUDDINGS—Send to-day for the famous 144-page FIVE ROSES Cook Book. Gives over 240 tested cake recipes, and fully 50 infallible directions and hints on bread-making. Besides pages on biscuits and pastries. So indispensable that already over 200,000 ambitious housewives have sent for their own copy. Mailed on receipt of 10 two-cent stamps, Address Dept. D.

★ GUARANTEED NOT BLEACHED—NOT BLEND.

When you Think of Dumplings Think of FIVE ROSES

came to meet him. The moon behind dark specter-trees seemed almost to throw shadows on the carpet at his feet. But he did not heed them. He turned directly from it and faced the side wall. He went to "The Old Oak" hung there with its neighbors, no more conspicuous, no more fine but holding in its canvas all of Blacklock's loves—the sharp twisting tree-limbs against a twilight sky. Somewhere from the depths of that picture there came a light, and it spread over the painter's face. He began at once to tell about it, how and where he painted it; he pointed to the tracery in the trees, and called Watrous's attention to

artistic details of execution having to do with backgrounds and color.

And now it was that Ralph Albert Blacklock came back—not as he came in physical shape to the city—but in spirit and in mind. His pictures seemed to be the link which the period of exceptional calm upon which he has lately entered needed for fulness. His memory became inordinately clear. He went from one to the other of his paintings, saying: "Now, Harry, you remember about this." And, "Doctor, you know I only got thirty dollars for this," telling who bought it and how he dickered for a better price when the offer was out of bounds too low.

Then he came to his "Moonlight." Again he pondered about the trunk of that tree which upheld such a load of moon-struck branches.

"Yes, I think that trunk is just the right size now. You see, I was not at all sure up there (meaning at Middletown) whether or not after all that trunk would bear the branches. But it is all right."

Now those who had hovered around, hearing his first words and watching the joy of the home-coming, took places in the rear. Left to himself, he strolled around, bowing to an attendant and explaining to her at length about his

"Ruby Wine," which was hung in the anteroom.

"I painted that for Mr. Herter, before he went to Paris," he said. "He died over there, and never saw it. See how ancient it looks, as if some old fellow a thousand years old had done it. But that is because it is done on a wood-panel. I got \$25 for that picture." And as he mentioned this figure, which would not pay insurance on the painting's value to-day, he had no sadness in his voice, no deep hurt at the injustice done. Rather light was his tone, as if this were a circumstance in the life of an artist.

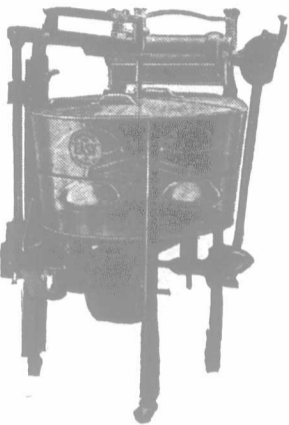
"Silver Gloss"

THE CANADA STARCH CO. LIMITED
MONTREAL, CARDINAL,
BRANTFORD, FORT WILLIAM.
Makers of "Crown Brand" and
"Lily White" Corn Syrups, and
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More Blouses, Lingerie and
Skirts—more Table Linen—
more Sheets and Pillow Cases
— more Curtains — are
starched with "Silver Gloss",
than any other starch in
Canada. Your grocer has it.

Laundry Starch

233



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

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, suds soaked, wooden devices you have been using, why not have the real washer, made of indestructible, rust-proof metal, one that is always clean and sanitary, and built for a lifetime of service? Write

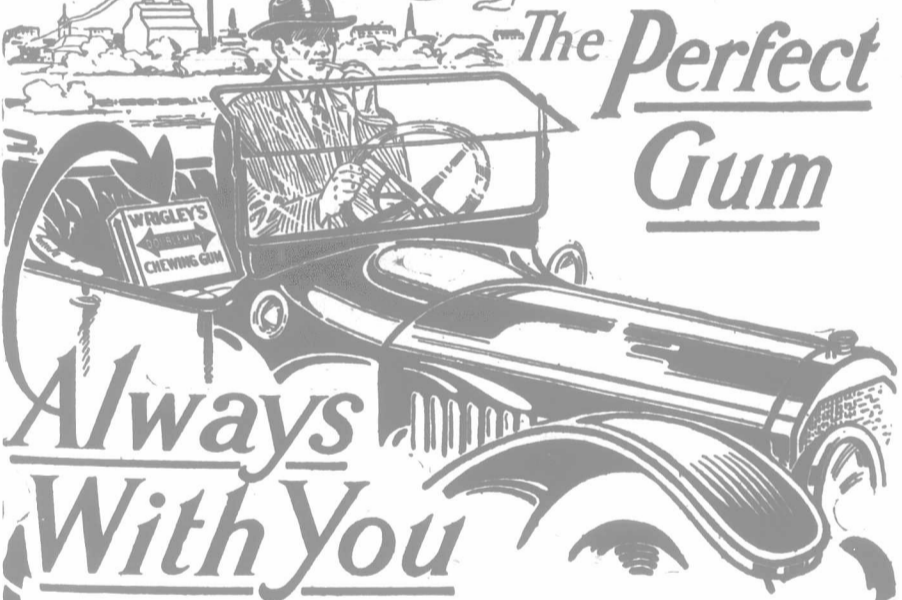
Write for
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WRIGLEY'S

The Perfect Gum



Going back home from town carry a box of **WRIGLEY'S** with you. Then you'll have it always handy.

Two delicious flavors



Sealed tight—kept right

Made in Canada

It quenches thirst, refreshes mouth and throat, aids appetite and digestion. A boon to smokers—it makes the next pipe or cigar taste better: cools the tongue and preserves teeth.



Send for the Wrigley Spearmen's quaint Mother Goose Book in handsome colors, free. Address Wm. Wrigley Jr. Co., Ltd., Wrigley Building, Toronto, Ont.

"Chew it after every meal"

Since then Blakelock has been supplied with plenty of material, and has been made an Associate of the Academy. That he grows every day more mentally alert may be judged from his reply to a request that he "paint another like that?"—"paint another like that? No, no. I could not paint another like that any more than I could shed tears over again. A picture is emotion, not industry. Of such as that I could do only one."

Blakelock is now sixty-seven years of age, but it is believed that something of his one-time dream and the cunning of his hand, may return to him.

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.]

Tissue-Building Foods.

A certain amount of wearing-out of the tissues of the body goes on at all times, but more particularly when heavy work has to be done; hence during the long summer, on a farm, care should be taken to see that foods that build up the worn-out tissues are supplied in sufficient quantity. Nature herself cries out for these by endowing men working in the fields with a "hearty appetite". It is not enough to supply plenty of food,—the kind of the food must be considered.

Pre-eminently among the foods that are tissue-builders (muscle-builders) are the proteid (nitrogenous) foods, including meat, eggs, cheese, milk, nuts, beans, bread, peas, lentils and the cereals. Many people lose their liking for meat in hot weather, but when it is taken from the bill of fare it is absolutely essential to supply the necessary material for building up the body-tissue in some other form; eggs, cheese, etc., must be substituted, and in sufficient quantity. For instance, it would take three eggs to supply the food-value of the amount of meat that a hearty man would eat at a meal. Very few, however, care to eat three eggs at once, therefore, other proteid foods may be added to make up the difference.

Beef.

Beef contains albumin (an important constituent of eggs) and other proteids, mineral salts, and extractives which give the flavor. As all albuminous foods are most easily digestible when raw the reason for lightly cooked eggs and "rare" beefsteak and roast may be seen.

Meat, to be wholesome, must be the flesh of a healthy, well-fed animal. The more tender cuts always come from those portions of the animal least moved in walking. For example the cuts near the backbone—the sirloin and porterhouse, and the tenderloin—are the finest in grain and best in flavor, while the shanks, flank, neck, etc., all with muscles hardened by movement, are coarser and tougher. All of the tougher portions, however, are as nutritious as the more tender, and only need long and slow cooking, on the stove or in a fireless cooker, to make them palatable.

To Broil Steak.—Steak is best broiled over glowing hot coals, without flame or smoke. Grease the broiler, place the steak in it and hold it near the coals while counting ten slowly. Turn the broiler and hold the other side down for the same length of time. Keep turning until the meat is well seared, then hold it further back until nicely browned. Serve very hot on a hot platter, with butter, pepper and salt. Meat cooked on a pan may be made almost as palatable if done as follows: Use a cast-iron pan. Rub it with fat and let get very hot. Put the meat in, sear well on each side to keep in the juices, then brown nicely.

The same principle must be observed for roasted meat: Sear the outside first in a very hot oven, then cook

more slowly until done, allowing 10 to 12 minutes to the pound. One method for roasting meat is the following: Dredge meat and pan with flour and into the pan put a tablespoonful of salt and ¼ teaspoon pepper. If the meat is lean put some bits of fat also into the pan. When the beef is seared and the flour brown, reduce the heat, and baste the meat from the fat in the pan every 10 minutes until done. Gravy may be made in the pan.

All the coarser and cheaper cuts should be stewed, alone or with vegetables, very slowly and steadily, or they may be put through the vegetable grinder and made into hash, meat-pie, croquettes, Hamburg steak, or meat loaf. The success of these depends greatly upon the seasoning,—pepper, onion-juice, etc.

Soup-stock may be made from scraps and trimmings, and fresh cracked bones. Cover, then cook very slowly to extract all the juice and flavors. The water from a properly boiled "boil" of beef should not be of much use for soup, as in boiling beef the right way is to put it into madly boiling water and let boil for five minutes. This sears the outside and prevents the juices from escaping. The pot is then drawn back and the cooking continued, gently and slowly, at a much lower temperature.

Eggs and Milk.

Eggs are among the important tissue-builders, chiefly because of the albumin which they contain, the white being almost pure albumin and water. They also contain mineral salts. Soft-boiled albumin is much more digestible than hard-boiled, hence the advisability of having eggs lightly cooked. If it is essential to have them hard-boiled they should be boiled for half an hour, a process which makes them mealy and much more digestible than when boiled for half that length of time. To boil eggs properly drop them into boiling water, cover closely and set away from the fire for ten minutes. In making omelets, custards and scrambled eggs the heat should not be great enough to toughen the eggs into an indigestible mass.

French Omelet.—Take 4 eggs, 4 tablespoons water, a tablespoonful of butter and salt and pepper to season. Beat the eggs about 12 strokes with a fork, add the water and seasoning. Melt the butter in a hot pan, turn in the eggs. Shake the pan lightly, and as the egg thickens lift it lightly with a fork or knife, letting the uncooked part run underneath. When done, but still creamy, fold over and serve at once on a hot platter. The omelet may be sprinkled with chopped parsley or grated cheese.

Custard.—One quart scalded milk, 4 to 6 eggs, ½ cup sugar, ¼ teaspoon salt, nutmeg to taste. Beat the eggs slightly, stir in the sugar and salt, then add the hot milk gradually. When the sugar has dissolved pour into 6 cups and grate a little nutmeg over the top. Set the cups in a pan of hot water and bake in a moderate oven until just done. Do not let the water in the pan boil or the custard will be spoiled. As custard contains both milk and eggs, it is very nutritious. It may be made more attractive for serving by decorating it with dots of jelly.

The Scrap Bag.

Care of Granite Kettles, Etc.

All granite dishes should be washed inside and out in soapy water. Ammonia, Dutch Cleanser, Sapolio, or even ashes or salt will assist in removing spots and smoke.

Azaleas, Cyclamens, Calla Lilies.

Azaleas and rubber plants should be planted out in the garden for summer. Give the Azalea a rich soil, and never let the roots dry out. By care in this it may be induced to bloom again next winter. . . . Cyclamens and Calla lilies, both of which grow naturally in countries that become dry and hot in summer, should be rested during the summer months. To do this dry off gradually and then turn the pots on their sides in some out of the way corner of the garden, and leave, with very little attention, until it is time to bring them in, in the fall. Give just enough water to keep them from drying out completely.

The Beaver Circle

Our Senior Beavers.

[For Beavers from Senior Third to Junior High School Form, inclusive.]

Mrs. Cochran's Tom.

BY WINIFRED COLWELL, BROOKVILLE, N. B.

Junior shoved his hands in his pockets, dejected fashion, as he leaned against the lamp post. Jimmy had released him from the grocer's scarcely an hour before, and he was dreadfully tired.

Nobody wanted to buy papers. He had yelled until his throat was sore, and what good had come of it? A bold young man had snatched a paper from beneath Junior's arm, satisfied himself with the headlines, and walked away smoking a cigarette.

Nobody had treated Junior that way before and he was quick to resent it. In spite of the fact that he was on "bizness" he planted his sturdy little legs on the middle of the pavement and wrinkled his stubby freckled nose almost up to his eyes.

"Hey!" he shouted, angrily, "wanter borrey a cent to buy a paper?"

The offender made good his escape, and Junior returned to his reclining position against the post in no gentle mood.

For the past week Junior had been in what Jimmy termed a "tall huff." There had been no snow for some time, and consequently Junior's shovel was forced to be idle. It was bitterly cold, and nobody ventured out to buy papers. Rent was due, and mother was greatly worried as to how she could pay it. Her mistress had recently decreased her servants "because of the war," and mother was one of the sufferers. No one else could give her work, and her savings were almost gone. But what seemed very dreadful to her was the threat of the burly landlord. He was not wanting in tenants "who paid," and announced to her that morning he would give her three days of grace. Then if she could not pay she must "git out" and leave him the "furniture."

So Junior was in a "tall huff" with a reason behind it. He didn't know how they would be able to scrape even a quarter of the sum required by the landlord.

But Junior wasn't a lad to give up quickly, so he leaned against the lamp post to discover a way out of what seemed to be an unavoidable disaster.

Surely something must be done. His small sisters couldn't stand the bitter outdoor cold all the time. Junior wouldn't permit himself to think of his mother under such trying conditions. It was altogether too terrible!

The charities! The thought of them brought tears to Junior's eyes. They would not let them starve to be sure; but then their home would be gone and "Be it ever so humble."

Yet Junior was determined to be resigned to his fate. He saw no other way out of the difficulty. He knew that he and Jimmy wouldn't have to work so hard, but after all what did that matter? Junior's affections would die with his home, and he would be nothing more than an automaton. With a sigh he shifted his papers to the other arm and waited for customers.

Just then a man rushed by all out of breath. He was dressed as a butler, but the crowd of newsboys thought him some fine lord.

Junior did not move from his position to join the mass of newsboys about the newcomer. The words came distinctly to him where he was:

"Mrs. Cochran's Tom is lost!"

Junior sighed and drew his tattered coat about his shivering form.

"Wisht the lan'lord was!" he muttered.

"Large reward for his safe return!"

Junior picked up his ears then, and waited. But the herald had had his say, and when Junior looked up to find him he was nowhere to be seen.

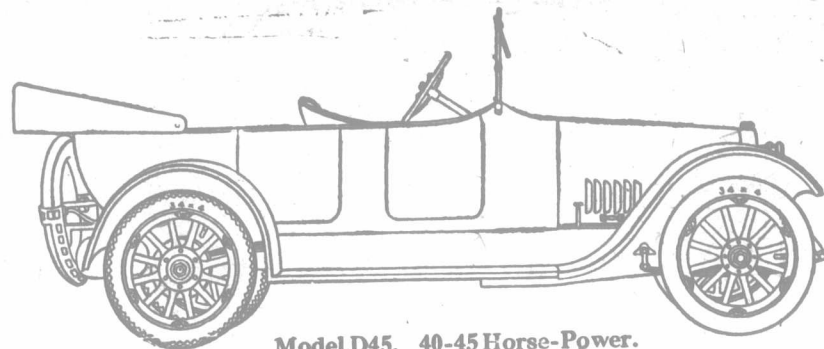
With swift feet Junior pursued him round the corner.

"Say, mister," he gasped, "what's Mrs. Cochran's Tom like?"

The man frowned.

"Like?" he repeated.

Junior nodded. I mean, how old's he, an' what's his hair an' eyes like?" he explained in one breath.



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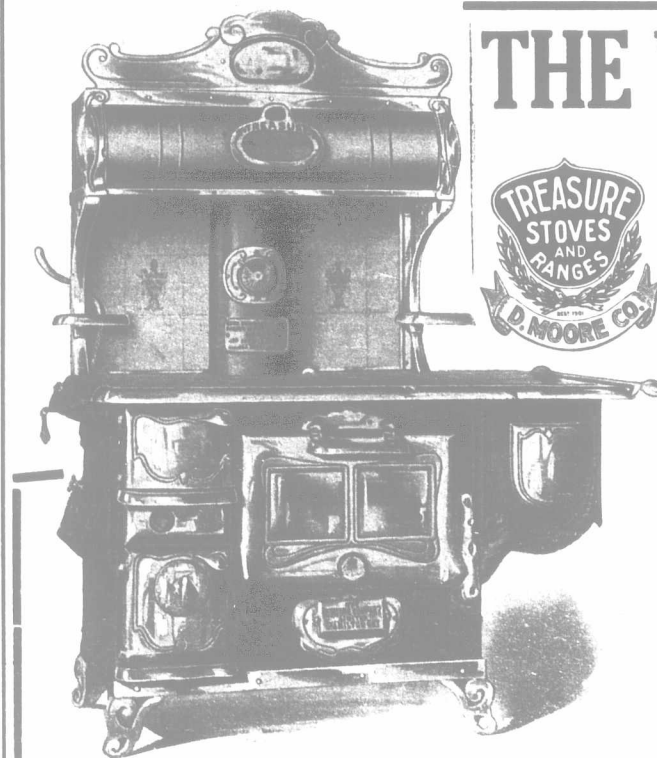
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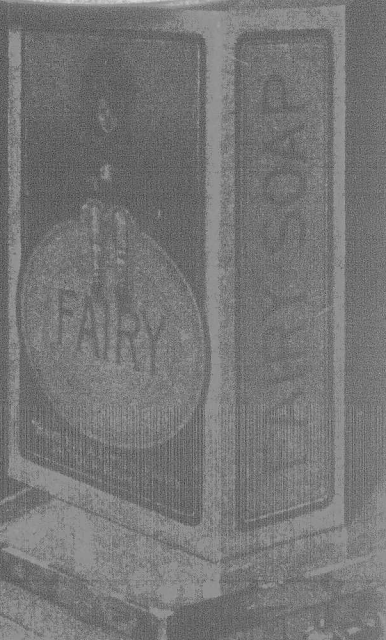
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- How many children have you?
- Are they self-supporting or dependent?
- Have you saved enough to maintain your family should you die?
- Or would your home in that case be broken up?
- Would your children be reared by relatives?
- Is there a mortgage upon your house, your store or farm?
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The man paused before he answered. "Age four, hair and eyes brown," he said bluntly, and turning on his heel left Junior far behind him. The boy hardly realized that an important old gentleman wished a paper until he felt the angry swish of a cane across his cold knuckles. Then Junior dismissed all thoughts of Mrs. Cochran's Tom and managed to sell seven papers.

A business man gave him a suggestion. "Why aren't some of you down at the next corner?" he demanded. "I had to come way up here to find you. Why, you're worse than sheep."

So Junior attempting a whistle, with his little cold hands shoved into the depths of his trousers pocket, went to seek better selling ground.

A small, richly-dressed child passed him in tears. To appearance he was lost just as plainly as if he had a great tag labelling him so.

Junior's quick eye observed his plight. Immediately his thoughts flew to Mrs. Cochran's Tom.

"Brown hair an' eyes," he mused. "Bout four years old. Say," eagerly he grasped the strange child by the arm, "R'yu Miss Cochran's Tom?"

The strange child stopped crying. "Iss," he replied.

Here was luck indeed! Junior beamed happily as he took the child by the hand.

"Whar d'yu live kid?" he demanded.

The strange child refused to speak.

"Don'tcha know whar yu live?" asked Junior again.

"Iss," affirmed the child.

"Whar, then? There?" Junior pointed to a large business house well adorned with signs.

"Iss," replied the child.

"Au gwan; that ain't yer home," enlightened Junior, "nobody lives there. D'yu know yer lost, kid?" he continued in an exasperated tone, "Whar's yer maw?"

"Iss," said the child.

Still Junior was not discouraged.

He felt sure that he held Mrs. Cochran's Tom by the hand. All that was lacking to him was where Mrs. Cochran lived.

"Cum 'long kid 'n we'll git yer home," he encouraged, and to his delight the child made no demur at being led away.

Then the enquiry began. No pedestrian was allowed to pass without hearing the oft repeated question.

"Whar's Mrs. Cochran live?"

Some laughed. Others looked cross and shook their heads. It was a long time before anyone would happen along with the much needed information.

Finally a sharp-nosed lady came to his rescue.

"Mrs. Cochran lived at No. 72 Queen St., and if he had news of Tom he had better hurry."

"Guess she didn't see yer kid," said Junior as he took his little charge by the hand and started for No. 72 Queen Street.

It was a large building with a glass porch in front. Steps led up into the porch, and boldly Junior mounted them. The porch door "stuck," but the newsboy's tough muscles were more than a match for it. It flew open all of a sudden.

Then a strange thing happened.

A small animal made its appearance from a dark corner of the steps and ran under the startled boy's feet.

Junior's hand was on the bell. Frightened he fell backwards, clutching wildly for some support with his hands.

His left hand met the pavement with a heavy thud, but his right encountered something soft and warm. It lay quiet in his grasp, but Junior had not time to examine it before the angry maid appeared.

"Did you ring that bell?" she demanded.

Junior nodded.

"Well, what do you want?"

The boy choked something back that was rising in his throat, and inquired in a voice that trembled:

"Mrs. Cochran live here?"

"Yes, she does," snapped the maid, "what do you want of her?"

"To return Tom," boasted Junior.

The maid hesitated. Then she heard a sound from the apparently lifeless thing in Junior's hand, and she divined something.

Clutching the now struggling animal in his hand Junior was ushered into Mrs. Cochran's presence, and immediately pushed forward the child beside him.

But (strange to relate) Mrs. Cochran

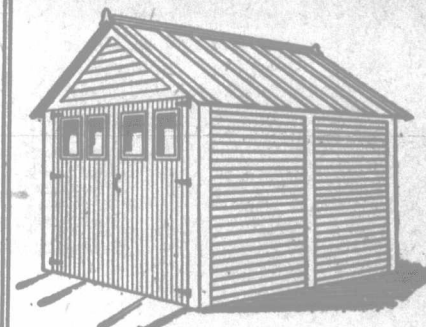
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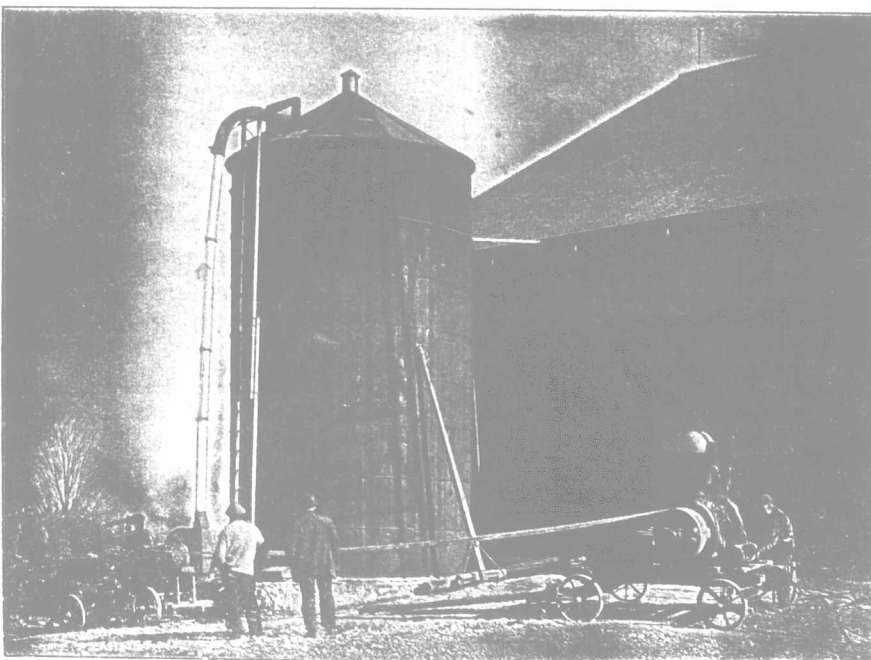
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had no eyes for the lost child. Her whole gaze was rivetted on the trembling form in Junior's hand.

In a moment more she had it on a little cushion beside her and bent over it with loving words and caresses. The little creature acknowledged her love as best he could. Apparently he liked it.

Junior was thunderstruck. Can you believe it? The small animal was the missing "Tom!"

The child whom Junior had thought to be "Tom" began to cry loudly. Mrs. Cochrane left her pet to comfort.

Then the whole story came out, rather jerkily on Junior's part.

"What's your name, dear?" Mrs. Cochrane asked the child.

"Nellie," was the reply.

Junior started. "I might know he was a girl," he muttered, "a boy woulda had more spunk."

The maid was dispatched to the police station, and soon returned with Nellie's anxious mamma. She heard the whole story, and admitted that she was the lady who had discharged Junior's mother.

Next morning mother was sent for to work as usual. Junior never quite realized why she considered he had anything to do with it. He didn't mind anyway as long as everything was all right again. The landlord was paid, and Junior was not deprived of his home after all.

Our Junior Beavers.

[For Beavers up to Junior Third Class, inclusive.]

The Baby.

I use' to be the baby
'Fore the other baby came,
I didn't know that maybe
I'd have to change my name;
But now I'm only "Brother,"
'He's "Mother's precious pet"
(I guess she's stayed my mother,
But I haven't ast her yet).

I thought, though he was tiny,
And he looked so very queer,
He'd get over being whiny,
When he found that I was here.
I thought before we knew it
We'd be chummy as could be;
But I ain't a-goin' to do it,
'Cause he isn't nice to me.

I mustn't even hold him,
Less he drops on to the floor,
An' it doesn't do to scold him;
It just starts him in to roar.
I am goin' on to bed alone,
And I go to bed alone;
But I wished he'd stayed in heaven
Till he'd got a little grown.

P'raps some day there'll come another,
It would be a funny joke;
Then he'd have to be the brother,
An' be told his "nose was broke."
It would start him yellin' maybe,
But I'd tell him just the same,
That he couldn't be the baby
When the other baby came!

ETHEL M. KELLY.

Junior Beavers' Letter Box.

Dear Puck and Beavers,—This is my first letter to your charming Circle. My brother takes "The Farmer's Advocate" and I enjoy reading the little letters very much.

We live on a farm in the district of Temiskaming. We have two horses, one Jersey cow, one Durham cow, and one Jersey yearling, also we have one cat, eighteen hens and one old pigeon. We live one-half mile from the T. & N. O. railway station. The "National" train going direct from Toronto to Winnipeg passes by here three times a week, both ways. My parents settled here over thirteen years ago. At that time there was not a rod of road cut in the township. Now we have quite a little village, two stores, one church, one post office, and one school within a mile of us. The automobile road running from Toronto to Hudson's Bay passes by one side of our farm. As my letter is getting long I will close, wishing the Circle every success.

Hcaship, Ont. STELLA NELSON.
(Age 12 years.)



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MAIL CONTRACT.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 9th day of June, 1916, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Petrolia No. 3 Rural Route, from 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 Petrolia, Wyoming, Oil City and Oil Springs, and at the office of the Post Office Inspector, London.

G. C. ANDERSON, Superintendent.
Post Office Department, Canada, Mail Service Branch, Ottawa, 28th April, 1916.

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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 Glanworth 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 Glanworth, London, St. Thomas and Wilton Grove, 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.



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 the 1st October next.

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G. C. ANDERSON, Superintendent.
Post Office Department, Canada, Mail Service Branch, Ottawa, 5th May, 1916.



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. 1 Rural Route, from 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.



MAIL CONTRACT.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 9th day of June, 1916, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Southwold Station No. 2 Rural Route, from 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 Southwold Station, St. Thomas and Muncey, and at the office of the Post Office Inspector, London.

G. C. ANDERSON, Superintendent.
Post Office Department, Canada, Mail Service Branch, Ottawa, 28th April, 1916.



MAIL CONTRACT.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 9th day of June, 1916, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Petrolia No. 1 Rural Route, from 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 Petrolia, Wyoming, Oil City and Oil Springs, and at the office of the Post Office Inspector, London.

G. C. ANDERSON, Superintendent.
Post Office Department, Canada, Mail Service Branch, Ottawa, 28th April, 1916.



MAIL CONTRACT.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 9th day of June, 1916, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Petrolia 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 Petrolia, Wyoming, Oil City and Oil Springs, and at the office of the Post Office Inspector, London.

G. C. ANDERSON, Superintendent.
Post Office Department, Canada, Mail Service Branch, Ottawa, 28th April, 1916.

Our Serial Story

The Road of Living Men.
BY WILL LEVINGTON COMFORT.

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

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II

LONG ISLAND.

1

Now, this is a chapter of things seen dreamily, as one looks back from the Gate—at the House out of order. . . . It was in the boat with Yuan and Jane Forbes that I lay. There was Huntoon as well, and a German doctor (who had changed places with old Miss Austin of the Mission on account of my condition) and three native boat-men. Of one after another of these, I was distinctly conscious in the days that followed, but Yuan was always near. . . . The questions that I would ask lost themselves in a brain-mist, so that words could never form for them; and the matters which Yuan told me entered the same mist, leaving no record there. Yet, in the deeper places there was ease from the things he whispered in those long pallid days and nights.

I remember the calling from boat to boat; the sudden shock of rifle-firing; the cries of watchers in the night. And once (it was dusk, I do not know of night or morning), a boat struck us, and the gasping gutturals that I knew so well, were thick as stormy darkness, and our boat was rimmed with gun-fire. Huntoon fell across my knees, hit again, but apologizing bitterly for hurting me. It was all black, and I was hot and stifling with blood fresh from my wounds.

I remember conning curiously over the layers of life in a man. There was one that belonged to my chest and limbs, of remote acquaintance to consciousness this,—just a wrestle of agony in the morning before the fever mounted, a breathing from the throat, half-choked with thirst, and all below the throat bruised and seared. I was glad to be rid of this layer. Second, the brain-mists which only a shock could penetrate. Then there was a dogged toiler that worked with no will of mine; down to the very heart of misery it went, and held there, toiling with the fires, as stokers in the hold of a ship that may sink. This is a man's vitality from his fathers. Finally, there was a spirit that carried me, as on a strong wind, out of junk and body and brain-mist; yet with all its journeyings and all its fluent consciousness, faint, hardly traceable gravures were left upon the memory.

Many times I fell from high places, as one does in the beginning of sleep. Once (Yuan told me of this) I squinted up at him to inquire if that were not a neat dive. I had seen him from the sea, and he was far up on the cliffs of Oporto. . . . Often, from a distance I heard Mary Romany playing the Chopin Larghetto. We whispered in many temples and gardens, and always I was looking for a yellow rose in whose enchantment a lover might find his voice. . . . Once again I heard a voice that seemed to summon me—a voice that would pierce my consciousness in a death-trance—the big eagle calling across the water from another boat:

"And how's the boy this morning?" Yuan answered, and then I heard the added sentence:

"That was the most satisfactory bit of bad shooting I ever did."

Directly afterward, I heard Mary Romany's voice—though no words are left with me. Yet once, much later, I seemed to hear her say, "We have been real comrades—but I am hidden in perils from you—and those who belong to me, seem to be intent upon your death."

I saw her face, blanched with terror and her hair with white in it. That cry of Mary Romany from the face of the water, as her father raised the rifle a last time—that was eternal. But more than all I saw her eyes (the boat sinking beneath our feet and the Chinese striking at us from the river), the eyes of Mary Romany with a look in them for me, lovelier than any hope, triumphant price of many deaths.

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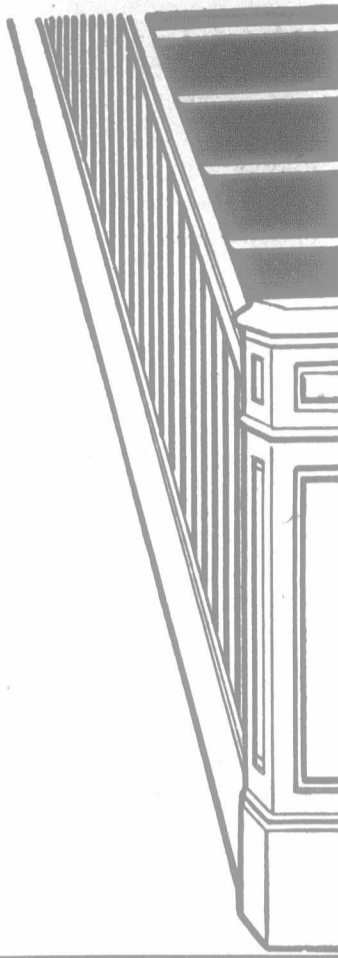
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Well, I didn't like that. I was afraid the horse wasn't "alright" and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now this set me thinking.

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Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that of a washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. It'll save you 60 cents a week, and no more 50c a week till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

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was broader, the banks lowered and far apart, yellow sunlight upon the water. . . . Often, Yuan sat near, and I could see a haggard and emaciated Huntoon, farther back under the matting, smiling at me.

There was one night—like a black camel, crippled unto death, dragging its way across a desert. . . . I saw, in the light of a held lantern, blood spurting from it like a spring—Jane Forbes laving and binding the wound, shutting her eyelids to press out the tears, the better to see. "You are brave, Mr. Huntoon," she said. "We all should have been dead without you". . . . He called it a scratch and laughed weakly. His face was sunken, the skin gray-white like dust, the lips white, the eyelids pulled together. . . .

Yet it was in the long pallid nights that strange things would happen to the mists in my brain, as if they parted for the night winds. The big sheet of matting above my head would talk to its mate, the river-wind; and I could feel the tug of the current beneath—wind and current and oar hurrying us out of the Malignant Country. . . . I remember low lights pricking the shore—and the heads of Yuan and Jane Forbes close together, their low voices mingling with the monotone of the sail. That time the legs of the native boatmen, in the gleam of moon or river light, were like dragons with writhing necks. . . .

I seemed to have a fellow understanding with Huntoon. He was off his head, too, from the fever that comes in when the blood goes out. Once he thought he was drinking again—and he hadn't meant to. Once he revealed the white inner scroll of his heart where the taint of wild living had never reached, and the record of a clean love was hidden. . . . Yuan, the woman's lover, listened and wept—as the mumbled words of the man who could never be his rival, trailed out to the wide night.

At last there was a quick curve in the big river, and all were awake, though it was my lone part of the night. . . . I saw a great field of lights on the left bank—gun-boats and Hankow. All I knew for a long time was that Mary Romany should be near me now. . . . Jane Forbes was standing by, her face craned outward to avoid the matting, the first glow of morning in her eyes. . . . I didn't understand—only that it was some change, some crossing of eternity and the end of river-junks. Heart and soul, I was waiting for Mary Romany, because this was a crossing. Surely she must meet me at every life-crossing. . . .

The dawn was a great gray temple with crimson foundations. The sun lifted itself, a flaming disk of orange-red, with the black boom of a clipper man-of-war carved against the arc. Sailors were lifting Huntoon to the deck of the ship. The native boat men near me watched raptly and whispered, for this man had done much to keep the fear of violent death in their hearts. Having that, they served us well. . . . "Save him all the suffering you can. He is one of the bravest men in China," Jane Forbes called softly, to those standing above.

Another small boat was near. The whining voice of him who had prayed was lightly animate now. I had not heard it since the prayer, but I knew. Safely out of the valley of the shadow, it had found itself again. The Reverend Goethe Benson of the Mission was speaking to any who would listen. Low, incessant, unctuous, that voice—a maddening play upon the nerves. It seemed to ungarb some horror from Jane Forbes; something came from it that poisoned her. I saw her face, and so did an English correspondent, who left Benson to find out from the woman what her look meant.

Then I was lifted—up, up, it seemed, into a dry, brassy light that devoured my life, for I belonged to mists and darkness—I, Thomas Ryerson, waiting for the woman. She must come soon, before the full day, or I should have to go. I told Yuan my trouble—Mary Romany was to meet me here—and that I must not go away until she came. . . . And then I knew nothing, save the battle to remain, to keep the mists away. Death was nothing—if she would come. Pain was nothing. There was nothing that I wanted—neither water, ease, nor life—only her voice and hand. The light closing around my eyes was

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not earth light. The old suffocation was bringing its thickness. I was full of sorrow and shame, for not proving strong enough to hold the Crossing until she came.

It must have been some time afterward. I heard her voice long, long before it brought me back—and even then there was a shadow which I could not penetrate. I fancied she came—and then I was sure. Her words, though I did not understand them, fell like healing upon the very centres of pain, and the lovely magnetism from her hands crossed my shut eyelids, with an ease and a releasing of evil, such as the good must feel, when the wings of the spirit spread wide to the winds of daybreak.

I wanted to hear her words aright, but that was not given me. Yet I know Yuan told her how I had waited through the night and the dawn. Yes, I heard his voice, and another—and still another, the big eagle's—just the voices, not the meanings. Now, I knew she was going; that this was just a hand at the Crossing. We were not to be together against the stream. A Yellow Land was about us and a Yellow War.

Her face came into my deeper life—Mary Romany as she bent forward. The river-crisis had touched the hair at her temples, sunk its pallor deep beneath the bloom, and left the terror of its passing in the mystic darkness of her eyes.

A woman was there where the girl had been. Other men must have realized this with the same furious intensity of meaning, so that I wonder it is not common among the revelations of talk and art. I felt that I could speak to Mary Romany now—that she was a world-centre for me—that China had shattered all cloying self-consciousness.

Something eternal had happened. We who had never been strangers in spirit—were no longer strangers in flesh. Passion and labor—she had never meant to me before—but these and all that moves in the light of common day, flooded into the spaciousness of womanhood which I now perceived—the toil of hands, the service of pain, the anguish of babes and the glory, the kiss of passion and the kiss of motherhood, weariness of flesh and falterings of spirit, all these that make life and test love, gathered in apace and nave and ciborium—but the lustre of ideals bravely filled the finished cathedral and a starrier worship.

But I am interpreting what was just a flash then—a flash of the wondrous miracle: a woman's illumination for man's eyes, the prepared woman who was but a maid before.

They were calling Mary Romany. . . and she wept, her kiss upon my forehead. And then from her breast as she leaned, came to my nostrils the secret of all life, the essence of life—fragrance of the yellow rose that bloomed imperishably for me in her breast. . .

It brought the old words to my lips, as it would out of death, if she bent close. . . And she made the words come again—and laughed and kissed and wept and went away.

To be continued.

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 from April 28 to May 5th: F. M. Marchbank, New Annan, P. E. I., \$2.00; "Scotia," London, Ont., \$1.00; Mrs. Robert Steele, Quyon, Que., \$5.00; Mrs. Wm. J. Johnson, R. 5, Perth, Ont., \$10.00; X. Y. Z., \$2.00; Mrs. Geo. Bedford, Mt. Brydges, Ont., 50 cents; J. E. Parker, London, Ont., \$4.00.

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Total to May 5th. . . \$2,341.40

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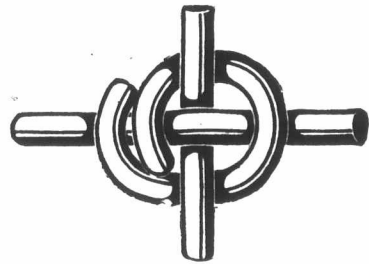
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proven fence, rather than take chances with any lesser make.

Our heavy fence quoted below, is all No. 9 full gauge, locks also No. 9 gauge.

No. of bars	Height	Stays in. apart	Spacing of Horizontals	Price in Western Ont.
6	40	22	6½-7-8½-9-9	29½
7	40	22	5-5½-7-7-7½-8	33
7	48	22	5-6½-7½-9-10-10	34
8	42	16½	6-6-6-6-6-6-6	41
8	47	22	4-5-5½-7-8½-9-9	40
8	47	16½	4-5-5½-7-8½-9-9	42½
9	48	22	6-6-6-6-6-6-6	43
9	48	16½	6-6-6-6-6-6-6	46
9	52	22	4-4-5-5½-7-8½-9-9	43
9	52	16½	4-4-5-5½-7-8½-9-9	46
10	48	16½	3-3-3-4-5½-7-7-7½-8	49
10	48	12	3-3-3-4-5½-7-7-7½-8	54
10	52	16½	3-3-3-5½-7-8½-9-9	49
11	55	16½	3-3-3-4-5½-7-8½-9-9	54

New Ontario Prices on Request.

All fence manufacturers are quoting higher prices than last year—but higher prices still are bound to come. If contemplating a purchase of fence within the next few years, now is the time to buy.

FREIGHT PAID On orders of \$10 or more. Write to us direct, and we will send you complete fence price list, and our big catalogue containing money-saving prices on all farm requirements.

THE PAGE WIRE FENCE COMPANY LIMITED.

1143 KING STREET WEST, TORONTO

FACTORY AT WALKERVILLE

PAGE GATES



match Page fence in dependability

Our "Railroad" gate is a good example of Page superiority in this line. Note how it is braced. And note the Prices—prices which would be quite impossible for a gate so carefully, strongly built—but for our large output and our "direct-to-you" way of selling

3 ft.	\$2.50
12 ft.	4.75
13 ft.	5.00
14 ft.	5.20



Page Poultry Fence

is made in a variety of styles, of which the most popular is our Special, a medium weight, small mesh fence, that will turn small chickens and large stock as well.

20 bar—60 inch—61c. per rod.
18 bar—48 inch—55c. per rod.

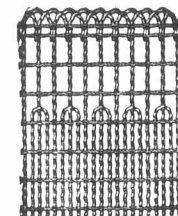
(Uprights 8 inches apart)

PAGE LAWN FENCE FOR PROPERTY PROTECTION

Because it so satisfactorily combines the practical with the beautiful, this is the fence chosen by shrewd buyers both for city and country homes. You can see Page Lawn Fence as it stands to-day on lawns where it was erected ten years ago—still perfect, still the best looking fence in the neighbourhood.

We have it in various neat designs, at various prices. The one here shown is quoted as follows:—

HEIGHT	PAINTED	NOT PAINTED
12 in.	6c.	
18 in.	7	
30 in.	9	8c.
36 in.	10½	9
42 in.	12	10
48 in.	13	11



Current Events.

Principal Gordon of Queen's University, Kingston, has resigned because of ill health.

The Ontario Government has passed an Order in Council transferring the control and operation of the Great Valley power undertaking to the Hydro electric Commission.

Dr. Liebknecht, the famous German Socialist, was arrested on the charge of inciting discontent in Berlin, and his arrest was immediately followed by riots of protest.

Arrangements have been made by which British and German wounded prisoners will be transferred to Switzerland.

The rebel Irish leader Pearce and seven others have been shot for their part in the recent insurrection. Four hundred and eighty prisoners have been sent to England. It was a coincidence, grateful to the loyal in Ireland, that while the Sinn Feiners were causing the trouble some of the Irish battalions at the front were receiving high commendation for gallant fighting.

At time of going to press it is believed at Washington that a diplomatic break between the United States and Germany, consequent upon the recent American note to the latter, will not take place—provided the Germans carry out the promise contained in their note, which states that merchant vessels "shall not be sunk without warning and without saving human lives, unless the ship attempt to escape or offer resistance. If this promise is adhered to the Germans

will leave merchant vessels alone, but will devote their entire operations towards destroying warships and transports.

After over 70 days fighting the Germans seem to be definitely in check at Verdun, although they succeeded in gaining a foothold in some French trenches on the northern slope of Hill 304 on May 3th. On Dead Man's Hill the French have extended their gains, and that a more general French advance has been in progress seems evident from the report that the civil population of the German city of Metz, capital of Lorraine, have been advised to evacuate. No doubt the arrival of a fifth contingent of Russians at Marseilles has put new heart into, as well as added to the fighting forces of the French. This steady and mysterious influx of Russians is no doubt one of the results of the great

conference of the Allies, held some weeks ago in Paris. Renewed German assaults are now expected farther north, presumably upon the British lines in Northern France and Flanders.

F. R. Benson, the Shakespearian actor-manager of the Stratford-on-Avon Players, has been knighted by the King.

Through Day Coach to New York Leaving Toronto 5.20 P. M. Daily Via C. P. R. & N. Y. C. Lines.

Commencing Sunday, May 7th, day coach passengers for New York may board 5.20 p. m. Canadian Pacific train at Toronto, daily, and arrive at "Grand Central Terminal" in the heart of New York City, without change en route. Particulars from Canadian Pacific Ticket Agents, or W. B. Howard, District Passenger Agent, Toronto.

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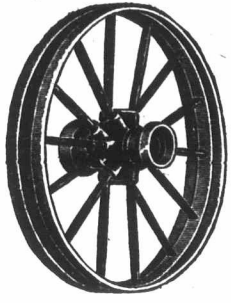
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CI
SIZE
3 INCH
TO 16 INCH

MAPLE LEAF
OIL
CAKE MEAL
WRITE TO
THE CANADIAN
TORONTO





An extra Set of Wheels

will make your wagon as good as two wagons

You need a regular high-wheeled wagon
You also need a low-wheeled truck.

PAGE STEEL WHEELS

enable you to convert the one into the other, in a very few minutes.

A splendid, strong wheel is the "Page." Farmers tell us there's nothing on the market to compare with it.

Price list on application, accompanied by chart showing how to take measurements for ordering correct size to fit your wagon.

THE PAGE WIRE FENCE COMPANY, LIMITED,

1143 King Street West,
TORONTO

The Poultry Raiser's Opportunity.

From present indications Great Britain will require all the eggs and poultry Canada can produce during 1916. Last year, as a result of greatly increased production, Canada was able to ship to Great Britain the largest quantity of eggs exported since 1902, and at the same time reduced her imports for home consumption by nearly a million dozen.

Canadian eggs have found favor on the British market, and the prospects are that, providing they are available, much larger quantities will be shipped this year. The unusually high prices prevailing at the present time are largely due to this anticipated export demand.

Prices for poultry are also high, and will likely continue so for the rest of the season. Last fall and winter all the surplus Canadian poultry was exported at highly profitable prices. Between fifty and sixty cars of live poultry were shipped from Western Ontario to the Eastern States alone, and in the Maritime Provinces, particularly in Prince Edward Island, the export demand for canned poultry has greatly enhanced prices to producers.

Although some uneasiness has existed on the part of the trade as regards transportation facilities in view of the high freight rates and the shortage of boats, it is now reasonably certain that an even greater demand for Canadian poultry and eggs will occur this year. It is important, therefore, that every poultry producer take steps to profit thereby, by hatching as many chickens as possible this spring.

Now is the time, by hatching early, by hatching everything possible in the month of May, to guard against the marketing of so much small, under-sized, poorly-finished poultry, which annually becomes a drug on the market in the fall of the year. Again, it is only by hatching now, and giving the chickens every possible chance to thrive and grow, that a maximum supply of eggs can be obtained in the winter time.

Given their proportionate amount of attention, the growing of poultry brings quick and profitable returns to the farmer. With the increasing cost of meats, milk, butter, etc., there is a constantly increasing demand for poultry and eggs. The labor problem is not critical, as the boys and girls on the farm can readily take care of the poultry. The cost of feed is nominal, prices for poultry and eggs are high—the highest in fact, for many years. It is obvious, therefore, that Canadians have a patriotic, as well as an economic duty to perform in making the year 1916 the banner year for poultry production in Canada.

JOHN BRIGHT,
Live Stock Commissioner.

Trade Topic.

It will no doubt be of interest to our readers to know that the Raymond Manufacturing Company, Limited, of Guelph, Ontario, who for the past 16 years have been manufacturing the "National" Cream Separator, have recently sold this end of their business to the Ontario Machine Company, Limited, with Head Office at 18 Bloor Street East, Toronto, under the direction of Canadian Separator experts. Although the "National" separator will no longer be manufactured by the new company, a full supply of repair parts for the various types of the "National" machines will be carried in Toronto. The Ontario Machine Company, Limited, will devote its entire time to the manufacture and sale of the new model "Superior" separator. This machine is made with a self-balancing disc bowl, ball-and-socket spindle, and direct-to-the bearings oiling device, and other features which combine to make the "Superior" a very popular and efficient machine.

"Just tired of him, eh?" asked the lawyer. The actress nodded.

"Well, I wouldn't advise you to sue at this time. The war is crowding everything else off the front pages."

Mrs. Beat: "Tell the gentleman I'm not receiving to-day, Nora."

New Maid: "But he ain't deliverin' mum; he's collectin'!"



Not a Gas Range

Stop stooping - Lighten your housework

Think of an oven you can attend without stooping; an oven with a clear glass door at the right height to see through without bending over; the thermometer up where you can see it; all these things at handy standing height—and that in a range that burns coal or wood.

Do you wonder that women have taken the Lighter Day into their hearts, thankful for the relief from continual, tiresome stooping on bake days!

The LIGHTER DAY RANGE has six pot-holes—two inside to shut in strong cooking odors.
The Warming Closet just over the oven can be reached without lifting dishes over steaming hot kettles.
Clear White Porcelain Enamel lines the top of the Range.
A wide, deep Storage Closet with full-nickel drop-door.
The LIGHTER DAY stands up off the floor, giving a clear sweeping space.
Wouldn't it be a wonderful saving of strength to have a LIGHTER DAY High Oven RANGE in the Kitchen?

LIGHTER DAY High Oven RANGE FOR COAL OR WOOD

A booklet showing photos of the RANGE will be sent on request. Clare Bros. & Co. Limited, Preston, Ontario.

JIFFY UNIVERSAL TIRE CARRIERS

for Chevrolet, Maxwell and Ford cars. They are by far the best Tire Carriers. Mud Proof, Rain Proof and Thief Proof. Retail at \$5

Temco Shock Absorbers

The tried and satisfactory kind. Sell at \$16.00 per set of four.

Start your car from the seat with a

Simplex Jr. Starter

Retails at \$12.00
Write for descriptive matter.

CANADIAN TEMCO SALES COMPANY, Ingersoll, Ontario

CLAY TILE

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

WM. DELLER R.R. No. 4 Thorndale Ontario

Contains over 35% protein
Contains over 33% carbohydrate.
Keeps all live stock healthy if fed daily.

WRITE TO DAY FOR FREE SAMPLE & PRICES
THE CANADA LINSEED OIL MILLS, LTD. TORONTO & MONTREAL

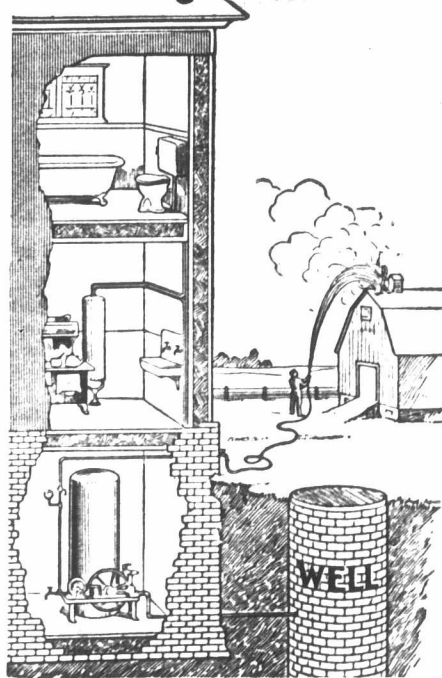
The Best Piano for the Home.
WILLIAMS
The World's Great Artists
WILLIAMS PIANO
Ontario

RUNNING WATER FOR EVERY FARM NEED

A strictly modern hot and cold water system for your home and farm

No matter where you live, we can send you an Empire Outfit that will not only give your home a modern bathroom with all fittings, but will provide running water for all other farm needs as well. To-day is the day to find out how an

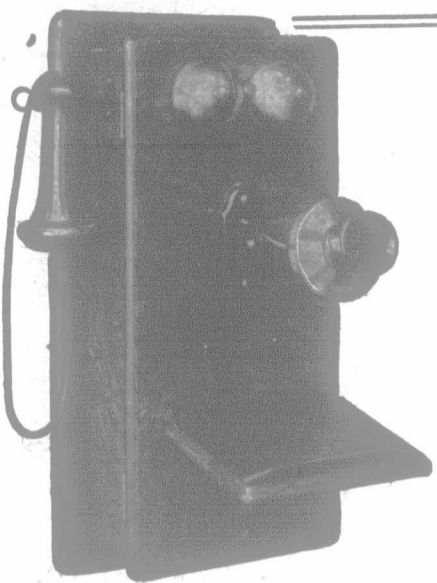
Empire WATER SUPPLY System



can be adapted to your particular requirements. Wouldn't you like to have hot and cold water always ready in the kitchen? Wouldn't you like running water in the barn and out-buildings, water at good pressure for fire protection, water to lighten farmwork? It is easier and cheaper to get than you think. The Empire Outfit, including all piping, is sent complete, ready to set up. Do away with the disease-breeding outdoor cesspool and the hard water-lugging methods.

Write for our free booklet. Tell us your needs, and let us give you a free estimate.

Empire Mfg. Company Limited
East London Ontario



The Tremendous Importance of Choosing The Right Telephone! Stromberg-Carlson Telephones

LET us presume that you have studied the facts and decided to link up with your neighbors and the outside world by means of a telephone. Now comes an even more important decision—which telephone should you install?

Inferior apparatus is not worth installing—an instrument that does not reproduce the message clearly—1 mile or 1,000—would cause endless trouble. And keep clearly in mind you will want

Local and Long Distance

service. When you have connected up with your immediate neighbors—and as few as ten neighbors are sufficient for a local company—you will undoubtedly want to connect up with the big company's lines, so that you can talk to distant parts of the country.

If you consult the managers of the big companies they will all recommend STROMBERG-CARLSON TELEPHONES.

Every Farmer Should Read "A TELEPHONE ON THE FARM"

The book is FREE. You are welcome to any information, estimates and assistance we can give you.

**Stromberg - Carlson Telephone
Mfg. Company**

110-112 Church St.

TORONTO

Carry the Voice Across the Continent

Notwithstanding the very moderate cost, STROMBERG-CARLSON TELEPHONES are most carefully constructed, with a view to the perfect transmission of sound, even when connected with long-distance trunk lines. The STROMBERG-CARLSON TELEPHONE is neither a toy nor an experiment. It is literally true that millions use it daily in store, factory and private house; from farm to farm, and from city to distant city. It is not cheaply constructed, it is beyond question

THE BEST

apparatus you can buy. The only reason it does not cost more than the poorly-constructed telephones is because we make in such large quantities. Our strong guarantee stands back of every instrument we sell; you are positively certain of satisfaction. Let us show you how little a telephone will cost you; how you can form your local company; how you can increase your earnings every year.

MAIL THIS COUPON TO-DAY.

STROMBERG - CARLSON TELEPHONE MFG. CO.
110-112 Church Street, Toronto

Please send me the book, "The Telephone on the Farm."

Name

Address

CREAM WANTED

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

CREAM

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

We want more individual shippers and more men to gather cream for us.
Write for our proposition.

Silverwoods Limited
LONDON, ONTARIO

CREAM

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



"It has put an end to a lot of hard work and solved milking problem"

That is the way Mr. Donald Brown, of Bloomfield, Ont., sums up his experience with the

EMPIRE MECHANICAL MILKER

Mr. Brown writes:

"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."

"It has put an end to a lot of hard work and solved the milking problem well."

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 us this coupon.

The Empire Cream Separator Co.
38 of Canada, Limited
Montreal Toronto Winnipeg

Name

Address

CREAM WANTED

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.

Brant Creamery

Brantford, Ontario

Guarantees to you a high-priced market for cream every day of the year.
Write for our book.

Reference: Bank of Nova Scotia

Questions and Answers, Miscellaneous.

Gravel and Cement for Wall.

How much gravel and cement will it take for a wall 25 by 52 feet, 2 feet above the ground, 7 inches thick, 26 feet to be taken off for doors?

J. L. L.

Ans.—If 2 feet is the total height of the wall it would require about 5 barrels (20 bags) of cement and about 1 1/4 cords of gravel. But we believe you intend to put the foundation down below frost, say three feet. If so it would require about 12 barrels of cement and 3 cords of gravel.

Wages.

1. If a hired man starts working Jan. 1 and quits working Jan. 1, and the farmer asks him to stay a few weeks longer, not making a bargain for the few weeks, could he collect the same wages as for the last year?

2. Could a hired man draw money at any time in the year if he is hired by the year?

E. E.

Ans.—1. It is likely he could collect at the same rate as for the previous year if nothing was said as to wages.

2. It is the general practice to allow a man hired on such terms enough money to meet his needs as the time goes on. He cannot be expected to put in his entire year without having any of his earnings.

Horse Sick, Calves Chew Wood, Etc.

1. I have a sick mare. First I noticed her lying down but fairly easy. Rouse her up and she would start pawing, not steadily but at intervals of two or three minutes. At first chance she would lie down again, if on right side she would at once get up and get down on left side. Did not appear in much distress, but in a few hours she would lie out flat and probably roll, then straighten up again. She finally became worse and would lie out flat for some time. She seemed quite bright about eyes. When roused up and stepped about would pass small bits of dung which were pretty soft, and finally became more so. What is the trouble?

2. Would you advise giving her horse salts? If not, why not?

3. Calves have taken to gnawing boards in stall. What ails them?

4. Abscesses have grown on outside of cows two hocks. She is on cement floor probably a little short for her. What would be cause and treatment?

5. How many c.c. in 1 fluid oz.?

6. What is difference between chloride of lime and quick-lime?

7. Is there anything that will keep rubber boots soft and pliable and prevent cracking?

F. L. C.

Ans.—1. Symptoms indicate colic. Feed carefully. Avoid sudden changes of diet. Give a purgative of 8 drams aloes and 2 drams ginger. Feed bran only for 24 hours before and 24 hours after administering the purgative. Then mix equal parts ginger, gentian and nux vomica, and give a dessertspoonful three times daily. If she has another attack give 1 1/2 ounces each of laudanum, tincture of belladonna and sweet spirits of turpentine in a pint of cold water as a drench. Repeat if necessary in 1 1/2 hours.

2. No. Salts are not a suitable purgative for a horse. Aloes are much better.

3. This is supposed to be due to a lack of something in the system. Try some salt and sifted hardwood ashes. It is generally believed to be an indication of a lack of phosphates.

4. They are likely not really abscesses. It is doubtful whether you can very much reduce the swellings while keeping the cattle on cement. Try some absorbent liniment. Lying on a hard surface will cause them.

5. 29.6, figuring 1 fluid dram to equal 3.70 c.c., or 1 c.c. to equal .27 fluid drams and 8 fluid drams in a fluid ounce.

6. Chloride of lime is bleaching powder apparently composed of calcium chloride and calcium hypochlorite. Quicklime is the ordinary building lime before it is slaked. It is an anhydrous calcium oxide.

7. Rubber boots should, when not in use, be kept in clean water, or should be washed from time to time and kept in a dark place. This will aid in preserving the rubber and keeping it soft.

Se Po

Irish Cobbler
Extra Early
Early Harvest
Davies' Wonder

Early Ohio
White Star
Green Mountain
Delaware

These prices include sacks and cash.

Selected in livery in M.

Early Leam
White Cap
Mammoth
M. S. Sweet
Compton's
Longfellow

These prices extra, grown under Waterloo Co. stock limited so as not to lb. by mail.

HEW Guelph

CLO SEE

(Gove

No. 1 Res
No. 2 Res
No. 1 Als
No. 2 Als
No. 1 Alf

No. 2 Tin
(This

No. 3 Tin
White Blo
O. A. C. N
Marquis S
O. A. C. N

Terms, extra at 25 east of Ma pay the fro

We guarantee ship back Ask for

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Stouffville

Yellow-

for sale. Also for sale at the for sample at

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Dutton.

Seed

New I

Irish Cobbler \$2. bag.

Cransey & K



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O.A.C. 21 Barl Our supply is Price—Barley 16 o

JNO. ELDER &

Selected Seed Potatoes

	Bag of 90 lbs.
Irish Cobblers.....	\$2.50
Extra Early Eureka.....	2.75
Early Harvest.....	2.50
Davies' Warrior (late).....	3.00
(Limited quantity)	
Early Ohio.....	2.75
White Star (late).....	2.50
Green Mountain.....	2.50
Delawares.....	2.50

These prices are for immediate delivery. Sacks included. Ex-warehouse. Terms cash.

Seed Corn

Selected in bulk, 56 lbs. to bushel. Delivery in May.

	Bush.
Early Leaming.....	\$1.50
White Cap Yellow Dent.....	1.50
Mammoth Cuban.....	1.50
M. S. Sweet.....	1.50
Compton's Early.....	1.75
Longfellow.....	1.75

These prices are ex-warehouse. Cotton bags extra, 25c. Home-grown mangels, grown under Government supervision in Waterloo County. It is selling fast, and stock limited. Send in your order early, so as not to be disappointed. Price, 45c. lb. by mail, postpaid.

HEWER SEED CO.
Guelph Ontario

CLOVER SEEDS

(Government Standard)

	Per bus.
No. 1 Red Clover.....	\$16.00
No. 2 Red Clover.....	15.50
No. 1 Alsike.....	12.50
No. 2 Alsike.....	11.00
No. 1 Alfalfa.....	16.00
(Northern Grown)	
No. 2 Timothy.....	5.50
(This seed grades No. 1 Purity)	
No. 3 Timothy.....	5.00
White Blossom Sweet Clover.....	13.00
O. A. C. No. 72 Oats.....	.85
Marquis Spring Wheat.....	1.60
O. A. C. No. 21 Barley.....	1.25

Terms, cash with order. Bags extra at 25c. each. On all orders east of Manitoba of \$25 or over we pay the freight.

We guarantee seeds to satisfy or ship back at our expense.

Ask for samples if necessary.

TODD & COOK
Seed Merchants
Stouffville, Ontario

A limited amount of choice

Yellow-Eye Seed Beans

for sale. Also some White Seed Beans for sale at the Dutton Elevator. Send for sample and prices.

WM. McLANDRESS
Dutton, Ontario

Seed Potatoes

New Brunswick Grown

Irish Cobbler \$2.25 per bag, Delaware, \$3.10 per bag. F. O. B., Toronto.

Crampey & Kelly, Dovercourt Road, Toronto

Mallory's Strawberry Plants for Satisfaction and Profit.

Leading varieties \$4.00 per 1,000. Fifty plants each of four choice varieties, early and late for \$1.00. Send for price list.

N.E. Mallory, Blenheim, Ont.

SEED GRAIN

O.A.C. 21 Barley and 72 Oats our specialty. Our supply is clean, pure and true to name. Price—Barley, 90c., Oats, 80c. per bush. 16 oz. cotton bags, 25c.

JNO. ELDER & SONS, Hengill, Ont.

First-Aid Suggestions for Horsemen.

As we have 50 or more Percherons on the farm at all times, we have found it of great benefit to handle the more simple cases ourselves, especially since our nearest competent veterinarian is located 12 miles from the farm.

To this end it is necessary that some stock of drugs be kept on hand, and that some one on the farm have some little knowledge of administering them. A short course in veterinary science, or close application to some good text on the subject, together with a little common sense, will soon enable the beginner to treat many cases without aid.

We buy our drugs of a near-by wholesale house because of the lower cost in buying in large quantities. Undoubtedly the most common ailment of the horse is colic. Although it is quite violent at times it is not usually serious if attended in time. Our favorite remedy is aromatic spirits of ammonia and asafetida, given in water at frequent intervals until the animal is relieved. We use cantharides for a severe blister, iodine for bruises and the lesser inflammations, antimony chloride for cleansing old sores and abscesses, and epsom salts, raw linseed oil or aloes for laxatives according to the necessity. We also have a host of other drugs such as aconite, powdered opium, nitric ether, belladonna, carbolic acid crystals, sulphur, turpentine, vaseline, arnica, alcohol and some good disinfectant.

Then there are a few instruments that are a necessity, the most useful being a syringe, preferably 2 oz., a thermometer to determine stages of fevers, floats for dental work, a catheter for cases of retention of the urine, needles and silk threads of various sizes for sewing up occasional cuts, a small pump and length of hose that we use to disinfect the womb and remove afterbirth when necessary, and last but of much importance are knife and rasp to keep the feet in proper condition.

Many of the more simple things are omitted, as are also some of the more complex, as the inexperienced breeder had better secure the services of a competent veterinarian than to experiment on a valuable horse. However, a careful study of the ailments, and a close watch of the veterinarian in action, will soon enable one to handle many cases without aid, an obvious advantage to any breeder.

D. W. ROBISON in the Percheron Review.

Questions and Answers.

Miscellaneous.

Electrical Engineer.

What education is necessary in order to qualify for an Electrical Engineer?
J. W.

Ans.—Matriculation standing is necessary before entering university, where the course extends over a period of four years. A certain amount of practical work is also required before the degree is given.

Boundary Tree

A. and B. live on adjoining farms. A. cuts down a tree on line fence, with out notifying B.; fence being up over twenty years. Could B. claim part of tree?
AN OLD SUBSCRIBER.

Ontario.
Ans.—Yes. Moreover, A had no right to cut the tree down without B's concurrence, and might be proceeded against for trespass.

Millet for Hay

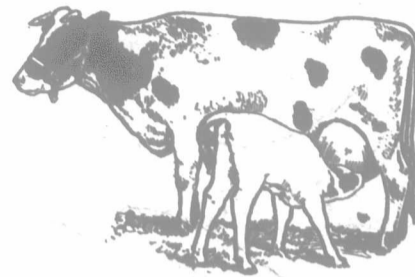
Which of the following seeds would you recommend to sow for hay on black-muck soil, Hungarian grass, common millet, or German millet? How much seed per acre?
G. L.

Ans.—Any of the three varieties mentioned yield fairly well. Hungarian grass is recommended when seeding is not done until latter part of June or July. It is a quicker maturing variety than the others mentioned. Common and German millet give similar yields. A variety, known as Japanese Panic, has given the heaviest yield of hay over all other varieties of millet. From twenty-five to thirty pounds of seed per acre is the usual amount sown.

CALDWELLS

Equal to a nurse cow

for bringing calves along and keeping them in a "sappy" healthy condition. It is as you know impracticable, except in cases of pure-bred stock for exhibition purposes, to keep a nurse cow to raise the calf. The same results may be attained by weaning the calf at once and rearing it on



CALDWELL'S Cream Substitute CALF-MEAL

Careful analysis shows that Caldwell's Cream Substitute contains practically the same nourishment as whole milk. It therefore enables one to sell the milk, yet rear the calves just as rapidly and well as by the natural method. This perfect calf food contains Linseed, Wheat, Oats, Corn, Locust Bean and Pea and Molasses Meal in sufficient and proper quantities to ensure hearty "sappy" calves.

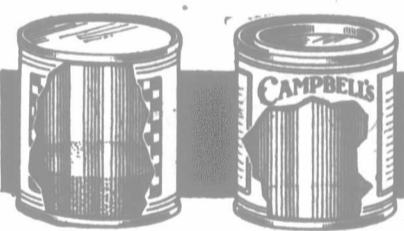
The government-guaranteed analysis of Caldwell's Cream Substitute shows a protein content of 19 to 20%, fat 7 to 8%, and fibre 5%. These figures readily show the richness and milk substituting properties of this food.

Ask for Caldwell's Cream Substitute when at your feed store, or write direct to us and we will gladly supply you.

THE CALDWELL FEED & CEREAL CO., LTD., Dundas, Ont.

Makers of all kinds of High-class

STANDARD FEEDS



SEE THE DIFFERENCE

Here are two cans with glass sides inserted to show contents. On the left is an ordinary varnish stain. See the muddy sediment settled at the bottom. It must be stirred before using, and never gives good results. On the right is Campbell's Varnish Stain—clear as a crystal—no dregs or sediment. Its ingredients are scientifically unified. You can use it on any floor or furniture with perfect results.

CAMPBELL'S VARNISH STAIN

DISSOLVES GREASE SPOTS

There! we have given you two big reasons for using Campbell's in preference to all others. You'll find many other reasons in the first can you buy.

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 authority on home decoration, has written a charming and instructive book, "The Attractive Home." He tells all about rugs, lighting, pictures, furniture 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 45 cents. Write today and give name of nearest paint dealer or decorator.

Made by **CARPENTER-MORTON CO.**
Boston, Mass.

Canadian Distributors
A. RAMSAY & SON CO.
Montreal, Can.



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 unassigned territory. Write for catalogue today.

THE BANWELL-HOXIE WIRE FENCE CO., Ltd.
WINNIPEG, MAN.
HAMILTON, ONT.

Mr. Burke Gets a Pound More Butter Per Week

For some years we have been laying emphasis on the great skimming records of the Standard Cream Separator at Government Dairy Schools, and on the farm. We have printed many of these records. We intend to keep on printing them, because they prove the superiority of the Standard beyond any question.

In Nova Scotia, for example, the Standard Cream Separator has achieved great fame for close skimming. A letter on our files from H. D. Burke, of Prince Albert, N. S., dated October 2nd, 1915, shows what a Standard has done for him. He says:—

"I am very pleased to say that the Standard Cream Separator, size 4, that I have been using since the 1st of September, is giving me perfect satisfaction. We have used two other kinds of separators, and can truly say that we can make a pound more butter a week with the Standard than with either of the others. We will be pleased to correspond with intending separator buyers."

Another man, this time from Sprucedale, Ontario, writes: "We are well pleased with the Standard Cream Separator. We made more butter off four cows last year with the separator than we did in 1912 off six cows without the separator. The four cows were the same ones milked in 1912 and 1913. (Signed) Thos. J. Smith."

American dairymen have also learned about the close skimming records of the Standard Cream Separator, and we are sending larger numbers of this Canadian-made machine across the line every year. Last year we shipped 47 per cent. more separators to the United States than the previous year. This is merely mentioned to show you that the Standard Cream separator can successfully compete with foreign machines right in their own field.

Besides being the closest of skimmers the Standard Cream Separator is of the most modern construction, has the most thorough self-oiling system, and it does not drip oil on to the floor or over the machine.

It has interchangeable capacity—years ahead of other separators in this respect. The capacity of a Standard machine can be increased at any time by merely changing the size of the bowl. You do not have to buy an entirely new machine if you should happen to increase the size of your herd any time.

Compared with other machines, the Standard gives you the utmost dollar for dollar value. You cannot find a machine constructed of better materials, or more accurately built, or more up-to-date. You cannot find one that will make more money for you. In fact, the Standard owes its success to its superiority as a cream getter and money-earner. If it is MORE cream profits you want, the Standard will get them for you. We guarantee it.

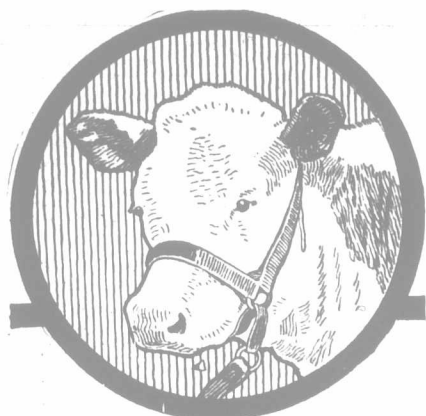
Standard



Made in Canada

Have you read the latest Standard Cream Separator catalogue? It's free. Send us your name and address.

The Renfrew Machinery Co., Limited, Head Office and Works: RENFREW, ONTARIO
AGENCIES ALMOST EVERYWHERE IN CANADA



Raised on
"Purina" CALF MEAL!

ARE your calves growing as fast as you would like? Save milk and money by feeding Purina Calf Meal, the perfect milk substitute, containing 33 per cent. Protein and not less than 4 per cent. Fat. Ask your dealer about the special introductory price.

"PURINA" feeds are put up only in Checkerboard Bags.

Scientific feeding Chart sent Free upon request.

The
CHISHOLM MILLING CO., Limited
TORONTO

Dept. Z

Give Him a Chance. Keep coops, brooders, houses and runways free from disease. Disinfect daily with

Pratt's Disinfectant

Guaranteed to keep trouble away or money back—50c. Qt. \$1.50 Gal.

Dealers everywhere. Pratt Food Co. of Can. Limited. Toronto.



Metallic Flavor in Dairy Products.

The Cornell University Agricultural Experiment Station has recently sent out a bulletin by E. S. Guthrie, dealing with "Metallic Flavor in Dairy Products." After extensive experimental work the following conclusions were reached:

Direct absorption of metals may cause metallic flavor in dairy products.

Bacteria may cause metallic flavor. Buttermilk in sterilized glass bottles developed the flavor in many cases. Of 241 samples of cream in sterilized glass bottles, metallic flavor was produced in 79 by inoculation with metallic-flavored buttermilk; and of 157 samples of cream in sterilized glass bottles, which were inoculated with individual bacteria, 52 showed metallic flavor.

The organism that causes metallic flavor is a member of a strain of the bacterium *lactis acidii* group.

Except in the case of buttermilk, a high fat content of the medium is essential for the production of metallic flavor.

Metallic flavor may develop in cream of either good or poor flavor.

The indications are that enzymes may be a factor in the production of metallic flavor.

High acidity of the medium is a necessary condition for development of metallic flavor.

A Few Good Bulls.

Attention is directed to the new advertisement elsewhere in this issue of choice young Shorthorn bulls to be sold at reasonable prices by F. Martindale & Son, Caledonia, Ont. One good red is 15 months old, a straight, well-grown bull from a cow which qualified in the official R. O. P. with about 8,000 lbs. milk to her credit. A four-months-old roan is out of the great cow Bessie of Lowbanks 2nd, a deep, thick cow with a record of 11,636 lbs. of milk in one lactation period, and winner of the Provincial Dairy Test at Guelph in 1913. Another good one is a ten-months-old roan, an extra good individual, from a cow which will give 40 to 50 lbs. of milk per day. Another twelve-months-old youngster is by The Junior Sultan, a son of the great Superb Sultan. And still another is a red thirteen months old, a good individual, from a family of milkers. See the advertisement.

Settle the Silo Question

—and settle it for good. Do away with repairs, with tightening of lugs and adjusting of hoops. Know that your silo won't blow over. Be sure of perfect silage at all times. Build the worryless, efficient

Natco Imperishable Silo "The Silo that Lasts for Generations"

Its hollow, vitrified, clay tile are impervious to air and moisture—they preserve the silage sweet and juicy. The dead air spaces in the wall resist frost—making it the silo for severe climates. The continuous, reinforcing bands laid in the mortar hold it in a grasp of steel. It is a silo of efficiency, and a silo you'll be proud of. Send for our silo catalog describing it fully.

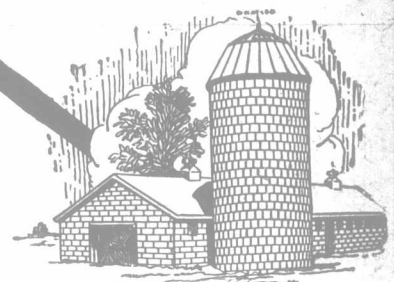
Also get our splendid new book, "Natco On The Farm," describing other farm buildings made of Natco Hollow Tile and just as efficient. Both books free. We have many farm building plans to submit, and will help you solve your building problems, free. What are you going to build? Let's hear from you. Write today.

National Fire Proofing Company

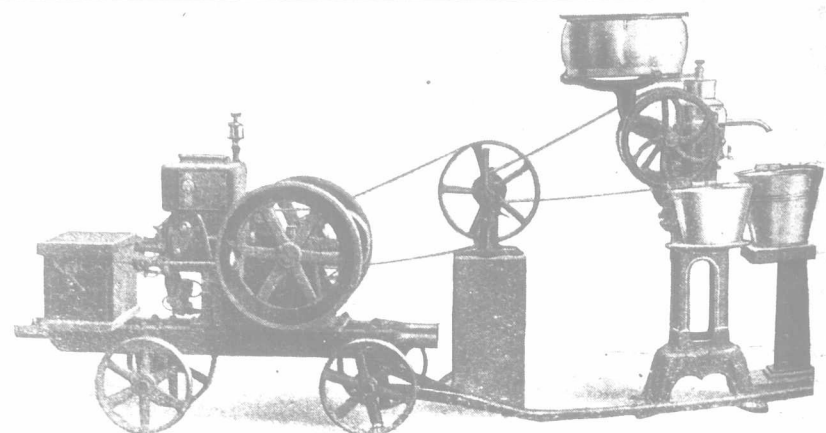
1202 Dominion Bank Bldg. Toronto - Ontario



Natco Silo Wall. Note perforated shell, providing firm anchorage for mortar joints.



Permanency and Prosperity! Note the Hollow Tile Barn and Silo. They will "Last for Generations."



SOLVING THE "HIRED HELP PROBLEM"

This MONARCH 1 1/2 h.p. Engine attached to our Intermediate Friction Clutch Pulley solves one of the problems of 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 1 1/2 to 35 h.p. Ensilage Cutters, Grain Grinders, Pump Jacks, Saw Frames, Friction Clutch Pulleys.

Canadian Engines, Limited
DUNNVILLE, ONT.

FROST & WOOD
Smith's Falls, Ont.
Selling Agents East of Toronto

MAY 11, 1916

EDITOR "T"

From ea present, th as a table only to th but also, and its eco

An Oyst valuable th far more i it would l water, but you that i the game. season, an offers a pr oysters. T oyster bec bays and oyster farm sowing.

Only a b of Texas n the state. located. A proximately of ten cent five years a yearly ren acre.

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Oyster Farming.

EDITOR "THE FARMER'S ADVOCATE":

From early Roman days down to the present, the oyster has held first place as a table delicacy. This is due, not only to the favoritism of the epicure, but also, because of its high food value, and its economy.

An Oyster farm in Texas is far more valuable than a land farm is; it is also far more interesting. One might think it would be an easy matter to farm water, but the oyster farmer will assure you that it is no snap at any stage of the game. Owing to the long growing season, and the mild climate, Texas offers a prolific field for the culture of oysters. There are so many natural oyster beds in the numerous lakes, bays and coves along the coast that the oyster farmer never lacks seed for the sowing.

Only a bona-fide resident of the State of Texas may obtain an oyster farm in the state. As much as fifty acres may be located. A small surveying fee of approximately \$10.00, and a yearly rental of ten cents an acre is paid for the first five years after which the farmer pays a yearly rental of twenty-five cents an acre.

Like the land farmer, the oyster farmer must first prepare his land, plant his seed, and harvest his crop. He must see that there is a suitable bottom for the cultivation of oysters. This means a firm substratum overlaid with a soft bed of mud. A muddy bottom is to be preferred to a firm, sandy one, as it is more likely to be stocked with the small organisms on which the young, or seed oysters feed. Even in muddy bottoms it is necessary to prepare the surface in some way in order to prevent the oyster becoming submerged and suffocated in the soft deposit of mud. In making new beds man must follow Nature's plan. Choosing a location free from too severe currents and supplied with food, the debris is cleared away and a suitable bottom or bed is prepared for the "spat" to light upon. Oyster shells, clam shells, gravel or sand is strewn around, serving the double purpose of preventing the young oysters becoming submerged and affording places to attach themselves.

There are two ways of planting, either the "seed" oysters being used or the "spat" which has been caught in the spawning bed.

Oysters spawn in the spring of the year. A female usually produces 16,000,000 young, which, at spawning time, are mere microscopic specks. This may seem like 'some family', but scientists tell us the oyster has but one chance in a million to grow up.

After spawning, these tiny, whirling specks float away from the parent oyster and swim about until the first appearance of shell. Then, the free life ceases, and the minute oyster becomes attached to some support, and proceeds to develop his crust or shell. It is henceforth known as a 'spat'.

If the water is warm and the bottom well-supplied with shells, rocks or other supports, a good 'set' may be expected; a cold spell will kill the young, and rough water will drift them out to sea.

Oyster reefs, old banks of oyster shells and rocks, are furnished by Nature for a nursery, but the oyster farmer can make as good a one with limbs of trees, tin cans, shells, brush and scrap iron.

The 'spat', when large enough to be transplanted, are known as 'seed' oysters. These may be very small or good sized ones which will be ready for the market in five or six months after bedding.

The seed is sown at the rate of from three to six hundred bushels per acre. It is scattered over the beds as evenly as possible from boats. The farms are as evenly staked out and planned as are the land farms.

The oyster farmer has to experiment in order to find out the best fattening grounds. This entails the expenditure of much time and some capital. The growing and fattening conditions may be exceedingly good but there may be currents which would carry all the food organisms away.

Sometimes stockades have to be built to protect the oyster beds from the fish. The thrifty oyster farmer will protect his beds by driving stakes into the bottom close enough to prevent the passage of fish between them.

The farmer and fruitgrower thinks he has an "awful" time of it fighting pests, but he can spray and keep them

Build With "METALLIC"

EASTLAKE SHINGLE EMPIRE CORRUGATED IRON



MAKE your buildings last a lifetime. Let us show you the savings made by using "Eastlake" Galvanized Shingles, "Empire" Corrugated Iron (for roofing and siding), "Metallic" Rock and Brick Faced and Clapboard Siding, "Halitus" Ventilators, "Acheson" Roof Lights, "Metallic" Ceilings, Eavetrough, etc.

Write us for information and booklet based on years of experience in farm buildings.

Metallic Roofing Co. Limited, Manufacturers, Toronto and Winnipeg

OK CANADIAN

POTATO INSURANCE

No excuse for not spraying well and often. Four rows at once, thorough coating on leaves and stalk. An acre in 20 minutes. Profits sure.

Can you afford to take the chance of losing your crop?



4-ROW SPRAYER

Made in Canada
FREE to potato-growers,
48-page book, "Money in Potatoes."
CANADIAN POTATO MACHINERY CO., Limited, GALT, ONT.

PLEASURE CRUISES BY

R.M.S.P. TO WEST INDIES

FORTNIGHTLY SAILINGS
By Twin-Screw Mail Steamers.

SPECIAL FACILITIES FOR TOURISTS.

Next Sailing from **HALIFAX:**
R.M.S.P. "Chaudiere," May 19, 1916.

APPLY TO
The Royal Mail Steam Packet Co.,
67-68, Granville Street, HALIFAX (N.S.)

OR TO THE
LOCAL TICKET AGENCIES.

Men's Clothing For Sale

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:—

CATESBY'S LIMITED, Canadian Office,
119 West Wellington Street, Toronto.
Mention "Farmer's Advocate"



Your Floors Need Paint

Paint preserves the wood. Paint keeps floors sanitary and healthful. Painted floors make the rooms bright and cheery. Painted floors are easily cleaned—a damp cloth keeps them free of dust and germs. Paint your floors and thus have them always Spic and Span.

Senour's Floor Paint

"MADE IN CANADA"

is all ready to brush on—anyone can apply it evenly and smoothly. It gives a hard, durable, lustrous finish, that stays fresh and bright, and wears, and wears, and wears. And it costs less to use than other floor paint, because it covers more surface and wears longer.

Senour's Floor Paint comes in 14 beautiful colors, suitable for every floor in the house from kitchen to garret.

Write for a color card, and a copy of our entertaining book, "The House That Jack Built". Written for children, but "grown ups" get a lot of fun out of it. We'll also give you the name of our nearest dealer-agent.

ADDRESS ALL ENQUIRIES TO

The MARTIN-SENOUR Co.
LIMITED
655 DROLET STREET, MONTREAL.

72




DR. LAWRASON'S TRADE MARK

Mexican Liniment

Should be in every stable.

STOPS BLEEDING INSTANTLY FOR CAKED UDDERS IN COWS SORE NECK GALLS DISTEMPER SPAVINS CURBS or SPLINTS

It has no equal.

25c., 50c. and \$1.00

Sent prepaid on receipt of price if your druggist cannot supply.

DR. Lawrason Medicine Co.
Dept. E, TORONTO, ONT.

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists
75 Church Street, Toronto, Ont.

Dr. Page's English Spavin Cure

Cures the lameness from Bone-Spavins, Side-Bones, Ringbones, Curbs, Splints, etc., and absorbs the hair, absorbs Capped Hocks, Bog-spavins thick pastern joints; cures lameness in tendons; most powerful 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.



BITTER LICK MEDICATED Salt Brick

Great Conditioner & Worm Destroyer

Bitter Lick is a compressed salt brick, medicated with roots, herbs, etc., in such proportion as will keep horses in excellent condition and free from worms. Bitter Lick keeps the appetite keen; all horses like it; tones the digestion and prevents colic. It has no cheap filler and takes the place of worm and condition powders, etc., keeps horses healthy for only one cent a week.

Ask your dealer or write for booklet to **STEELE BRIGGS SEED CO., Winnipeg, Man.** and Toronto Ont.



Pan Lougin

A thoroughbred Stallion, 15 hands 3, by Faraday, dam Katy Did. This is a particularly well balanced and compact horse. Beautiful shoulders, loins and quarters—good bone. Sweet disposition, kind and very intelligent.

Typical sire to produce hunters, remounts, saddle and light drivers—as he has exceptionally good action.

This horse will stand at **Hazelburn Farm, Yonge Street, Near Aurora, Lot 75, Whitechurch, Ont.** Telephone, **Aemilius Jarvis, King Line.** Please send postage on application.

Price \$1000 for complete halfbloods. \$2000 thoroughbred. Money refunded on return privileges. Money refunded on premises. A \$1000 prize will be offered at an Whitechurch, King, District, Ontario, for the best PAN LOUGIN at address.

Aemilius Jarvis, 103 Bay Street, Toronto, Ont.

For Sale Clyde Stallion, white bay, 15 hands, bred by Mr. L. J. ... class colt by Imp. sire and dam, disposition, sure, broken to harness, has six months' drive. A snap if taken at once. Inspected and approved by J. W. Elliott, Varsity P.O., Brucedale, G.T.R., Huron Co.

off. The oyster-man can not do that, but he has to devise ways and means of keeping the enemies away from his spawning beds. Human enemies, with twenty cents worth of lime can destroy the work of years in a few minutes. Upon the farmer's vigilance depends the success of his crop, which is hidden under the water where vast schools of water creatures are waiting to devour the young.

Then, too, the spat are carried out to sea in great numbers by adverse currents. Fish devour the larvae by the million; crabs, starfish and drill prey upon them, and a cold spell will kill millions of them. Then, too, a flood or too great an influx of fresh water will spoil the beds, while not enough fresh water is equally disastrous.

Of living enemies, the drill is the one most dreaded. It is a small unobtrusive-looking, yellowish-gray creature about three-quarters of an inch long. It bores a tiny hole in the shell, and sucks out the soft part of the helpless bivalve, leaving the tough portion for the crabs and other scavengers. Its appetite is insatiable, and whole beds have been ruined by its depredations.

After an oyster begins to form a crust it cannot move around from place to place, and easily falls a victim to its enemies.

The oyster beds of Matagorda are the largest and most productive of any on the Gulf Coast. They comprise about 5,000 acres. Palacios and Port Lavaca also have many prolific farms. Port Lavaca is the oldest oyster market in the state. Here, in the packing season, millions of shells are piled into miniature mountains ready to be hauled away and utilized for various commercial purposes.

The Southwest has hundreds of miles of perfect roads upon which oyster shells have been crushed.

The oysters are gotten up from their habitat by tongs which resemble two rakes fastened together by hinges. Two men in a boat constitute a crew. Oysters are worth, at the boatside, a dollar a bushel.

Near the mouth of the San Barnard River, Brazoria County, Tex., are the famous Oyster Reefs. From these reefs, at certain times, the strangest, weirdest, wailing sound is heard, which has given rise to many superstitions amongst the negroes of the vicinity. Tradition ascribes it to the spirit of a violin-playing fisherman who was said to have been murdered by his comrade. They say he was playing his violin when murdered, and that his spirit still plays beneath the waters. Investigators ascribe the music to the wind blowing amongst the oyster shells when the reefs are above tide.

Texas. AUGUSTA DOAN FREEMAN.

Trade to the West Indies.

In 1913 a contract was concluded between the Dominion Government and The Royal Mail Steam Packet Company providing for a fleet of Mail and Passenger steamers to run fortnightly from St. John and Halifax to the West Indies and Demerara (British Guiana). It is pleasing to record that the European War, which has affected overseas trade more or less all over the world, has in no way interfered with the sailings of these Steamers which have been maintained without a single break. One of the results of the Great War now being waged is a pronounced shortage of tonnage, bringing in its train great dislocation, and in many cases complete paralysis, of trade.

It must, therefore, be a source of congratulation to shippers and others interested in the Canadian West Indian trade that they should have at such a time the service of these steamers at their disposal.

The travelling public too who are using the steamers in ever increasing numbers, both on business and pleasure bent, are also assured of regular and highly comfortable means of transportation.

It is worthy of note that whereas freight and passage rates all over the world have increased enormously, in part owing to the scarcity of tonnage, and in part to the greatly increased cost of working expenses, insurance rates, etc., the rates from Canada to the West Indies, and vice versa, have been maintained at a level that has inflicted no hardship on anyone—the rates being well within range of the enhanced prices producers and others are obtaining for their goods.

Get Real Tire Economy!

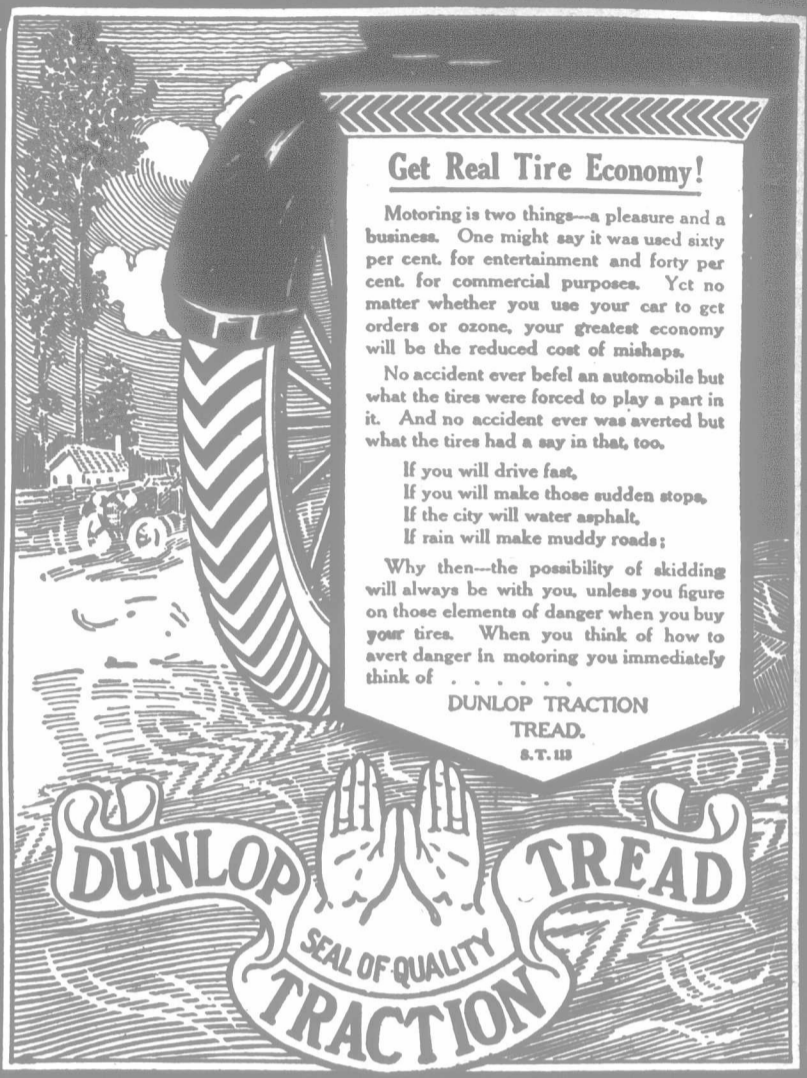
Motoring is two things—a pleasure and a business. One might say it was used sixty per cent. for entertainment and forty per cent. for commercial purposes. Yet no matter whether you use your car to get orders or ozone, your greatest economy will be the reduced cost of mishaps.

No accident ever befel an automobile but what the tires were forced to play a part in it. And no accident ever was averted but what the tires had a say in that, too.

If you will drive fast,
If you will make those sudden stops,
If the city will water asphalt,
If rain will make muddy roads;

Why then—the possibility of skidding will always be with you, unless you figure on those elements of danger when you buy your tires. When you think of how to avert danger in motoring you immediately think of

DUNLOP TRACTION TREAD.
S.T. 13




DUNLOP SEAL OF QUALITY TREAD

Cure Your Cows of Caked Udders With Douglas' Egyptian Liniment

3 APPLICATIONS GUARANTEED

For Sale Everywhere. Write for free sample.

Douglas & Co., Napanee, Ontario



Clydesdales, 1915 Importation With the addition of our 1915 importation of Clydesdale stallions we are particularly strong for this season's trade. Prize-winners at all the leading shows, including Championships. Up to ten and over in weight, with breeding and quality unsurpassed. We can supply the wants of the trade, no matter how high the standard. Stallions from 1 year up to 8 years, in-foal mares and fillies. Terms to suit.

Smith and Richardson, Columbus, Ont. Myrtle, Brooklin and Oshawa Stations

Clydesdale Stallions and Mares We are now offering for sale a number of extra good stallions, also mares in foal.

Write or call on: **JOHN A. BOAG & SON, Queensville, Ontario**

ORCHARD GROVE HEREFORDS

Have several young bulls and heifers for sale. Satisfaction guaranteed;

L. O. CLIFFORD, OSHAWA, ONT.

WOODLANDS BROWN SWISS AND PONIES

We have no Clydes. left for sale. Our special offering is Brown Swiss Bulls, out of high-testing and big producing dams. Strictly high-class. Also Shetland and Welsh Ponies.

R. BALLAGH & SON, GUELPH, ONTARIO

Walnut-Grove Shorthorns Sired by the great sire Trout Creek Wonder and out of Imp. cows and their daughters of pure Scotch breeding and others Scotch topped. For sale are several extra nice young bulls and a few heifers. Let us know your wants.

DUNCAN BROWN & SONS, R.M.D. Sheddon, Ont., P.M., & M.C.R.

SHORTHORNS SHROPSHIRE 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 2 1/2 miles from Brooklin. G.T.R. 4 miles from Myrtle, C.P.R. 4 miles from Brooklin, C.N.R.

Maple Grange Shorthorns Pure Scotch and Scotch-topped. Breeding unsurpassed. A nice selection in young bulls, and a limited number of thick, mossy heifers.

R. J. DOYLE, Owen Sound, Ontario

Meadow Lawn Shorthorns We are offering a choice lot of bulls at very reasonable prices. An exceptionally good one sired by Clan Alpine 2nd, No. 88387, G. D. Donside Alexandra (imp) No. 59613, and any one want a right good herd header would do well to secure this bull as he is a smooth, well proportioned fellow that attracts attention at first sight.

F. W. Ewing, G.T.R. & C.P.R., R. R. No. 1, Elora, Ont

Shorthorns Pure Scotch and Scotch topped—Booth. Also five (5) 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

Canada's Grand Champion Shorthorns of 1914-1915

are headed by the great "Gainford Marquis," Imp. Write your wants.

J. A. WATT, ELORA, ONT. G.T.R. & C.P.R.

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.



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James Sharp,
Cheltenham

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GEO. DAVIS &

Beaver Hill
with calves for
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deca-Angus stock
R. R. No. 1,

FACTORY PRICES

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HEAVIER GRADES AT EQUALLY FAVORABLE PRICES
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Quickly and Easily Laid without previous experience and requiring no expert help
CAN BE LAID OVER OLD SHINGLES

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Fertilizer Quality

When you buy fertilizer remember you are buying what is in the goods and not merely a weight of two thousand pounds.

When a smelter buys gold ore he buys not merely two thousand pounds but he insists on knowing how much gold is in the ore, and you should know the amount of active nitrogen, which is the gold of the fertilizer.

For further information write
DR. WILLIAM S. MYERS, Director
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MAKE YOUR BIKE A MOTORCYCLE

At a small cost by using our Attachable outfit. FITS ANY BICYCLE. Easily attached. No special tools required. Write today for bargain list and free book describing the SHAW Bicycle Motor Attachment. Motorcycles, all makes, new and second-hand, \$35 and up.

SHAW MANUFACTURING CO.
Dept 79 GALESBURG, KANS., U.S.A.

ALLOWAY LODGE STOCK FARM
Angus, Southdowns, Collies

Special this month:
Southdown Prize Rams
ROBT. MCEWEN, R.R.4, London, Ont.

Elm Park Aberdeen-Angus
"Glencarnock Victor," the grand champion steer at Chicago International Show. Was sired by Elm Park Ringleader 5th 106676. We have two full sisters to this great breeding bull in our herd also a number of half sisters that are producing the kind of bulls that will get the best kind of Aberdeen-Angus cattle. We have some bulls and females for sale at reasonable prices.
James Bowman, Box 14, Guelph, Ont.

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., & G. T. R.

The Glengrove Angus We have still left a couple of nice yearling males sired by Middlebrook Prince 3rd for sale at reasonable prices. Particulars on application.
GEO. DAVIS & SONS, R.R. No. 1, Erin, Ont.

Beaver Hill Aberdeen Angus—Bulls fit for service. Females all ages. Cows with calves at foot. Prices reasonable.
ALEX. MCKINNEY, R.R. No. 1, Erin, Ont.
Cheltenham, G. T. R., Erin, C. P. R.

Aberdeen Farm has for present offering some choice young Aberdeen-Angus stock, both sexes, prices reasonable.
W. Burt & Sons
R. R. No. 1, Millsburg, Ontario

Questions and Answers.
Miscellaneous.

A Breeding Query.
Could steers 1 and 2 years old which were castrated when calves get cows with calf? The testicles are gone but the one cord (or both in some cases) seems to have grown.
H. C.

Ans.—If properly castrated, that is both testicles removed, no.

Line Fence.
Between the farms of A and B is a drive way, leading to A's residence and belonging to A. A's farm is fenced, with the exception of this open drive. Can B compel A to build half the line fence along the drive?
A. S.

Ans.—As the drive way is entirely on A's farm, it would be necessary for A to assume responsibility for half the line fence.

Eczema.
I have an eight-year-old horse whose skin becomes itchy every spring as soon as warm weather comes and he rubs his mane badly. He keeps in good condition and appears to feel all right. What remedy would you advise?
H. R. W.

Ans.—This is a form of eczema. If the hair is long clip him, then give a thorough washing with warm, strong soap suds, applied with a scrubbing brush and rub with cloths until dry. Dress twice daily with a solution of corrosive sublimate, twenty-five grains to a quart of water. Give him internally one ounce Fowler's solution of arsenic twice daily every alternate week as long as necessary.

Farming on Shares.

A lets a farm to B on shares. A supplies the farm and buildings. B. supplies everything else and does road-work and pays taxes. What share of the produce of the farm including roots and grass ought A to get? If the farm is let for a term of years—say not less than 5—is it customary for the owner to pay any part of the cost of grass seed?
INQUIRER.

Ans.—Not knowing all the circumstances in connection with the farm or the class of crops to be grown it is difficult to say definitely how the division of returns should be made. However, as the owner only supplies the farm, from 35 to 40 per cent. of the returns should be a fair share for him to receive. It is usually stipulated in the lease that the tenant leave as much of the farm seeded when the lease expires as was seeded when he went on the place.

Second Sight.

In Boston they tell of a street boy of diminutive stature who was trying to sell some very young kittens to passers-by. One day he accosted a distinguished Episcopal divine, recommending them as good Episcopal kittens. The clergyman laughed and refused.

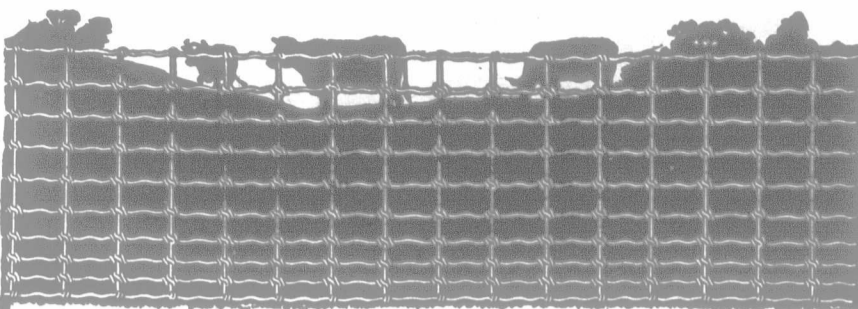
A few days later a Presbyterian minister, who had witnessed the episode, was asked by the same boy to buy the same kittens. This time the lad announced that they were faithful Presbyterians.

"Didn't you say last week that they were Episcopal kittens?" demanded the minister.
"Yes, sir," said the boy, "but they've had their eyes opened since then."

Arrangements have been completed between the Canadian Northern Railway and the Department of Agriculture, of Saskatchewan, for the operation of a "Better Farming Train" over the lines of the Canadian Northern Railway in Saskatchewan during the coming summer. The meetings are scheduled to commence on June 12th, and to continue until July 14th.

The train will consist of fifteen cars, including one refrigerator car, four stock cars, field crop lecture car, boys' and girls' lecture car, mechanical exhibits car, domestic science car, nursery car, and sleeping and dining car accommodation.

Lecturers from the University of Saskatchewan will be on the train to talk to the people at the fifty-eight points to be visited, upon the subjects in which they are most keenly interested.



It's service, not surface, that counts in Wire Fencing

Fences made of soft wire may look all right, but they are liable to act all wrong when it comes to keeping strong, healthy, active live stock within bounds.

THERE is, however, one fence that you can count on for satisfactory service year in and year out, and that is "Ideal." Made of large gauge No. 9 hard steel wire, heavily galvanized, with the verticals and horizontals clamped together with a patent lock that cannot slip, "Ideal" fence is bull-strong, hog-tight, horse-high—a real fence, every foot of it.

Ideal Fence

The quality of the wire from top to bottom in "Ideal" Fence is all the same gauge, hard drawn steel wire, tough, live, springy, heavy wire that will be standing up doing splendid service years from now. This is a point you have to watch mighty carefully. Some fences have 9-gauge horizontals, but softer, weaker wire for the stays and locks. Naturally this takes something off the price, and it takes something off the strength and durability too, far more than the difference in price. You are going to fence for a lifetime, then fence with "Ideal" and get a lifetime's service.

We make a fence for every purpose. Write for a copy of our catalogue which describes them all.

The McGregor-Banwell Fence Co., Limited, Walkerville, Ontario.

THE GREAT COAL TAR DISINFECTANT
ZENOLEUM
MADE IN CANADA

IT'S a waste of time for the farmer to mix grease and poisons to kill lice and fleas, or to cure cattle diseases, when Zenoleum is cheaper and incomparably better. Zenoleum is a powerful germicide, better and cheaper than carbolic acid, yet is not inflammable or poison. Can be used internally or externally. The Dominion Experimental Farm and 60 Experiment Stations in Canada and United States use Zenoleum. Their practice is safe to follow. Ask your dealer or send to us. Several sizes, 25c., 50c., 90c.: \$1.50, carriage paid. 1 gal. (\$1.50) makes 80 gals. dip.

ZENNER DISINFECTANT CO., Sandwich St., Windsor, Ont.

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

Oak Lodge Stock Farm Shorthorn bull, 20 months old, bred from dam of milking strain. Two bulls, twelve months old. Will be sold at a price that will please customers.
J. E. BRETHOUR & NEPHEWS, Burford, Ont.

Spring Valley Shorthorns Herd headed by the two great breeding bulls Newton Ringleader (imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex.
KYLE BROS, Drumbo, Ont. Phone and telegraph via Ayr

Females SHORTHORNS Females I can supply females of the most popular Scotch families, Crimsons, Flowers, Minas, Lady Fannies, Nonpareil, Butterflies, Amines, Athas, Miss Ramsdens, Marr Emmas, Marr Misses and Clarets. A few bulls A. J. HOWDEN, COLUMBUS, ONT. Myrtle, C.P.R. & G.T.R. Oshawa, C.N.R.

Maple Shade Farm Shorthorns—The products of this herd have been in very strong demand. There's a reason. Can always supply a good young bull at a price which will make him well worth the money. Not many 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.

Spruce Glen Shorthorns When in want of Shorthorns visit our herd. We have 70 head to select from. Minas, Fames, Miss Ramsdens, Floreaces, Emilys, etc. Many of them one and two-year-old heifers. Also several young bulls of breeding age—level, thick, mellow fellows, and bred just right.
JAMES MCPHERSON & SONS, DUNDALK, ONT.

Shorthorns and Shropshires With 125 head to select from, we can supply young cows in calf, heifers from calves up, and young bulls from 9 to 18 months of age, richly bred and well finished. In Shropshires we have a large number of ram and ewe lambs by a Toronto 1st-prize ram; high-class lot.

Willowbank Stock Farm Shorthorn Herd Established 1855. This large and old established herd has at the head the two great bulls: Imported Roan Chief =60865= a Butterfly, and the prize-winning bull, Browdale =80112= a Mina. An extra good lot of young stock to offer of either sex. Splendid condition. Good families of both milking strain and beef. James Douglas, Caledonia, Ont.

Blairgowrie Shorthorns Are always for sale at reasonable prices. Cows with calves by side and re-bred. Heifers in calf. Four bulls which should be heading good herds.
JOHN MILLER, ASHBURN, ONT. Myrtle St., C.P.R. & G.T.R.

Market the Milk
Raise your calves and get the bigger money to which you are entitled. But do not feed the calf whole milk, with butter fat worth \$600 a ton.

RAISE YOUR CALVES WITH BLATCHFORD'S CALF MEAL

You can sell all the mother cow's milk or butter and make your calf pay you a big profit, on its feed, by raising it on **Blatchford's Calf Meal**

The Recognized Milk Equal
You get 100 gallons of rich milk feed from 100 pounds of Blatchford's Calf Meal, and it costs you only one-fourth as much. It will make your calf grow fast and well.

Blatchford's Calf Meal is composed of the elements the young calf needs in the most trying period of its life; is thoroughly steam cooked—prevents bowel troubles and other ills due to improper milk substitutes.

Blatchford's Pig Meal insures quick, sturdy growth of young pigs at weaning time, without setback or falling off.


Write us for our Free Book on "How to Raise Calves Cheaply and Successfully Without Milk."

Steele, Briggs Seed Co. Dept. 68 Toronto, Ont.

L. C. Beard, Hastings, Ont., writes: "I can say Blatchford's Calf Meal will pay anyone 100 Pct. that has calves to raise."



1ST PRIZE



WINDSOR CHEESE SALT

Inseparable!

Windsor Cheese Salt
Made in Canada

THE CANADIAN SALT CO., LIMITED

STAMMERING
or stuttering overcome positively. Our natural methods permanently restore natural speech. Graduate pupils everywhere. Write for free advice and literature.

THE ARNOTT INSTITUTE
BERLIN, CANADA

SHORTHORNS

Five high-class bulls, from 10 to 15 months, two sired by Real Sultan, others just as good. Am pricing them low, as it is getting late in the season. A few heifers and young cows to offer, some milking families. Freight paid.

Stewart M. Graham, Lindsay, Ont.

For Sale—Five Shorthorn Bulls, 12 to 18 months old, from good milking dams and 3 roans; prices right. Also one good roan bull, 8 mos. old, a Campbell Rosebud, a right good one. Write us, or better, come and see.

JOHN SENN & Son Caledonia, R. R. 2, Caledonia Stn., G.T.R.

SHORTHORNS

A few choice bull calves for sale. Would price a few females. Inspection solicited

J. T. GIBSON, Denfield, Ont.

Burnfoot Stock Farm, Caledonia, Ont.

Breeders of heavy milking dual 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 sire as good. S.A. Moore, Prop., Caledonia, Ont.

Shorthorns—"Pail Fillers"—Our Shorthorns are bred and developed for big milk production. If you want a stock bull bred that way, we have several; also Clyde, stallion rising 3, won 2nd at Guelph the other day in a big class. P. Christie & Son, Manchester, Ont.

Shorthorns—Bulls, females, reds, roans, size, quality. Breeding milkers over 40 years. Cows milking 60 lbs. a day. Big, fleshy cows that will nurse calves right. Prices easy, write: **THOMAS GRAHAM, R.R. 3, Port Perry, Ont.**

Shorthorns and Swine—Have some choice young bulls for sale; also cows and heifers of show material, some with calves at foot. Also choice Yorkshire sows.

ANDREW GROFF, R.R. No. 1, ELORA, ONT.

Northlynd R.O.P. Shorthorns and Jerseys Present offering: one shorthorn bull old enough for service, whose dam, his dam's full sister and his grandam in six yearly tests made an average of over 8,500 lbs. milk, testing over 47% in an average of 329 days. G. A. Jackson, Downsview, Ont.

How One Horse Was Broken

An amusing illustration of the power of determined patience is related by Captain Kerr, of the British Cavalry. In his own words it is as follows:

"I may instance the treatment by which a well-known Yorkshire breeder and breaker—one who always broke in his own colts—cured a stubborn and by no means uncommon case of mulishness. Riding a colt one day, about noon, the colt rested—i. e., obstinately refused to turn out of the road that led to his stables. He reared, whipped round, kicked, plunged, stuck his toes firmly in the ground, backed into the ditch, and otherwise behaved himself unseemly.

"Many a man would have administered severe punishment, and have endeavored to exorcise the demon of contrariness by free application of the Newmarket flogger and the Latchfords. Our friend's creed was the suavitudo in modo, spiced with patient determination. After exhausting every method of kindness and encouragement he determined to 'sit it out,' so, bringing the disobedient youngster back to the point of disputed departure he halted him there, sitting in his saddle as immovable as one of the mounted sentries at the Horse Guards, or the Duke of Wellington at Hyde Park Corner.

Still Obstinate.

"At the end of an hour's anchorage a fresh essay to make the pig-headed colt go in the way it should go resulted in a renewed exhibition of rearing. Observing a lad passing at the time, the determined tyke ordered him to go to his wife, and tell her to send his dinner to the cross roads, for there he meant to remain out all night and the day following if need be. The repast duly arrived, and was despatched on the animal's back. Another effort was but a fresh failure, so the statu-escape, weary wait was resumed, and the veteran breaker sat again for hours immovable. Here was the living exemplification of Patience on a monument.

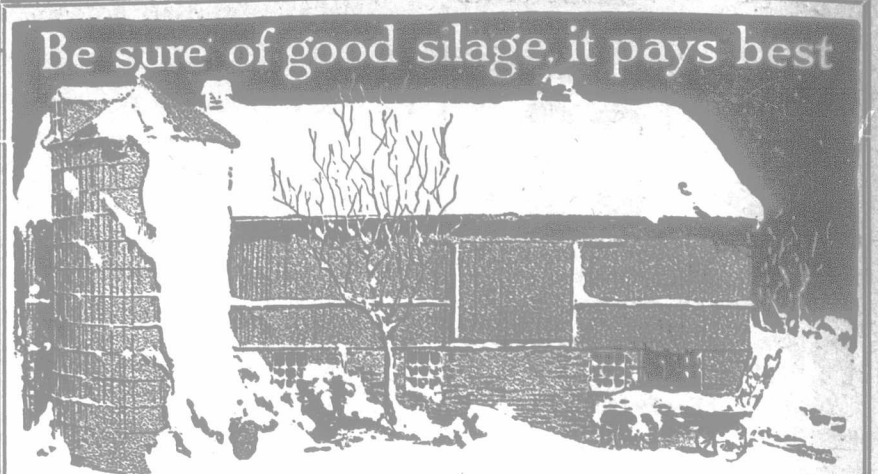
"With the setting sun came the horseman's supper, still not a move, and the sturdy yeoman prepared to make a night of it. In due course his top-coat and a stiffly mixed 'meet cap' arrived. Whether or not the colt divined the meaning of these campaigning arrangements deponent sayeth not; anyhow, his mater had hardly donned the one and swallowed the other than the quadruped, with one long sigh, one that nearly carried the girths away, all his obstinacy evaporated, and, thoroughly defeated, relieved himself from his post, and quietly walked down the road in the direction he had so long protested so firmly against. The lesson was a permanent one; it took some eight hours in the teaching, but lasted a lifetime—he never 'struck up' again."

If it be objected that a vicious animal cannot be so handled, suffice it to say that impatience and harshness certainly never controlled or broke one.—O. A. C. Review.

Planting Weak Seed Corn.

Although seed corn has tested fairly well at the Ottawa Laboratory, corn growers whose seed has not been tested would do well to take special care this season that their seed is of strong vitality. Owing to unfavorable ripening and harvest weather, some of last year's seed corn crop may be low in both percentage and vigor of germination. This seed should not be planted until the soil is warm and the weather at its best to encourage the growth of the young corn plant. The rate of seeding may be increased, but no amount of fairly weak seed is likely to give a good stand of plants unless the conditions of growth are most favorable.

Sweepings from threshing floors and granaries are frequently dumped in the barnyard, and later hauled to the land with the manure. The sweepings from the floor and its crevices are usually foul with weed seeds. Unless the yard scrapings or manure is thoroughly rotted, most of the weed seeds will retain their vitality and produce a vigorous crop of weeds. Burning the sweepings would be a much safer method. If they contain grain, boiling will make them a safe feed for poultry or live stock.



Be sure of good silage, it pays best

Next Winter When the Ground Is Covered with Snow

YOU will appreciate having an Ideal Green Feed Silo full of rich, juicy silage. It will make your cows produce a larger flow of milk right at the time when dairy products are bringing the best price. Silage increases milk flow 25 per cent., and reduces feeding cost from 15 to 20 per cent. Besides, silage is so easy for you to feed. It is compactly stored under cover. No need of hauling feed in bad weather or handling snow covered fodder.

IDEAL GREEN FEED SILO

The name Ideal Green Feed Silo is worth a lot of money to us because we have made it stand for a definite reliable measure of quality in the minds of thousands of Canadian farmers. They know this silo preserves the silage perfectly and gives the longest service. A Company cannot afford to put its trade mark on an inferior article any more than you can afford to put your corn crop in an inferior silo.

A trade mark to be of any value must be the identifying mark of superior quality, just as silage to be worth anything must be good silage. The man who sells a nameless, unbranded article has nothing at stake; he is not building up a reputation and using every effort possible to sustain his good name.

You have always noticed that when an article is given a name—a trade mark—by its maker, and advertised, every effort is made to insure reliable quality and make it a safe article to buy. You take no chances when you buy an Ideal Green Feed Silo. You have positive assurance that when you open up your silo you will find the silage well preserved, that you will get longer service from this silo than from any of the so-called "cheap" silos.

Write to-day for our large illustrated catalogue which shows you every detail of this silo and explains just why you get more in it for your money than in any other.

DE LAVAL DAIRY SUPPLY CO., Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA
Sole distributors in Canada of the famous DeLaval Cream Separators and Alpha Gas Engines. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER

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.

MITCHELL BROS., Burlington P. O., Ont.
Jos. McCrudden, Manager. Farm 1/2 mile from Burlington Jct.

Twenty Imported Bulls

These imported bulls, along with 10 home-bred bulls, may now be seen at our farms. There are some choice ones among them. We also imported four cows and a heifer, all of which are forward in calf. An invitation is extended to anyone interested in this class of stock to visit us at any time. Correspondence will receive our most careful attention.

Burlington Jct., G.T.R.
Burlington Phone or Telegraph.

J. A. & H. M. PETTIT FREEMAN, ONT.

Robert Miller Still Pays the Freight—And he is offering in Shorthorns some of the best young bulls and heifers that can be produced. Young bulls fit for service, some younger still; heifers fit for service 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, Ontario

Pleasant Valley Farm Shorthorns—For sale, 9 bulls of serviceable age. 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 Scott; also females. Write us before buying.

GEO. AMOS & SONS, Moffat, Ont., Sta. C. P. R., 11 miles east of Guelph

OAKLAND—48 SHORTHORNS Present offering is one choice red bull, 20 months old, price \$175; also three about seven months old. A few cows with calves at foot and bred again and some fine heifers bred. All registered and priced to live and let live.

JNO. ELDER & SONS, HENSALL, ONT.

Shorthorns and Clydesdales Two bulls, serviceable age, both good ones, and are offering females of all ages. Have some choice heifers bred to Clansman imperial gallons tions of this weight, but for endeavor to speed digging time.

A. B. & T. W. DOUGLAS, Strathroy, Ont. L.-D. Phone, Geo. D. Fletcher, R. R. 1, Erin, Ont.

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 Toronto in 1914 and 1915. Former sires, Royal Bruce (imp.) = 55038 =, Benachie (imp.) = 69954 = and Joy 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, R. R. 1, Erin, Ont. L.-D. Phone, Erin Station, C.P.R.

Seth's P

EDITOR "THE FARMER'S ADVOCATE"

Seth Whipple like people like people like people. Last year he had about the best of the Old Prof. Waid cow seed selected from seed. From each of the former the plow at his seed from very much.

"No more said Seth the that is all right, in the hill, where I tried grub. They potatoes, too petite!"

Out in Gr the most fa America—from loads are sh practice in p tubers—a thin from the seed successful of by specializin and practice 634 bushels p

Seth looked tion of the siz potatoes: "no to over \$2.00 records of th of Agriculture

1. That th pieces of larg per cent. high of small seed

2. The yie seed pieces w than that fro

These resul experience. had to answe so dear, is ho An experimen States Depart the following

Average Differ Salable Y

Excess from Two-eye piec pieces..... Quarters over Halves over q Wholes over l

Seth has fig time is scarce, plant whole p time for cutti When potatoe uses whole pot

The weaken last fall, Seth to more dis importation of points, adds t and makes Set

In cutting h more careful from the seed look "off the number of kn chloride of m of one to one prevent the tra he cut through will put that use another ta

Time during these parts will that Seth is an can hire a pa beaks to adopt ing the potatoe birds are reput an acre of pot to plant twent In lieu of the never been kn into these tow to his sprayer a mixture, mixed 4 lbs. blueston imperial gallons tions of this weight, but for endeavor to speed digging time.

If Seth had August, during

Seth's Potato Philosophy.

EDITOR "THE FARMER'S ADVOCATE":

Seth Whipperton says potatoes are like people in one sense. Their qualities follow largely by rule of families. Last year before planting time he read about the experiment of Professor Waid, of the Ohio Experimental Station. Prof. Waid compared results from good seed selected from the pile with those from seed selected from good hills. From each 100 lbs. produced from the former there were 125 lbs. produced from the latter. Last fall Seth followed the plow at harvest time, and selected his seed from the best hills. He is very much excited over the new way. "No more manure in the hill," said Seth the other evening. "Fertilizer that is all ready for the plants to use is all right, but it's bad to put dung in the hill. Last summer every row where I tried it suffered from the white grub. They made for the very best potatoes, too. And no end of appetite!"

Out in Greeley County, Colorado—the most famous potato region in America—from which over 12,000 carloads are shipped annually, the best practice in planting is to use whole tubers—a thin slice having been taken from the seed end. One of the most successful of the Greeley growers, by specializing in potato knowledge and practice has obtained as high as 834 bushels per acre.

Seth looked carefully into the question of the size of set now that ordinary potatoes—"no talk of seed"—have gone to over \$2.00 a bag. He finds from records of the South Dakota College of Agriculture that:

1. That the yield of potatoes from pieces of large seed potatoes was 28 per cent. higher than that from pieces of small seed potatoes.

2. The yield of potatoes from large seed pieces was 70 per cent. greater than that from small seed potatoes.

These results coincide with Seth's experience. But the question he has had to answer, now that potatoes are so dear, is how big to make the sets. An experiment station of the United States Department of Agriculture gives the following figures as a guide.

Average Differences Per Acre in Gross Salable Yields from Different Seed Pieces.

Excess from use of	Bu.	%
Two-eye pieces over one-eye pieces.....	23	21
Quarters over two-eye pieces.....	10	15
Halves over quarters.....	15	15
Wholes over halves.....	14	10

Seth has figured it out this way. If time is scarce, as seems likely, he will plant whole potatoes. If he can find time for cutting he will plant halves. When potatoes are cheap he always uses whole potatoes as seed.

The weakened condition of the plants last fall, Seth thinks, made them subject to more diseases than usual. The importation of potatoes from far off points, adds to the danger of disease, and makes Seth more careful.

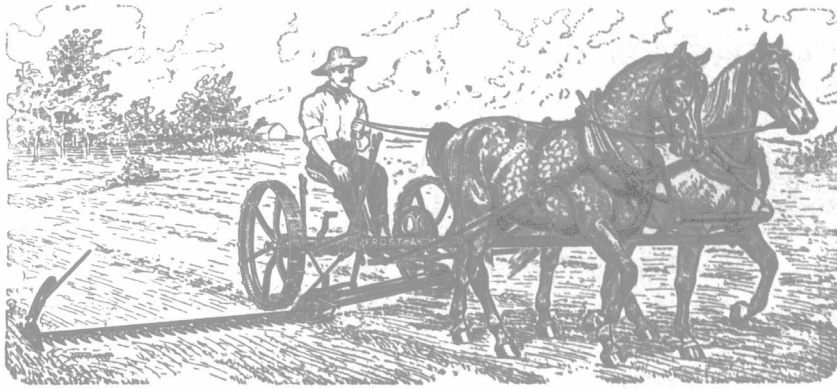
In cutting his sets he is going to be more careful than usual to remove from the seed boxes all tubers that look "off the mark," and to have a number of knives and a bath of bichloride of mercury (of the strength of one to one thousand) on hand to prevent the transfer of diseases. Should he cut through a diseased potato he will put that knife into the bath, and use another taken from it.

Time during the harvest season in these parts will be so scarce a commodity that Seth is anxious to know where he can hire a pair of rose-breasted grosbeaks to adopt as his agents in destroying the potato beetle. A pair of the birds are reputed to be able to manage an acre of potatoes, and Seth is going to plant twenty rows across the field. In lieu of the grosbeaks, which have never been known to come voluntarily into these townships, Seth will resort to his sprayer and the good old Bordeaux mixture, mixed as follows: 4 lbs. lime, 4 lbs. bluestone, 12 oz. Paris green, 40 imperial gallons of water. Two applications of this will suffice for the potato beetle, but for fear of late blight Seth will endeavor to spray every fortnight until digging time.

If Seth had been as potato-wise last August, during the period of excessive

Get a Frost & Wood Mower

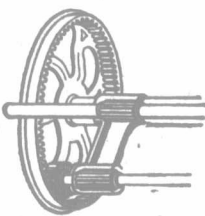
Hay Time is Money Time on the Farm



Use a cranky, wasteful out-of-date mower and you may throw away a whole season's hay. These are the days for efficiency. Make a wise expenditure for a Frost & Wood Mower, and you save in crop, in horse flesh, in time, in money.

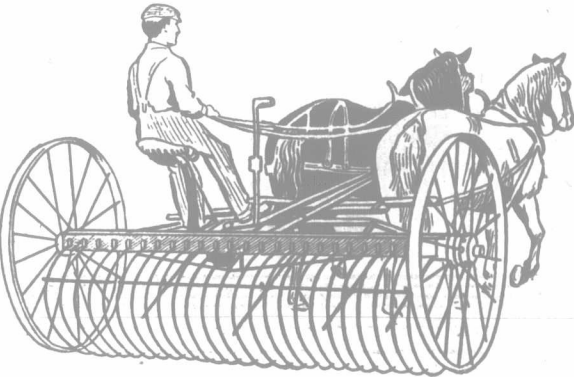
Frost & Wood Mower cuts any crop. It won't fail you.

IT'S a light draft machine. The splendid roller bearings and easily-controlled levers eliminate friction and make it easy for a boy or girl to use. Immensely strong, with heavy brass bushings where wear is greatest. Heavy high-carbon steel cutter bar can be set in a second at any angle. Knife guards are high-grade, tough malleable iron. The F. & W. is a splendid, serviceable mower, always ready for hard work, even with "green" help.



Internal gear drive means big power.

SPACE prevents reference to the many splendid features of the Frost & Wood Mower, but the "Internal driving gear" as shown here must be mentioned. The driving gears are meshed on the inside of the main drive—travel in same direction—no tendency to fly apart, or to snap cogs—no loosening or rattling of parts and connections, and the knives begin to cut at the first step of the horses. This means quicker work and longer life to the machine.



Frost & Wood Rakes
Built for Hard, Quick Work

BECAUSE a Rake looks a simple machine to make, don't put up with cheap, inferior workmanship—get a F. & W. and save real money. Teeth of special quality, tempered steel, and arranged in convenient sections of two or three. Self-dumping, discharging load automatically at light pressure on foot lever. Made of steel, amply strong, clean working, the F. & W. Rake gives a lifetime of splendid service.

Our nearest agent is ready to give you full particulars and advice on this or any implement, or write to-day to our nearest branch or head office for illustrated catalogues

FROST & WOOD CO. LIMITED
Montreal, SMITH'S FALLS, St. John

Sold in Western Ontario and Western Canada by

COCKSHUTT PLOW CO. LIMITED
BRANTFORD, ONT.

HINMAN THE UNIVERSAL MILKER

Ask for FACTS when buying a Milker.



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is sold on its REPUTATION. Over 18,000 in use. Order your HINMAN NOW. \$50.00 per Unit.

H. F. Bailey & Son, Galt, Ont. SOLE MANUFACTURERS FOR CANADA Under Hinman Patents

Gladden Hill Ayrshires

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 bull calves and a few females. AGINCOURT, ONT.



Glenhurst Ayrshires

For 50 years I have been breeding the great Flog tribe of Ayrshires, dozens of them have been 60-lb. cows; I have lots of them get 60 lbs. a day on twice a day milking. Young bulls 1 to 10 months of age, females all ages. If this kind of production appeals to you write me. James Benning, Williamstown, Ont.

Stonehouse Ayrshires

Are a combination of show-yard and utility type seldom seen in any one herd. A few choice young males and females for sale. Write or phone your wants to Stonehouse before purchasing elsewhere. Hector Gordon, Howick, Que.

OAK PARK STOCK FARM
CHOICE HOLSTEIN-FRIESIANS

Senior herd sire, Lakeview Dutchland Hengerveld 2nd, 1st prize 2-year-old, Canadian National Exhibition, 1915. 3/4 sister is Lakeview Dutchland Artis, Canadian Champion sr. 3-year-old, with 34.86 lbs. butter in 7 days. His sire's full sister, world's champion sr. 2-year-old, with 22.645 lbs. milk in yearly work. Young bulls for sale out of R.O.M. dams. Prices and extended pedigrees on application. Phone Brantford 1102. Electric car line stops at farm. Visitors welcome.

W. G. BAILEY, Prop.

R. R. No. 4, PARIS, ONT., CAN.

HOSPITAL FOR INSANE, Hamilton, Ont. For Sale—HOLSTEIN BULLS—varying in age from 1 to 11 months, from Record of Performance or Record of Merit dams, and the grand bulls Sir Korndyke Wayne Dekel, grandson of Pontiac Korndyke, or Lakeview Dutchland Le Strange, a grandson of Count Hengerveld Fayne Dekol. Prices right. APPLY TO SUPERINTENDENT.

EVERGREEN STOCK FARM — REGISTERED HOLSTEINS

Present Offering: Several bull and heifer calves; also a few yearling heifers bred and ready to breed. Write for prices and descriptions. Bell phone. A. E. HULET, NORWICH, ONTARIO

15 95 UPWARD ON TRIAL
Fully Guaranteed

American CREAM SEPARATOR

A SOLID PROPOSITION to send a new, well made, easy running, perfect skimming separator for \$15.95. Skims warm or cold milk; making heavy or light cream.

ABSOLUTELY ON APPROVAL
Bowl a sanitary marvel, easily cleaned. Different from picture which illustrates our large capacity machines. Shipments made promptly from Winnipeg, Man., Toronto, Ont., and St. John, N.B. Whether dairy is large or small, write for handsome free catalog. Address: AMERICAN SEPARATOR CO., Box 3200 Bainbridge, N. Y.

ASK
our sales office nearest you for prices and terms on fertilizers adapted to your soil and crops

Send for Canada Booklet-Free
The American Agricultural Chemical Co.
New York, Boston, Buffalo, Detroit

Alderley Edge Ayrshires

Two yearling bulls sired by Lakeside Day Star (Mortons Main Planet). Write for description. J. R. KENNEDY, KNOWLTON, QUEBEC

Avondale Farm Second Annual Public Sale

Avondale Farm, **Wednesday, May 17th, at 10.30**
Brockville, Ont.

THIS WILL BE THE GREATEST SALE OF

HIGH-RECORD HOLSTEINS

ever held in Canada, every female old enough having a record but one, and all having the best of backing, nearly all with records for several generations.

THE ONLY CHANCE TO GET THE DIRECT BLOOD OF MAY ECHO SYLVIA, CANADA'S GREATEST COW, with 41 lbs. butter and 1,005 lbs. milk in 7 days, 169.70 butter and 3,800 lbs. milk in 30 days.

We are offering a grandson of this great cow from her daughter and sired by the Jones 44-lb. bull. This youngster, ready for service, is the only bull in the world with both grandams with over 40 lbs. Also several other young bulls with records to 32 lbs. to their dams.

Thirty fine daughters of King Pontiac Artis Canada, who now has 32 tested daughters, two with over 23 lbs. and sixteen over 19 lbs. in 7 days. One from a 29.90 daughter of a 31.76 daughter of King Segis. One 21.66 two-year-old from a 22-lb. dam. Three full sisters from a 23-lb. dam, one having 20.20 at 25 months. Many others of the same class and fine individuals.

Seven beautiful daughters of Woodcrest Sir Clyde, a son of Pietje 22nd Woodcrest; Lad and Alma Clyde (33.06).

A. C. HARDY, Proprietor

Brockville, Ontario

rainfall as he is now he would, he thinks, have been able to save a much larger proportion of his crop. Much of the rot trouble persisted because of the fact that the liquid discharged from an affected tuber started decay in those contiguous to it. If peat-dust or even dry sand had been sprinkled generously on the stored heap, so as to occupy the vacant spaces, this source of trouble would have been reduced. Where the stored potatoes are intended for seed or other purposes than table use, quicklime is found to be excellent for this purpose. A German investigator found that this method reduced the percentage loss from decay from 8.6 per cent to 7.1 per cent in an ordinary season. The beneficial effects would undoubtedly be much greater in a year like last in central Canada.

As the flavor portion of the potato is the thin layer next the skin, Seth aims at two main points in selecting varieties and storing his crop. A globular or oval potato with few and shallow eyes is his favorite kind. With such there is the least waste of the valuable flavor-layer when the potato is peeled. As to storing, in addition to remembering the peat dust or lime treatment, above described, Seth has decided to keep his potatoes in a dark, cool, well-ventilated place, in heap not more than two feet in depth.

Perth Co., Ont. J. A. MCCracken.

A Boy's Essay on Sheep.

The sheep is a chunk of misguided animation which is afflicted with a perpetual cold in the head, and has the appearance of always needing its nose wiped, but it has the distinction of being the only animal, man not excepted, which can afford to wear strictly all-wool clothing the year around.

The chief occupation of the sheep is stampeding, and in this it is the champion of the universe. The sheep will stampede upon the slightest provocation, start off with a soul-stirring bleat in one hand and its life in the other, run twenty-one miles, and jump over a precipice. It then is mutton.

The sheep might be all right in its way, but it is too closely related to the goat, both in the durability of its head and in general disposition. Church bells and school bells, dinner bells and blue bells, cow bells and dumb-bells, any kind of a bell the sheep will follow.

Probably the greatest accomplishment of the sheep is getting itself lost in a snowstorm, and it is such a success at this that a number of famous painters have put in a lot of time painting pictures of sheep working at this.

No Time for Words.

Professor John Dewey, the psychologist, believes that children's impulses should be led in the right direction rather than suppressed. Therefore, when his little son decided to call him John, he was allowed to do so. One day the boy conceived the bright idea of sailing boats in the bath tub. He was a little careless, however, and allowed the water to overflow. His father arrived on the scene in time to see the water oozing out under the door. With a very angry countenance he threw open the door but his son took in the situation in a moment and exclaimed: "No time for word now John. Get the mop."

Under the heading "Production and Thrift," the Hon. Martin Burrell, Minister of Agriculture, has issued an Agricultural War Book for 1916. The four slogans published on the front of the book are: "Produce more and save more. Make your labor efficient. Save materials from waste. Spend your money wisely." The book is nearly 100 pages larger than the one published last year in connection with the Patriotism and Production campaign, containing 250 pages, with some interesting and valuable figures relating to the nation's need, national income and expenditure of Canada and the United Kingdom, production in 1915, and the various branches of Canadian agriculture as related to the war.

"I can't stay long," said the Chairman of the committee from the colored church. "I just come to see if you wouldn't join the mission band." "Fo, de la' sakes, honey," replied the old mammy, "doan' come to me. I can't even play a mouf organ."

Steel Rails

for Reinforcing Bridges and Barn Driveways

CUT ANY LENGTH

JNO. J. GARTSHORE
58 Front Street West, Toronto

Holstein Heifer Calves

From heavy-milking, high-testing, unregistered cows, and sired by the great show bull, Sir Colantha, \$15 each. Registered heifer calves, with certificate, \$35 each. An extra choice bull calf for sale, calved February 9th, from imported dam with yearly record of 19,000 lbs. Price only \$40.

CHOICE SELECTED SEED CORN
Wisconsin No. 7, the best Dent corn in the world, Germination test 95 per cent. and over, \$2.25 per bushel. Bags free.

GLENORO STOCK FARM
Rodney Ontario

Walnut Grove Holsteins

Herd headed by May Echo Champion, full brother of May Echo Sylvia, who made 36 lbs. butter in seven days. Females for sale from one year old upwards. Prices right for quick sale.

C.R. JAMES, Langstaff P. O., Ontario
Phone Thornhill

19 BULLS--HOLSTEINS

From 18 months down. Grandsons of "King Fayne Segis" King Segis Pontiac, "Rag Apple Korndyke 8th"—the best of the breed. Write us giving particulars as to your requirements.

R. M. Holtby, R.R. 4, Port Perry, Ont.

Lyndenwood Holsteins

Present Offering: 1 yearling bull from a 22 lb. cow, sired by a son of a 29 lb. four-year-old. 2 full calves from high-testing dams, also 10 choice young cows and heifers.

W. J. BAILEY, Jarvis, Ont.

1916 BULLS—I have several young bulls for sale. One is a son of a 29 lb. four-year-old. Another is a son of a 22 lb. cow. Her Bull Pontiac, imported from the U.S. Her Tertius, imported from the U.S. Write and get particulars. Price right for quick sale. W. J. BAILEY, Jarvis, Ont.

King Segis Pontiac Paul 15940

WE 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 and Yorkshire Swine

Larkin Farms

Queenston Ontario

HOLSTEIN CATTLE

The only herd in America that has two sires in service whose dams average 119 lbs. milk a day and over 35 lbs. butter a week. Cows that will give 100 lbs. milk a day are what we are trying to breed. At present we have more of them than any other herd in Canada. We can supply foundation stock of this breeding. Visitors always welcome. Long-distance Phone.

D. C. FLATT & SON, R. R. 2, Hamilton, Ont



QUEEN CITY HOLSTEINS

Present offering is 10 young bulls, from 6 to 14 months of age, the records of whose dams, sire's dam and her full sister, range from 28 to 32 lbs. They are sons of King Lyons Hengerveld Segis.

R. F. HICKS, Newtonbrook, Ont. On T. & Y. Railroad Line.

Dumfries Farm Holsteins—Think this over—we have 175 head of Holsteins, 50 cows milking, 25 heifers due to calve in the fall, and 60 heifers, from calves up to 2 years, as well as a dozen yearling bulls, and anything you may select is for sale. Breeding and individuality the very best.

S. G. & ERLIE KITCHEN, St. George, Ontario

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 or 80 head from which to choose.

M. L. HALEY & M. H. HALEY, Springford, Ont.

For Sale: Sons of King Segis Walker

From high-testing daughters of Pontiac Korndyke. Photo and pedigree sent on application.

A. A. FAREWELL

OSHAWA, ONTARIO

Lakeview Farm, Bronte, Ont.,

Offer for sale, sons and grandsons of 100-lb. cows; one is out of a 24.56 lb. 3-year-old daughter of Lakeview Rattler's 28.20 lbs., the latest Canadian champion 50-day butter cow 8 months after calving, and is half brother to L. D. Artis, 34.06-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 best 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 22.67 lb. 2-year-old daughter of Prince Aaggie Mechthilde, who has 7 yr. 2-year-old daughters averaging 23.80 lb. milk in 7 days.

WALBURN RIVERS, R. R. No. 5, INGERSOLL, ONT. Phone 343 L. Ingersoll Independent.

Clover Bar Holsteins—A splendid 14-month-old son of Monie Paladin Wayne, who sold in 7 days. Her 2-year-old record was 22.39 lbs. milk in one day and color he is second to none. Also her 3-week-old bull calf and a few others from good working dams.

DEER S. DITH.

R. R. No. 3,

STRATFORD, ONT.

Brampton Jerseys

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 showing.

B. E. HILL & SON,

BRAMPTON, ONTARIO

Through his...
Weed that...
Put it...
If your...
us for...
Gardening...
Pig Man...
Feeder...
GARDEN...
Feed S...

The Le...
Roofing...
The initial...
not nearly...
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PAROID ROOFING...
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20c, 50c, or \$1...
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Jerseys...
also heifer...
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CHAS. J.



Thriving without his Mother on GARDINER'S Calf Meal

Weaning is no set-back to the calf that gets Gardiner's Calf Meal with skim or separated milk. This Meal provides the equivalent of the cream taken from the milk, making it equal to new milk in every way.

Its high proportion of Protein (guaranteed 19% to 20%) and Fat (guaranteed 8% to 9%) make Gardiner's the most valuable Calf Meal on the market. Calves, young colts, lambs and little pigs thrive on it splendidly for the first few months after weaning.

Put up in 25, 50 and 100 lb. bags. If your dealer doesn't handle it, write us for prices and information about Gardiner's other products—Ovatum, Pig Meal, Sac-a-fat and Ontario Feeders' Cotton Seed Meal. 3

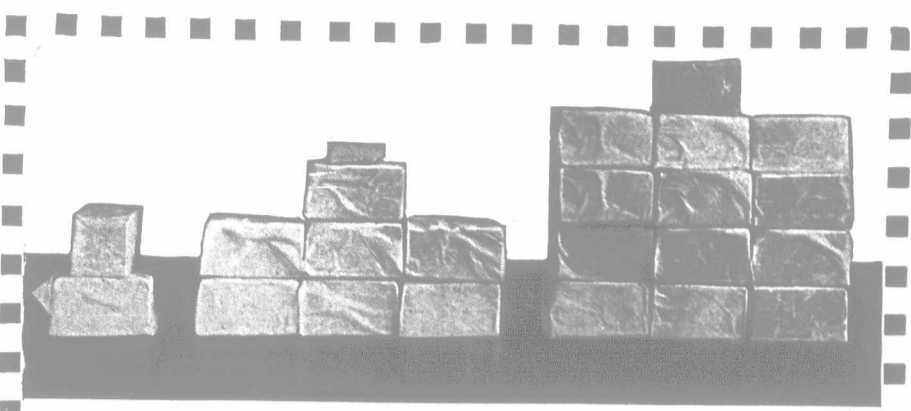
GARDINER BROS.,
Feed Specialists, SARNIA, Ont.

The Avondale Farm Holstein Sale.

The star of the Avondale herd of Holsteins to be sold by public auction on May 17, at Brockville, is, of course, May Echo Sylvia. Mr. Hardy regards her as one of Canada's best cows. Very substantial proof of this is conveyed in the following figures; which represent her record of production: In 7 days she made 41 pounds butter and 1,005.3 pounds milk; in 30 days she made 169.7 pounds butter and 3,650 pounds milk. Her highest one-day production was 148.3 of milk, and at time of writing it is expected that she will do better than 4,000 pounds milk in 30 days, for she has been giving over 140 pounds every day for a couple of weeks. In the sale also is a grandson of May Echo Sylvia, which is sired by a great 44 pound bull which is a son of K. P. Pontiac Lass, the first 44 pound cow and a daughter of King of the Pontiacs. This young bull, now just over a year old, is from May Echo Sylvia and King Pontiac Artis Canada, a good Pontiac bull, the two grandams of which have over 40-pound records. King Pontiac Artis Canada now has 2 three-year-olds in tests making 27 pounds. Another good cow in the offering is Belle Model Johanna 2nd., which has just finished a second 37-pound record in thirteen months. This great cow has three daughters in the Avondale herd, one a junior three-year-old, 36.30, another which is expected to make a forty-pound cow at her next freshening. Another high record cow in the sale is Alice Tensen with a record of 29.12 in 7 days and over 117 pounds in 30 days. This year, without being dry, she again equalled her 30-day record, giving over 100 pounds of milk for several days. As a show cow she was first at Winnipeg, and second at Brandon. Altogether, in the sale there are over thirty daughters of King Pontiac Artis Canada, and six or eight daughters of Woodcrest Sir Clyde. All the daughters of the first mentioned bull in the sale have been officially tested except one. The last record being 17 pounds as a two-year-old. Included in the number is Pontiac Senora, a show individual with a record of 21.66 pounds, and a 22-pound recorded dam. There are also two full sisters, Pontiac Artis Sara, 19.25 pounds, and Pontiac Countess Korndyke, not yet come to milk. The dam of these two sold for \$500 at the last Avondale sale. They are both show animals. There is another trio which are full sisters, all being daughters of a fine cow with a 23-pound record.

Among the younger things are two or three which Mr. Hardy is including in the offering in order to advertise the herd from the viewpoint of individuality. They are not tested. Two of these are from a daughter of Belle De Kol Korndyke, one of the first 21-pound two-year-olds. Another of her daughters holds the Canadian two-year-old record, either junior or senior, with over 27 pounds, and another daughter of K. P. Artis Canada has just finished a 23-pound record at barely two years. The two young heifers offered can hardly be excelled; as individuals. Among the daughters of Woodcrest Sir Clyde, which is a 33-pound Pietje bull imported by Avondale Farm, is Avondale Pet, which, with a young bull related to her also on the dam's side are good examples of this bull's get. Space will not permit of further mention of the many excellent young females to be offered at the Avondale sale. Amongst the young bulls, besides the grandson of May Echo Sylvia, there is a very fine yearling from Pride of Orchard Hill, one of Avondale's show-ring winners with a record of over 27 lbs. There are half a dozen others all with tested dams of the highest standing.

King Pontiac Artis Canada now has 32 tested daughters and new records are being made weekly. See the advertisement and write A. C. Hardy, Brockville, for a catalogue.



Separator running at full speed. Loss of butter 1.75 pounds
Speed reduced 10 revolutions. Loss of butter 7.28 pounds
Speed reduced 20 revolutions. Loss of butter 12.74 pounds

Which pile did you lose?

These figures from the Purdue Experiment Station Bulletin No. 116, show the loss in butter resulting from not turning a fixed-feed separator at exactly the speed stamped on the crank.

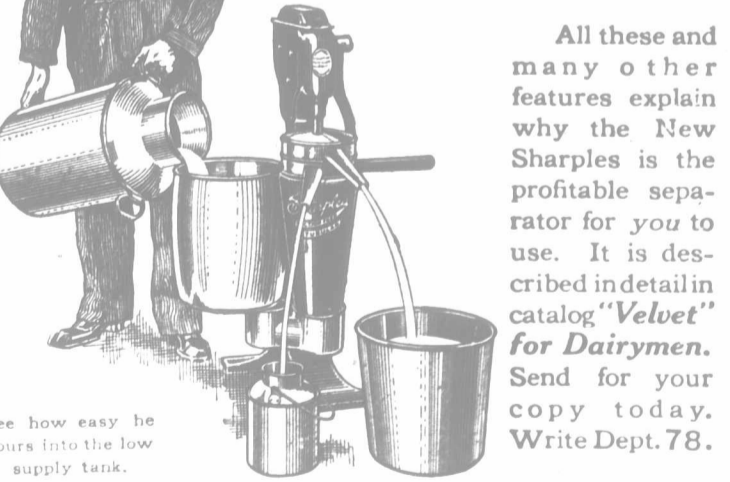
And investigations showed that 19 out of every 20 separator operators thruout the country turned their machines too slow much of the time.

THE NEW SHARPLES SUCTION-FEED

is the *only* separator made which *will not lose cream at varying speeds*. The wonderful "Suction-feed" always feeds the milk to the bowl in exact proportion to the separating force being generated. At 45 revolutions it *skims clean*; at 55 it *skims clean* and at 35 revolutions it *skims equally clean*. No other separator can do it.

No matter how you turn the New Sharples you always get *even thickness* cream. Just set the cream screw at the desired thickness and it will come out *velvety* and *even*—no matter how you vary the speed. No other separator can do it.

The Sharples Tubular bowl is the simplest and lightest in existence. It has only one plain part in it—*no discs to wash and bother with*.



See how easy he pours into the low supply tank.

The Sharples Separator Co.
Toronto - - - - - Canada P

The Least Expensive Roofing in the World

The initial cost of roofing material is not nearly as important as the *service* the completed roof will give you and the cost of repairs. That is why the least expensive roofing you can buy is



NEPONSET Paroid ROOFING

Paroid's only rival is high grade shingles—and Paroid resists fire and is less expensive than shingles.

A Paroid roof outlasts several roofs of cheap ready-roofing, and costs you nothing in repairs. Write for booklet "Repairing and Building." It's free.

BIRD & SON, Dept. B
70 King St. Hamilton, Ont.

The largest manufacturers of Roofings, Wall Board and Roofing Felts in Canada. 110

Look for the Paroid Roll

When Building—Specify
MILTON BRICK
Smooth, Hard, Clean-Cut.
Write for Booklet.
MILTON PRESSED BRICK COMPANY
Milton, Ontario

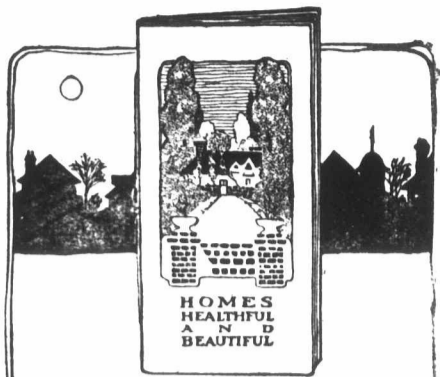
HAVE YOU TRIED
Dr. Lawrason's Mexican Liniment FOR COW ITCH
25c., 50c. or \$1.00. Sent promptly prepaid on receipt of money if your druggist cannot supply.
Dept. E. DR. LAWRASON MEDICINE CO.
Toronto, Ont.

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 Duke (imp.). Prices right.
CHAS. F. ROGERS, Ingersoll, Ont.

Mr. Jones had become the father of twins. The minister stopped him in the street to congratulate him.
"Well, Jones," he said, "I hear that the Lord has smiled on you."
"Smiled on me?" repeated Jones.
"He laughed out loud."

THE WOODVIEW FARM
JERSEYS
LONDON, ONTARIO
John Pringle, Proprietor

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.



A handy book on home decoration
(With furnished rooms in colors)

Think of the time saved in worry and experimenting. Think of the possibility of avoiding serious mistakes. Some of the sub-headings show just how practical this book is: "The Influence of Color"; "Light and Shade"; "Harmony in Colors—How to get the Right Effect"; "Value of Conventional Designs"; "Plain Tinting"; "Color Values."

Alabastine

Sanitary Wall Tints

If you are going to decorate a room or your whole home, enclose 15 cents in coin or stamps and get a copy of "Homes Healthful and Beautiful." It gives many a useful hint for the treatment of bedroom, living-room, dining-room, halls, parlor, including even the kitchen.

THE ALABASTINE COMPANY LIMITED
86 Willow Street Paris, Ontario

Good Luck

- COTTON SEED MEAL
- CALF MEAL
- OIL CAKE MEAL
- FLAXSEED GLUTEN MEAL
- POULTRY FEEDS
- SEED POTATOES
- SEED GRAINS

Write for prices.
CRAMPSEY & KELLY
Dovercourt Rd., Toronto, Ont.

TOWER FARM Oxford Sheep Champion flock of Canada. Choice shearing rams and ewes, also ram and ewe lambs, bred from imported and prize-winning stock. See winning at Toronto and Ottawa. Erin or Hillsburgh Stations. Long-distance Phone. **E BARBOUR, R. R. 2, Hillsburgh, Ontario**

Morrison Tamworths and Shorthorns, bred from the prize-winning herds of England. Choice Tamworths both sexes, all ages, 150 head to choose from. Choice Shorthorns, 3 extra fine red roan bull calves, 8 months old, dandies, also cows and heifers of the deep-milking strain. **CHAS. CURRIE, Morrison, Ont.**

TAMWORTHS

Young sows bred for August farrow and some nice young boars. Write **JOHN W. TODD R.R. No. 1 CORINTH, ONT.**

Choice Poland-China and Chester White Swine to offer: bred from winners. Also extra good White Cap seed corn. Prices right. **GEORGE G. GOULD No. 4, ESSEX, ONT.**

Lakeview Yorkshires If you want a stock boar of the greatest strain of the breed, at a detelling, bred from prize-winners for generations back, write me. Young pigs of all ages. **JOHN DUCK, Port Credit, Ontario**

CLEARVIEW CHESTER WHITES List of names of the best bred and best bred White Swine in Ontario. Write for list. **JOHN W. TODD R.R. No. 1 CORINTH, ONT.**

Townline Tamworths Write for list of names of the best bred and best bred White Swine in Ontario. Write for list. **JOHN W. TODD R.R. No. 1 CORINTH, ONT.**

Pine Grove YORKSHIRES Write for list of names of the best bred and best bred White Swine in Ontario. Write for list. **JOHN W. TODD R.R. No. 1 CORINTH, ONT.**

Joseph Featherston & Son, Streetsville, Ont.

Questions and Answers.

Veterinary.

Embolism.

Filly now four years old that has worked only one-half day, has shown the following symptoms for two years. After taking a run she loses power of one hind leg, sometimes the right, sometimes the left. After a few hours she becomes apparently all right. There is no swelling or visible cause for the trouble. Would it be better to work her? **W. E. P.**

Ans.—We do not see how you could work her. The symptoms indicate embolism (a partial plugging) of the iliac arteries. When at rest there is sufficient room for the circulation, but upon exercise the circulation increases, the blood cannot all pass the embolism, the artery becomes distended, presses upon the nerves and causes paralysis. There is little probability of recovery. Try giving her one dram of iodide of potassium three times daily. If this affects the appetite reduce the dose to 40 grains. **V.**

Chronic Suppurative Mammitis.

Last summer, before farrowing, a growth broke out on one mamma of my sow. It healed and apparently got all right. She will be due to farrow again on May 11th. Now there are two large growths and a number of smaller ones on her mammae. One is raw and bleeding. Every little while it becomes like that and discharges a bloody matter. **H. M.**

Ans.—These are either abscesses or malignant growths. It would be wise to have her examined by a veterinarian, as, if they be malignant tumors, they must be dissected out, and even at that a regrowth would be probable. If abscesses they should be lanced freely to allow escape of pus, and the cavities flushed out three times daily until healed with a 5 per cent. solution of carbolic acid, or one of the coal-tar antiseptics. It is very doubtful if the milk will be healthy. **V.**

Lame Horse.

Driving horse has gone lame on his off fore foot. He shows no tenderness upon pressure or tapping, but a slight fever exists in the coronet and hoof. He had a ring-bone which was fired and killed several years ago. Lameness is very marked, and increases if he is driven on the road. The services of the horse are indispensable for spring work, hence advise treatment accordingly. **R. J.**

Ans.—It is very easy to say "advise treatment accordingly." The symptoms indicate that the ring-bone is causing the lameness, notwithstanding the fact that lameness disappeared after firing several years ago. If this be the case it will be necessary to fire and blister again, and this will necessitate rest. All that you can do until you can give rest is poultice the foot every night to keep it from becoming too dry, and as soon as circumstances will admit, have him examined by a veterinarian, and if his diagnosis agrees with ours he will fire and blister. **V.**

Fatality in Cow.

Cow was bred on the 6th. On the 8th she became sick, trembled and groaned. I gave her turpentine and Epsom salts. Her bowels worked well, but she would not eat, and after drinking she would bloat. On the 5th day she died. A post mortem revealed all organs normal, with the exception of the gall bladder, which was 3 times its normal size. **R. J.**

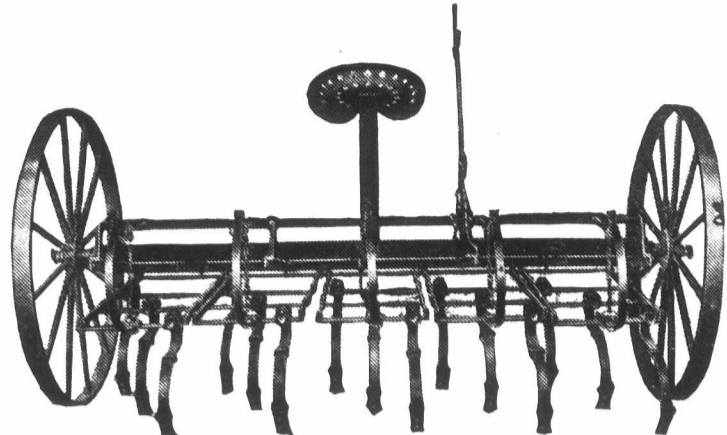
1. Do the symptoms indicate poisoning?

2. What condition would the food be in a paralyzed stomach after 1 day?

Ans.—1. The symptoms indicate a poisoning probably by a cat-chin or a similar drug, for which nothing could be done. This would cause the gall bladder to enlarge.

2. The food would be somewhat fermented and fermenting, and, of course, would be in the first, second and third stages, and the fourth compartment would contain little.

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This most useful and profitable implement—the International No. 2 Cultivator—will do good work on your farm. It serves the double purpose of cultivating your soil and thoroughly ridding the ground of weeds. For forming a mulch of dirt to conserve moisture, for keeping down obnoxious weeds, for summer fallowing, you could not own a more economical implement.

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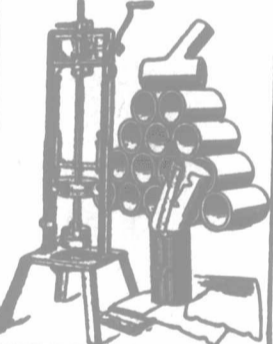
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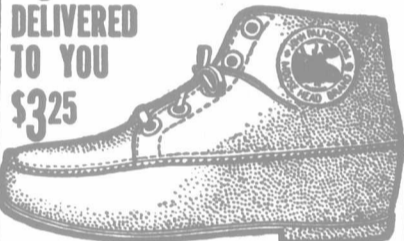
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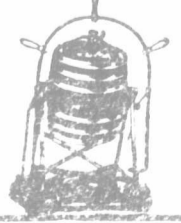
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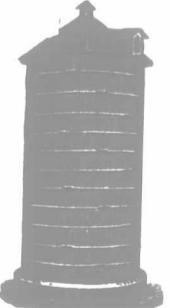
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